The role of curriculum in the context of lifelong learning

Curriculum is increasingly seen by stakeholders as a dynamic framework guiding teaching and learning processes and as a steering mechanism for quality. It features in key European policy documents as a new consensus for contributing to Europe 2020, the European strategy for smart, sustainable and inclusive growth. Findings of empirical research widely recognise that curriculum relevance is a condition sine qua non, not only for improving the human capital potential of education and training graduates but also for retaining learners in education and training systems and for promoting lifelong learning. The endemic irrelevance of curriculum may be one of the greatest obstacles to matching education and training provision successfully to learner and labour market needs. Adopting a learning outcomes approach when developing curricula - valuing what a learner knows, understands and is able to do on completion of a learning process - is seen by many policy makers as an effective way to avoid such potential mismatches and promote active learning and inclusive teaching. However, this assumption depends on many factors, including how curricula are being delivered in learning environments.

Cedefop's work on curricula and learning outcomes

In recent years, Cedefop's analytical work has increasingly focussed on learning outcome approaches in vocational education and training to design and describe qualifications, to set standards and to influence quality assurance, validation and certification approaches. In 2009, Cedefop organised the 1st International workshop to debate about innovative curriculum policies and practices in Europe and beyond http://www.cedefop.europa.eu/EN/events/4432.aspx In 2010, a comparative study in nine European countries on learning outcome approaches in VET curricula was published to provide a better understanding of recent curriculum policies and point to main tendencies and challenges in this field. This research is now being expanded in all 32 countries participating in ET 2020 and will continue in the coming years.

Workshops objectives

The workshop will build upon this ongoing research and provide an opportunity for policy makers, researchers and practitioners to reflect on how outcome-oriented approaches to curricula may promote or hinder learner-centeredness and inclusiveness in teaching and learning processes. The workshop will thus address the following main objectives:

- To examine the implications of current developments in curriculum policies and practices in four levels:
  - The design of curriculum
  - The delivery of curriculum in different learning environments
  - The way learners are assessed, and
  - The benefits for learners
- To formulate key messages that can usefully support curriculum policy developments at national level.
- To identify new lines for future research.

The following questions will be debated in the workshop:

- Does this emphasis on learning outcome approaches to curriculum policies underpinned by socioeconomic pressures change the role of curriculum? How?
- How current curriculum and assessment policies and practices address the dual role of VET to improve competitiveness and to contribute to social cohesion?
- What are the strengths and limitations of an outcome oriented approach to curricula to facilitate learner-centeredness and inclusiveness?
- What evidence exists to show that learners benefit from these new approaches?

The workshop will be carried out based on an interactive approach (world café) allowing participants to share experience and brainstorm on the various issues. The workshop will close with a panel discussion with high level education/training and labour market experts devoted to *Putting the views together – A curriculum for all learners.*

The conclusions and working reports produced from this workshop, as well as, related publications and notes collected by the participants will be available for download in due time in this website.

Cedefop project manager responsible for this event

Ms Irene Psifidou, rena.psifidou@cedefop.europa.eu

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Thursday, 20 January 2011

08.30-9.30	**Registration**
09.30-10.00	**Welcome and introductory speech** **Irene Psifidou**, Cedefop
10.00 –11.00	**Curricula between policies and practices: the international perspective** **CHAIR: Irene Psifidou**, Cedefop **Tapio Säävälä**, DG Education and Culture, European Commission **Renato Opertti,** IBE-UNESCO **David Istance**, OECD
11.00-11.30	***Tea/Coffee break***
11.30-13.00	**Highlights on outcome-oriented curriculum reforms: country examples** **CHAIR: Slava Pevec Grm,** Cedefop **DISCUSSANT**: **Amanda Watkins**, European Agency for Development in Special Needs Education **Sirkka-Liisa Kärki**, Finnish National Board of Education, **Finland** **Klara Skubic Ermenc**, University of Ljubljana, **Slovenia** **Ilya Zitter**, Centre for Expertise in Vocational Education and Training, **The Netherlands** **Manuela Bonacci,** ISFOL, **Italy** **Alexis Kokkos**, Hellenic Open University, **Greece**
13:00-14:30	***Lunch break at the MET hotel***
14.30-18.00	**Implications of learnig outcome approaches** **WORLD CAFÉ** **ANIMATEUR: Loukas Zahilas**, Cedefop Guidelines for World Café Questions for Working Sessions Conceptual basis for debates
Including: Coffee break 16.00-16.15	**Working session 1: Implications for written curricula** **HOST**: **Jonathan Winterton**, Toulouse Business School, France **RAPPORTEUR**: **Jenne van der Velde,** Institute for Curriculum Development, the Netherlands

"Traveller experts" will discuss strengths and weaknesses of an outcome–oriented curriculum, and those features/characteristics that outcome-oriented curricula present.

Working session 2: Implications for taught curricula

HOST: **Prue Huddleston**, University of Warwick, United Kingdom

RAPPORTEUR: **Rocio Lardinois**, Cedefop

"Traveller experts" will discuss to what degree do current outcome-oriented curricula and existing education and training systems encourage pedagogies and practices that promote learner-centeredness and inclusiveness.

Working session 3: Implications for learners' assessment

HOST: **Tapio Säävälä**, DG Education and Culture, European Commission

RAPPORTEUR: **Julian Stanley**, University of Warwick, United Kingdom

"Traveller experts" will discuss in what ways, if any, the development of outcome-oriented approaches has brought about changes in assessment design and practice and the strengths and weaknesses of these changes.

Working session 4: Implications for learners

HOST: **Juan Manuel Moreno**, World Bank

RAPPORTEUR: **Andrew McCoshan**, University of Warwick, United Kingdom

"Traveller experts" will discuss existing evidence on the benefits outcome-oriented curricula may have on learners' educational and professional performance, and what still remains to be done to enable learners to benefit from outcome-oriented approaches.

20:00 **Dinner in the city centre**

Friday, 21 January 2011

09.30-10.30 **Key messages from World Café sessions**

CHAIR: Irene Psifidou, Cedefop

Working session 1: **Jenne van der Velde**, Institute for Curriculum Development, the Netherlands

Working session 2: **Rocio Lardinois**, Cedefop

Working session 3: **Julian Stanley**, University of Warwick, United Kingdom

Working session 4: **Andrew McCoshan**, University of Warwick, United Kingdom

10.30-11.30 **Critical insights into curriculum policies and practices: Reflections from researchers**

Michael Young, University of London, United Kingdom

Xavier Roegiers, Université de Louvain, Belgium

11.30-11.45 ***Tea/Coffee break***

11.45-12.45 **PANEL DISCUSSION**

Putting the views together – A curriculum for all learners

MODERATOR: Renato Opertti, IBE-UNESCO

Alejandro Tiana, Organisation of Iberoamerican States for Education,

Science and Culture

Kenneth King, University of Edinburgh, United Kingdom

Gerald Thiel, Dekra Academy, Germany

12.45-13.00 **Concluding speech: the way forward**

Mara Brugia, Head of Area, Cedefop

13.00 **End of the workshop**

Agenda (, 359KB)

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Speakers

Bonacci	Manuela	ISFOL
Bognár	Mari	Public Foundation for the Equal Opportunities of Persons with Disabilities
Brugia	Mara	Cedefop
Dufaux	Stefanie	OECD
Georgiadis	Nikos	Ministy of Education Lifelong Learning and Religious Affairs of Greece
Hilton	Gillian	Middlesex University
Huddleston	Prue	University of Warwick
Istance	David	OECD
Kärki	Sirkka-Liisa	Finnish, National Board of Education
Kokkos	Alexis	Hellenic Open University
Laczik	Andrea	University of Warwick
Lengauer	Sonja	NCP - National Coordination Office for the NQF in Austria
Magee	Siobhan	Further Education Support Officer
Marinakou	Evangelia	IST College University of Hertfordshire
McCoshan	Andrew	University of Warwick
Moreno	Juan Manuel	World Bank
Opertti	Renato	IBE - UNESCO
Pevec Grm	Slava	Cedefop
Psifidou	Irene	Cedefop
Ranguelov	Stanislav	EACE - P9 EURYDICE
Roegiers	Xavier	Université de Louvain, President of BIEF
Säävälä	Tapio	DG Education and Culture, European Commision
Schmid	Eleonora	Cedefop
Skubic Ermenc	Klara	University of Ljubljana
Stanley	Julian	University of Warwick
Tiana Ferrer	Alejandro	Organisation of Iberoamerican States for Education, Science and Culture
Todorova	Maria	Cedefop
Tūtlys	Vidmantas	Centre for Vocational Education and Research at Vytautas Magnus University
van der Velde	Jenne	Institute for Curriculum Development
Watkins	Amanda	European Agency for Development in Special Needs Education
Werquin	Patrick	Consultant
Young	Michael	University of London
Zahilas	Loukas	Cedefop
Zitter	Ilya	Centre for Expertise in Vocational Education and Training
Zoica Elena	Vladut	National Centre for VET Development

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Presentations

Introductory Speech by Irene Psifidou

1. Curricula between policies and practices: The intrenational perspective

Irene Psifidou - Cedefop. ppt
Tapio Saavala - European Commission.ppt
Renato Opertti - UNESCO-IBE.ppt
David Istance - OECD.ppt

2. Highlights on outcome-oriented curriculum reforms: Country examples

Sirkka-Liisa Karki - Finland.ppt
Klara Skubic Ermenc - Slovenia.ppt
Ilya Zitter - The Netherlands.ppt
Manuela Bonacci - Italy.ppt
Alexis Kokkos - Greece.ppt
Amanda Watkins - European Agency for Development in Special Needs Education

3. Implications of learning outcome approaches: Key messages

Working session 1: Implications for written curricula
Participants Opinions
Working session 2: Implications for taught curricula
Working session 3: Implications for learners' assessment
Working session 4: Implications for learners

4. Critical insights into curriculum policies and practices: Reflections from researchers

Michael Young.ppt
Xavier Roegiers. ppt

5. Putting the views together – a curriculum for all learners

Alejandro Tiana-Ferrer
Kenneth King

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Papers

In the links below, you may find papers related to the thematic focus of the workshop as well as brief notes on national developments of outcome-oriented curriculum reforms collected by the participants.

Background material

National Developments and Key messages

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Practical information

Workshop Organisers

Cedefop project manager Ms Irene Psifidou

Workshop Secretariat

LDK Consultans

Workshop Venue, Thessaloniki, Greece

More information on the venue and how to get there, the hotel and on Thessaloniki.

Useful information when you are travelling to Thessaloniki

Coming to Thessaloniki in January.

Hotel

Map of the "Region of Thessaloniki" with the hotel marked on it.

Dinner

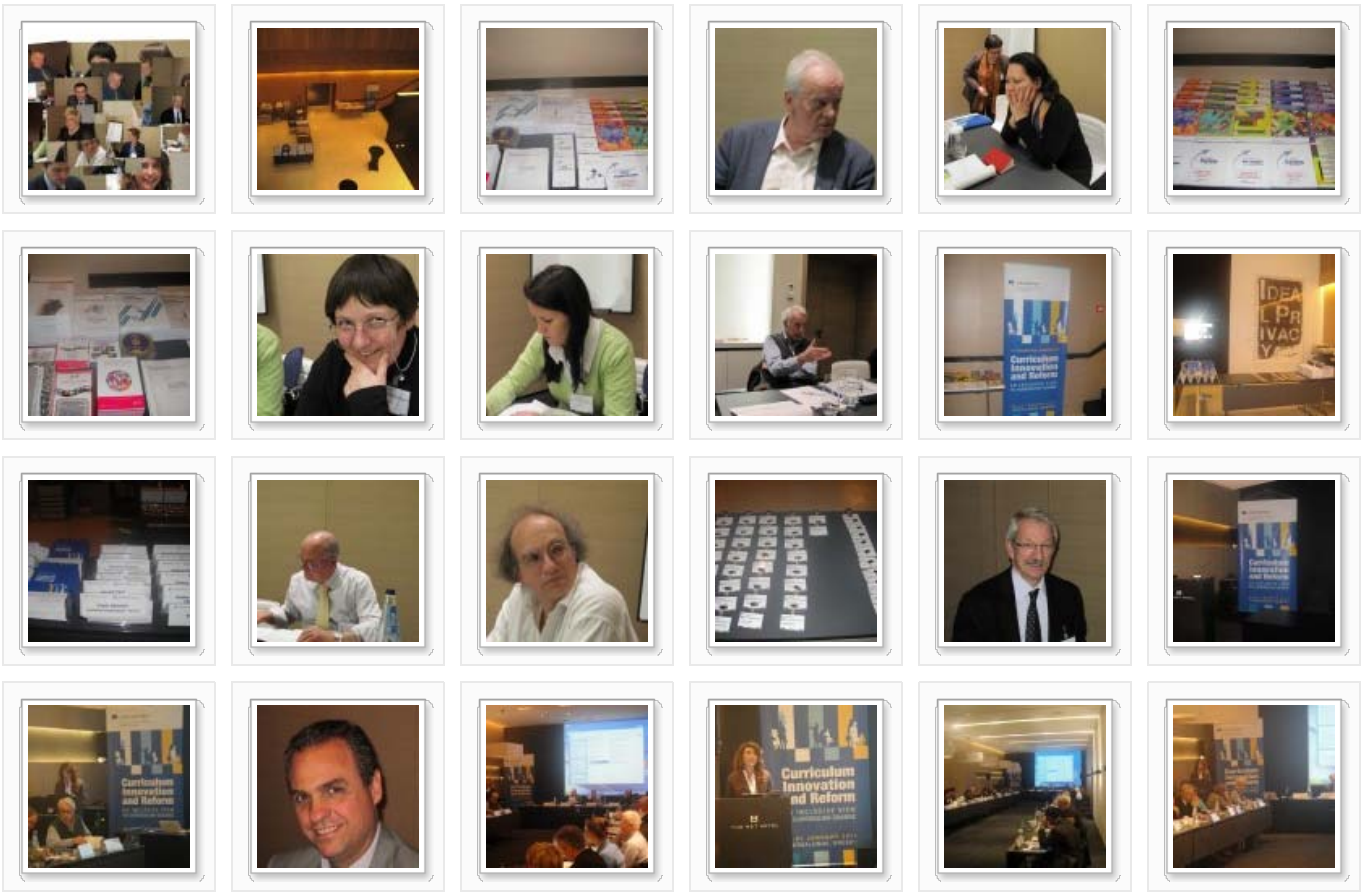
On Thursday 20 January at 20:00, participants are invited to a dinner organised by Cedefop at: GRADA NUEVO Restaurant (16, Kalapothaki street, Thessaloniki, tel. +30 2310 271074).
To get to the restaurant the participants are welcome to use the MET Hotel shuttle bus that departs from the hotel at 19:45.

Download

Condensed general information for participants by LDK(, 163 KB)
Taxi information and map to drive to Cedefop (,134 KB)

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Please complete this form in block capital letters and return it by 10 January 2011 to Event Secretariat by email: curriculum-innovation@ldk.gr or fax: +30 210 8196759, +30 210 8196709.

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First name:		Surname:		
Position:				
Organisation:				
Address:		City:	Country:	
Tel.:		Fax:		
e-mail:				

HOTEL RESERVATION

Hotel accommodation is covered and paid directly by Cedefop in THE MET Hotel where a pre-reservation (for 19 and 20 January 2011 - single room accommodation) has been made to ensure availability. Any additional cost, e.g. mini-bar, telephone, etc., will be paid by the participants directly to the hotel.

THE MET HOTEL ☆☆☆☆☆
26th October Str., 48, 546 27 Thessaloniki, Greece
tel: +30 2310 017000, + fax: + 30 2310 017100
e-mail: themethotel@chandris.gr, Internet: http:// www.themethotel.gr

SINGLE ROOM	DOUBLE ROOM	CHECK-IN (Date)	CHECK-OUT (Date)
☐	☐		

I want a reservation at MET hotel at my own expense ☐

I will make my own accommodation arrangements in another hotel ☐

(If you wish, please indicate in which hotel you will be staying in case we need to contact you)

……

TRANSFERS

Cedefop will provide transportation in the 21st of January from the MET Hotel to Cedefop premises (this is where the workshop will be continued during the 2nd day) and from Cedefop premises to "Macedonia" Airport of Thessaloniki or back to the MET hotel, in case you have a later flight or you stay longer.

YOUR ARRIVAL & DEPARTURE INFORMATION

Please complete your flight details below. If your flight details are not available yet, you may inform us at a later stage by sending an e-mail to **curriculum-innovation@ldk.gr**.

Arrival from:	Flight no.:	Date:	Time:
Departure to:	Flight no.:	Date:	Time:

ACCOMPANYING PERSON/S *(please fill in names, if applicable):*

Family name: ..... First name: .....

HOW TO GET TO YOUR HOTEL FROM THE AIRPORT

Please kindly note that there will be no welcome desk at the airport upon your arrival. You are kindly requested to make your own arrangements from the airport to your hotel. There is a taxi service outside the Arrivals hall of "Macedonia" Airport of Thessaloniki. There is also a bus service (bus number 78) operating 24 hours a day that links "Macedonia" Airport of Thessaloniki to city centre. Further details could be found at the Information page of the workshop web-site: http://www.cedefop.europa.eu/events/curriculum-innovation-2011

DINNER

All workshop participants are invited to a dinner organised by Cedefop. To book for the dinner for yourself and your accompanying person(s), please tick the relevant box in the table below.

	Date & Time	**Participation & fees involved**
Dinner	Thursday, 20 January 20:00-22:30	☐ Delegate, no extra charge ☐ Accompanying person, 20 Euro

SPECIAL REQUIREMENTS

☐ **Dietary** ☐ **Other**

Please specify: .....

Signature: ..... **Date:** .....

Thursday, 20 January 2011

08.30-9.30	**Registration**
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	Curricula between policies and practices: the international perspective **CHAIR: Irene Psifidou**, Cedefop
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13:00-14:30	***Lunch break at the MET hotel***
14.30-18.00	**Implications of learnig outcome approaches** **WORLD CAFÉ** **ANIMATEUR: Loukas Zahilas**, Cedefop Guidelines for World Café Questions for Working Sessions Conceptual basis for debates **Working session 1: Implications for written curricula**

HOST: **Jonathan Winterton**, Toulouse Business School, France

RAPPORTEUR: **Jenne van der Velde,** Institute for Curriculum Development, the Netherlands

"Traveller experts" will discuss strengths and weaknesses of an outcome–oriented curriculum, and those features/characteristics that outcome-oriented curricula present.

Working session 2: Implications for taught curricula

Including:
Coffee break
16.00-16.15

HOST: **Prue Huddleston**, University of Warwick, United Kingdom

RAPPORTEUR: **Rocio Lardinois**, Cedefop

"Traveller experts" will discuss to what degree do current outcome-oriented curricula and existing education and training systems encourage pedagogies and practices that promote learner-centeredness and inclusiveness.

Working session 3: Implications for learners' assessment

HOST: **Tapio Säävälä**, DG Education and Culture, European Commission

RAPPORTEUR: **Julian Stanley**, University of Warwick, United Kingdom

"Traveller experts" will discuss in what ways, if any, the development of outcome-oriented approaches has brought about changes in assessment design and practice and the strengths and weaknesses of these changes.

Working session 4: Implications for learners

HOST: **Juan Manuel Moreno**, World Bank

RAPPORTEUR: **Andrew McCoshan**, University of Warwick, United Kingdom

"Traveller experts" will discuss existing evidence on the benefits outcome-oriented curricula may have on learners' educational and professional performance, and what still remains to be done to enable learners to benefit from outcome-oriented approaches.

20:00 **Dinner in the city centre**

Friday, 21 January 2011

Key messages from World Café sessions

CHAIR: Irene Psifidou, Cedefop

09.30-10.30

Working session 1: **Jenne van der Velde**, Institute for Curriculum Development, the Netherlands

Working session 2: **Rocio Lardinois**, Cedefop

Working session 3: **Julian Stanley**, University of Warwick, United Kingdom

Working session 4: **Andrew McCoshan**, University of Warwick, United Kingdom

Critical insights into curriculum policies and practices: Reflections from researchers

10.30-11.30	**Michael Young**, University of London, United Kingdom **Xavier Roegiers**, Université de Louvain, Belgium
11.30-11.45	***Tea/Coffee break***
11.45-12.45	**PANEL DISCUSSION** **Putting the views together – A curriculum for all learners** **MODERATOR: Renato Opertti**, IBE-UNESCO **Alejandro Tiana**, Organisation of Iberoamerican States for Education, Science and Culture **Kenneth King**, University of Edinburgh, United Kingdom **Gerald Thiel**, Dekra Academy, Germany
12.45-13.00	**Concluding speech: the way forward** **Mara Brugia**, Head of Area, Cedefop
13.00	**End of the workshop**

Agenda (, 359KB)

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20, JANUARY 2011, AFTERNOON SESSION: 14:30-18:00





Please split into **four groups**.
In each group, a "Host" and a Rapporteur have been determined, who will stay on the same table, the other group members will move to another table after each discussion round.

1. During this session, you will exchange and discuss your ideas and experiences.

2. On each table, **three specific questions** will be discussed. There are **four discussion rounds**. Except for the Host and the Rapporteur, everyone else will move to another table after each round. Each round lasts **40 minutes**.

3. When you change table after each discussion round please mix as much as possible with other participants. Try to be with as many new persons as possible during every round.

4. Please take notes of your key findings on the flipchart paper that you will find on each table.

THE ROLE OF TRAVELLER EXPERTS

1. The traveller experts move **every 40 minutes** from table to table carrying out the following tasks:

   a. Bring in each table their expertise and experience on each topic and become engaged in open dialogue and sharing ideas on the two pre-defined questions. **Country and sectoral examples** should be mentioned to enrich the dialogue with evidence.

   b. Note key ideas, doodle and draw using the markers and paper on the table to create a 'shared visual space'.

   c. Each time traveller experts move to a new table, they are bringing with them the threads of the last round and discuss them with those brought by other travellers. As the rounds progress the conversation moves to deeper levels.

2. On the second morning, traveller experts complement and comment the reporting of the key messages drawn from each table and presented by the Rapporteurs.

THE ROLE OF THE HOSTS

1. The Host does not move from the table. He/she stays at the table and has the following tasks:
   a. Welcomes in every round the traveller experts to the table.
   b. Present a brief synthesis of the main discussion points and key ideas of the previous session to the next group that comes to the table.
   c. Facilitate the discussion.
   d. Take note of the main points and findings of each discussion round.
   e. Connect the knowledge: linking and connecting the ideas and insights generated by each group in order to allow common knowledge to grow or a big picture to build up.
2. Apart from this, the Host also participates in the discussion at the table.
3. The Host helps the Rapporteur to prepare the key messages for the next morning.

THE ROLE OF THE RAPPORTEURS

1. The Rapporteur does not move from the table. He/she stays at the table and has the following tasks:
   a. When new participants come to the table, he/she helps the host to briefly share key insights from the prior conversation so others can link and build using ideas from their respective tables.
   b. Write down in a personal notebook (or laptop) the key points of the conversations.
   c. Remind people at the table to note down in the flipchart key connections, ideas, discoveries and deeper questions as they emerge.

2. Apart from this, the Rapporteur also participates in the discussion at the table.

3. The following morning, the Rapporteur presents the summary and main messages based on the topic and predefined questions of his/her table in the plenary session. The outcomes of the table should be presented in the form of **key messages**. Key messages may be formulated and addressed to different stakeholders and levels: ministry officials, researchers, practitioners, etc.

Time:
You have 40 minutes for each discussion round

QUESTIONS FOR WORLD CAFÉ SESSIONS

20 January 2011, Afternoon session: 14:30-18:00

IMPLICATIONS OF LEARNING OUTCOME APPROACHES



WORKING TABLE 1:

IMPLICATIONS FOR WRITTEN CURRICULA

The way curriculum knowledge is selected, organized and sequenced in curricula might change when these are based on competences and learning outcomes. Outcome-oriented curricula do not reflect solely the body of knowledge to be transmitted, but provide a framework for the teaching and learning process. They also tend to be more flexible. This flexibility may be expressed in a number of ways: greater modularisation of curricula; increased autonomy granted to teachers when it comes to methods and teaching materials; or in the opening up of different individual pathways leading to the same qualification.



Questions

1. What are the characteristics and features of written curricula that are intended to reflect an outcome-approach?
2. What are the strengths of a competence-based/outcome–oriented curriculum?
3. What are the weaknesses of a competence-based/outcome–oriented curriculum?

WORKING TABLE 2:

IMPLICATIONS FOR TAUGHT CURRICULA

A learner-centred system must give teachers, trainers and learners plenty of leeway in adapting and interpreting learning outcomes. Defining learning outcomes too narrowly or restrictively may create yet another barrier to creativity and innovation in the classroom. Actually, the relationship between outcome-based curricula and learner-centredness depends on many factors including how holistic and flexible learning outcomes are meant to be and on how curricula are being delivered and in which learning environments.



Questions for discussion

1. What are the teaching methods and styles of learning that are used to deliver outcome-oriented curricula? Have these changed due to curriculum reform?
2. To what degree do new curricula encourage pedagogies and practices that promote learner-centeredness and inclusiveness?
3. Which features or characteristics of the existing education and training systems can facilitate or hamper learner-centredness and inclusiveness in the learning process?

WORKING TABLE 3:

IMPLICATIONS FOR LEARNER'S ASSESSMENT

Assessment forms an important part of education, training and qualification systems. The redesign of curricula and standards in order to achieve a focus on learning outcomes has, in many cases, affected the design and practice of assessment. Assessment, in turn, will have an influence upon the design of learning programmes and pedagogy and learner activity – not always positively. In VET, assessment methods must capture not only theoretical knowledge, but also practical skills and key competences and the ability to apply them at work. A further challenge is raised by questions about assessment 'standards' and the comparability of these standards across VET and general education systems.



In some cases, new outcome-oriented assessment regimes have been associated with other changes in assessment, for example, changes in assessment methods, reforms designed to improve assessment reliability and validity and the use of formative assessment.

Questions for discussion

1. In what ways, if any, has the development of outcome-oriented approaches brought about changes in assessment design and practice?
2. In what ways, if any, have the requirements or opportunities of assessment affected the development of outcome-oriented written curricula and their implementation?
3. What are the strengths and weaknesses of the assessment methods that have been employed in different countries to assess outcome-oriented curricula?

TABLE 4:

IMPLICATIONS FOR THE LEARNER

A learner-centred approach to curriculum development may change the traditional relationship between teacher and learner. An outcome-based curriculum potentially empowers learners, allowing them to know the expected learning outcomes they should acquire at the end of their learning process and giving them the opportunity to shape learning processes and build their individual learning paths. However, one may not assume that curricula based on learning outcomes are automatically learner-centred and inclusive, and that they will necessarily benefit learners. In fact, they may have the opposite effect.



An outcome-based approach may be understood as a progressive opportunity to address learners' diversities and achieve an inclusive curriculum.

Outcome-oriented curricula should move away from rigid disciplinary and decontextualised content and go towards multiplicity of contextualized, inter-disciplinary and significant resources for the learner. This may be an effective way to achieve inclusive teaching and learning as well as to develop autonomous, critical and assertive citizens.

Questions for discussion

1. Are the reformed curricula leading to any objective changes in learners' performance? What evidence exists? (Changes in participation or drop-out rates or qualification achievement, employment rates, etc.)
2. Are the developments in pedagogy and the changes in learning environment and learning programmes leading to changes in learners' experiences?
3. What remains to be done to enable learners to benefit from the introduction of outcome-orientated approaches?

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European Centre
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of Vocational Training

2nd International Workshop on
CURRICULUM INNOVATION AND REFORM
AN INCLUSIVE VIEW TO CURRICULUM CHANGE
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THESSALONIKI
THE MET Hotel

Using the same terms but understanding different concepts?
A conceptual basis of key terms for the workshop

Irene Psifidou

Defining curriculum

In the absence of an agreed definition of curriculum in different countries around the world (Psifidou, 2007)[1], a *written curriculum* should be understood as a normative document (or a collection of documents) setting the framework for planning learning experiences.

Depending on the country, the type of education and training, and the institution, curricula may define among other, learning outcomes, objectives, contents, place and duration of learning, teaching and assessment methods to a greater or to a lesser extent. The curriculum may either be a binding document (i.e. with a normative character) for all education and training providers, and thus remain "general" in the sense that it is applicable to a variety of places and learners (e.g. national curricula), or, it can be developed for a definite group of learners in a given learning setting, ideally taking into account the particular needs of the learners (e.g. school-based curriculum, learning programme, training plan, etc.) (Cedefop, 2010)[2].

By *taught curriculum* should be understood the process of which curricula are interpreted and used by training providers and teachers to develop and deliver learning programmes meeting the needs of their students.

Defining learning outcomes

The concept of "Outcomes" is not new to education and training (John Burke, 1995[3] and Cedefop, 2009[4]); what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation (Cedefop, 2010)[5].

Considering the lack of a consensual and unified definition of learning outcomes and competences across the countries (and within the countries between different subsystems of education and training), the present workshop will take as a starting point the definitions of learning outcomes as provided in the EQF Recommendation (2008)*"statements of what a learner knows, understands and is able to do on completion of a learning process"*[6] and the 8 key competences as

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[1] Psifidou, I. 2007. *International trends and implementation challenges in secondary education curriculum policy: The case of Bulgaria*. Doctoral Thesis, Universidad Autónoma de Barcelona, Spain.

[2] Cedefop. 2010. Learning outcomes approaches in VET curricula A comparative analysis of nine European countries. Luxembourg: Publications Office of the European Union, 2010. http://www.cedefop.europa.eu/EN/Files/5506_en.pdf

[3] Burke, J. 1995. *Outcomes, Learning and the curriculum. Implications for NVQ's, GNVQ's and other qualifications.* RoutledgeFalmer, Oxon.

[4] Cedefop. 2009. The shift to learning outcomes: policies and practices in Europe. http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/525/3054_en.pdf

[5] http://www.cedefop.europa.eu/EN/Files/5506_en.pdf

[6] 2008/C 111/01 http://eur lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:111:0001:0007:EN:PDF

defined in the European framework[7], namely: 1) Communication in the mother tongue; 2) Communication in foreign languages; 3) Mathematical competence and basic competences in science and technology; 4) Digital competence; 5) Learning to learn; 6) Social and civic competences; 7) Sense of initiative and entrepreneurship; 8) Cultural awareness and expression.

Participants during debates should consider any outcome-oriented approach to curriculum development independently of how they are named in the different contexts. Examples of distinctive features characterising an outcome–oriented curriculum versus a traditional one may be:

- the focus on integrative learning combining functional and cognitive knowledge as well as socio-cultural skills and competences (Winterton and all, 2006)[8];
- their orientation towards the labour market and employment requirements, whereas traditional curricula would stick to the educational context and a body of knowledge to be transmitted (Sloane and Dilger, 2005) [9];
- their potential advantage to encourage learning in a wide range of locations and by different methods (Cedefop, 2009)[10].

There should be established a distinction between intended learning outcomes as prescribed a priori, before the beginning of the learning process, in official *written curricula*, and the finally achieved learning outcomes by the learner, which might differ.

Defining learner-centeredness and inclusiveness

In the absence of a European-wide, transnational academic discourse on learner-centred approaches in VET makes it difficult to identify an agreed set of features distinguishing learner-centred systems. Conclusions drawn from recent research findings (Cedefop, 2010)[11] nevertheless allow operating a distinction between *institutional* and *pedagogical-didactical aspects* of learner-centred approaches.

The former concerns the demand-driven character of a system signalling a shift from provider-led to learner-led systems. In this sense, learner-centeredness implies to relate different elements of qualifications systems in a coherent way (qualifications frameworks, curricula, guidance systems, financing systems, teacher and trainer qualifications, learning outcomes, modularisation, assessment, recognition, etc.) to address the individual needs of the learner

[7] 2006/962/EC http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:en:PDF
[8] Winterton, J; Delamare-Le Deist, F.; Stringfellow, E. 2006. Typology of knowledge, skills and competences. Clarification of the concept and prototype. Luxembourg: Office for Official Publications of the European Communities.
[9] Sloane, P. and Dilger, B. 2005. The competence clash - Dilemmata bei der Übertragung des 'Konzepts der nationalen Bildungsstandards' auf die berufliche Bildung. *bwp@online,* Vol. n° 8, Juli 2005. http://www.bwpat.de/ausgabe8/sloane_dilger_bwpat8.pdf
[10] See note 4.
[11] See note 2.

(Billet, 2000[12]; Frommberger, 2005[13] and Young, 1998)[14]. The latter – the pedagogical-didactical aspects of the learner-centred approaches - in most cases are defined in contrast to "teacher-dominated" or "traditional" approaches in teaching and learning, and often are underpinned by policies/initiatives introducing outcome-oriented curricula, innovative pedagogies and assessment practices.

A learner-centred approach to curriculum development may change the traditional relationship between teacher and learner, in the sense of a more collaborative and fruitful relationship. An outcome-based curriculum is potentially a more learner-friendly curriculum allowing learners to know the expected learning outcomes they should acquire at the end of their learning process and giving them the opportunity to build their individual learning paths. However, the relationship between outcome-based curricula and learner-centeredness depends on many factors - among which, how holistic and flexible learning outcomes are meant to be and in which way curricula are being delivered in learning environments are crucial (Psifidou, 2010) [15].

The notion of *inclusiveness* in curriculum policy implies the development of a 'glo-local', flexible, balanced and relevant to each context and individual curriculum (Braslavsky, 1999)[16]. An outcome-based approach may be understood as a progressive opportunity to address learners' diversities and achieve an inclusive curriculum. Outcome-oriented curricula should move away from rigid disciplinary and decontextualised content and go towards multiplicity of contextualized, inter-disciplinary and significant resources for the learner. This may be an effective way to achieve inclusive teaching and learning (Moreno, 2006)[17] as well as to develop autonomous, critical and assertive citizens (Opertti and Duncombe, 2008)[18].

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[12] Billett, S. 2000. Defining the Demand Side of Vocational Education and Training: industry, enterprises, individuals and regions. *Journal of Vocational Education and Training,* Vol. 52, n° 1, p. 5-30.

[13] Frommberger, D. 2005. Zur Formierung nationaler beruflicher Ausbildungsstandards im europäischen Vergleich. In Grollmann, Philipp; Rauner, Felix (eds.). *Europäisierung der Beruflichen Bildung.* Bielefeld: Bertelsmann, p. 70–104.

[14] Young, M. 1998. *The Curriculum Of The Future: From The 'new Sociology Of Education' To A Critical Theory Of Learning*.

[15] Psifidou, 2010. Cedefop International Workshop conclusions available at http://www.cedefop.europa.eu/EN/news/15108.aspx

[16] Braslavsky, C. 1999. "Los conceptos estelares de la agenda educativa en el cambio de siglo" ["The key concepts of the educational agenda in the change of century"], en: Re-haciendo escuelas. Un nuevo paradigma en la educación latinoamericana, Buenos Aires, Santillana.

[17] Moreno, J. M. 2006. Chapter 11. The dynamics of curriculum design and development: scenarios for curriculum evolution. School knowledge in comparative and historical perspective. Changing curricula in Primary and Secondary Education (edited by Aaron Benavot and Cecilia Braslavsky), Comparative Education Research Centre, the University of Hong Kong,, Springer, Hong Kong, China, 2006, p.195-209.

[18] Opertti, R. and Duncombe, L. 2008. "Inclusive education and inclusive curriculum: Moving the EFA agenda forward" in 48th session of the International Conference on Education entitled *Inclusive Education: The Way of the Future*, 25-28 November 2008, Geneva.

Defining assessment

According to Cedefop (2008, p.31)[19] assessment of learning outcomes[20] is defined as "The process of appraising knowledge, know-how, skills and/or competences of an individual against predefined criteria (learning expectations, measurement of learning outcomes). Assessment is typically followed by validation[21] and certification[22]."

Assessment fulfils different functions and has different purposes and uses. The distinction is made between assessment carried out for summative and formative purposes[23].

As defined by Cedefop (2009, p.77)[24], assessment carried out for summative purposes is "The process of assessing (or valuing) a learner's achievement of specific knowledge, skills and/or competences at a particular time." The Eurydice report[25] refers to it as 'assessment of learning' and points to the use of the results "to award a certificate or to take important decision".

Assessment carried out for formative uses[26] is "a two way reflective process between a teacher/assessor and learner to promote learning"[27]. The main purpose of 'assessment for learning' is to assist learning process of individuals by identifying specific learning needs and adapt teaching accordingly and to shape improvements in learning and teaching.

The distinction is not always clear-cut. Some authors[28] emphasise the need to categorise assessment purposes more precisely as they have important implications for assessment design.

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[19]Cedefop. 2008. Terminology of European education and training policy http://www.cedefop.europa.eu/EN/Files/4064_en.pdf

[20] EQF Recommendation (2008) defines learning outcomes as « statements of what a learner knows, understands and is able to do on the completion of learning process".

[21]Cedefop 2010. Changing qualifications. Validation is defined as "confirmation that the outcomes of assessment of an individual's learning meet predetermined criteria (standards) and that a valid assessment procedure was followed. This means that the outcomes have been quality assured and can be trusted."

[22]Ibid. Certification: "a record of the individual's learning has been validated; the certificate usually issued by a body which has public trust and competence, confers official recognition of an individual's value in the labour market and in further education and training".

[23] Eurydice. 2009. National Testing of Pupils in Europe: Objectives, Organisation and Use of Results http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/109EN.pdf

[24] Cedefop. 2009. European guidelines for validating non-formal and informal learning, p. 77 http://www.cedefop.europa.eu/EN/publications/5059.aspx

[25] See footnote 23

[26] For further information on formative assessment see OECD 2005: Formative Assessment – Improving Learning in Secondary Classrooms

[27] See footnote 23

[28] See for example Newton, P. E. Clarifying the purposes of educational assessment. In Assessment in Education. Vol. 14 No. 2, July 2007, pp 149-170

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2ND INTERNATIONAL WORKSHOP ON

Curriculum Innovation and Reform

AN INCLUSIVE VIEW TO CURRICULUM CHANGE

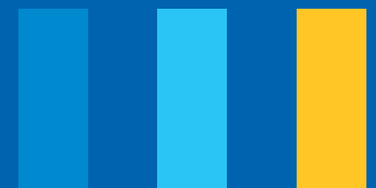
WORKSHOP PROGRAMME

20-21 JANUARY 2011
THESSALONIKI, GREECE

CEDEFOP | European Centre for the Development of Vocational Training

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Curriculum Innovation and Reform

AN INCLUSIVE VIEW TO CURRICULUM CHANGE

RATIONALE

Curriculum is increasingly seen by stakeholders as a dynamic framework guiding teaching and learning processes and as a steering mechanism for quality. It features in many key European policy documents, the most recent for example, Europe 2020, the European strategy for smart, sustainable and inclusive growth and the Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training.

Findings of empirical research widely recognise that curriculum relevance is a condition sine qua non, not only for improving the human capital potential of education and training graduates but also for retaining learners in education and training systems and for promoting lifelong learning. The endemic irrelevance of curriculum may be one of the greatest obstacles to matching education and training provision successfully to learner and labour market needs. Adopting a learning outcomes approach when developing curricula – valuing what a learner knows, understands and is able to do on completion of a learning process – is seen by many policy makers as an effective way to avoid such potential mismatches and promote active learning and inclusive teaching. However, this assumption depends on many factors, including how curricula are being delivered in learning environments.

In recent years, Cedefop's analytical work has increasingly focussed on learning outcome approaches in vocational education and training to design and describe qualifications, to set standards and to influence quality assurance, validation and certification approaches. In 2009, Cedefop organised the 1st International Workshop to debate innovative curriculum policies and practices in Europe and beyond. In 2010, a comparative study in nine European countries on learning outcome approaches in VET curricula was published to provide a better understanding of recent curriculum policies and point to main tendencies and challenges in this field. This research is now being expanded in all 32 countries participating in ET 2020 and will continue in the coming years to support evidence-based policy making in Europe.

OBJECTIVES OF THE WORKSHOP

The main objective is to build upon the ongoing research Cedefop undertakes in this field and provide an opportunity for policy makers, researchers, practitioners and social partners to reflect on how outcome-oriented approaches to curricula may promote or hinder learner-centeredness and inclusiveness in teaching and learning processes. The key aim is to:

- examine the implications of current developments in curriculum policies and practices at the systemic, pedagogical and individual level;
- formulate key messages that can usefully support curriculum policy developments and practices at national level;
- identify new lines for future research.

The ultimate goal is to collect evidence about the extent to which learners can benefit from outcome-oriented approaches to curriculum policy and practice.

PROGRAMME

Thursday, 20 January 2011

08.30-9.30	Registration
09.30-10.00	**Welcome and introductory speech** **Irene Psifidou**, Cedefop
10:00-11:00	**Curricula between policies and practices: the international perspective** CHAIR: **Irene Psifidou**, Cedefop **Tapio Säävälä**, DG Education and Culture, European Commission **Renato Opertti**, IBE-UNESCO **David Istance**, OECD
11.00-11.30	Tea/Coffee break
11.30-13.00	**Highlights on outcome-oriented curriculum reforms: country examples** CHAIR: **Slava Pevec Grm**, Cedefop DISCUSSANT: **Amanda Watkins**, European Agency for Development in Special Needs Education **Sirkka-Liisa Kärki**, Finnish National Board of Education, Finland **Klara Skubic Ermenc**, University of Ljubljana, Slovenia **Ilya Zitter**, Centre for Expertise in Vocational Education and Training, the Netherlands **Manuela Bonacci**, ISFOL, Italy **Alexis Kokkos**, Hellenic Open University, Greece
13:00-14:30	Lunch at the MET hotel
14.30-18.00	**Implications of learning outcome approaches** WORLD CAFÉ ANIMATEUR: **Loukas Zahilas**, Cedefop Working session **1**: **Implications for written curricula** HOST: **Jonathan Winterton**, Toulouse Business School, France RAPPORTEUR: **Jenne van der Velde**, Institute for Curriculum Development, the Netherlands **'Traveller experts'** will discuss strengths and weaknesses of an outcome–oriented curriculum, and those features/characteristics that outcome-oriented curricula present in different economic sectors and countries. Including: Coffee break 16.10-16.30 Working session **2**: **Implications for taught curricula** HOST: **Prue Huddleston**, University of Warwick, United Kingdom RAPPORTEUR: **Rocío Lardinois**, Cedefop **'Traveller experts'** will discuss to what degree do new curricula and existing education and training systems encourage pedagogies and practices that promote learner-centeredness and inclusiveness. Working session **3**: **Implications for learners' assessment** HOST: **Tapio Säävälä**, DG Education and Culture, European Commission RAPPORTEUR: **Julian Stanley**, University of Warwick, United Kingdom **'Traveller experts'** will discuss in what ways, if any, the development of outcome-oriented approaches has brought about changes in assessment design and practice and the strengths and weaknesses of these changes. Working session **4**: **Implications for learners** HOST: **Juan Manuel Moreno**, World Bank RAPPORTEUR: **Andrew McCoshan**, University of Warwick, United Kingdom **'Traveller experts'** will discuss existing evidence on the benefits outcome-oriented curricula may have on learners' educational and professional performance, and what still remains to be done to enable learners to benefit from outcome-oriented approaches.
20:00	Dinner in the city centre

Friday, 21 January 2011

09.30-10.30	**Key messages from World Café sessions** CHAIR: **Irene Psifidou**, Cedefop Working session **1**: **Jenne van der Velde**, Institute for Curriculum Development, the Netherlands Working session **2**: **Rocío Lardinois**, Cedefop Working session **3**: **Julian Stanley**, University of Warwick, United Kingdom Working session **4**: **Andrew McCoshan**, University of Warwick, United Kingdom
10.30-11.30	**Critical insights into curriculum policies and practices: Reflections from researchers** **Michael Young**, University of London, United Kingdom **Xavier Roegiers**, Université de Louvain, Belgium
11.30-11.45	Tea/Coffee break
11.45-12.45	PANEL DISCUSSION **Putting the views together – A curriculum for all learners** MODERATOR: **Renato Opertti**, IBE-UNESCO **Alejandro Tiana**, Organisation of Iberoamerican States for Education, Science and Culture **Kenneth King**, University of Edinburgh, United Kingdom **Gerald Thiel**, Dekra Academy, Germany
12:45-13.00	**Concluding speech: the way forward** **Mara Brugia**, Head of Area, Cedefop
13:00	End of the Workshop

DRAFT AGENDA

Thursday, 20 January 2011	
08.30-9.30	***Registration and reimbursement forms***
09.30 –09.50	**Introductory speech: Rationale and objectives of the Workshop**
09.50– 10.50	**Curricula between policies and practices: the international framework** *Presentations from International Organisations*
10.50-11.15	***Tea/Coffee break (reimbursement forms)***
11.15-13.15	**National highlights on outcome-oriented curriculum reforms** Presentations from national experts
13:15-14:30	***Lunch break at the MET hotel***
14.30-17.30 Including: Coffee break 16.00-16.15	**PARALLEL WORKING TABLES** Questions will be developed for each working table See also separate document on Guidelines for working table assignments
	Table 1: Implications of learning outcome approaches to written curricula
	"Expert travellers" will discuss strengths and weaknesses of a competence-based/outcome–oriented curriculum, and those features/characteristics that new curricula present to promote learner-centeredness and inclusiveness in the learning process.
	Table 2: Implications of learning outcome approaches to taught curricula
	"Expert travellers" will discuss those features/characteristics education and training systems have developed to promote learner-centeredness and inclusiveness in the learning process.
	Table 3: Implications of learning outcome approaches to learner's assessment
	"Expert travellers" will discuss how assessment methodologies and practises are also changing signalling a shift from a 'testing culture' to an 'assessment culture'. This shift entails, among other, a change in the content and the functions of assessment ('what' is assessed) as well as in the notion of what constitutes high quality assessment.

	Table 4: Implications of learning outcome approaches for learners "Expert travellers" will discuss existing evidence on the benefits outcome oriented curricula and innovative pedagogies may have on the individual, both for his personal as well as professional development and progression.
17:30-18:30	**Time for Rapporteurs and Hosts to work on the thematic reports**
20:00	***Dinner in the city centre***

Friday, 21 January 2011	
09.30-10.30	**Key messages from parallel working tables** *Presentations from Rapporteurs*
10.30-11.15	**Critical insights into curriculum politics, policy and practice** *Presentations from researchers*
11.15-11.30	***Tea/Coffee break***
11.30-13.00	**Panel Discussion** with senior experts **Putting the views together – A curriculum for all learners**
13.00	***Closure of the workshop***

Speakers

Bonacci	Manuela	ISFOL
Bognár	Mari	Public Foundation for the Equal Opportunities of Persons with Disabilities
Brugia	Mara	Cedefop
Dufaux	Stefanie	OECD
Georgiadis	Nikos	Ministy of Education Lifelong Learning and Religious Affairs of Greece
Hilton	Gillian	Middlesex University
Huddleston	Prue	University of Warwick
Istance	David	OECD
Kärki	Sirkka-Liisa	Finnish, National Board of Education
Kokkos	Alexis	Hellenic Open University
Laczik	Andrea	University of Warwick
Lengauer	Sonja	NCP - National Coordination Office for the NQF in Austria
Magee	Siobhan	Further Education Support Officer
Marinakou	Evangelia	IST College University of Hertfordshire
McCoshan	Andrew	University of Warwick
Moreno	Juan Manuel	World Bank
Opertti	Renato	IBE - UNESCO
Pevec Grm	Slava	Cedefop
Psifidou	Irene	Cedefop
Ranguelov	Stanislav	EACE - P9 EURYDICE
Roegiers	Xavier	Université de Louvain, President of BIEF
Säävälä	Tapio	DG Education and Culture, European Commision
Schmid	Eleonora	Cedefop
Skubic Ermenc	Klara	University of Ljubljana
Stanley	Julian	University of Warwick
Tiana Ferrer	Alejandro	Organisation of Iberoamerican States for Education, Science and Culture
Todorova	Maria	Cedefop
Tūtlys	Vidmantas	Centre for Vocational Education and Research at Vytautas Magnus University
van der Velde	Jenne	Institute for Curriculum Development
Watkins	Amanda	European Agency for Development in Special Needs Education
Werquin	Patrick	Consultant
Young	Michael	University of London
Zahilas	Loukas	Cedefop
Zitter	Ilya	Centre for Expertise in Vocational Education and Training
Zoica Elena	Vladut	National Centre for VET Development

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Presentations

Introductory Speech by Irene Psifidou

1. Curricula between policies and practices: The intrenational perspective

Irene Psifidou - Cedefop. ppt
Tapio Saavala - European Commission.ppt
Renato Opertti - UNESCO-IBE.ppt
David Istance - OECD.ppt

2. Highlights on outcome-oriented curriculum reforms: Country examples

Sirkka-Liisa Karki - Finland.ppt
Klara Skubic Ermenc - Slovenia.ppt
Ilya Zitter - The Netherlands.ppt
Manuela Bonacci - Italy.ppt
Alexis Kokkos - Greece.ppt
Amanda Watkins - European Agency for Development in Special Needs Education

3. Implications of learning outcome approaches: Key messages

Working session 1: Implications for written curricula
Participants Opinions
Working session 2: Implications for taught curricula
Working session 3: Implications for learners' assessment
Working session 4: Implications for learners

4. Critical insights into curriculum policies and practices: Reflections from researchers

Michael Young.ppt
Xavier Roegiers. ppt

5. Putting the views together – a curriculum for all learners

Alejandro Tiana-Ferrer
Kenneth King

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Irene Psifidou,
Workshop organiser

INTRODUCTORY SPEECH

Dear colleagues,

I would like to welcome you to the 2nd International Workshop on Curriculum Innovation and Reform organised by Cedefop.

Today, we have with us participants coming from 20 different countries representing older and newer member states of the European Union and covering North, South, West, East and Central Europe. We also have with us representatives from 8 European and international organisations, namely:

- the European Commission,
- Eurydice,
- the European agency for development in special needs education,
- The International Bureau of education –IBE- of UNESCO,
- the Organisation of Economic Cooperation and Development - OECD,
- the Organisation of Iberoamerican States for Education, Science and Culture,
- the World Bank, and of course
- Cedefop.

As you may see in the brief bibliographical notes included in the booklet placed in your folders (available also at: http://events.cedefop.europa.eu/curriculum-innovation-2011/speakers.html), the professional profiles of the participants vary considerably including ministry officials, researchers, academic staff and practitioners both from Higher Education and Vocational Education and Training. I believe this variety is an important added value to our discussions today focusing on a component of education and training systems - **the curriculum-** whose design and delivery depends on different stakeholders and professionals.

1. THE IMPORTANCE OF CURRICULUM

It is needless to argue on **the importance of curriculum as a dynamic framework guiding teaching and learning processes**. The way the curriculum is designed and delivered in different learning environments determines to a great extent the expected learning outcomes for learners. It can be a factor for motivating learners, retaining them in education and training systems, facilitating their progression in education by promoting lifelong learning and their integration into the labour market. But curriculum can also become an obstacle impeding an inclusive and learner-centre approach to learning.

The importance of curriculum as a steering mechanism for quality is widely acknowledged today and this is why, the need for its constant modernization and adaptation, features in many key European policy documents, the most recent for example, Europe 2020, the European strategy for smart, sustainable and inclusive growth and the Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training.

European policies, recommendations and frameworks encourage a learning outcomes approach in education and training systems valuing what learners know and are able to do at the end of a learning process.

As you very well know, **the learning outcome approach is fundamental to all European tools and principles**, notably the European qualifications framework, the European credit system for VET and Europass, as well as the EU principles on validation of non-formal learning and the Common Quality Assurance Framework**.** It is also fundamental to promote citizens' employability, accountability of education and training providers and enable a better dialogue between education and labour market stakeholders.

2. THE WORK OF CEDEFOP ON LEARNING OUTCOMES

In recent years, **Cedefop's analytical work** has increasingly focussed on learning outcome approaches in vocational education and training to design and describe qualifications, to set standards and to influence quality assurance, validation and certification approaches.

In 2009, Cedefop organised the 1st International Workshop to debate innovative curriculum policies and practices in Europe and beyond (conclusions and presentations available at: http://www.cedefop.europa.eu/EN/events/4432.aspx)

In 2010, a comparative study in nine European countries on learning outcome approaches in VET curricula **was published** to provide a better understanding of recent curriculum policies and point to main tendencies and challenges in this field (study available at: http://www.cedefop.europa.eu/EN/Files/5506_en.pdf).

This research is now being expanded in all 32 countries participating in E&T 2020, and Cedefop will continue in the coming years to support evidence-based policy making in Europe in this field.

3. CEDEFOP RESEARCH FINDINGS ON CURRICULUM POLICIES

Power point presented available at:

http://events.cedefop.europa.eu/curriculum-innovation-2011/presentations.html

4. OBJECTIVES OF THE WORKSHOP

Taking forward these preliminary findings, this workshop is conceptualised from this very last point, the learners. The ultimate goal is to collect evidence about the extent to which learners can benefit from outcome-oriented approaches to curriculum policy and practice.

5. INTRODUCTION ON THE AGENDA OF THE WORKSHOP

The three key note speeches this morning aim to provide the **international perspective** and state of play of curriculum policies and practices oriented to outcome approaches and in the same time to put the grounds for **the conceptual framework of the key terms** we will be using in this workshop (see also paper on Conceptual basis for workshop debates available at:

http://events.cedefop.europa.eu/curriculum-innovation-2011/agenda-new.html).

Mr Tapio Saavala from the DG Education and Culture in the European Commission will present the state of play in Europe for introducing key competences in curricula based on the European framework of 8 key competences and their challenges and implications for learners' assessment

Mr Renato Opertti from IBE-UNESCO will present the evolving definition of inclusive education from the perspective of UNESCO and the role of inclusive curricula as a powerful tool for inclusion and Lifelong learning.

This international session will finish with the speech of **Mr David Istance from OECD-CERI** who will highlight the importance of effective learning environments for delivering successfully outcome-oriented curricula and will present some key conclusions drawn from important work that OECD has undertaken in this field.

This international perspective and conceptual framework will be **illustrated with 5 country examples** drawn from **Finland, Slovenia, the Netherlands, Italy and Greece**. My Colleague **Ms Slava Pevec Grm** will chair this session and **Ms Amanda Watkins from the European agency for development in special needs education** will discuss these country inputs questioning **how these developments can actually benefit learners** and promote inclusiveness and learner centeredness in the teaching and learning processes.

At 14:30 we will begin our **World Café session**. Perhaps some of you are already familiar with this interactive approach that we have adapted it for the objectives of this workshop. In your booklet, you may find the concrete guidelines of how this session will be carried

out and the questions to be discussed in each of the four working sessions. My colleague **Mr Loukas Zahilas**, the animator of this session, will provide you with further details in the beginning of this session. (Guidelines and questions available also at: http://events.cedefop.europa.eu/curriculum-innovation-2011/agenda-new.html)

The workshop will continue tomorrow morning at Cedefop premises. **The rapporteurs of the four working sessions of the World Café will then present the key messages drawn** from our discussions, while two well known researchers in the field of curriculum development, **Professor Michael Young and Professor Xavier Roegiers will critically discuss these recent curriculum reforms emphasizing learning outcomes.**

A panel discussion will follow to be **moderated by Mr Renato Opertti** with the contributions of three panellists: Professor Alejandro Tiana, Professor Kenneth King and Mr Gerald Thiel.

Professor Alejandro Tiana will provide information on how the competences approach is influencing world regions as **Latin America**; and what are the main debates and challenges in Spain and Latin American countries concerning a competence-based approach to learning and to its translation into school life.

His intervention will address the following points:

- The way that the competences approach is influencing world regions as Latin America reflecting upon curriculum reforms in the 90s and current concerns and challenges, referring to some countries' experiences;
- The main criticisms and debates in Spain and LA concerning a competence-based approach to learning

addressing the labour market orientation versus a new concept of 'integral' education, and reflecting upon the situation both in basic and upper education and training;

- The main challenges encountered in countries like Spain for translating a competence-based concept of learning into school life. Two main issues will be mentioned: teaching methodology and assessment.

Professor Kenneth King will explain how the competences approach is influencing **countries with emerging economies** (like **China, India, Brazil, Russia and South Africa**); and how these curriculum policies are linked to other national VET policies to actually support the emerging economic situation and the learners.

His intervention will address the following points:

- The state of play of competence based approaches to VET curricula in countries with emerging economies (e.g. China, India, Brazil, Russia, South Africa);
- The extent tow which these curriculum policies are linked and actually support the emerging economic situation of these countries;
- Reference will be also made on how these policies are linked to other national VET policies for benefitting learners.

Mr Gerald Thiel will explain what are the conditions that a maximum range of learners all over the world can benefit from outcome-oriented approaches used for the design of curricula worldwide; and what are the lessons learned from **sectoral approaches.**

His intervention will address the following points:

- The necessity to create “zones of mutual trust” among stakeholders to allow for comparability of qualifications for the use on a global labour market by establishing a common understanding of learning outcomes (e.g. in the EQF sense) during the design of curricula;
- The existing evidence on how these approaches may actually benefit learners by presenting a sectoral example drawn from one of the pilot projects.

The workshop will close with a brief informative session given by Ms Mara Brugia, Head of Area at Cedefop, on the way Cedefop will put forward the conclusions to be drawn from our current event and the systematic work we carry out on learning outcomes and curriculum policies and practice.

Highlights on outcome-oriented curriculum reforms: Country examples

Amanda Watkins, European Agency for Development in Special Needs Education

Discussant of this session

Been asked to reflect on the country inputs from the perspective of a VET outsider – my background is SNE/inclusive education, I would like to consider a number of issues – particularly the key challenges and innovations raised in the inputs here and background papers - as well as some key issues for later consideration.

It is very important to reflect some points made in the first panel as well here.

The Finland report refers to the 'need for deep thinking' to bring about reforms:

- Inclusive education (IE) and inclusive approaches require deep thinking.
- As Renato Opertti stated - Inclusive education is a systematic approach. All elements in the education system need to be considered.
- It is very important we move away from the idea that IE is an approach for minority groups. It is an approach for all.

The first key issue to consider is learner centered inclusive approaches for all or a few?
It is obvious from previous comments – my reply:

- Learner centered approaches – personalised learning – whatever we call them benefit all learners.
- The inputs from the Netherlands and Italy reinforce this. To meet current demands we need flexible approaches to address diverse needs of learners…increasing diversity calls for increasingly diverse approaches!

There is a lot of expertise in the traditional special needs education (SNE) sector in using Learner centered approaches – differentiation, target settings, outcomes lead approaches.

I was struck by the Greek report which suggests there are not so many examples of this approach – perhaps there are in some specialist sectors? I should refer listeners to Agency VET project: http://www.european-agency.org/news/vocational-education-and-training-vet-policy-and-practice-in-the-field-of-special-needs-education

There is a need now more than ever for sharing expertise across sectors.
The Netherlands raises a key issue in relation to Learner centered approaches – the shift to self directed learning.

The Greek input also highlights the importance of this and decision-making/ critical thinking as a core competence for all learners.

A very important element of learner-centered approaches and inclusive approach is learners setting, assessing and evaluating their own learning targets, but has clear implications for teachers.

The Slovenian and Dutch reports/inputs both raise the issue of what teaching processes need to be used?

The Netherlands report highlights effective strategies as collaborative learning, authentic tasks, teachers as facilitators.

Work in the Agency suggests that we need to add:

- Co-operative/team teaching
- Peer tutoring
- Heterogeneous grouping
- Differentiated teaching strategies
- Assessment for learning
- Assessment is a key as Tapio Saavala suggested

It is useful to reflect point from Slovenia – how you get there is as important as what is achieved!

I'd like to consider some main challenges that were highlighted in the inputs:

The first messages focus upon competences:

- Do we need to be clear on the differences between standards and competences?
- Should we always consider competences as having an attitudinal/motivational component as well as the components of knowledge and skills – as the Slovenian, Italian and Greek reports suggest.
- Work in the Agency on teachers' competences suggest attitudinal components to competences is vital.

Second is teacher education and training – raised in a number of the inputs – Slovenia:

- Are all teachers given the knowledge and skills and crucially attitudes to take inclusive approaches in their work?
- What in-service as well as initial support is available to them?

Slovenia clearly raises the issue of whether teachers are able to take competence-based approaches?

- Do they receive it in their education?
- Are they trained in a competence-based approach?

Agency work shows many countries are introducing learner-centered approaches in inclusive teacher education but competences in IE for all teachers are limited and a very difficult area.

Third challenge raised by Italy:

- Inflexibility in systems for introducing new initiatives.
- Brings us back to issue of IE as a systematic approach.

- Greece and Italy highlights the differences in co-ordinating between different stakeholder groups as well as systems.
- Slovenia and to a degree Italy, indicates differences in perpetuating the perceived value of some courses over others.
- All contribute to tension in all countries – meeting individual needs versus the push for raised academic outputs.

There are possible innovations and very clear messages from across inputs to highlight. The first is raised by Finland:

- Ensuring clear limits between learning goals and assessment and clarifying expectations for learning.
- In particular the use of Assessment for learning (A4L) involving learners in feedback on their learning.
- Crucial also is the issue of access in assessment.
- Access to assessment and qualifications
- Accessibility with assessment methods.
- Concept or universal design in assessment should be considered in considering an IE approach.

The second innovation is highlighted by Italy – flexible pathways in learning approaches.
Echoed by the Netherlands and Finland when they describe how educational institutions have the possibility to determine the 'how' of programme delivery.

Differentiation combined with possibilities, requirements and even responsibilities for teachers who know learners best to determine programmes is essential in taking an inclusive approach.
This very much links to Tapio Saavala's point here.

Third innovation is raised by Slovenia – focus on evaluation of issues relating to meeting inclusive needs and also quality. This is echoed by Finland's need to address quality issues - a point made by Renato Opertti. Issues of quantity and quality cannot be separated.

- Meeting diverse needs in all sectors of education is a quality issue.
- Need to involve range of stakeholders in this.
- Issue raised in all presentations.
- In an IE approach 'new' stakeholders need to be considered.

What messages should we keep in mind from the country information as well as work in the field of inclusive education? There are a lot, but I'd like to finish with just a few:

- The Italian report talks of the need to 'foster transparency'. A phrase that is crucial for IE thinking and doing.
- The Finnish report stresses 'common approaches'.
- There is a need to move away from 'specialist/expert' thinking to 'shared knowledge' in teaching and learning approaches.
- Part of this will focus on a 'shared learning' another point raised in the Italian report. It is critical that policy makers and practitioners at national levels as well as

international levels share an understanding of key concepts – ‘shared language’ and shared approaches based on shared thinking. Both the Netherlands and Finnish reports highlight the need for leadership in taking and directing educational initiatives – at both policy and organisational levels.

– Research in IE shows the need for visions and leadership that creates the ethos and culture for IE (I need to remind you of the point made regarding attitudes for IE here).

I want to stress a message coming from across the country inputs – inclusive approaches/ learner-centered approaches benefit all learners, not just a few! Good IE teaching and learning is good teaching and learning!

Final message is one of reflection:

- What do we really want IE for? Is it just the newest educational innovation/fashion fad or is it something more?

I’d say it is more; it is about what society we want and seeing education as a way of getting there: A society that values diversity and aims to meet the needs of the most and least able.

Thank you.

PANEL DISCUSSION

PUTTING THE VIEWS TOGETHER – A CURRICULUM FOR ALL LEARNERS

Contribution from Alejandro Tiana-Ferrer (outline)

1. Some brief notes about the Spanish experience

- The concept of competence was introduced as a reference for curriculum design in the Spanish VET reform during the 90s. New vocational diplomas designed and launched from then on included an identification of the main competences to be developed by trainees in every professional field or module.

- According to the guidelines adopted for the current university reform, competences to be developed by graduates constitute a central element of proposals presented by universities for new degrees.

- Key competences have been incorporated to the curriculum of basic education in the 2006 Education Act. Consequently, a new scheme for assessment has been developed.

This diversity of origins and contexts has produced a wide heterogeneity of uses of the term 'competence'. In current public debates on education the term is frequently used in very different, sometimes confusing ways.

2. Criticisms and debates

As a result of this situation some debates have started, raising some criticisms on the new concept.

- One main discussion relates to the novelty of the underlying concept. Some contradictory positions have been adopted:

  - **o** Competences are just more of the same; they represent an update of ancient taxonomies.

  - **o** Competences are just a new vocabulary without a real impact for changing school curricula; teachers have always addressed these kinds of skills.

  - **o** Competences do focus teaching and learning on application and contextualization (as situated learning), which poses the challenge of translating them into teaching methodology and assessment.

- A common criticism rests on its alleged attachment to a labour market perspective.

- Some arguments can be opposed to that idea:
    - It is due to the impact of its use in VET and partially in higher education.
    - A distinction between specific and general competences should be made.
    - Some competences related to citizenship should be considered.

3. Influences on Latin America

- There are echoes of this situation, as it happens for instance with the Bologna process.
- Some steps forward have been taken in some countries – like Mexico – but less coherent than in the European Union.
- Education in LA was characterised by intense curricular reforms in the 90s, but much less emphasis is currently put on them.

PANEL DISCUSSION

PUTTING THE VIEWS TOGETHER – A CURRICULUM FOR ALL LEARNERS

"Policy transfer internationally for ideas about learning outcomes and NQF"

Contribution from Kenneth King, University of Edinburgh & NORRAG

In South Africa, there has been good analysis of the challenge of importing learning outcomes approaches into resource-poor countries. In particular there has been a concern with the difficulty of implementing such approaches in schools with very poor teachers.

In China by contrast, which has become 'the factory of the world' over the last 10-15 years, and where the aspiration of provincial governments has been for up to 50% of young people to enter vocational secondary school, and high proportions to find work after school, it has been less clear why they should change their vocational training systems. If it works, why to fix it?

Nevertheless, in China there is some evidence of influence from Australia in respect of competency-based training (CBT). In particular there appears to have been claims of influence by the Australia-China Vocational Education and Training Project in Chongqing, 2002-2007. That project's completion report makes very bold claims about the role of a national industry coordinating the association being set up with the Ministry of Education, as the first formal mechanism in Chinese VET history. The project claims also to have developed the first set of VET teacher standards for secondary VET schools to be endorsed by the Ministry and to be replicated nationwide.

Now 10 years later, World Bank colleagues tell me that three provinces, Guangdong, Shandong and Liaoning, all aspire to introduce CBT. Australia is the model these provinces were introduced to; and it is reported that the introduction came from Chongqing with an Australian Aid (AusAID) project. Apparently, the intention is to promote in these provinces, demand-driven approaches. But there are still many difficulties in implementation. For one thing enterprises are not willing to participate in TVET, parents are not keen on vocational schooling, and the curriculum needs renewal. It will be important to follow what develops from these small beginnings.

Still in the Asian region, we should note that a recent manual from the Asian Development Bank (ADB) has commented as follows: 'Virtually all ADB projects have provided for the development of competency-based curricula, but sometimes without sufficient analysis of its feasibility. Good examples are the recent projects for Bangladesh and Maldives. The difficulty of establishing NQFs and CBTs is typically underestimated' (ADB, 2009: 56).

India, on the other hand, presents a very different situation from China in terms of formal VET education and training, and of the wider character of the labour market; and yet its plans to introduce a national vocational qualification framework appear to be going ahead at speed. In such a vast country, the government's own figures point to the formal sector of the economy being only 26 million, while the informal, unorganised sector has 433 million. The current state of formal skills development is that just some 2% of 19-25 year-olds have access to formal skills training. In this situation, the government's plans are to secure that training of no less than 500 million people by 2022, and to profit from what is called the 'demographic dividend' of its having a larger proportion of young people than countries such as China, not to mention the OECD countries. Its hope is that India can eventually profit from training for export and thus help meet the shortage of almost 50 million skilled people world-wide.

India's 11th Plan for 2007-2012 mentions the intention to establish a national qualification framework. Equally, its National Skills Development Policy (NSDP) (2009) has talked of the benefits to government, employers, VET providers and students. Currently there is talk about the importance of a nationwide awareness campaign to inform about the benefits of NQF and of the opportunities it will provide for individuals, organisations, industries, and for economic growth.

The sheer challenges involved in profiting from the NVQF where the informal sector and informal sector apprenticeship are so widespread are almost certainly being underestimated. Thus it may be easy to say that the mode of informal apprenticeship and learning will be recognised and accommodated in the NVQF to help in horizontal and vertical mobility; but it will be massively demanding to put this into practice. Similarly if the unorganised sector includes own account workers, apprentices, unpaid family workers, casual, home-based workers, migrant labourers, schooled youth, drop-outs, farmers and artisans in rural areas, then the challenge of covering these constituencies is vastly ambitious. It is one thing to assert that arrangements will be made for the testing and certification of skills acquired in non-formal and informal settings, and to claim that these can be integrated with the NVQF, but implementation will be something very different.

Again, the aspiration to learn from so-called successful models in designing skills development strategies and programmes for the unorganised sector; the reality is that there is very little relevant experience from which policy learning may draw. It is simple to say that competency standards and certification systems will be developed for unorganised sector work and will be incorporated in the national testing and certification systems. But none of the countries which have introduced the NQF have sought to cover such a vast and heterogeneous constituency.

These few examples, mainly from China and India, underline the prime importance of TVET experts, analysts and consultants taking great care and responsibility when offering advice and relevant experience to countries with very different mixes of formal and informal skills development. There is a clear need for all such to act as 'honest brokers' in the analysis of relevant

experience. Finally, there is a crucial need to emphasise that policy transfer is very different from policy learning.[1]The latter requires a very active and long-term engagement with a learning process in country. It is the very opposite of the 'quick fix' or the 'silver bullet'.

References

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Government of India. Planning Commission. 2008. Eleventh Five-year Plan. Planning Commission, New Delhi.

Government of India, 2009. National Skills development Policy, New Delhi.

NORRAG, 2009. Policy transfer or policy learning: interactions between international and national skills development approaches for policy making, NORRAG, IHEID, Geneva. Accessible at:

http://www.norrag.org/resources/publications

[1] See the international workshop on policy transfer and policy learning (NORRAG 2009)

Papers

In the links below, you may find papers related to the thematic focus of the workshop as well as brief notes on national developments of outcome-oriented curriculum reforms collected by the participants.

Background material

National Developments and Key messages

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Background Material

Innovative learning environments - OECD

Key Principles for Promoting Quality in Inclusive Education

Creativity in adult education

Tranformative Learning through Aesthetic Experience: Towards a Comprehensive Methodology

Impact of design of qualifications to the comparability of sectoral qualifications between countries

Adding a design perspective to study learning environments in higher professional education

Practice as the basis of knowledge

The Dynamics of Curriculum Design and Development: Scenarios for Curriculum Evolution

Las Competencias Básicas Desde La Perspectiva De La L.O.E.

The implementation and impact of National Qualifications Frameworks: Report of a study in 16 countries

Alternative Educational Futures for a Knowledge Society

Key Competences for Lifelong Learning - European Reference Framework

Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning

OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes

The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training for the period 2011-2020

Bridging knowledge with skills and competences in school curricula: evidence from policies and practices in nine European countries

Empowering teachers to focus on the learner: The role of learning outcomes in curricula

Educating Secondary Education Teachers in Bulgaria: Meeting European Standards and Challenges

What learning outcome based curricula imply for teachers and trainers

School Curriculum Reform and Mentalities in Transition: Looking into the Bulgarian Case

Innovation in school curriculum: the shift to learning outcomes

The changing role of Bulgarian teachers in secondary education

Training Teachers in Bulgaria: Changing Learning Paradigms

Methodological approaches to test the EQF descriptors on qualifications and curricula: Experiences drawn from LdV pilot projects

Interregional discussions around a conceptualisation of an inclusive curriculum in light
of the 48th International Conference on Education

Public Foundation for the Equal Opportunities of Persons with Diasabilities
"Dobbantó" ("Springboard") programme - Hungary

OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes

Conceptual basis for debates

The job description, competency framework, training framework model in initial vocational training: an unsatisfactory curriculum model

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National Developments and Key messages

Country: Finland
Contributor: Sirkka-Liisa Kärki

Country: Greece
Contributor: Lia Marinakou

Country: Slovenia
Contributor: Klara Skubic Ermenc

Country: The Netherlands
Contributor: Dr. Ilya Zitter

Country: .Romania
Contributor: Zoica Elena Vladut

Country: UK
Contributor: CEI at the University of Warwick

Country: IRELAND
Contributor: Siobhan Magee

Country: Italy
Contributor: Manuela Bonacci

Country: Lithuania
Contributor: Vidmantas Tūtlys

Key messages in relation to inclusive and special needs education: A comparative point of view in European countries
Contributor: Amanda Watkins

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Practical information

Workshop Organisers

Cedefop project manager Ms Irene Psifidou

Workshop Secretariat

LDK Consultans

Workshop Venue, Thessaloniki, Greece

More information on the venue and how to get there, the hotel and on Thessaloniki.

Useful information when you are travelling to Thessaloniki

Coming to Thessaloniki in January.

Hotel

Map of the "Region of Thessaloniki" with the hotel marked on it.

Dinner

On Thursday 20 January at 20:00, participants are invited to a dinner organised by Cedefop at: GRADA NUEVO Restaurant (16, Kalapothaki street, Thessaloniki, tel. +30 2310 271074).
To get to the restaurant the participants are welcome to use the MET Hotel shuttle bus that departs from the hotel at 19:45.

Download

Condensed general information for participants by LDK(, 163 KB)
Taxi information and map to drive to Cedefop (,134 KB)

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More information on the venue and how to get there

Workshop Venue

The "2nd International Workshop on Curriculum Innovation and Reform: An Inclusive View to Curriculum Change" will take place on:

Thursday, 20 January 2011 at The MET Hotel
26th October Str., 48, 546 27 Thessaloniki, Greece
tel: +30 2310 017000, + fax: + 30 2310 017100
e-mail: themethotel@chandris.gr, Internet: http:// www.themethotel.gr
and
Friday, 21 January 2011 at Cedefop premises (European Centre for the Development of Vocational Training)
Europe 123, 57001 Thessaloniki (Pylea), Greece
Postal address:
PO Box 22427, Finikas , 55102 Thessaloniki, Greece
Tel. (+30) 2310490111 Fax (+30) 2310490049

Getting to the MET Hotel from the Airport

Please kindly note that there will be no welcome desk at the airport upon your arrival. You are kindly requested to make your own arrangements from the airport to your hotel. It is recommended to take a taxi outside the Arrivals hall of "Macedonia" Airport of Thessaloniki. Taxis take approximately 20 minutes to reach city centre depending on traffic. The tariff ranges from 15€– 20€. Payment should be made in cash.
There is also a bus service operating 24 hours a day that links "Macedonia" Airport of Thessaloniki with the city centre. The bus route for the city centre is No 78 and it takes approximately 40 minutes depending on traffic to reach the terminus. In order to get to the MET hotel from there, you need to change from the terminus of the bus No 78 to the bus No 31 and get off at the 5th bus stop named "Fix". The MET hotel is within a walking distance and is visible from the bus stop. The cost of the ticket is 0.80€ and can be bought at a ticket booth outside the airport with limited opening hours kiosks, or at the ticket machine in the bus (0,90€, small change is needed for that).

Find your way to Cedefop

Cedefop will provide transportation in the morning of the 21st of January from the MET Hotel to Cedefop premises (where the workshop will be continued during the 2nd half day).
If you don't plan to stay at MET hotel, you need to reach Cedefop on your own on the 21st of January for attending the 2nd day of the workshop. Cedefop is easy to access by taxi within maximum 30 minutes from any part of the city, the city's suburbs and about 10 minutes from the airport. A taxi will cost around 20€, depending on the distance. Should you wish to order a radio taxi, please call one of the following numbers: (+30) 2310525000, 2310866866 and make your appointment. In general, taxis are easy to find, at the airport and all over the city; taxis are blue-white and easy to stop in the street. Please don't be surprised if other passengers are picked up along the way to your destination. Due to the low fairs that taxis offer, this is a common practice in Greece.

Secretariat and information desk during the workshop

The secretariat desk will be located at the workshop venue close to the plenary session room, and will operate:
Thursday, 20 January 2011, 8.30 - 17.30, at the MET Hotel
Tel.: (+30) 2310 2310 017000; Fax: (+30) 2310 017100
Friday 21 January 2011, 9.00 - 13.30, at Cedefop
Tel.: (+30) 2310490068; Fax: (+30) 2310490240

Workshop Secretariat is provided by:
LDK Consultants
Off. 21 Thivaidos Str.
P.O Box 51299, 14564 Kifissia, Greece
Tel: (+30) 2108196752 (Workshop line), (+30) 2108196700
Fax: (+30) 2108196759, (+30) 2108196709
e-mail: curriculum-innovation@ldk.gr

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Workshop Hotel

THE MET HOTEL ***** - city centre



The Met Hotel is situated in the new harbour area of Thessaloniki and just 1.8 km away from Aristotelous square, Thessaloniki's city centre (free shuttle service available). The hotel combines an exquisite combination of unique location, modern architecture, and high-end luxury, in the city of Thessaloniki. The Met Hotel's guest rooms feature panoramic city and sea views. Its combination of technology and discreet luxury ensure a relaxed stay. The hotel also offers spa and fully equipped fitness centre. There are 2 stylish restaurants, where guest can discover flavours of International and contemporary Asian cuisine.

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Map of the Hotel

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Thessaloniki

Set on the northern shores of the Thermaikos Gulf that opens into the Aegean Sea, Thessaloniki is approximately 550 kilometres north of Athens and in close proximity to Chalkidiki's beautiful beaches. It is the metropolis of the region of Macedonia, one of Europe's oldest cities and the second largest city in Greece.

Founded in 316 BC by Cassander, King of Macedonia, the city was named after his wife, Thessaloniki, sister of Alexander the Great. It was here that Alexander the Great established the seat of his great Macedonian Empire, imparting a legacy that has left modern Thessaloniki dotted with the treasures, temples and monuments of one of history's greatest leaders.

Thessaloniki has the largest university in Greece, Aristotle University with about 95.000 students, which is one of the most established universities in the academic community in Europe.

The city of Thessaloniki today offers the visitor an exciting experience, as it possesses the second largest and most important port in Greece, the International Fair which attracts commercial interest from all over the world- offers cultural events, theatres, Modern Art galleries, libraries, some of the most exclusive stores in Greece, an immense variety of high standard recreational facilities and examples of modern architecture, art nouveau and eclecticism.

A few of the city's many attractions include the 16th century White Tower, Thessaloniki's many churches, in particular the 4th century Rotonda dedicated to St George, containing mosaics of the period, and the 8th century Agia Sofia, which was converted into a mosque during the Ottoman rule.

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Coming to Thessaloniki in January

People & Life

Thessaloniki is a popular destination. You will certainly enjoy a pleasant and interesting stay in the city. People are friendly and happy to help with any questions. The atmosphere is unique during the day in the commercial and shopping centre, but especially during the evening, in the wide variety of bars, restaurants and theatres for entertainment. Thessaloniki is renowned for its unique location, along the Thermaikos Gulf, its sunsets, its long history, its monuments and museums as well as its distinguished cuisine.

Time

Greece is 2 hours ahead of Greenwich Mean Time (GMT +2) throughout the year.

Language

Greek is the official language but English is widely spoken.

Currency

The Greek currency is EURO. Credit cards are widely used in most establishments. Most currencies and traveller's cheques can easily be changed either at banks, hotels or money-changers with some handling charges.

Weather in January

Thessaloniki lies in the transitional climatic zone, so its climate has displayed characteristics of continental as well as Mediterranean climate. Average temperatures in January range from 11C° to 2 C°.

Power supply

The standard current in Greece is 220 volts. Plugs are European standard with two round pins.

Useful phone numbers

Police*	100
Tourist police station	(+30) 2310554870, (+30) 2310554871
Ambulance*	166
Fire*	199
Emergency phone**	112
Phone book information*	11888

**It refers to a local number and can be used only from a local phone.*
***It refers to a European number. After a recorded message in English and Greek, an operator receives the call in English, French or Greek, puts the caller through to the necessary service, and assists with interpretation, if necessary.*

Links

> Information on Greece as a travel destination: http://www.visitgreece.gr
> Thessaloniki International Airport Macedonia (SKG): www.thessalonikiairport.gr
> Hellenic Culture: www.culture.gr
> Area information on the prefecture of Macedonia: www.ellada.net
> Travel information on Halkidiki: www.halkidikinet.gr
> Weather in Thessaloniki: www.weather.yahoo.com/

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European Centre for the Development of Vocational Training

2nd International Workshop on Curriculum Innovation and Reform

An Inclusive View to Curriculum Change

THE MET Hotel, Thessaloniki, Greece

20 & 21 January 2011

General information

Dates and venue
The "2nd International Workshop on Curriculum Innovation and Reform: An Inclusive View to Curriculum Change" will take place on:

Thursday 20 January 2011 at The MET Hotel
26th October Str., 48, 546 27 Thessaloniki, Greece
tel: +30 2310 017000, + fax: + 30 2310 017100
e-mail: themethotel@chandris.gr, Internet: http:// www.themethotel.gr

and

Friday 21 January 2011 at Cedefop premises (European Centre for the Development of Vocational Training)
Europe 123, 57001 Thessaloniki (Pylea), Greece
Postal address:
PO Box 22427, Finikas , 55102 Thessaloniki, Greece
Tel. (+30) 2310490111 Fax (+30) 2310490049

Cedefop project manager responsible for this event
Ms Irene Psifidou, rena.psifidou@cedefop.europa.eu

Secretariat and information desk during the workshop
The secretariat desk will be located at the workshop venue close to the plenary session room, and will operate:

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Working language
The working language of the workshop will be English, no interpretation will be offered to/from any other languages.

Workshop Registration

Registration to the workshop is made by duly completing the online registration form or the pdf/word download to be sent by fax or e-mail to LDK Consultants: +30 210 8196709, 759, curriculum-innovation@ldk.gr, as soon as possible, but **no later than 10 January 2011**.

A confirmation will be sent to every registered delegate in due time.

Participation to this workshop is strictly by invitation only as the number of places is restricted.

Registered participants will receive the workshop material on their arrival. They will be eligible for one dinner, buffet lunch and three coffee breaks offered by Cedefop.

Accompanying persons
Accompanying persons are welcome to participate at their own expenses. To register (an) accompanying person(s), please complete the relevant sections of your registration form.

Hotel accommodation

Hotel reservation procedure

Hotel rooms have been pre booked for you at the hotel where the workshop will take place, THE MET Hotel: http://www.themethotel.gr

To confirm your reservation at THE MET Hotel, please complete the relevant section of the attached registration form. We kindly advise you to register as soon as possible and **no later than 10 January 2011.**

Should you wish to stay in another hotel, please make your own arrangements and indicate this in the registration form.

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Social Programme

Dinner offered by Cedefop

Thursday, 20 January 2011, 20:00

On Thursday evening, participants are invited to a dinner organised by Cedefop at: GRADA NUEVO Restaurant (16, Kalapothaki street, Thessaloniki, tel. +30 2310 271074).

To get to the restaurant the participants are welcome to use the MET Hotel shuttle bus that departs from the hotel at 19:45.

Organised transportation of the participants

Cedefop will provide transportation in the morning of the 21st of January from the MET Hotel to Cedefop premises (where the workshop will be continued during the 2nd half day) and from Cedefop premises to "Macedonia" Airport of Thessaloniki or back to the MET hotel.

Useful information just before you arrive

Getting to Your Hotel from the Airport
Please kindly note that there will be no welcome desk at the airport upon your arrival. You are kindly requested to make your own arrangements from the airport to your hotel.

It is recommended to take a taxi outside the Arrivals hall of "Macedonia" Airport of Thessaloniki. Taxis take approximately 20 minutes to reach city centre depending on traffic. The tariff ranges from 15€– 20€. Payment should be made in cash.

There is also a bus service operating 24 hours a day that links "Macedonia" Airport of Thessaloniki with the city centre. The bus route for the city centre is No 78 and it takes approximately 40 minutes depending on traffic to reach the terminus. In order to get to the MET hotel from there, you need to change from the terminus of the bus No 78 to the bus No 31 and get off at the 5th bus stop named "Fix". The MET hotel is visible from the bus stop and within a walking distance.

The bus ticket can be bought at a ticket booth outside the Airport, or at the ticket machine in the bus (small change is needed for that). The ticket price is 0.60€.

"MACEDONIA" Airport (http://www.thessalonikiairport.gr/**)**
The Airport is located 13 Km east from the city of Thessaloniki in the region "Micra" and in the Thermi Municipality.

Companies with direct flights at Thessaloniki's airport are:

- *Aegean Airlines (http://www.aegeanair.com)*
- *Air Berlin (http://www.airberlin.com)*
- *Alitalia (http://www.alitalia.it)*
- *Austrian Airlines (http://www.aua.com)*
- *British Airlines (http://www.britishairways.com)*
- *Blue Air (http://www.blueair-web.com)*
- *Condor (http://www.condor.com)*
- *Cyprus Airlines (http://www.cyprusairlines.com)*
- *Czech Airlines CSA (http://www.csa.cz)*
- *Easy Jet (http://www.easyjet.com)*
- *Germanwings (http://www.germanwings.com)*
- *Hamburg International (http://www.hamburg-international.de)*
- *JetairFly (http://www.jetairfly.com)*
- *LOT (http://www.lot.com)*
- *Lufthansa (http://www.lufthansa.com)*
- *Malév Hungarian Airline (http://www.malev.hu)*
- *Olympic Airlines (http://www.olympicair.com)*
- *Swiss (http://www.swiss.com)*
- *Tarom (http://www.tarom.ro)*
- *TUIfly (http://www.tuifly.com)*

Find your way to Cedefop
If you don't plan to stay at MET hotel, you need to reach Cedefop on your own on the 21st of January for attending the 2nd day of the workshop. Cedefop is easy to access by taxi within maximum 30 minutes from any part of the city, the city's suburbs and about 10 minutes from the airport. A taxi will cost around 20€, depending on the distance. Should you wish to order a radio taxi, please call one of the following numbers: (+30) 2310525000, 2310866866 and make your appointment. In general, taxis are easy to find, at the airport and all over the city; taxis are blue-white and easy to stop in the street. Please don't be surprised if other passengers are picked up

along the way to your destination. Due to the low fairs that taxis offer, this is a common practice in Greece.

Time
Greece is 2 hours ahead of Greenwich Mean Time (GMT +2) throughout the year.

Language
Greek is the official language but English is widely spoken.

Currency
The Greek currency is EURO. Credit cards are widely used in most establishments. Most currencies and traveller's cheques can easily be changed either at banks, hotels or moneychangers with some handling charges.

Weather in January
Thessaloniki lies in the transitional climatic zone, so its climate has displayed characteristics of continental as well as Mediterranean climate. Average temperatures in February range from 11C° to 2 C°.

Power supply
The standard current in Greece is 220 volts. Plugs are European standard with two round pins.

People & Life
Thessaloniki is a popular destination. You will certainly enjoy a pleasant and interesting stay in the city. People are friendly and happy to help with any questions. The atmosphere is unique during the day in the commercial and shopping centre, but especially during the evening, in the wide variety of bars, restaurants and theatres for entertainment.

Thessaloniki

Set on the northern shores of the Thermaikos Gulf that opens into the Aegean Sea, Thessaloniki is approximately 550 kilometres north of Athens and in close proximity to Chalkidiki's beautiful beaches. It is one of Europe's oldest cities and the second largest city in Greece.

Founded in 316 BC by Cassander, King of Macedonia, the city was named after his wife, Thessaloniki, sister of Alexander the Great. It was here that Alexander the Great established the seat of his great Macedonian Empire, imparting a legacy that has left modern Thessaloniki dotted with the treasures, temples and monuments of one of history's greatest leaders.

Thessaloniki has the largest university in Greece, Aristotle University with about 95.000 students, which is one of the most established universities in the academic community in Europe.

The city of Thessaloniki today offers the visitor an exciting experience, as it possesses the second largest and most important port in Greece, the International Fair which attracts commercial interest from all over the world, offers cultural events, theatres, modern art galleries, libraries, some of the most exclusive stores in Greece, an immense variety of high standard recreational facilities and examples of modern architecture, art nouveau and eclecticism.

A few of the city's many attractions include the 16th century White Tower, many churches among which the Rotunda - a Roman monument converted into a church in the 4th century where one can admire beautiful mosaics - and the 8th century Agia Sofia which was converted into a mosque during Ottoman rule.

What to see

Thessaloniki is host to an impressive array of museums, cultural organizations, archaeological sites and monuments. A list includes:

MONUMENTS & CHURCHES

- Agia Ekaterini church
- Agia Sofia church (Agias Sofias street)
- Agii Apostoli church
- Agios Demetrios church
- Agios Nikolaos Orfanos
- The Ahiropiitos
- The Arch of Galerius (Kamara)
- The Crypt (Agios Demetrios church)
- The Old Walls
- Ossios David or the Latomos Monastery (Upper Town)
- The Panagia ton Chalkeon church
- Profitis Elias
- The Rotonda (D. Gounari str)
- Vlatadon Monastery (Upper Town)
- The White Tower (seafront avenue)

MUSEUMS & GALLERIES

- Thessaloniki Archaeological Museum (http://www.macedonianmuseums.gr)
- The Museum of Byzantine Culture (http://www.mbp.gr)
- State Museum of Contemporary Art, Thessaloniki (http://www.greekstatemuseum.com)
- State Gallery of Art (http://www.mutualart.com)
- Thessaloniki Museum of Photography (http://www.thmphoto.gr)
- Museum of Cinematography in Thessaloniki (http://www.cinemuseum.gr)
- Thessaloniki Technology Park (http://www.thestep.gr)
- Folk Art and Ethnological Museum of Macedonia and Thrace (http://www.lemmth.gr)
- Directory of museums beyond Thessaloniki (http://odysseus.culture.gr)

What and where to eat

For a morning or late-night snack, try bougatsa pies with cream (sweet) or cheese (savory) filling.

Meat eaters can try out soutzoukakia: minced meat pellets either grilled (at the central market or rotisseries) or in tomato and cumin sauce.

Go for a meal in one of the many downtown ouzo restaurants (ouzeri) and accompany your drink with lots of small dishes - by far the best way to eat in Thessaloniki.

The areas that concentrate most of the city's well-known restaurants are:

- Navarinou Square
- Athonos Square (between the Church of Aghia Sophia, or Church of the Holy Wisdom, and Aristotelous Square)
- Ladadika area
- Ano Poli (on the hill where you see the remains of the castle, visible from the White Tower)

For something quicker, you can taste the special crepes from many different places at Gounari Street, next to Navarinou Square. Also "Goody's" is the Greek fast food restaurant chain. You will find here classic hamburgers, pasta, salads, etc.

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Useful web sites

Greece as a travel destination

http://www.visitgreece.gr

Thessaloniki
http://www.saloniki.org
http://www.thessalonikicity.gr

Weather in Thessaloniki
http://weather.yahoo.com

Useful phones

Police*	100
Tourist police station	(+30) 2310554870, (+30) 2310554871
Ambulance*	166
Fire*	199
Emergency phone**	112
Phone book information*	11888

* *It refers to a local number and can be used only from a local phone.*

** *It refers to a European number. After a recorded message in English and Greek, an operator receives the call in English, French or Greek, puts the caller through to the necessary service, and assists with interpretation, if necessary.*

Event secretariat

For any further organisational information please contact the event secretariat at:

LDK Consultants Engineers and Planners
Off. 21 Thivaidos Str.
P.O. Box 51299, 14564 Kifissia, Greece
Tel: (+30) 2108196752 (Event Secretariat line), (+30) 2108196700
Fax: (+30) 2108196759, (+30) 2108196709
e-mail: curriculum-innovation@ldk.gr

Please ask for: **Mr. John Panayiotopoulos, Project Manager**
Ms. Athina Ignatieva, Project Coordinator

In the event that you need any help or assistance before or during the workshop please do not hesitate to communicate with us at the mobile phones:

+30 6956331052 - Ms. Athina Ignatieva

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We look forward to welcoming you at the workshop!

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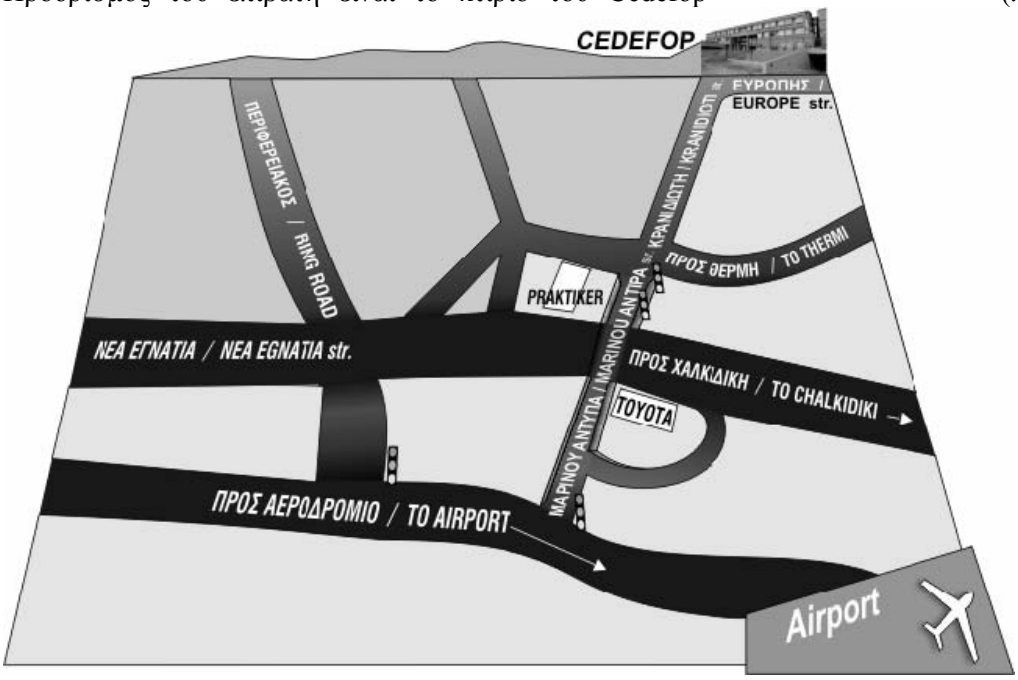
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Standard minimum fare	3.10
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For journeys outside the taxi's operating area or between the hours of 24.00-05.00 (double tariff)	1.16/KM
Surcharge for every one (1) hour of waiting	10.65
Surcharge: **TO** and **FROM "**Macedonia" Thessaloniki airport	3.10
FROM railway, port and intercity coach terminals (KTEL)	1.05
Luggage surcharge for each piece of luggage weighing over 10kg	0.38
Taxis on-call: Standard surcharge:	1.88
Surcharge for pre-booking	3.33

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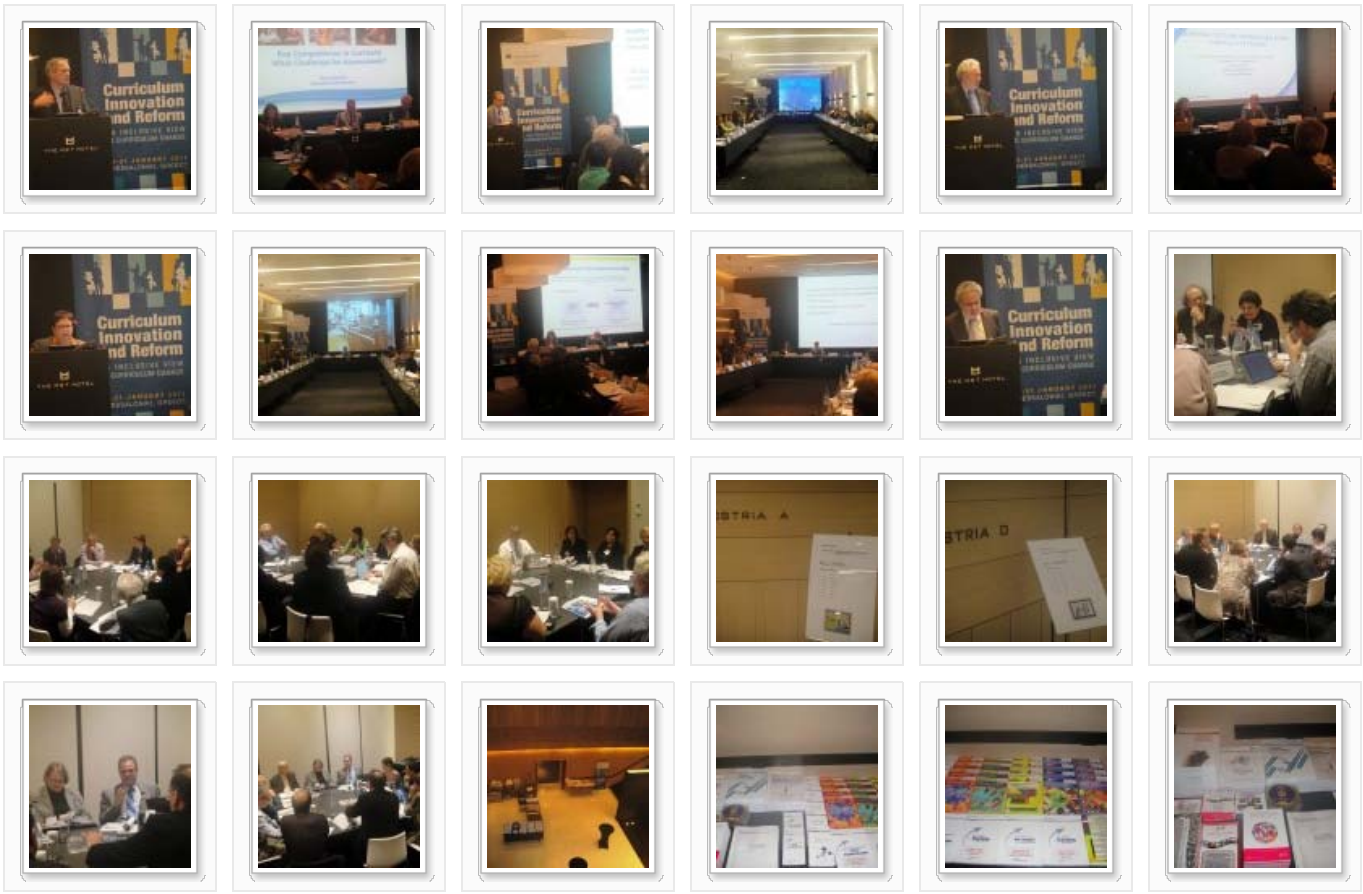
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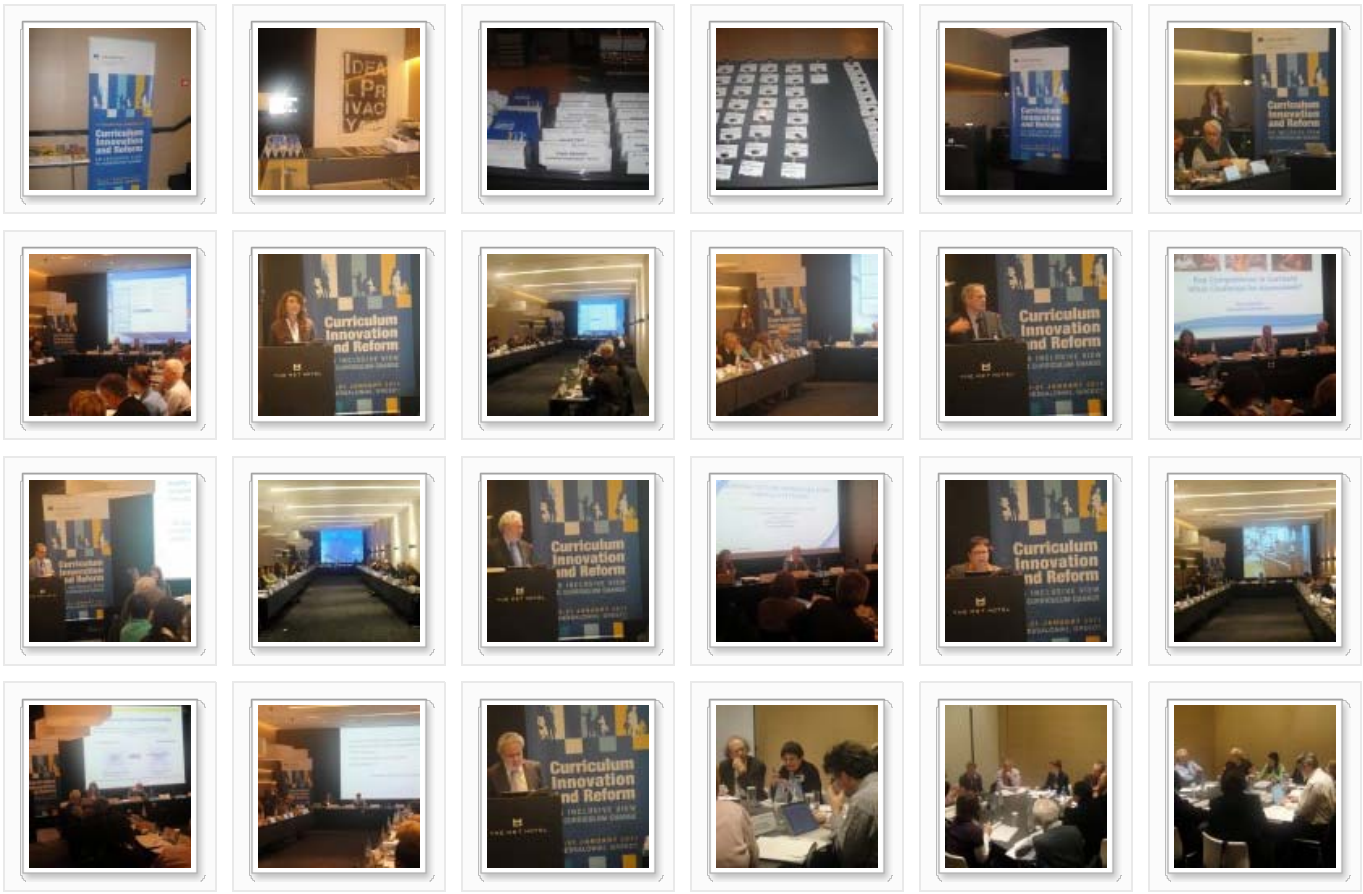
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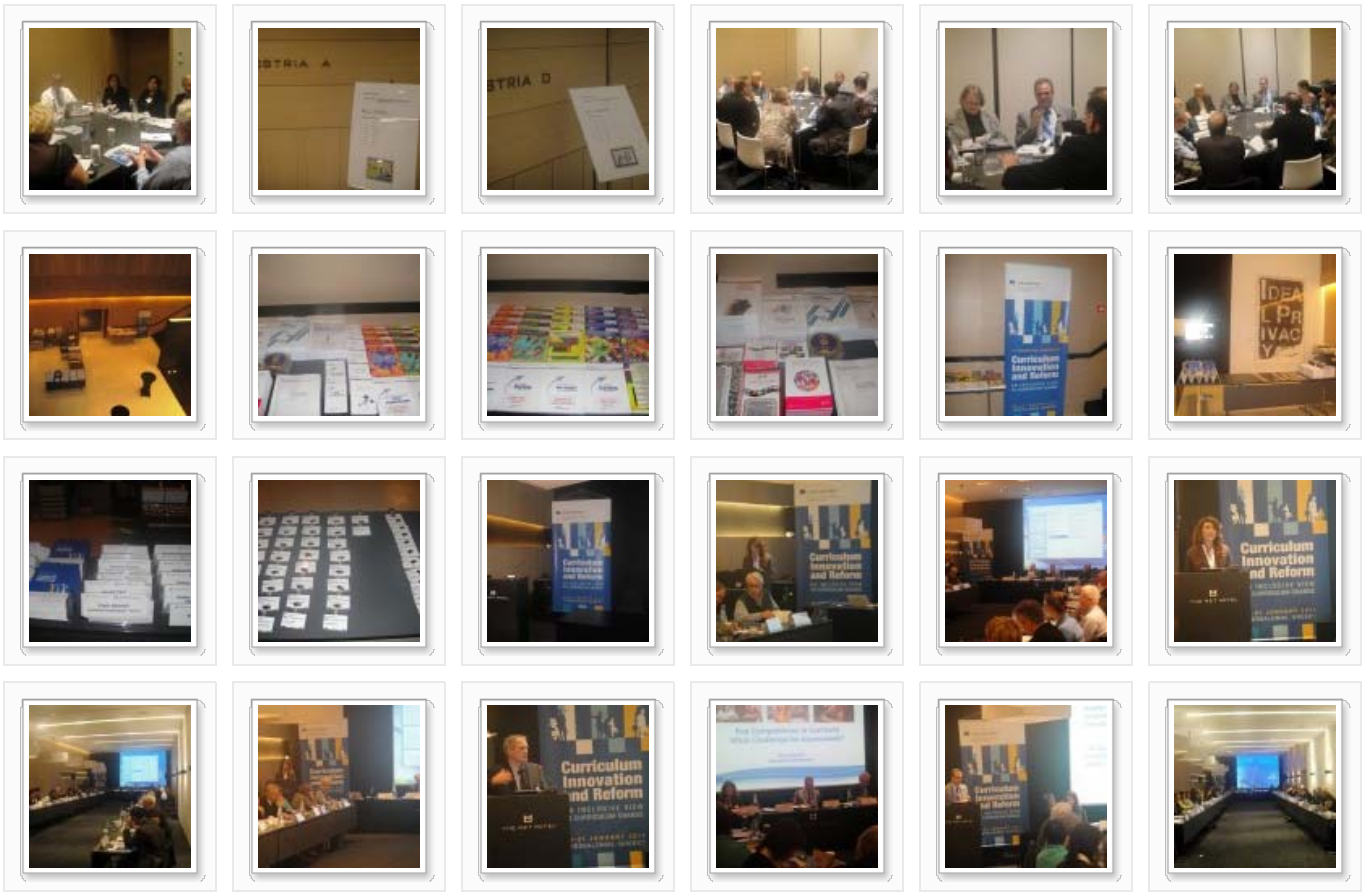
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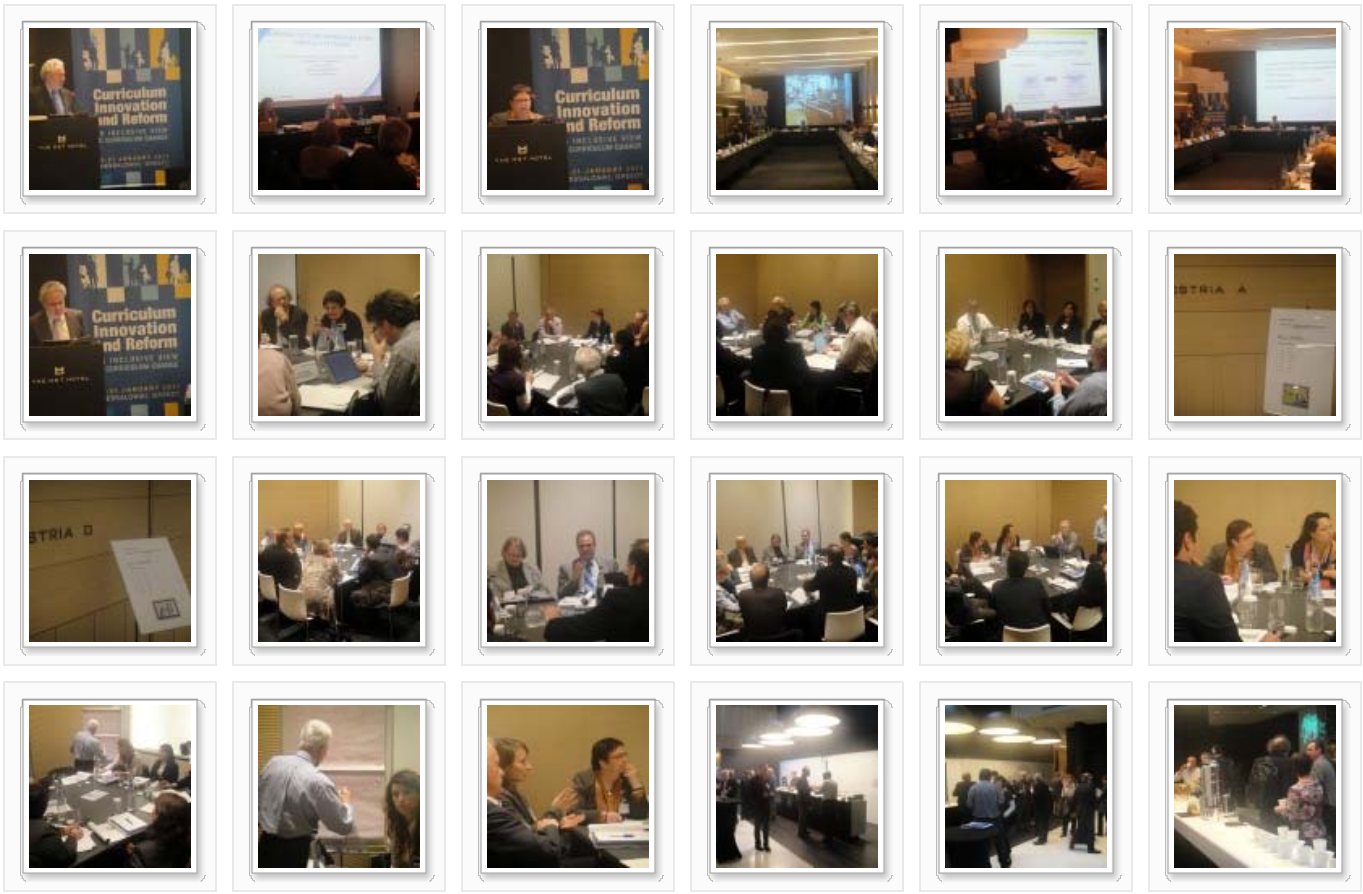
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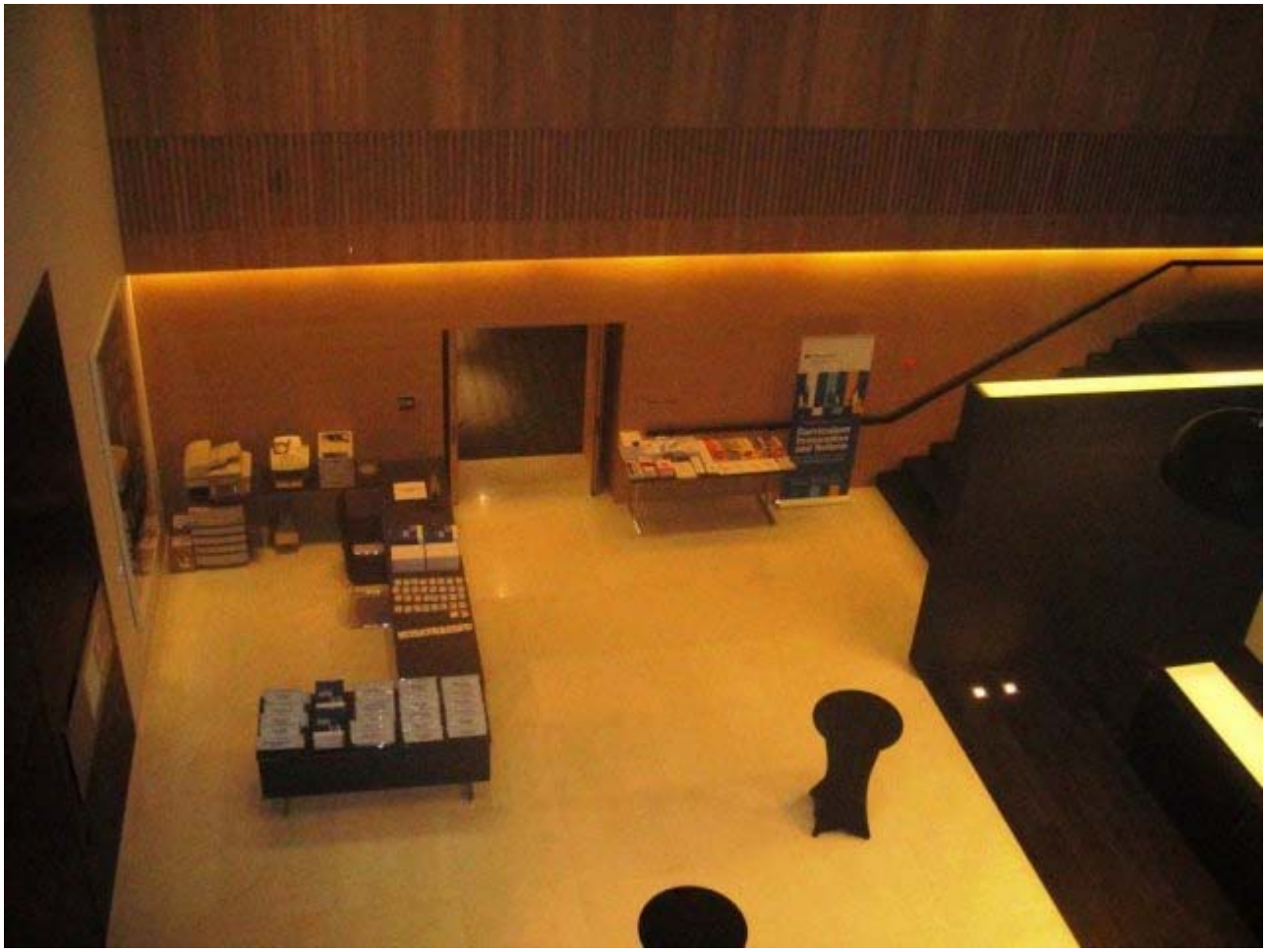




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Background Material



Innovative learning environments - OECD

Key Principles for Promoting Quality in Inclusive Education

Creativity in adult education

Tranformative Learning through Aesthetic Experience: Towards a Comprehensive Methodology

Impact of design of qualifications to the comparability of sectoral qualifications between countries

Adding a design perspective to study learning environments in higher professional education

Practice as the basis of knowledge

The Dynamics of Curriculum Design and Development: Scenarios for Curriculum Evolution

Las Competencias Básicas Desde La Perspectiva De La L.O.E.

The implementation and impact of National Qualifications Frameworks: Report of a study in 16 countries

Alternative Educational Futures for a Knowledge Society

Key Competences for Lifelong Learning - European Reference Framework

Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning

OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes

The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training for the period 2011-2020

Bridging knowledge with skills and competences in school curricula: evidence from policies and practices in nine European countries

Empowering teachers to focus on the learner: The role of learning outcomes in curricula

Educating Secondary Education Teachers in Bulgaria: Meeting European Standards and Challenges

What learning outcome based curricula imply for teachers and trainers

School Curriculum Reform and Mentalities in Transition: Looking into the Bulgarian Case

Innovation in school curriculum: the shift to learning outcomes

The changing role of Bulgarian teachers in secondary education

Training Teachers in Bulgaria: Changing Learning Paradigms

Methodological approaches to test the EQF descriptors on qualifications and curricula: Experiences drawn from LdV pilot projects

Interregional discussions around a conceptualisation of an inclusive curriculum in light of the 48th International Conference on Education

Public Foundation for the Equal Opportunities of Persons with Diasabilities
"Dobbantó" ("Springboard") programme - Hungary

OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes

Conceptual basis for debates

The job description, competency framework, training framework model in initial vocational training: an unsatisfactory curriculum model

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Executive summary

Why such interest in learning?

Over recent years, learning has moved increasingly centre stage for a range of powerful reasons that resonate politically as well as educationally across many countries, as outlined by Dumont and Istance (Chapter 1). These define the aims of this important volume from the work on Innovative Learning Environments produced by OECD's Centre for Educational Research and Innovation (CERI).

OECD societies and economies have experienced **a profound transformation from reliance on an industrial to a knowledge base**. Global drivers increasingly bring to the fore what some call "21st century competences". The quantity and quality of learning thus become central, with the accompanying concern that traditional educational approaches are insufficient.

Similar factors help to explain the **strong focus on measuring learning outcomes** (including the Programme for International Student Assessment [PISA]) over the past couple of decades, which in turn generates still greater attention on learning. To move beyond the diagnosis of achievement levels and shortcomings to desirable change then needs a deeper understanding of how people learn most effectively.

The rapid development and ubiquity of ICT are re-setting the boundaries of educational possibilities. Yet, significant investments in digital resources have not revolutionised learning environments; to understand how they might requires attention to the nature of learning.

The sense of reaching the limits of educational reform invites a fresh focus on learning itself: education has been reformed and reformed again in most OECD countries, leading many to wonder whether we need new ways to influence the very interface of learning and teaching.

The research base on learning has grown enormously but many researchers observe how inadequately schools tend to exemplify the conclusions of the learning sciences. At the same time, far too much research on learning is disconnected from the realities of educational practice and policy making. Can the bridges be made to inform practice by this growing evidence base?

The coverage of *The Nature of Learning*

This volume aims to help build the bridges, "using research to inspire practice". Leading researchers from Europe and North America were invited to take different perspectives on learning, summarising large bodies of research and identifying their significance for the design of learning environments, in such a way as to be relevant to educational leaders and policy makers.

The early chapters address the nature of learning, including through the cognitive, emotional and biological perspectives. The contributions that follow review approaches and evidence for different types of application: formative assessment, co-operative and inquiry-based forms of learning, technology-based applications – as well as learning beyond classroom environments in communities and families. The penultimate chapter considers strategies to refocus educational organisations with their in-built resistance to innovation and change.

The chapters do not offer exhaustive coverage of all the relevant research findings but together they provide a powerful knowledge base for the design of learning environments for the 21st century. As summarised by De Corte (Chapter 2), many scholars now agree on the key importance for organisations and policy to develop in learners "adaptive expertise" or "adaptive competence", *i.e.* the ability to apply meaningfully-learned knowledge and skills flexibly and creatively in different situations.

Transversal conclusions on learning

The transversal conclusions, recasting the evidence reviewed in the different chapters more holistically, are synthesised by Istance and Dumont in the final chapter together with discussion of the challenge posed by their implementation. The conclusions are presented below with a small selection of the key arguments made by the different authors.

> The learning environment recognises the learners as its core participants, encourages their active engagement and develops in them an understanding of their own activity as learners.

The learning environment recognises that the learners in them are the core participants. A learning environment oriented around the centrality of learning encourages students to become "self-regulated learners". This means developing the "meta-cognitive skills" for learners to monitor, evaluate and optimise their acquisition and use of knowledge (De Corte, Chapter 2; Schneider and Stern, Chapter 3). It also means to be able to regulate one's emotions and motivations during the learning process (Boekaerts, Chapter 4; Hinton and Fischer, Chapter 5).

Wiliam (Chapter 6) notes that many have called for a shift in the role of the teacher from the "sage on the stage" to the "guide on the side." He warns against this characterisation if it is interpreted as relieving the teacher, individually and collectively, of responsibility for the learning that takes place.

Resnick, Spillane, Goldman and Rangel (Chapter 12) identify as critical the gap between the "technical core" (*i.e.* classroom teaching) and the formal organisation in which it is located and the wider policy environment, a gap which reduces learning effectiveness and innovative capacity.

> The learning environment is founded on the social nature of learning and actively encourages well-organised co-operative learning.

"Effective learning is not purely a 'solo' activity but essentially a 'distributed' one: individual knowledge construction occurs throughout processes of interaction, negotiation and co-operation" (De Corte, Chapter 2). Neuroscience shows that the human brain is primed for interaction (Hinton and Fischer, Chapter 5). However valuable that self-study and personal discovery may be, learning depends on interacting with others.

There are robust measured effects of co-operative forms of classroom learning when it is done properly as described by Slavin (Chapter 7). Despite this, such approaches still remain on the margins of much school activity. The ability to co-operate and learn together should be fostered as a "21st century competence", quite apart from its demonstrated impact on measured learning outcomes.

> The learning professionals within the learning environment are highly attuned to the learners' motivations and the key role of emotions in achievement.

The emotional and cognitive dimensions of learning are inextricably entwined. It is therefore important to understand not just learners' cognitive development but their motivations and emotional characteristics as well. Yet, attention to learner beliefs and motivations is much further away from standard educational thinking than goals framed in terms of cognitive development (Boekaerts, Chapter 4).

Being highly attuned to learners' motivations and the key role of emotions is not an exhortation to be "nice" – misplaced encouragement will anyway do more harm than good – but is first and foremost about making learning more effective, not more enjoyable.

Powerful reasons for the success of many approaches using technology (Mayer, Chapter 8), co-operative learning (Slavin, Chapter 7), inquiry-based learning (Barron and Darling-Hammond, Chapter 9) and service learning (Furco, Chapter 10) lie in their capacity to motivate and engage learners.

The learning environment is acutely sensitive to the individual differences among the learners in it, including their prior knowledge.

Students differ in many ways fundamental to learning: prior knowledge, ability, conceptions of learning, learning styles and strategies, interest, motivation, self-efficacy beliefs and emotion, as well in socio-environmental terms such as linguistic, cultural and social background. A fundamental challenge is to manage such differences, while at the same time ensuring that young people learn together within a shared education and culture.

Prior knowledge is one of the most important resources on which to build current learning as well as one of the most marked individual difference among learners: "…perhaps the single most important individual differences dimension concerns the prior knowledge of the learner" (Mayer, Chapter 8). Understanding these differences is an integral element of understanding the strengths and limitations of individuals and groups of learners, as well as the motivations that so shape the learning process.

"Families serve as the major conduit by which young children acquire fundamental cognitive and social skills" (Schneider, Keesler and Morlock, Chapter 11), meaning that prior knowledge is critically dependent on the family and background sources of learning and not only what the school or learning environment has sought to impart.

The learning environment devises programmes that demand hard work and challenge from all without excessive overload.

That learning environments are more effective when they are sensitive to individual differences stems also from the findings stressed by several authors that each learner needs to be sufficiently challenged to reach just above their existing level and capacity. The corollary is that no-one should be allowed to coast for any significant amounts of time on work that does not stretch them.

Learning environments should demand hard work and effort from all involved. But the findings reported in this volume also show that overload and de-motivating regimes based on excessive pressure do not work because they do not make for effective learning. For Schneider and Stern (Chapter 3), a fundamental cornerstone is that "learning is constrained by capacity limitations of the human information-processing architecture" (also stressed by Mayer, Chapter 8).

The learning environment operates with clarity of expectations and deploys assessment strategies consistent with these expectations; there is strong emphasis on formative feedback to support learning.

Assessment is critical for learning. "The nature of assessments defines the cognitive demands of the work students are asked to undertake" (Barron and Darling-Hammond, Chapter 9). It provides "the bridge between teaching and learning" (Wiliam, Chapter 6). When assessment is authentic and in line with educational goals it is a powerful tool in support of learning; otherwise it can be a serious distraction.

Formative assessment is a central feature of the learning environment of the 21st century. Learners need substantial, regular and meaningful feedback; teachers need it in order to understand who is learning and how to orchestrate the learning process.

The research shows strong links between formative assessment practices and successful student learning. Such approaches need to be integrated into classroom practice to have such benefits (Wiliam, Chapter 6).

The learning environment strongly promotes "horizontal connectedness" across areas of knowledge and subjects as well as to the community and the wider world.

Complex knowledge structures are built up by organising more basic pieces of knowledge in a hierarchical way; discrete objects of learning need to be integrated into larger frameworks, understandings and concepts. (Schneider and Stern, Chapter 3).

The connectedness that comes through developing the larger frameworks so that knowledge can be transferred and used across different contexts and to address unfamiliar problems is one of the defining features of the 21st century competences. Learners are often poor at transferring understanding of the same idea or relationship in one domain to another.

Meaningful real-life problems have a key role to play in bolstering the relevance of the learning being undertaken, supporting both engagement and motivation. Inquiry- and community-based approaches to learning offer extensive examples of how this can be done (Barron and Darling-Hammond, Chapter 9; Furco, Chapter 10). An effective learning environment will at the least not be at odds with the influences and expectations from home; better still, it will work in tandem with them (Schneider, Keesler and Morlock, Chapter 11).

A demanding educational agenda

The force and relevance of these transversal conclusions or "principles" do not reside in each one taken in isolation from the others. Instead, they provide a demanding framework and all should be present in a learning environment for it to be judged truly effective. The educational agenda they define may be characterised as:

- **Learner-centred**: the environment needs to be highly focused on learning as the principal activity, not as an alternative to the critical role of teachers and learning professionals but dependent on them.
- **Structured and well-designed:** to be "learner-centred" requires careful design and high levels of professionalism. This still leaves ample room for inquiry and autonomous learning.
- **Profoundly personalised**: the learning environment is acutely sensitive to individual and group differences in background, prior knowledge, motivation and abilities, and offers tailored and detailed feedback.
- **Inclusive:** sensitivity to individual and group differences, including of the weakest learners, defines an educational agenda that is fundamentally inclusive.
- **Social:** The principles assume that learning is effective when it takes place in group settings, when learners collaborate as an explicit part of the learning environment and when there is a connection to community.

The final discussion of the volume addresses the challenge of implementation. While many suggestions for change relate to teacher skills and professional development, the implications extend deeply into the "routines" of schools (Resnick, Spillane, Goldman and Rangel, Chapter 12), raising the importance but also the difficulty of sustained innovation.

ANNEX No. 1

Centralization and unification of the approaches in design of qualifications and their implications to the inter-country comparability of qualifications

Ratio of unification and diversification in designing of qualifications Modes of regulation and initiatives in design of qualifications	Nationally unified process of designing, structure and contents of qualificatons (strict unification in applied methodology, approaches, procedures, legal basis, functions and rights of stakeholders).	Sectors apply their own unified approaches in the methodology, procedures, functions of stakeholders leading to unified structure and descriptions of sector‘s qualifications and related differences between sectors.	There is applied wide range of different approaches, methodologies and procedures in designing of qualifications, which are used differently by various institutions and stakeholders involved in the process.
Top-down approach. Initiatives in designing of qualifications come from the government and the whole process of designing of qualifications is centrally regulated by government, prescribing in the laws the roles and responsibilities of institutions and stakeholders.	Design of vocational education and training standards of Lithuania. Strongly centralised and unified approach in designing of standards led by the Ministry of Education and Science and Centre for Development of Qualifications and Vocational Education (former Methodological Centre of Vocational Education and Training) under the Ministry of Education and Science. The standards are prepared and discussed with the participation of the sectoral bodies which provide the information and assess designed standards. The VET standards and descriptors of qualifications strictly and comprehensively	Designing of national qualifications **in France co-ordinated by t**he National Commission for Vocational Qualifications/Certifications “CNCP” and executed by the Consultative Professional Commissions (“Commissions Professionnelles Consultatives - CPC”) established at the level of different ministries and composed of 17 active members representing different stakeholders. The centralization in designing or qualifications is supported by establishing and maintaining a National Repertory for Vocational Qualifications/certifications (Répertoire National des Certifications Professionnelles – RNCP).	

	define the training aims in the curriculum of training. The providers of training have much less authonomy and decision making freedom in applying these standards for the training process.		
Mixed approach. 1. Initiatives in designing of qualifications can be exerced by sectors or stakeholders, but all process of designing is centrally regulated by the governmental institutions. 2. Government delegates part of regulation functions to regions or sectors.	Future designing of the occupational standards in **Lithuania (**planned but not yet implemented process**)** and designing of occupational profiles and occupational standards in **Slovenia.** In the both processes the main control functions in the design of qualifications are executed by the state institutions. The control role of the specialised governmental bodies (National Institute for Vocational Education and Training in Slovenia and the Centre for Development of Qualifications and VET in Lithuania) is supplemented with the strong advisory and expert role of the sector bodies responsible for development of occupational standards. It is aimed, that sector bodies directly participate and make the main contribution in the designing of occupational standards. However, the initiatives of stakeholders and their roles in designing of qualifications in Lithuania and	1. Designing of VET standards (Ausbildungsordnungen) in Germany. National Institute of Vocational Education BIBB in collaboration with experts nominated by leading employers organizations and trade unions control the development of the draft training regulations for the in-company element of the training. There are tensions between the strong regulatory influence of state in the design of qualifications (the limitation of amount of vocational qualifications) and the approaches of stakeholders in preserving the status and contents of their „managed“ qualifications. It leads to the problems in the reorganisation or adaptation of the qualifications in the sectors. 2. Designing of sectors‘ qualifications in France according to sectors‘ agreements. The Vocational Qualification Certificates (CQF-Certificats de Qualification Professional) are	

	Slovenia are weakened by the lack of competence and readiness of social stakeholders to work and cooperate in the process of designing of qualifications, making their involvement rather fragmented and insufficient.	sector or inter-sectoral qualifications, created and developed by the sectors under the responsibility of social partners. Their registration (for 5 years) within "RNCP" is requested by the concerned sector bodies and approved by the National Commission for Vocational Qualifications/Certifications ("CNCP"). 3. Designing of the VET standards in Austria. Designing of sectors' qualifications in Austria is based on the collective agreements. The process of design of qualifications is coordinated by the National VET council. The interests of the stakeholders in the design of qualifications in the dual system of VET are coordinated on the national level by the activities of the General Directorate for Vocational Education and Training, Adult Education and School Sport (GD VET) of the Austrian Federal Ministry for Education, the Arts and Culture (BMUKK). The voice of practictioners in the design of qualifications is represented through the involvement of the representatives of companies and	

		economic interest groups. The chambers‘ responsibilities in the design of qualifications include the coordination and matching of the interests of industry or sector, as well as participation in the development of occupational profiles and training plans. 4. Designing of the occupational standards in the Netherlands. In the Netherlands the designing of vocational qualifications is led by the sector stakeholders organizations - landelijke organen voor het beroepsonderwijs. The designing process itself is regulated by the state legislation. Sector-specific bodies (‘landelijke organen voor het beroepsonderwijs’ or LOBs) develop skill standards for all the training programmes in their sector.	
Bottom-up approach. Initiatives in designing of qualifications, as well as management of the processes of designing, stakeholders involvement, quality assurance etc. are exercised by different stakeholders and institutions.	1. The case of designing of the regulations of higher education in **Lithuania.** Universities design and develop their own syllabi according to the requirements contained in the Order of the Minister of Science and Education of the Republic of Lithuania (11 December 2003). In recent years, the Centre for the Quality	Designing of the occupational standards in England. The designing of qualifications is strongly influenced by the priorities and aims of the sectors, which are reflected in the Sector Qualifications Strategies (SQS) prepared by each of 25 sector skills councils. Qualifications regulation is now	The case of designing of the higher education degrees and qualifications in England. Different types of organisations have separate requirements detailed in the Regulatory arrangements for the Qualifications and Credit Framework. Certain organisations are approved to **create and**

	Evaluation of Studies has introduced some standardised practices in the design of higher education programmes. 2. The case of designing of the higher education regulations in Germany.	the responsibility of Office of Qualifications and Examinations Regulation - Ofqual established in 2007 and responsible for regulating QCF qualifications and assessments to maintain standards.	**submit units** into the databank, to be included in accredited qualifications. Some organisations will be recognised to **develop rules of combination** for qualifications that meet QCF specifications and make effective use of the units available in the databank. Some organisations will be **recognised as awarding organisations.**

Key Principles for Promoting Quality in Inclusive Education

Recommendations for Policy Makers



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European Agency for Development in Special Needs Education



Lifelong Learning Programme

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FOREWORD

The first report in the *Key Principles* series was published by the Agency in 2003. The title of this report was 'Key Principles for Special Needs Education – Recommendations for Policy Makers' and it was based upon Agency work published until 2003.

As with the previous edition, this document has been prepared by educational policy makers in order to provide other policy makers across Europe with a synthesis of the main policy findings that have emerged from the Agency thematic work supporting the inclusion of learners with different types of special educational needs (SEN) within mainstream provision. This edition draws upon Agency work from 2003 to date and covers the following publications:

- Special Education across Europe (2003);
- Special Needs Education in Europe: Thematic Publication (Volume 1, 2003 and Volume 2, 2006);
- Inclusive Education and Classroom Practice in Secondary Education (2005);
- Young Views on Special Needs Education (2005);
- Early Childhood Intervention (2005);
- Individual Transition Plans (2006);
- Assessment in Inclusive Settings (2007 and 2009);
- Young Voices: Meeting Diversity in Education (2008);
- Development of a set of indicators – for inclusive education in Europe (2009);
- Multicultural Diversity and Special Needs Education (2009).

All of these publications are available in up to 21 languages from the Agency website: http://www.european-agency.org/publications

It is hoped that these Agency key principle recommendations will contribute in a positive way to the work of policy makers across Europe who are in different ways endeavouring to support the processes involved in inclusive education in their countries.

Cor Meijer

Director: European Agency for Development in Special Needs Education

1. INTRODUCTION

As with the previous edition in the *Key Principles* series, the intention of this report is to highlight recommendations regarding key aspects of educational policy that seem to be effective in supporting the inclusion of learners with different types of special educational needs (SEN) within mainstream provision. These recommendations essentially underpin the principles of promoting educational inclusion and a school for all. Within all countries in Europe there is a recognition that inclusive education – or as termed in the Charter of Luxembourg (1996) *A School for All* – provides an important foundation for ensuring equality of opportunity for learners with different types of special needs in all aspects of their life (education, vocational training, employment and social-life). A main assertion of the first edition of *Key Principles* has been used in the preparation of this document: '*Inclusive education requires flexible education systems that are responsive to the diverse and often complex needs of individual learners*' (p. 4).

The target audience for this document remains educational policy makers. However, it is recognised that, even more so than in the previous edition, the focus of key principles for inclusive education at this time must present recommendations that are of use for mainstream as well as SNE specific policy makers if the impact on inclusion in its widest sense is to be maximized. It is recognised that there is a need for debate among mainstream policy makers across different sectors and phases that will take mainstream educational provision forward. This current report presents recommendations based on the findings of Agency studies completed between 2003 and 2009, relating to what policy makers should do in order to support inclusion. (For full details of the Agency work covered, please refer to Section 4: More Information).

This work has been conducted through different types of thematic projects, usually involving all Agency member countries [1].

[1] As of 2009, the Agency member countries are: Austria, Belgium (Flemish and French speaking communities), Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom (England, Northern Ireland, Scotland, Wales).

Agency projects are identified by member country ministerial representatives as they reflect areas of priority and concern to them. These projects use a variety of methodologies (analysis of country information collected via surveys or questionnaires, reviews of literature, or face to face exchanges involving country experts) and result in a range of outputs (printed documents, electronic reports and resources).

All of the thematic projects used in preparing this document have focused on different aspects of inclusion that support learners to access education within their local community. Whilst the Agency findings being used in the work focuses mainly on compulsory school education, the principles outlined are those that support lifelong learning and the ultimate goal of social inclusion for people with SEN. As with the situation presented in 2003, it must be emphasised that there are different national contexts for inclusion and that: '*All countries are at … different points of the journey to inclusion*' (Watkins, 2007, p. 16).

As in 2003, the percentage of pupils in compulsory education officially recognised as having SEN across the countries ranges from below 1% to 19%. The percentage of learners with SEN in special schools and classes also varies widely, with some countries placing less than 1% of all learners in separate provision and others more than 5% (2009). The continuing situation is that such data reflects differences in assessment procedures, financing structures and policies for provision rather than differences in the actual incidence of special educational needs across countries.

Also as in 2003, countries still take very different approaches in structuring provision of pupils with SEN. Across countries, it is possible to identify approaches aimed towards full inclusion in mainstream settings; approaches involving a 'continuum of provision' aimed at meeting diverse needs; and approaches with clearly defined and separate systems for mainstream and special schooling. It is however, also possible to see that: '*conceptions of, policies for, and practice in inclusive education are constantly undergoing change in all countries*' (ibid).

Despite these on-going differences in national contexts for inclusion, it is still possible to highlight key principles of inclusive policies agreed upon by Agency member countries emerging from more recent Agency thematic projects; these are set out in Section 3.

These key principles are themselves underpinned by a developing understanding of inclusive education as being concerned with a far wider range of learners vulnerable to exclusion than those identified as having special educational needs. This is linked to an acknowledgement that quality education for learners with SEN in mainstream schools must mean quality education for all learners.

This conception of widening participation in mainstream education as a means of ensuring quality education for all learners is reflected in the title of this current edition of the series: *Key Principles for Promoting Quality in Inclusive Education.*

Such a conception of inclusive education is also clearly outlined in a number of international reports and statements – these documents are summarised in the following section as an introduction to the evidenced based key principles emerging from Agency work.

2. A EUROPEAN AND INTERNATIONAL APPROACH TO INCLUSIVE EDUCATION

At the International as well as European Union level, there are a number of conventions, declarations, statements and resolutions relating to disability, inclusion and special education that underpin all countries' national policies and provide a frame of reference for their work[2]. These documents are also used as guiding principles by the Agency. To put the Agency studies used in drafting this current document into a wider context, the key International and European texts are outlined below.

2.1 European level guiding principles

At the European level, there are a number of documents that outline member states' objectives in relation to supporting learners with special needs that imply a degree of commitment on the part of EU countries to implementing agreed priorities. Many of these are statements of Council priorities relating to education generally – for example the Report from the Education Council to the European Council *The concrete future objectives of education and training systems* (2001) and the Communication from the Commission *A coherent framework of indicators and benchmarks for monitoring progress towards the Lisbon objectives in education and training* (2007).

However, there are also a number of key documents that focus specifically on learners with special educational needs and their inclusion in mainstream education. The first of these dates from 1990 with the Resolution of the Council of Ministers of Education concerning *Integration of children and young people with disabilities into ordinary systems of education.* Following this, EU member states ratified the United Nations *Standard Rules on the Equalisation of Opportunities for Persons with Disabilities* (1993).

Subsequently, in 1996, the Council published the *Resolution on the human rights of disabled people* and the Commission published a Communication (a statement asking for Council action) on the *Equality of opportunity for people with disabilities.* 2001 saw the

[2] The full references for all the documents referred to here are given in section 4.



European Parliament Resolution *Towards a barrier-free Europe for people with disabilities.* The 2003 Parliament resolution *Towards a United Nations legally binding instrument to promote and protect the rights and dignity of persons with disabilities* was followed by the Council Resolution of 2003 on *Promoting the employment and social integration of people with disabilities* as well as the Council Resolution, 2003, on *Equal opportunities for pupils and students with disabilities in education and training.* These are two of the main EU level statements that guide member states policies for special education.

The views of learners with special educational needs are presented in the *Lisbon Declaration: Young People's Views on Inclusive Education* (2007), which outlines a number of proposals agreed upon by young people with special educational needs from 29 countries attending secondary, vocational and higher education. The young people state in the Declaration that: '*We see a lot of benefits in inclusive education … we need to have and interact with friends with and without special needs … Inclusive education is mutually beneficial to us and to everyone.*'

In 2007, the European Council of Education Ministers identified special needs education as being one of the 16 priority objectives to be considered within the Lisbon 2010 Objectives work (European Commission, 2007). Within the proposals for the 2020 European Community objectives for education, learners with special educational needs are again seen as a priority (2009).

2.2 International level guiding principles

At the international level, the key legal frameworks impacting on inclusive education are outlined within the UNESCO *Policy Guidelines on Inclusion in Education* (2009) beginning with the *Universal Declaration of Human Rights* (1948), moving to the *Convention against Discrimination in Education* (1960) the *Convention on the Rights of the Child* (1989) the *Convention on the Protection and Promotion of Diversity in Cultural Expressions* (2005). Most recently, the *Convention on the Rights of Persons with Disabilities* (2006), specifically Article 24, is highlighted as being crucial as it advocates inclusive education. It is argued that these and other international documents: '*… set out the central elements that need to be addressed in order to ensure the right to access to*

education, the right to quality education and the right to respect in the learning environment' (p.10).

Most European countries have signed the convention and the majority of these have also signed the optional protocol and are in the process of ratifying both the convention and protocol. [3]

All European countries have ratified the UNESCO *Salamanca Statement and Framework for Action in Special Needs Education* (1994). This collective statement is a major focal point for special needs education work in Europe – it is still a key element in the conceptual framework of many countries' policies. All European countries agree that the principles encompassed in the Salamanca Statement should underpin all education policies – not just those specifically dealing with special needs education. These principles relate to equal opportunities in terms of genuine access to learning experiences, respect for individual differences and quality education for all focused upon personal strengths rather than weaknesses.

The Conclusions and Recommendations of the 48th session of the International Conference On Education (ICE) (2008) called *Inclusive Education: The Way of the Future,* presented a number of key recommendations including:
- Policy makers should acknowledge that: '*inclusive education is an ongoing process aimed at offering quality education for all*';
- Education policy and provision should aim to: '*Promote school cultures and environments that are child-friendly, conducive to effective learning and inclusive of all children*' (UNESCO, 2008).

The UNESCO Policy Guidelines (2009) document suggests that: '*Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners … An "inclusive" education system can only be created if ordinary schools become more inclusive – in other words, if they become better at educating all children in their communities*' (p. 8).

This document goes further by saying that: '*Inclusion is thus seen as a process of addressing and responding to the diversity of needs of all children, youth and adults through increasing participation in learning, cultures and communities, and reducing and eliminating*

[3] See: http://www.un.org/disabilities/countries.asp?navid=17&pid=16 for updated information.

exclusion within and from education … Promoting inclusion means stimulating discussion, encouraging positive attitudes and improving educational and social frameworks to cope with new demands in education structures and governance. It involves improving inputs, processes and environments to foster learning both at the level of the learner in his/her learning environment and at the system level to support the entire learning experience' (UNESCO, 2009, p. 7-9).

The Policy Guidelines highlight the following propositions regarding inclusive education:

- Inclusion and quality are reciprocal;

- Access and quality are linked and are mutually reinforcing;

- Quality and equity are central to ensuring inclusive education.

These propositions are fundamental to the key principles evident within the Agency's thematic work and which are presented in the following section.

3. KEY PRINCIPLES FOR PROMOTING QUALITY IN INCLUSIVE EDUCATION

The key principles presented in this section centre upon aspects of educational systems that appear, from the Agency's work, to be crucial in promoting quality in inclusive education and supporting the inclusion of learners with different types of special educational needs (SEN) within mainstream provision. These aspects range from national legislation to school level work, each of which must be considered within policy frameworks for promoting quality in inclusive education.

Whilst the majority of Agency materials used to identify these key principles focussed upon the compulsory sector of education, it is argued that these key principles are applicable to all sectors and phases involved in lifelong learning.

Seven inter-connected areas of key principles are apparent from examining the Agency's work from 2003 to date. These are presented below along with specific recommendations that appear to be necessary for their effective implementation.

The ultimate goal of these key principles is to *promote participation in inclusive education by ensuring quality educational provision*. With this in mind, the key principle of widening participation is presented first and all other key principles can be seen to work towards this goal.

Widening participation to increase educational opportunity for all learners

The goal for inclusive education is to widen access to education and to promote full participation and opportunities for all learners vulnerable to exclusion to realise their potential.

When considering the promotion of quality in inclusive education, it is necessary to underline a number of key factors in relation to this goal:

- *Inclusion concerns a wider range of learners than those identified as having special educational needs.* It is concerned with any learners who are at risk of exclusion from educational opportunities, resulting in school failure;

- *Access to mainstream education alone is not enough.* Participation means that all learners are engaged in learning activities that are meaningful for them.

The *promotion of positive attitudes in education is crucial for widening participation*. Parental and teacher attitudes towards the education of learners with a wide range of needs appear to be largely determined by personal experiences; this fact needs to be recognised and strategies and resources introduced/implemented to address attitudinal factors. Effective strategies to promote positive attitudes include:

- *Ensuring all teachers are trained* and feel able to assume responsibility for all learners, whatever their individual needs;

- *Supporting the participation of learners and their parents in educational decision-making*. This includes involving learners in decisions about their own learning and supporting parents to make informed choices for their (younger) children.

At the level of an individual learner's educational career, the following aspects appear to make a significant contribution to achieving the goal of widening participation:

- *A view of learning as process* – not content based – and a main goal for all learners being the development of learning to learn skills, not just subject knowledge;

- *Developing personalised learning approaches for all learners*, where the learner sets, records and reviews their own learning goals in collaboration with their teachers and families and is helped to develop a structured way of learning independently in order to take control of their own learning;

- *The development of an Individual Education Plan (IEP) or similar individualised teaching programme*, for some learners (possibly with more complex learning needs) who may require a more focused approach for their learning. IEPs should be developed to maximise learners' independence and involvement in goal setting and also collaboration with parents and families.

An approach to learning that aims to meet the diverse needs of all learners without labelling/categorising is consistent with inclusive principles and requires the implementation of educational strategies and approaches that will be beneficial to all learners:

- *Co-operative teaching* where teachers take a team approach involving learners themselves, parents, peers, other school teachers and support staff, as well as multi-disciplinary team members as appropriate;

- *Co-operative learning* where learners help each other in different ways – including peer tutoring – within flexible and well-thought out learner groupings;

- *Collaborative problem solving* involving systematic approaches to positive classroom management;

- *Heterogeneous grouping* of learners and a differentiated approach to dealing with a diversity of learners' needs in the classroom. Such an approach involves structured goal setting, reviewing and recording, alternative routes for learning, flexible instruction and different ways of grouping for all learners;

- *Effective teaching approaches* based on targeted goals, alternative routes for learning, flexible instruction and the use of clear feedback to learners;

- *Teacher assessment that supports learning* and does not label or lead to negative consequences for learners. Assessment should take a holistic/ecological view that considers academic, behavioural, social and emotional aspects of learning and clearly informs next steps in the learning process.

Strategies for widening participation within mainstream classrooms cannot be implemented in isolation from the context of the wider school and home situation. In order to increase educational opportunities for all learners, a number of inter-connected factors must be in place to support the work of individual teachers. These are outlined in the following sections.

Education and training in inclusive education for all teachers

For teachers to work effectively in inclusive settings, they need to have the appropriate values and attitudes, skills and competences, knowledge and understanding.

This means *all teachers should be prepared to work in inclusive education* in their initial training and then have access to further, in-service training later in their careers in order to develop the

knowledge and skills to enhance their inclusive practice in inclusive settings.

Training for inclusion involves the acquisition of knowledge and skills in:

- *Differentiation and meeting diverse needs* that allows a teacher to support individual learning in classrooms;

- *Working collaboratively with parents and families*;

- *Collaboration and teamwork* that facilitates teachers working effectively in teams with other teachers as well as a range of educational and other service professionals working within and outside of the school.

Alongside training for all teachers for inclusion, teacher-training systems should provide opportunities for:

- The *training of specialised teachers* in order to maintain and develop specialist resources for supporting all teachers in inclusive settings;

- *Shared training opportunities* for professionals from different services and sectors in order to facilitate effective collaborative working;

- *Training for school/educational organisation leaders* in developing their leadership skills and vision in line with the promotion of inclusive values and practice;

- *Training routes and possibilities for teacher trainers in inclusive education* in order for them to deliver the initial and in-service teacher education programmes that promote quality in inclusive education.

Organisational culture and ethos that promotes inclusion

At the level of the school, or other educational organisation, a shared culture and ethos based upon positive attitudes towards welcoming a diversity of learners in classrooms and meeting diverse needs in education is crucial.

Such a shared culture:

- *Includes all stakeholders*: learners, their families, teachers and educational staff and the local community;

- *Is guided by school/educational organisation leaders with a vision for inclusion* that includes clear thinking regarding school development, accountability and responsibility for meeting a diverse range of needs.

Organisational cultures that are supportive of inclusion result in:

- *Practice that avoids segregation* in all forms and promotes a school for all, providing equality of educational opportunity for all learners;

- *A culture of teamwork and openness to partnership* with parents as well as inter-disciplinary approaches;

- *Educational practice to meet a diverse range of needs* being seen as an approach to developing quality education for all pupils generally, rather than as being focused upon specific groups.

Support structures organised so as to promote inclusion

Support structures that impact upon inclusive education are diverse and often involve a range of different service professionals, approaches and working methods. Established support structures can act as a support to, or as a barrier to inclusion.

Support structures that promote inclusive education are:

- *Composed of a range of different specialist services*, organisations and resource centres, and professionals that reflect local level needs. Support structures should be able to respond flexibly to a range of organisational, as well as individual professional and family level needs;

- *Co-ordinated both within and between different sectors* (education, health, social services etc.) and teams of support personnel;

- *Co-ordinated so as to support in the best way possible* successful transitions of all learners between different phases of their lifelong learning (pre-school, compulsory, post-compulsory and employment related education).

Such support structures employ an inter-disciplinary approach that:

- *Integrates the knowledge and perspectives of different areas of professional expertise* in order to consider learners' needs holistically;

- *Uses a participatory approach* that requires a change in the locus of control for support and input from support specialists. Decision-making regarding support not only involves, but also becomes increasingly led by mainstream class teachers, learners and their families, working in partnership with inter-disciplinary professionals. This requires a major attitudinal shift on the part of specialist professionals, as well as changes to their practice.

Flexible resourcing systems that promote inclusion

Funding policies and structures remain one of the most significant factors determining inclusion. Limited or no access to certain facilities and provision may actually hinder inclusion and equality of opportunity for learners with SEN.

Mechanisms for the funding and resourcing of education that promote – rather than hinder – inclusion are guided by financing policies that:

- Are *geared towards providing flexible, effective and efficient responses* to learners' needs;

- *Promote inter-sectoral collaboration* from relevant services;

- *Ensure co-ordination* between regional and national level funding structures.

Flexible resourcing systems can be seen to facilitate:

- *Decentralised approaches to the allocation of resources* that enable local organisations to support effective inclusive practice. Decentralised funding models are likely to be more cost-effective and more responsive to the needs of local populations;

- *Opportunities for financing preventative approaches* in education, as well as effective support for learners identified as having specific needs;

- Possibilities for *resourcing inclusion work in schools or other educational organisations based on a range of factors and not solely based upon diagnosis of individual learners' needs*. Such approaches provide flexibility in using financial resources according to identified organisational needs and requirements within the context of local or national policies.

Policies that promote inclusion

The promotion of quality in inclusive education requires a clearly stated policy. The goal of the school for all should be promoted in educational policies as well as supported via school ethos and leadership, as well as teachers' practice.

Policies that aim to promote quality in inclusive education:

- *Take account of international level policies and initiatives*;

- Are flexible enough *to reflect local level needs*;

- *Maximise the factors supporting inclusion* – as outlined above – for the individual learner and their parents at the teacher and educational organisation levels.

To implement inclusive education, the goals of the policy should be effectively communicated to all members of the educational community. Educational leaders at all levels – national, regional, community, as well as organisational – have an essential role in translating and implementing policy that promotes quality in inclusive education. Policies that promote quality in inclusive education need to address attitudes towards learners with diverse needs, as well as propose action to meet their needs. Such policies:

- *Outline teacher, school/educational organisation and support structure/service level responsibilities*, as well as,

- *Outline the support and training that will be provided* for all stakeholders in order for these responsibilities to be fulfilled.

Policies for promoting inclusion and meeting individual learners' needs within all educational sectors are 'integrated' across sectors and services. Such policies should be multi-phase and trans-sectoral and actively encourage inter-sectoral co-operation ensuring that:

- At national and local levels, *policy makers from the educational, health and social sectors need to work co-operatively* to devise policies and plans that will facilitate and actively support a inter-disciplinary approach in all phases of lifelong learning;

- *Flexible frameworks of provision that support inclusive practice are applied to all sectors of educational provision*. The inclusion of learners with diverse needs within the secondary sector, transition from school to employment phase, post compulsory, higher and adult

education needs to be given the same degree of focus as within the pre-primary and primary sectors;

- Policies aim to *facilitate sharing of good practice and support research and development* for new educational approaches, methods and tools.

Whilst in the short term there should be a recognisable separate action plan or strategy for inclusive education within general policies, in the long term, inclusion in education should be 'a given' within all educational policies and strategies.

Arrangements for monitoring the implementation of policies should be agreed upon at the policy planning stage. This involves:

- *Identifying suitable indicators* to be used as a tool for monitoring developments in policy and practice;

- *Promoting partnerships* between schools, local policy makers and parents to ensure greater accountability for the services provided;

- *Establishing procedures for the evaluation* of the quality of provision for all learners in the educational system and in particular,

- *Evaluating the effect of policies* in relation to their impact upon equality of opportunity for all learners.

Legislation that promotes inclusion

All legislation that potentially impacts upon inclusive education within a country should clearly state inclusion as a goal. Consequently, legislation across all public sectors should lead to the provision of services that enhance developments and processes working towards inclusion in education.

In particular, there should be:

- *'Integrated' legislation across sectors* leading to consistency between inclusive education and other policy initiatives;

- *One legal framework covering inclusive education* in all educational sectors and levels.

Comprehensive and co-ordinated legislation for inclusive education that fully addresses issues of flexibility, diversity and equity in all educational institutions for all learners. It ensures that policy,

provision and support are consistent across geographical areas of a country/region. Such legislation is based upon:

- *A 'rights approach'* where individual learners (along with their families or carers as is appropriate) can access mainstream education and necessary support services within all levels;

- The *alignment of national legislation with international agreements* and statements concerning inclusion.

Concluding comments

In considering the main messages evident across the Agency's work, it can be seen that the continuing commitment of countries to promoting inclusion will be indicated by a decrease in the number of learners in fully separate (segregated) provision across Europe.

It is argued that the necessary systemic changes in policy and provision aimed at promoting quality in inclusive education can be guided by the inter-related and mutually supporting key principles outlined in the sections above.

4. MORE INFORMATION

All of the information referred to in this document can be found on the *Key Principles* area of Agency website:
http://www.european-agency.org/agency-projects/key-principles

This includes:

- A 'matrix' of evidence from Agency studies supporting each of the key principles outlined in section 3;

- Links to, or file downloads of all Agency documents and other materials referred to in this document.

Specific references to all the materials used in drafting this document are given below.

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All of these publications are available to download in up to 21 languages from the publications section of the Agency website: http://www.european-agency.org/publications

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EN

The first report in the Key Principles series was published by the Agency in 2003 and was based upon Agency work published until then. This latest edition draws upon Agency work from 2003 onwards.

As with the previous edition, this document has been prepared by educational policy makers in order to provide other policy makers across Europe with a synthesis of the main policy findings that have emerged from the Agency's thematic work.

The aim is to highlight recommendations regarding key aspects of educational policy that seem to be effective in supporting the inclusion of learners with a diverse range of needs within mainstream provision.

A main message of this report is that these key principle recommendations essentially underpin the principles of promoting quality education for all learners.



European Agency for Development in Special Needs Education

CREATIVITY IN ADULT EDUCATION

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Introduction

2009 has been declared by the European Commission as the European Year of Creativity and Innovation (European Commission, 2008). This decision marks the importance given by the European Union in creativity and innovation for each citizen individually as well for the society and economy generally.

I should however clarify that in this paper the elements of creativity. It is not possible to have creativity without innovation even if the reverse can happen.

I will begin, by explaining why the development of creativity is so important for the modern societies.

In the second part I will examine the European Policies regarding creativity.

In the third part I will approach in detail the concept and the components of creativity.

In the fourth part I will examine the relationship of creativity with different personality characteristics, as well as the socio – cultural environments' influences on it.

In the fifth part I will examine creativity within the frame of education - especially the one of adult education - and we will present several techniques, aimed at the development of creative learners.

1. THE REASONS IMPOSING THE DEVELOPMENT OF CREATIVITY

Current international developments in the economic, technological, social and cultural sector, lead to the fact that more and more people should acquire knowledge and skills that are easily renewable, conveyable and adaptable to a variety of working and social environments.

The main reasons of this phenomenon are the changes occurring in production and employment due to globalization and the rapid technological developments. The opening of markets and the dramatic pervasiveness of the capital at all levels of economic life, coupled with the spread of new technologies, are leading to frequent restructuring of business organizations, while dramatic changes are happening in the characteristics of employment as well.

Within this context, characterized by intensive competition, constant mobility of capital and labour, and continuous changes of circumstances, stable jobs are reduced and careers are fluid. The employees, need to have sophisticated skills that enable them to adapt to change, be rotated in a variety of jobs, take initiatives, and cooperate in networks and working teams.

Together with these developments in the field of employment, equally significant changes are taking place in the social and cultural level, requiring on their turn from the individuals to have a good command of a variety of skills:

The movements of entire populations raise the need of adaptability for migrants, returnees and refugees in their new society, which implies the need to enable people to understand the various codes of behavior in different environments. Simultaneously, the enlargement of social groups threatened by social exclusion, raises the question of their creative integration in the socio - cultural context.

Thirdly, the crisis that in recent decades characterizes the traditional social structures (family, local communities, associations) entails the fact that more and more people need to find new ways to determine their life course in uncertain conditions.

Thus, all these developments in both the economic – technological and the socio – cultural level, mean that nowadays a person needs to have specific fundamental skills in order to be able to meet the demands.
We should underline that all these basic abilities are related to creativity.

The most important of these new abilities are:

- to combine and develop diverse knowledge and skills
- to be open to new experiences, new ways of seeing, new ideas, unfamiliar concepts
- to reject standardized formats for problem solving and to take multiple perspectives on a problem
- to make enlightened choices from among multiple possibilities
- to construct alternative structures and to create alternative solutions

2. THE EUROPEAN POLICIES ON CREATIVITY

The EU began to promote policies for the development of Creativity since the 90s.

The beginning was in 1995 with the «White Paper on Education and Training», which indicated the need to escape the educational system from the traditional practices of the monologue, the passivity of trainees and overloading more towards the development of initiative, imagination, innovation and experimentation.

Eleven years later, in 2006, a Recommendation of the European Parliament and Council (394/30-12-2006) reported that a fundamental skill of European citizens' needs to be «the ability to develop creativity, innovation and risk-taking».

Finally, the Decision of the European Parliament and Council on the European Year of Creativity and Innovation 159 / (28-3-2008) includes, among others, the following objectives:

• Raise awareness of people regarding the importance of creativity.
• Stimulate openness to change, creativity and problem solving skills as competences developing innovation.
• Empower aesthetic sensitivity, alternative thinking and intuition.
• Promote closer links between art, business and educational organizations.
• Encourage the agencies to better utilize the creative abilities of both workers, customers and users.

3. THE CONCEPT OF CREATIVITY

Creativity is a very complex ability, therefore it is extremely difficult to determine the term. Since the 50s', when the systematic study of creativity started, mainly in the USA, many definitions have been given to it according to the scientific approach followed each time.

• According to the psychological approach (Guilford, 1967 • Henderson, 1984), creativity is a function of intelligence and, in particular, is synonymous with the divergent intelligence. In other words, creativity is considered to be the kind of information processing, which leads to ideas and solutions that have the following characteristics:

a) They are multiple; as opposed to the « one correct answer» (the productivity of thought is expressed in this way).

b) They are unusual or unique or alternative (the originality of thought is expressed in this way).

c) They are diverse, containing multiple combinations on the same subject (the flexibility of thought is expressed in this way).

Another view, as part of the psychological approach is the one of Mednick (1962) that emphasizes on the combinational way of thinking and defines creativity as the configuration of combinations of pre-existing elements and stimuli, which have as a result the production of a new idea or a new combination.

• However, from the standpoint of the studies of psychology and educational psychology (Houtz, 2003 • Runco, 1994) has been pointed out that these approaches focus only on the product or the process of creativity, and ignore the person who creates. For this reason they turn their attention to the consideration of the elements of the personality of the author and see the creativity as a process that springs from deep internal motivation, has value for the author and provide satisfaction and sense of self realization.

It is therefore obvious that creativity is a complex concept and a process in which psychological, cognitive and social factors are intertwined. It is also appropriate to look at creativity through an interdisciplinary approach and to search for the coinciding points of the different approaches.

Points of coincidence of the different approaches for the definition of Creativity

Generally the various scientific approaches related to the characteristics of creativity coincide are the following:

Creativity is characterized
a. by innovation (leads to an innovative idea or product)
b. by diversification (examines the various issues in a different way than the stereotype and seeks for alternatives).
c. by relevance (it is valuable for the context in which is realised and / or for the author himself) .

d. Finally, inherent in Creativity is the most comprehensive expression of ideas and feelings and thus contribute to self-realization.

Consequently, Adult Education Centres/Organisations can incorporate these characteristics of Creativity in the thematic areas they deal with, such as:

- Improving the quality of provision in the adult learning sector.

- Assessing non – formal learning for disadvantaged groups.
- Developing key competences.
- Improving the attractiveness of adult education.
- Promoting adult learning for marginalized citizens.
- Learning in later life.

4. RESEARCH APPROACHES OF CREATIVITY

Since the 50s a number of researches on creativity have been done (Amabile, 1996· Lee, 1995· Sternberg and Lubart, 1995· Mayer, 1992· Chaffee, 1994· Qureshi and Qureshi, 1990· Mac Kinnon, 1962, etc.) aiming to consider:
a) The relation to the different characteristics of the personality.
b) The influences of the socio – cultural environment.

Ta main research questions raised and the conclusions which have emerged are the following:

4a. The relationship of creativity to personality

- **Research question:** Is there a correlation between the knowledge available to someone about an issue and the creativity performed in this respect?

Most researchers agree that knowledge is a necessary, but not sufficient condition for the creative process. The wider the scope of knowledge is available to a person, the more are the chances to make multiple and flexible connections between different cognitive components. The creative exploration then is enriched by the knowledge background data. On the other hand, possession of knowledge does not necessarily increase creativity.

- **Research question:** Can Creativity be performed only by few gifted individuals?

Researchers converge on the view that this is not the case. Everyone has a creative potential, which manifests itself in various fields, different from person to person. Everyone can therefore be, to some extent, in a certain field, creative.

- **Research question:** Is Creativity associated with high levels of intelligence?

The findings show that the high level of intelligence is not in itself a prerequisite for development of a creative behaviour. However, in order to demonstrate creativity a person must have a certain level of intelligence.

- **Research question:** Is Creativity related to critical reflection?

Research has shown that there is indeed a correlation between creativity and critical reflection. Persons having critical reflection abilities are able to analyze more in depth the different issues, to re-evaluate the conditions and find alternatives. In other words, they can participate more effectively in creative activities.

- **Research Question**: Can Creativity be taught?

The researchers agree that a person's creativity can be strengthened within the educational or family environment. It is also known that some large-scale educational programs carried out,

mainly in the U.S., aimed at developing creativity, as the «Creative Thinking Program» and «Productive Thinking Program».

4b. The relationship of creativity with the social environment

- **Research question:** Does family environment influence creativity?

Several researches (Amabile, 1996 • Feldman, 1999 • Dasey, 1989 etc.) have shown that family environment significantly affects the development of creativity, if it has certain features, such as a family tradition, respectful to learning and culture, the ability to enrich the interests of the child, the encouragement of innovative and unconventional thinking and behaviour etc.

- **Research question:** Does the socio-cultural environment affect creativity?

And here the answer is affirmative too. In an important article of Li (1997) pointed out that it is possible a cultural community to promote creative performance in an area and suspended in another, and vice versa. For example, in the western world the values of societies rewarded the past six centuries, the continuous expansion of pictorial art in new ways and forms of expression. In contrast, the Chinese painting innovations are only within the existing structural level, which they tent to enrich.

More generally, it has been pointed out (Raina, 1993 • Amabile, 1996, etc.) that, in different societies, the very perception of creativity and ways of its expression are significantly affected by the dominant values, the historical origins, the religious and philosophical beliefs.

5. CREATIVITY IN THE EDUCATIONAL FRAME

Many researchers approached the development of creativity, both through school education (Amalile, 1996 Runco, 1994 Sternberg, 1997 Torrance, 1992, etc.) and through adult education (Brookfield, 1987, 1995 Cranton, 2006 Shor, 1980 Argyris, 1993, 1999, etc.).

All reached very similar conclusions regarding the conditions developing creativity through education, which are the following.

- Exploration of alternative, new and unfamiliar ways of thinking and acting is encouraged.
- Diversity and divergence are accepted.
- Participants' initiatives, openness and critical analysis are supported.
- Flexibility of ideas and directions is welcomed.
- Learners are helped to understand their personal styles and patterns of learning.
- Risk taking and spontaneity are valued.

There is also broad agreement among researchers about the characteristics of trainers, which are aimed at developing creativity:

- They are themselves creative.

- They can take multiple perspectives on a problem.
- They respect the integrity of the learners.
- They are competent in managing group's activities.
- They frequently use trial – and – error techniques in their experimentation with alternative approaches.
- They have empathy and enthusiasm for their teaching subject.

Techniques for the Development of Creativity

In the adult education context, that is very important to our discussion, a great number of techniques aimed at developing creativity have been developed (Brookfield, 1987):

- **Class Discussion** is the most classical technique which creates the intellectual and emotional platform that supports participants' assessment of their values and assumptions.
- **Role play** is the technique which focuses on the ability to take on the perspectives of others. It helps learners to explore their interpretations of another person, in order to gain a fully rounded appreciation of his/her thoughts, attitudes and emotions.
- **Debate** is the technique which helps participants to explore an unfamiliar issue by asking them to explain it in a sympathetic manner.
- **Crisis – Decision Simulations** (perhaps with the use of technology), is a technique in which people are asked to imagine themselves in a situation where they are forced to make a decision from among a number of uncomfortable choices. After making this decision, they are required to justify and elaborate on the reasons of their choices.
- **Brainstorming** is an exercise in structured spontaneity, in that participants are actively encouraged, for a specified period of time, to think of as many varied and alternative ideas as they can.
- **Problem – Posing** technique is the one that fosters the capacity of participants to speculate on alternatives for oneself and others.
- **Futures Invention:** Participants are encouraged to imagine individual or collective futures they desire. Then they review from this future vantage point what has pleased them about their imagined journey or, alternatively, they compare and negotiate their visions of the future so as to highlight their divergences and common points.
- **Read and try to understand a book from a point of view that is different from our own** (for example, a book on presentation skills, if we normally facilitate group process).
- **Observe systematically a certain practise** (for example, observe a colleague who has a different style from our own).

Techniques related to observation and use of art, are as well very important for developing the participants' creativity:

- **Observe systematically a work of Art.** Through this technique participants are encouraged to discover and notice some hidden aspects of an issue, some alternative visions and perspectives, some new meanings and experiences.

- **Use of Artistic triggers.** The artistic experience can be a powerful stimulus to imagining alternatives and to help participants break with the habitual structures of reasoning. For example, participants can be encouraged to:

- write short episodes of fantasy
- draw pictorial representations that depict their practice
- produce photostories
- write songs, poetry, small sketches
- dramatize commonly occurring situations
- use theatre in order to explore roles similar to those the participants are experiencing in their lives
- etc

To conclude this section on educational techniques, I would like to underline that, perhaps contrary to what many believe, creativity and innovation are not necessarily identified to the use of new technology. Creativity and innovation can very well be developed through techniques containing few – or not - use of technology. Technology can undoubtedly enrich and strengthen the various teaching techniques, but it is not a panacea. Whether and to what extent we will use technological means in each case depends on the pedagogical criteria we use, such as:

• Educational objectives of the learning program.

• Educational added value, which might offer the technology.

• The familiarity of learners with different technological means.

• The uses of technology that will bring greater quality and efficiency in the educational process.

Closing now this parenthesis, let us go to the last part of this presentation.

Creativity in the context of Transformative Learning

At this point, I believe it is important to refer to the way in which it is possible to develop Creativity in view of the transformative learning theory, which is perhaps the most important approach to adult education in recent years.

The Transformative Learning theory has been developed by Jack Mezirow, since the early 1980s until today (Mezirow, 1991, 2008). Gradually the theory attracts the interest of researchers and adult education trainers as well as of the university community in the U.S., Canada, Australia and some European countries, including recently Greece. There have been more than 100 publications in international journals referring to this theory. In 2003 began the publication of the Journal of Transformative Education and, starting by 2002, the International Conference on Transformative Learning is organised, every two years, while the theory is increasingly applied in educational programs in adult education training for trainers.

The reasoning of Transformative Learning starts from the premise that the way we interpret reality is determined by the assumptions that each one of us has. This system of assumptions has been

imposed by the cultural context and we have unconsciously internalized it through the process of socialization. Often, contains erroneous and distorted values, beliefs, assumptions and hypotheses, so that our accession to the reality is malfunctioning. Furthermore, our perceptual system is so deeply engraved in our personality, that we adopt a tendency to accept almost exclusively the experiences adapt to it and to reject those who depart. It is therefore necessary as adults, in order to be able to harmonize our lives with reality, to develop the ability to critically review our convictions of ourselves and of the social system.

Mezirow argues that adult education can help to achieving this goal, as the main issue in adult learning is to help learners to review the foundations of dysfunctional perceptions and to challenge their validity in order to shape a more sustainable world image and their position in it. Mezirow considers this process as a major need for adults in order to be liberated from confusing dilemmas imposed by the socio- cultural frame.

He believes that the way to achieve this is the reflection, which he defines as the process of reviewing attitudes and values by which we understand the reality and we act. Reflection concerns the deep and systematic elaboration of all the aspects of a problem (for example in expanding the parameters and options, whether our action was consistent with our objectives etc.). Sometimes, however, the reflection goes deeper and extends to the question of established assumptions, in other words *not just how we do, but why we do the way we do, why we think the way we think, what are the underlying reasons for our behaviour.* Arriving at this point the reflection becomes *critical,* and can lead to a reassessment of dysfunctional beliefs about the reality, that we were used to take-for-granted.

Consequently, simple reflection is structured by a new, alternative elaboration and reassessment of an existing idea or problem, however this activity takes place within an undisputable certain frame of reference. For example, a trainer does not dispute the value of the lecture as the main educational technique, however, he can systematically contemplate on new and alternative techniques through which the lecture can be more effective, for example via the use of modern technology.

On the other hand, critical reflection, in our example, questions the very assumption that the lecture is the most appropriate educational technique. Consequently, the critical reflection is characterised by the following:

- Call into question the beliefs and assumptions underlying individual behavior and social norms.
- Becoming aware of taken – for – granted assumptions.
- Through these processes, critical adult education is helping learners to acquire new ideas and functional structures of understanding.

Consequently, in the theoretical framework of critical reflection, Creativity does not just lead to something new and different than usual. It is a process in which we question the assumptions of others or our own, and we are looking for new, emancipating perspectives.

Some techniques for the development of Creativity in the context of Transformative Learning are as follows.

- **Critical Questioning.** For example, the educator asks the learners: «Think back over the past few weeks. Was there an event or situation in which you felt you did a good job, when you felt a 'high' because of your success with a certain activity? Tell me about this». It is evident that the responses of the learners would say something significant about their assumptions concerning the examined issue, entering this way to/in a process of critical analysis of their assumptions underlying their own thoughts and actions.

- **Critical Incident Exercises.** This technique calls the learners to identify an incident, an event, which for some reason was of particular significance to them (for example, a learner identifies where and when the event happened, who were involved – their roles and attitudes – his own behavior). Through this process the learner becomes more aware about his/her significant concerns, reactions and assumptions.

- **Criteria Analysis.** This technique requires the participants to make explicit the standards and judgments they employ when determining that an activity is successful or good. Through this process they can recognize better the clichés that are probably incorporated in their judgment and assumptions.

- **Critical Analysis of Interviews**. This is a technique developed by Chris Argyris in the context of – in – service – training (Argyris, 1993,1999). The trainer gets an interview by a trainee and then the whole group of trainees analyzes the interview, critically examining the governing values and the causes of the behavior of the interviewed person.

- **Detecting the assumptions through the observation of Art masterpieces.** This technique involves observation of artworks, the content of which is related to a certain issue, in order to develop our creative capacity to perceive new dimensions and new, alternative meanings on the issue at hand.

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Tranformative Learning through Aesthetic Experience: Towards a Comprehensive Methodology

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Abstract

This paper portrays the importance of aesthetic experience within transformative learning. We review theoretical approaches that have been developed within various scientific fields as well as by transformative learning scholars. Next, we present a method concerning the utilization of aesthetic experience in the process of transformative learning.

Survey of the Literature

The contribution of the aesthetic experience, as acquired through our contact with art, to the development of critical reflection, has been examined within the framework of many scientific fields such as philosophy, pedagogy, psychology, neurophysiology and adult education. Of particular importance are the views of Kant. He claimed (1790) that the aesthetic situation, that is the sum of the relations among the artist, his work and the recipient, constitute a field in which a particular thinking mode prevails, which he termed "aesthetic rationality", that is different from the model of rationality upon which the social reality is organised. Within the broader aesthetic framework, this thinking mode is expressed by deep, authentic, human emotions. It is a thinking mode "unprejudiced", "global" (holistic) and "extending" (as it includes the opinions of others). Consequently, the aesthetic experience offers its recipients the possibility to organize their cognitive competences in a manner which is different from the dominant pattern and to conceptualize the empirical reality through an alternative perspective.

Dewey claimed (1934) that the aesthetic experience constitutes the primary means for the growth of imagination, which he considered as a fundamental element of the process of learning. The works of art are permeated with the imaginary dimension that the artist provides. On the other hand, in order to comprehend their meanings, we need to exceedingly mobilize our imagination. For these reasons, the aesthetic experience is wider and deeper than the usual experiences we acquire from reality and it constitutes an important challenge for thought. At the same time, the meeting of our old perceptions with new ones, which emerge through the contact with art, strengthens our ability to construct new ways of comprehension.

Another fundamental contribution was provided by Howard Gardner (1983, 1990) who suggested that the person possesses many kinds of intelligence. In each kind a different symbolic system corresponds, that is to say a system of representations and conceptualisations of various concepts, ideas, and facts. Therefore, in order to achieve a multifaceted reinforcement of our intelligence, we need an extended use of symbols. The aesthetic experience serves this aim, because it offers the participants the possibility to process a variety of symbols through which it is possible to articulate holistic and delicate meanings, to draw on emotional situations, to use metaphors and in general to express different perspectives of reality – leading thus to the awareness of issues which may not be easily comprehended through rational argumentation.

A parallel view to Gardner's perspective was developed by the scholars of Harvard Graduate School of Education (Broudy, 1987; Perkins, 1994 and others) who implemented since 1967 more than 60 programs which aimed at highlighting the important role of art in education.

The theoretical views of the scholars of the Palo Alto Mental Research Institute (Watzlawick, Beavin Bavelas, & Jackson, 1967; Watzlawick, 1986), based on research of anatomy and neurophysiology, contributed significantly to the documentation of Gardner's approach. They showed that in order for a person to have a complete thinking process, the equivalent and cooperative function of both hemispheres of the brain is needed. The left hemisphere has rationalization as its main operation and offers a reason-based interpretation of reality. The right hemisphere is specialised in the holistic recognition of complex situations, relations and structures. It offers the possibility of understanding multifunctional phenomena, of perceiving alternative ways of seeing, and of reconciling with the alien and the untold. The encounter with artwork, which includes a wide range of elements that correspond to the right hemisphere's ways of operation, (pictures, allegories, parables, similes, synecdotes, analogies, variants, ambiguities, puns, paradoxes etc) contributes significantly to its activation and strengthens the transformation process.

The contribution of critical theory

An important approach of the role of art in the growth of critical reflection was realised by Adorno and Horkheimer, the founders of the critical theory which started its development in the 1930s in the Institute of Social Research in Frankfurt (widely known as the "Frankfurt School"). In a series of papers (inter alia, Adorno 1997 [1941], Adorno 2000 [1970], Horkheimer & Adorno 1984 [1947] and Horkheimer 1984 [1938]). They elaborated on Kant's view that the aesthetic experience provides the possibility of a thinking mode that is distinct from the dominant one, and re-wrote this idea claiming that contact with authentic art contributes in the process of human liberation. The core of their reasoning was that the spiritual content and the structure of art masterpieces contains attributes that are rarely identified in other mechanisms of social reality which are dominated by instrumental rationality and conformism.

Works of great art, due to their anti-conventional character, their holistic dimension, the authentic meaning of life that they display and the multiple interpretations that they are susceptible to, are in contrast to the instrumental rationality that is incorporated in the mechanisms of social reality. The characteristics of authentic art differ from the stereotyped forms of behaviour, the alienated relations and the closed systems of perception that govern the established order. Therefore, the contact with art functions as a field where critical consciousness is cultivated. It offers criteria that help us disembody by the dominant norms, to doubt the predispositions and assumptions that are established in the social and productive procedures and to conceive a perspective of a world that is better than the one we live in. This emancipating potential of art was pointed out later by another representative of the "Frankfurt School", Herbert Marcuse, who supported (1978) that contact with the masterpieces of art makes possible the inversion of the established experience and regenerates the desire for human liberation.

Approaches within the framework of Transformative Learning

Concerning the theoretical approach of transforming problematic perceptions through learning, Freire (1970, 1978) was the first scholar of adult education who profoundly developed the concept of critical awareness. Regarding the issue that we examine in this paper, Freire (1970) laid the foundations for the utilisation of aesthetic experience at the heart of the transformative learning process. He placed at the epicentre of this educational method the examination of "codifications" by participants, which were frequently works of art (mainly sketches that were created from painters such as Francisco Brenand) (Freire 1978, p. 129). These codifications represented situations that were relative to the experiences of the participants and were specifically prepared so that they could become incentives for critical

analysis of various issues of social reality. Each codification contained elements that represented a sub-subject of each issue. The dialogic analysis ("decoding") of the elements that were contained in each codification rendered the critical comprehension of the sub-subject achievable by the participants. Finally, through synthetic and holistic analysis of the total of the sub-subjects the participants reconstructed their perception of the issue at hand.
The Freirian method was widely spread – a variety of examples may be found in the books of Brookfield (1987) and Shor (1980), but towards the end of the 20th century it gradually lost the range of its application. Nevertheless, within the framework of the theory of transformative learning, which was founded by Mezirow, theoretical approaches and case studies have continued to appear that focus on the role of aesthetic experience in transformative learning. Mezirow himself pointed out this dimension in various texts. For example: *«In communicative learning the approach is one in which the learner attempts to understand what is meant by another through speech, writing, drama, art or dance» (1990, p. 9). «Art, music, and dance are alternative languages. Intuition, imagination, and dreams are other ways of making meaning» (2000, p. 6).*
Maxine Green (2000) has written a number of essays regarding the role of art in the growth of imagination and of a multidimensional viewing of the world. Her main idea is that systematic analysis of artwork allows us to discover various dimensions of reality, as well as various ways of perception and behaviour that characterize personality types or social groups.
On the other hand, Boyd (1991) and Dirkx (2000, 2001) also pointed out the transformative potential of art, but from a different point of view. They consider that the basic path leading to the transformation of perceptions is not the rational assessment of assumptions but the examination of the unconscious, emotionally charged pictures that we shape for ourselves and the world. In order to achieve this, we need to emphasize the emotional and imaginative dimensions of the learning process, in which forms of art such as literature, poetry, theatrical plays and films may significantly contribute.
Another interesting approach from Tisdell (2008) discusses the means through which the systematic observation of works of pop culture and mass entertainment can lead to transformative learning regarding social relationships and issues. However, Tisdell does not include in her inquiry the use of authentic works of art within the learning process.
We should add here that certain texts of bibliography contain reports on specific techniques that foster transformative learning via the engagement with art (inter alia, Cranton, 2006; Dass-Brailsford, 2007; Jarvis, 2006; Kasl and Elias, 2000). However, the literature on the role of aesthetic experience in transformative learning is rather limited. Moreover, there are few references to the works of Harvard School of Education, Watzlawick, as well as Adorno and Horkheimer. Nevertheless, I argue that the incorporation of all these elements – together with Freire's ideas concerning the use of aesthetic experience – in the theory and practice of transformative learning would award it an additional potential.

Towards a comprehensive methodology

In this section I propose a methodology towards the use of aesthetic experience within a transformative learning framework. The methodology is based on the aforementioned theoretical approaches about the learning dimension of the aesthetic experience. Its application contains six stages which correspond to the first five phases of the transformative learning process (Mezirow, 1991, 2000).

Stage1: Determination of the taken for granted, stereotyped assumptions of the participants
At the first stage the facilitator is starting the process by determining the taken for granted, stereotyped assumptions of the participants concerning a certain subject. Each participant is

asked to provide answers to questions like “What are the reasons that lead you to examine thoroughly this subject?”, “Can you describe your feelings which are related to it?”, “Which difficulties do you think are inherent in such an endeavor?”

Stage 2: The participants express their opinions about the issue
At the second stage the facilitator asks the participants to respond individually (noting down their answers) and collectively (orally) to the questions which are related to the subject under discussion.

Stage 3: The educator identifies (potentially with the participation of learners) the sub-issues that should be approached holistically and critically
The facilitator examines the opinions expressed at the second stage and identifies the sub-issues that should be approached holistically and critically. He/she draws attention to those views that reflected stereotypical perspectives and identifies significant points that may not have been raised.

Stage 4: The educator identifies several works of art (potentially with the participation of the learners) as stimuli for the elaboration of the sub-issues
The facilitator coordinates a process which aims to approach the subject from different perspectives in order to reveal to the participants as many different dimensions as possible and to offer them the opportunity to revisit their initial views. The main learning tool in this process is aesthetic experience. For this reason the educator identifies several art masterpieces (works of fine art, films, poetry, literature etc) as stimuli for the elaboration of the sub-issues.

Stage 5: Each artwork is analyzed and critically connected to the related sub-issues
At this step the facilitator uses Perkins’s technique. He/she has to be aware of the fact that some of the learners may not feel comfortable with works of art and thus may either lack the desire to inquire or have difficulties in interpreting their meaning. These are learners who in most cases do not have – due to the process of their socialization – the required cultural capital which will allow them to feel more familiar with art (Bourdieu, 1991). Therefore, it is of great importance for adult educators to try in every possible way for the creation of a learning environment which will allow all participants to have an emotional, intellectual and cultural access to the understanding of art (Thompson, 2002).
At the end of each observation process, the facilitator initiates a discussion which has three learning objectives. The first is to encourage critical reflection among the learners on various aspects of the subject under discussion. The second is to familiarize participants with the use of criteria in order to understand the artistic value of the specific masterpieces. Lastly, the third objective works complementary to the first one. While the learners examine the unconventional spirit of the works of art, the discussion considers, on the one hand, the stereotypical connotations and behaviors that are related to the issue and, on the other hand, the possibility for the development of alternative conceptions.

Stage 6: Critical review of the participants’ initial opinions / Synthesis
Stage 5 is followed by a process of critical self-reflection. The facilitator returns the participants their essays which included their answers to the questions about the subject and asks them to reflect (individually and then in groups) on their initial assumptions. A group synthetic discussion concludes this stage.

Epilogue

The issue of the use of aesthetic experience within the framework of transformative learning is quite complicated. It requires further action research and practice to approach thoroughly issues like: a) the ways through which aesthetic experience may become a mode of transformative learning; b) the means through which the theoretical approach of the Frankfurt School may be incorporated within this framework; c) the methods of selection and analysis of the various works of art as well as the process of receiving the aesthetic experience by the learners, especially from those with no previous familiarity with art; and d) the methods to appraise the outcome of the whole process.

I do hope however, that colleagues who are involved with transformative learning and art will show interest in the ideas which I have presented in order to frame a community where experience and innovative practice will be exchanged.

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WP2. IMPACT OF DESIGN OF QUALIFICATIONS TO THE COMPARABILITY OF SECTORAL QUALIFICATIONS BETWEEN COUNTRIES

SYNTHESIS REPORT

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IMPACT OF DESIGN OF QUALIFICATIONS TO THE COMPARABILITY OF SECTORAL QUALIFICATIONS BETWEEN COUNTRIES

The rationale of research: lack of the analytical and systemic information and evidences about the influence of the different modes and approaches of designing of qualifications to the comparability of sectoral qualifications between countries. There are some researches and analytical work dicrectly or indirectly concerning this problem in the partners countries (Young, Grugulis, Winterton and others in the UK, Bouder, Zarifian, Lallement in France, Markowitsch, Luomi-Messerer in Austria, Spöttl, Becker in Germany, Laužackas, Tūtlys, Jovaiša in Lithuania, etc.) but there are no significant and known attempts to analyse by comparing how the process of designing of qualifications in the different countries and sectors influence the inter-country comparability of sectoral qualifications.

The aim of research: to disclose and explain the influence of the national and sectoral specificities of designing of qualifications to the comparability of sectoral qualifications between partners' countries (Austria, France, Germany, UK, the Netherlands, Lithuania, Slovenia).

The objectives of research:

1. To compare the socioeconomic and political-economic reasons and conditions of the designing of qualifications in the project partners countries**.**

The questions of research: What are the main goals and objectives of the design of qualifications in the partners' countries? What social stakeholders (employers, trade unions, educational institutions, government agencies) are involved in the designing of qualifications and what are their roles and responsibilities in this process? What are the pathways of the development of the designing of qualifications in the partners' countries? How the existing VET regimes, paths of higher education and models of the social dialogue influence the process of the design of qualifications in the partners' countries?

2. To compare the institutional models of designing of qualifications in the partners' countries. Each partner provides the schemes of the responsibilities and relationships of the different institutions and stakeholders in the designing of qualifications in their countries. The schemes are supplemented by the comments. These schemes are compared seeking to define the common models and differences of the institutional settings in designing of qualifications. The main research question is: How the different institutional settings influence the structure and contents of the occupational standards, descriptors of qualifications, VET standards, competence profiles and other objects of the design of qualifications?

3. To compare the methodological approaches in the designing of qualifications in the partners' countries and their influence to the structure and contents of the descriptors of qualifications. The partners will analyse the main methodological approaches of the designing of qualifications explaining the reasons of the choice of these approaches and disclosing their influence to the structure and contents of designed qualifications.

4. To compare the foreseen reforms and changes in the designing of qualifications in the partners' countries. The questions of research: What are the planned, foreseen or possible changes or reforms which concern the designing of qualifications (reforms of education, VET, introduction of the National Qualifications Frameworks, etc.) and how these changes and reforms could influence the structure and contents of qualifications in the analysed sectors?

Applied methods of research

1. Desktop research.

The partners will analyse the following literature and documents concerning the designing of qualifications in their countries:

Scientific and methodological literature on the designing of qualifications (monographs, articles, research reports) dealing with the topics of :

- goals and objectives of the design of qualifications in the partners' countries;
- methodological approaches in the designing of qualifications;
- involvement of the social stakeholders in the processes of designing of qualifications, their roles and responsibilities;
- existing VET regimes, paths of higher education and models of the social dialogue and the influence of these phenomena to the design of qualifications.

Legal, strategic and policy documents (laws, policy briefs, reports, guidelines, recommendations, etc.) dealing with the topics of :

- institutional models of designing of qualifications (the schemes of the responsibilities and relationships of the different institutions and stakeholders in the designing of qualifications);
- reforms and changes in the designing of qualifications in the partners' countries (the documents providing the information about planned, foreseen or possible changes or reforms which concern the designing of qualifications).

Desktop research will be used in the all above described objectives of research. The volume of desktop research depends on the availability of the sources of information in the each partner's country.

Qualitative research – interviews with the experts and stakeholders. Each partner will execute 3 interviews with the following experts and stakeholders of the designing of qualifications:

- representative or expert of the agencies or institutions responsible for the designing of qualifications;
- representative or expert of the employers or business organizations from the selected sector (construction, hospitality or metalworking) directly involved in the processes of design of qualifications;
- representative or expert of the VET or higher education providers in the selected sector (construction, hospitality or metalworking) directly involved in the processes of design of qualifications.

1. Socioeconomic and political-economic reasons and conditions of the designing of qualifications in Austria, England, France, Germany, Lithuania, the Netherlands and Slovenia

1.1. **The goals and objectives** of designing of qualifications in the project partners countries are quite similar and strongly influenced by the EU policies in the field of VET, higher education and employment.

In Austria the goals of design of qualifications are implicitly integrated in the laws and other legal requirements regulating VET and higher education. One of the most important goals of the designing of qualifications here is the provision of the access to skilled employment. Apprentices may only be trained in the legally recognized apprenticeship trades. These skilled trades (presently approximately 240) are included in the list of apprenticeship trades [Lehrberufsliste] published by

the Federal Ministry of Economic Affairs and Labour in co-operation with the Federal Ministry of Social Security and Generations. Moreover, there are 14 legally recognized apprenticeship trades in the agriculture and forestry sector which are not included in the list. Company-based training is regulated by the Federal Ministry of Economic Affairs and Labour while pedagogical matters are in the responsibility of the Federal Ministry of Education, Science and Culture. For example, the Vocational Training Act and Trade Regulations states, that the curricula of vocational schools and colleges *are designed to provide students with appropriate vocational knowledge, skills and qualifications thereby giving access to legally recognized (state regulated) and non-legally recognized(sector regulated) occupations.* This division between the state regulated and sector regulated occupations is also influence the goals of design of qualifications, as well as provision and awarding of qualifications. The school-leaving exam provides graduates of Medium level secondary technical and vocational college (Berufsbildende mittlere Schule BMS) with access to occupations equivalent to occupations that require an Apprenticeship Leave Exam. In Austria there exist two paths leading to occupations on EQF-level 4 (proposed) "Facharbeiter" or skilled worker , one provided by the (higher) VET-system, one by the dual system (apprenticeship and vocational college).

Interviewed stakeholders indicated the following goals of the design of qualifications:

1. To cope with the existing limited skills needs of the enterprises, as well as shortage of skills of the learners (representative of employers in construction sector). Strong involvement of the employers in the process of designing of qualifications and curricula can be helpful in achieving this goal.

2. Representative of the chambers of economy and the sector of construction industry indicated the following main goals of the design of qualifications in the construction sector in Austria :

-orientation of training to the practice and project work;

- widening of the education and training background (wider background of knowledge);

- increase of the interdisciplinarity in the contents of qualifications.

3. Representative from the university of applied sciences working in the sector of construction indicated, that the designing of qualifications should seek to broaden the training and open better possibilities for wider and more universal qualifications , for example construction engineer at the bachelor level, while at the masters level the design of qualifications should focus on the responsibility and management skills.

There is a strong demand for a reform of the apprenticeship system in order to make apprenticeship trades more attractive. Reform measures are already carried out in co-operation with all stakeholders.

One of the most important aims of design of qualifications stressed by the Austrian stakeholders is widening of the qualifications and strengthening of the knowledge basis of qualifications. There can be discerned the following most important reform measures related to the designing of qualifications in Austria:

- the creation of new apprenticeship trades in future-oriented fields,
- broadly defined training objectives – more comprehensive basic training and later specialization make it easier to find out about individual skills and interests and to act accordingly (reduction of drop-outs and the rate of those who change for another occupation),
- permanent adaptation of the curricula to the ever-changing requirements of the labour market and development of appropriate means to guarantee high quality of training,

- more information about less popular and non-gender-specific occupations.

In England the goals of design of qualifications have experienced important changes due to the shift from the learning outcomes based National Vocational Qualifications (NVQ) Framework to the Qualifications and Credits Framework in VET. *The main goals and objectives for the most recent (vocational) qualifications design in the development of the QCF were to provide a simple yet flexible structure that allows for the maintenance and continuing development of a qualifications system that is inclusive, responsive, accessible and non-bureaucratic. This approach was an implicit recognition of the need to remediate the problems caused by the inflexible NQF. There was universal recognition among stakeholders that the previous English system was inflexible and the new approach to qualifications design should faciltiate flexibilty, mobility and progression.*

This process implied important change in the understanding of the goals of reform of the system of qualifications. Introduction of the Qualifications and Credits Framework in VET means the orientation to the real reform of the processes of the system of qualifications directed to the improvement of the learning, training and skills development instead of the previous qualifications reform focussed on the radical restructuring of qualifications as proxies of skills through the standardisation and referencing measures.

The most important goal of the National Occupational Standards (NOS) is to develop high quality of provided qualifications. The qualifications reform on the sectoral level is aiming to increase the reference to the requirements of sector business in the design of qualifications. The goals of designing of qualifications are strongly influenced by the priorities and ims of the sectors, which are reflected in the Sector Qualifications Strategies (SQS) prepared by each of 25 sector skills councils. *This strategy is an overarching strategic document, broad in scope, that reviews current qualifications and other learning provision in a sector, highlights the needs of the sector and sets out the sector's vision for the future in relation to qualifications and other learning provision.*

Other important goal of designing of qualifications is ensuring the matching of provided qualifications to the of skills needs of employers in this way securing and maintaining employment. The Sector Qualification Reform Programme (SQRP) is part of a broad reaching UK initiative to change the landscape of vocational qualifications in the UK. The programme aims to ensure that the qualifications and other learning programmes available across the UK (England, Northern Ireland, Wales and Scotland) are more effective in equipping people with the skills that employers want and that learners need to secure and maintain employment.

In France the goals of designing of qualifications are strongly influenced by the historical traditions of the strong regulatory power of state in the fields of education, employment and social affairs. Regulation of the employment and structure of qualifications has a rich historical traditions in France coming from the times of French revolution and reforms of Napoleon Bonapart. The most recent reform which influenced the goals of designing of qualifications is the introduction of social modernization law in 2002 with the corresponding instruments facilitating the individual rights in training which led to significant expansion of the access to qualifications making this access less dependent from the formal training. The implementation of the recognition of the experiential learning (validation des acquis de l'expérience-VAE) and other measures transformed qualification in terms of the measure or instrument of the individual social promotion and development. Moreover, these measures are ultimately expected to contribute to the promotion of learning path fluidity and complementarity between formal, informal and non-formal learning, icluding the reinforcement of quality assurance and the move towards comptences and learning

outcomes approach in the whole educational and training system. Other important goal of design of qualifications in France is to provide and coordinate the information about the skills needs and vocational education and training offers to sociaty and involved stakeholders. Specific instruments, such as Repertory of Occupations and Crafts (ROME) and database of vocational qualifications developed by the National Centre of Vocational Qualifications (CNCP). All the designed instruments and measures of qualifications are considered as the tools *of the active educational policies directed at developing and standardising vocational training in order to guide and promote French economic development.*

In Germany the goals of design of qualifications are strongly related to the development and characteristics of the dual system of VET. There can be discerned the following main goals in the design of qualifications:

1. To ensure the coherence between the training in the school and in the enterprise in the dual model of VET leading to the balance of vocational and personal competences.
2. To increase the permeability between the different strands and levels of qualifications

Increasing of the permeability becomes one of the most important priorities in the design of qualifications. High standardisation and bureaucratic rigorousness in designing of qualifications can lead to the closures and inpermeable divisions between the different strands and levels of qualifications. It is silstrated by the example of the apprenticeship provided vocational qualifications in Germany.

The rationale and reasons of the design of qualifications in Lithuania can be characterised by the following characteristics:

- The main function of the design of qualifications is considered the structured communication of the needs of skills, knowledge and key skills from the world of work (business) to the system of education. This aim is very strongly stressed in case of VET standards. The main goal of VET standards is definition and description of the competences deriving them from the tasks and requirements of activities. VET standards become the bridge between the skills needs and the training process by deriving the training objectives from the defined competences and foreseeing intermediate learning outcomes leading to the acquisition of competences (Laužackas, 2006). Therefore the process of VET standardization in Lithuania can be characterised as closed and dominated by the providers of qualifications – VET institutions. According to Laužackas, objective development of the business and VET system in Lithuania should lead to the changes of the structure of VET standards, as well as changes of the goals of this standard. The primary goal of the standard should be defintion of the objective skills needs of business (world of work) establishing the references for the curriculum design in the system of VET. In the field of higher education the goal of structured communication of the needs of skills, knowledge and key skills from the world of work (business) to the system of education is expressed less explicitly, because the orientation of the curricula of higher education to the competence or learning outcomes approach is only at initial stage. Here the more important goal of design of qualifications is structuring and planing of the academical knowledge and skills systemising them according to the disciplinary logic.
- Other important goal of the existing practices in design of qualifications is quality assurance in vocational and further education. In this context VET standard serves as single reference and task ensuring the comparison of the attainment of learning outcomes for the purpose of evaluation of quality of vocational training.
- Ensuring the clarity and transparency of the process of training by providing unified references for the setting of the training goals to the different training institutions. It ensures the transferability of training and trainees from one school to another.

- Provision of the references for assessment of competences. This function is very clearly and explicitly expressed in the case of VET standards, which define the specifications of assessment of competences. Formally the assessment of learning in VET and vocational higher education (colleges) is based on the learning outcomes, because the VET standards prescribe the assessment specifications. However, the systematic assessment of learning outcomes in VET still requires to adapt different new methods and approaches of the assessment, especially in the assessment of the practical skills. The assessment of learning in the universities is based on the subjects and credits.

Designing of qualifications in the **Netherlands** is strongly related to the goals of the social and employment policy. One of the key issues here is to widen the access of unskilled and low-skilled people to qualifications. It led to the design and development of comparatively low skilled qualifications – 'starting qualifications' which are targeted to allow participants who are unable to acquire a starting qualification to enter the labour market with a diploma. Other important target of the design of qualifications in the Netherlands is to increase the flexibility of the pathways for the acquisition of skills. Skills standards are rather flexible and allow to provide and acquire the competences in the different pathways and durations of training. However, flexible design of qualifications and orientation to the wide range of targets lead to the fragmentation of the structure of qualifications, as well as to the fragmentation in the provision of qualifications by training institutions. This process is also strengthened by aiming the qualification to ensure direct placement in the first job in the sector.

In **Slovenia** the goals of designing of qualifications originate from the reforms of the VET and higher education systems since the mid 1990s. The main issues and policy objectives related to qualifications and their design are:

- *improving transnational understanding of Slovenian qualifications as well as the possibilities of transfer;*
- *supporting coherent approaches to LLL by providing access, progression, recognition of learning, coherency and better use of qualifications;*
- *improving transparency of qualifications for individuals and employers;*
- *necessity for the education and training system to be more responsive to employers' needs and their involvement in assessment and certification;*
- *insuring capacity to certify knowledge, skills and competence that have not yet been incorporated in formal education and training programmes and provide better links and transferability between education and training and certification system;*
- *improving efficiency of the process of achieving qualifications focused to the needs of the labour market (e.g. re-qualification);*
- *enabling individualised pathways mainly for adults and drop-outs;*
- *improving access to qualifications issues by the tertiary system and thus increasing the percentage of people with post-secondary VET and higher education qualifications*

The interviewed stakeholders from the construction sector (training, providers, employers and trade unions) indicated that *it is very important to adjust the educational and training programmes and knowledge catalogues based on carefully designed qualifications to the needs and demands of economy, to offer the future construction experts on different levels of expertise all the skills and knowledge necessary for understanding and performing their jobs. On the other hand, it is important to be able to recognize and certify the qualifications/competences gained by informal and non-formal learning by experience in different professional and life situations***.**

Most of the interviewed stakeholders from VET sector stress that the design of qualifications play the crucial role in bridging the VET and labour market needs, in particular, by reviewing and updating of the existing VET curricula, while employers and trade unions also indicate functions of human resource management and performance assessment.

1.2. The involvement of social stakeholders and the pathways of development of the VET systems and systems of qualifications have crucial influences in the designing of qualifications, although to the different extent and with the different impacts on the quality of this process.

In Austria the dual VET system provides preconditions for the even and close involvement of all stakeholders in the design of qualifications and curricula. In Austria exists a very popular regulated and unified vocational training system, which codifies the shared responsibility of the state, trade unions, associations and chambers of trade and industry. According to the interviewed employer, the dual system just obliges stakeholders to find the compromises regarding the contents of qualifications. Curricula are drawn up in close co-operation between experts of the school administration, industry and the business sector as well as the social partners (trade unions, Chamber of Labour, Economic Chamber). The social partners are also given a say in the examination of curricula and other regulations or laws, so that they may contribute with their experience and represent their interests.

One of the distinctive features which influence the designing of qualifications in Austria is high level of organization of stakeholders in the all sectors. There are currently more than 250 recognized trades in the following categories: construction – office, administration, organization – chemistry – printing, photography, graphics, paper processing – electrical engineering, electronics – catering – health and hygiene – trade – wood, glass, ceramics – information and communications technologies – food, beverage and tobacco – metallurgy and mechanical engineering – textiles, fashion, leather – animals and plants – transportation and ware-housing.

Qualifications are strongly reinforced by the existing legislations and act as the necessary prerequisits for the practice in the trades and controlled crafts.

The interests of the stakeholders in the design of qualifications in the dual system of VET are coordinated on the national level by the activities of the General Directorate for Vocational Education and Training, Adult Education and School Sport (GD VET) of the Austrian Federal Ministry for Education, the Arts and Culture (BMUKK). The voice of practictioners in the design of qualifications is represented through the involvement of the representatives of companies and economic interest groups. This cooperation with enterprises is strengthened by offering specific training targeted to the needs of enterprises. The Austrian system of economic and social partnership is based on voluntary cooperation between statutory and voluntary interest groups and with government representatives. Statutory interest groups include the representatives of the employers (Federal Economic Chamber), employees (Federal Chamber of Labour) and agriculture (Standing Conference of the Presidents of the Agricultural Chambers). Voluntary interest groups include the Federation of Austrian Industry and the Austrian Trade Union Federation. In the field of school-based education, the social partners are involved in legislation and the adoption of ordinances (for new curricula, for example).

The representative of chamber indicated, that functioning communication and developed mutual trust enable to design modern qualifications which respond to the needs of business, as well as enables the motivating work environment and work conditions.

According to the interviewed representative of the university of applied science, designing of qualifications in Austria is influenced by traditional established occupational structure of the sector - for example, qualifications of construction supervisors come from the times of building guilds in the middle ages. The institutional structure is also deeply rooted in the past - the

association of the construction industry inherited a lot of institutional characteristics from the industrial associations of the XIXth century.

In England the most important trend of the development of the system of qualifications which influenced the designing of qualifications is previously mentioned reform of National Qualifications Framework. The NVQs has been reformed by introducing the credit based qualifications framework, which encouraged a wider range of vocational qualifications. This change indicates the orientation to more open and flexible approach of the regulation of design of qualifications. The experience of England with the reforming of their NQF to the credit and qualifications framework also shows important failure of the learning outcomes based qualifications to consider the volume and scope of duration of acquisition of learning outcomes and their influence to the referencing and comparison of qualifications:

One major problem was that relying on level alone led to major inconsistencies whereby a small vocational qualification aimed at senior managers might be considered to be at the same level (8) as a doctorate, although the former could be completed after perhaps 40 hours of learning and development, while the latter could extend over a number of years. The NQF consisted of qualifications only, which in the majority of cases, had no credit assigned to them.

Traditionnaly employers have played the leading role in the designing of qualifications in the UK. The design of qualifications has been implemented by sectors skills councils which involved the representatives of employers, trade unions and providers of training in the sector. Recently the role of the employers in the system of qualifications and in the process of designing of qualifications has been strengthened:

In April 2008, the government created the UK Commission for Employment and Skills (UKCES) with the intention of benefitting employers, individuals and Government by advising 'how improved employment and skills systems can help the UK become a world-class leader in productivity, in employment and in having a fair and inclusive society: all this in the context of a fast-changing global economy.' Employers were seen as having the prime responsibility for improving productivity, so the UK Commission sought to strengthen the employer voice and provide greater employer influence over the UK's employment and skills systems. UKCES operates to provide independent advice to the four UK Governments, helping to achieve improvements through strategic policy development, evidence-based analysis and the exchange of good practice and also has a key role in relation to standards and qualifications, working with partners across the four UK nations and the European Union to make sure they meet employment and learners' needs.

The new Sectors Qualifications Strategies are also oriented to the increase and improvement of the consideration of employers needs in the design of qualifications. These strategies *contain an action plan, which outlines the agreed actions, signed up to by stakeholders, for addressing the needs identified in the SQS, together with costs and timescales. There may be individual Action Plans for discrete policy areas, qualification types or geographical locations, as identified as appropriate by the sector. SQRP has many stakeholders who work together to ensure that the qualifications resulting from this process meet the needs of both employers and learners, and that they can be effectively developed, regulated and delivered.* It permits to stakeholders in the sector to specify the type of qualifications they want. *Previously sector skill councils would approach employers and if they discussed training needs would offer a qualification (most notably NVQs), which would be recommended because they helped the SSC meet their target for NVQ delivery, irrespective of relevance for employer needs.*

In France since the early 70s, the national qualification system has been progressively operating on the basis of the principles and models for the creation of a national qualification framework integrating general and vocational education and training as well as IVET and CVT, as well as the design and description of qualifications in terms of "standards" that include the move towards the "learning outcomes" approach and the notion of "competences". Reinforced by the

major series reforms undertaken since 2002, the qualification formation process is effectively functioning through an extensive network of partnerships and cooperation between a variety of actively involved institutions and stakeholders on national, sectoral and regional levels. There is a variety of stakeholders directly involved (through a networking of cooperation and partnerships) in the qualification formation processes within the whole educational and training system at national, sectoral, intersectoral and regional levels: central government institutions (ministries), regional governments, employers organizations, trade unions, education and training institutions. In cooperation and partnerships with all other involved stakeholders, the social partners play an important consultative and decision making role in the qualification formation processes (including qualifications' design and updating) and their implementation on national, sectoral, inter-sectoral and regional level within both the initial vocational education and training (IVET) and continuing vocational training (CVT) (CEDEFOP, 2008 & 2009, OECD, 2003):

The social partners are involved in proposing new qualifications, amending them and designing and re-designing qualification referential standards within different ministries and institutions through the range of bodies, such as:

* *Vocational Consultative Commissions (CPC-Commissions Professionnelles Consultatives)* attached to different ministries responsible for establishing technological and vocational qualifications,

- *The National Pedagogical Commission (CPN- Commission Pédagogique Nationale)* which establishes the qualification system for higher education technological and vocational institutes at the level of baccalaureate plus two-year-higher education studies (NQF3 = EQF5);
- *The National Expertise Commission (NEC-Commission National d'Expertise)* responsible for the establishment of the "professional Bachelors" (L3- Licences Professionnelles, Bac.+3 years: NQF2=EQF6).
- *National Council for Higher Education and Research (CNESER-Conseil National de l'Enseignement Supérieur et de la recherche)* responsible for all higher education qualifications and certifications.
- *Boards of Apprenticeship Training Centres (CFA-Centres de Formation d'Apprentis):* the social partners are fully represented within these boards.

All the partners have the right to initiate the designing of the new qualifications, what ensures better match of designed qualifications to the range of social, economical and political priorities:

- *The employers' organizations are often the source of the request to create (renovate or update) a certification, whether the request concerns a specialty or a level of qualifications. In some cases, the initiative comes from large companies which are in need for new or adapted qualifications to meet structural or cyclical changes, or even to meet profile requirements of a very specific group of their employees.*
- *The ministry in charge can initiate a project to create a certification when the professions or sectors are not sufficiently structured or represented, or they are slow in renovating or updating existing qualifications.*
- *The introduction of a certification may also be generated by the joint work of VET providers and certifiers and their "client" enterprises, where the former deals with the pedagogical engineering while, at the same time, the latter takes in charge the definition of the vocational content of qualifications.*

In Germany the dual model of vocational education and training also influences the share of responsibilities between the different stakeholders in the design of qualifications by introducing duality in this field: BIBB in collaboration with experts nominated by leading employers organizations and trade unions control the development of the draft training regulations for the in-

company element of the training, and the federal state experts nominated by the individual ministries of culture and education develop draft outline curriculum for the school-based element of the training. There can be noticed some contradictions arrising from the strong regulatory influence of state in the design of qualifications (the limitation of amount of vocational qualifications) and the approaches of stakeholders in preserving the status and contents of their „managed" qualifications leading to the problems in the reorganisation or adaptation of the qualifications in the sectors.

Whereas in fragmented, market-driven systems like in the UK new profiles are developed and added to the list of qualifications, the German governmental position is quite strict: The amount of vocational profiles should not exceed the actual amount of about 350. This has the direct consequence that each reorganisation leads to a struggle between the stakeholders; each organisation is trying to save as much of their (sometimes obsolete) contents as possible. "It is not possible to abolish any handcraft qualification, because each craft guild master is draped with the German order of merit. [(...) einen Handwerksberuf kann ich nicht abschaffen, weil am Bundesinnungsobermeister immer das Bundesverdienstkreuz hängt.]"

Design of qualifications in the dual system becomes very dependent on the readiness of enterprises to participate in this system by accepting new trainees. The mismatch between places of apprenticeship offered and applicants increases and it requires to find the alternative solutions for those pupils who can not find the workplace to enter dual system. There was decided to develop special curricula for these substitutes.

The curriculum designer said: "The background to start these programs is rather politically. Just to prevent the youngster from bad influence by street education (and out of the jobless statistics, ITB addition). They do not find any apprenticeship training position and many of them are not capable to developing vocational skills when they enter VET schools. [Und das hat ja eher politische Hintergründe, dass solche Bildungsgänge ins Leben gerufen werden. Dass einfach die Jugendlichen von der Strasse runter sind. Sie finden keine Ausbildungsstelle und sie sind auch zum größten Teil nicht ausbildungsfähig, wenn sie hier ankommen.]"

The new adapted curricula for these trainees are quite diverse and different from the standard curricula of the dual system:

Some are very short (from ½ years) others take as long as a regular apprenticeship (3.5 years). "Overall I worked on 3 Curricula in the last year. Vocational school "Construction" takes one year only at school. (...) A double qualifying profile: This means to finish within 3 years a vocational track together with maturity for universities of applied sciences. [Insgesamt waren das drei Curricula, an denen ich in dem letzten Jahr mitgearbeitet habe. Berufsfachschule [Bau-]Technik ist ein einjähriger Bildungsgang vollzeitschulisch. (...) Den doppeltqualifizierenden Bildungsgang: Das heißt, in drei Jahren eine Berufsausbildung plus Fachhochschulreife zu erwerben.]"

Such fragmentisation of the design of qualifications, increasing autonomy of VET providers in the curriculum design lead to the decreased partnership between the stakeholders - local curriculum design does not need such amount of stakeholders as the regular process implemented on the national level.

The main pathways of development of designing of qualifications in **Lithuania** are very closely related to the reforms of VET and higher education. There can be discerned several periods of the development of design of qualifications in Lithuania:

1. During the Soviet period the planning and designing of qualifications was highly centralised process executed and coordinated by the state institutions of central planning of economy. Qualifications were designed by the Central planning committee and the execution of these plans was transferred to the institutions of edcuation and VET. Therefore involvement of the

training institutions in this process was almost eliminated – the schools of VET played the role of executors of centrally designed training plans. This model of designing of qualifications could not be applied in the new conditions of emerging market economy. After the restitution of the independence in 1990 the function of the design of qualifications was delegated to the VET providers and until the 1996 this process was very decentralised, leaving for VET schools high autonomy in curriculum design. Later this process acquired more structured character: since 1994 there started the implementation of the National registers of the educational institutions, as well as the register of training and study programmes, which constituted the basis for the legal approval of provided training and study programmes. In 1996 there started the process of design and implementation of the VET standards. This process was based on the tripartite involvement of employers, trade unions and training institutions. State institutions – the ministries of education and science, economy, social affairs and labour act as coordinators and formulate objectives and tasks for the planning of VET standards. The economy branch expert groups (also known as industry lead bodies) and the Central Economy Experts Group were established on the basis of tripartite cooperation and executed functions of providers of information on the demands of labour market for competences and qualifications. Universities design and develop their own syllabi according to the requirements contained in the Order of the Minister of Science and Education of the Republic of Lithuania (11 December 2003). Vocational higher education syllabi are based on vocational training standards, where they exist. It should be noted that syllabi aim to integrate cognitive, functional and general competences – this is characteristic of both university and vocational higher education syllabi. In recent years, the Centre for the Quality Evaluation of Studies has introduced some standardised practices in the design of higher education programmes. At this stage (and now) the shift to learning outcomes approach in the fields of vocational training and higher education shows the lack of systematic approach in this undertaking. This shift is only at the very initial stage of implementation: VET sector made some progress in the fields of VET standards and curriculum design, but the provision of training is organised mostly on the subject basis and time of training, providing almost no possibilities for the learners to choose the training modules, learn in different ways and in different duration. The shift to learning outcomes in the field of university higher education is still at the very preparatory phase. The main implications of this process: the design and implementation of VET standards increased general awareness of the VET providers in the field of competences and curriculum design, it also facilitated development of interest and awareness and certain know-how of employers in the field of design of qualifications. However, lack of relationships between the designing of VET standards and study regulations in higher education prevented the development of coherence between the qualifications provided by the VET institutions and higher education degrees provided by the universities.

2. Designing of the National Qualifications Framework provided a new impetus for the design of qualifications. The concept of the National Qualifications Framework has proposed the design and introduction of the sectoral-occupational standards which define the structure of sectors in terms of qualifications and define the contents of qualifications in terms of competences. This approach can be evaluated as a further step in seeking for more balanced share of roles and responsibilities of the different stakeholders in the design of qualifications and more clear division of functions between the design of qualifications and process of training. It is expected that the introduction of the NQF and occupational standards will create coherence in and across higher education and VET and standardisation in curriculum design. It is also expected that the introduction of the NQF and occupational standards will facilitate cooperation between VET schools, colleges and universities. The general view is that existing practices of the design of qualifications in VET will merge seamlessly with the NQF. “The implementation of NQF in the VET system is practically started and there are no disagreements and contradictions here. There are designed VET standards. We only need to place these qualifications in the NQF and to ensure the pathways of progression between these qualifications and their levels – there are no essential

problems here"(from the interview). The uptake of occupational standards and the reform of VET curriculum may curtail the current autonomy of VET schools in the curriculum design and provison of training and may therefore engender some opposition. Although curricula will still be designed by the VET institutions, there will be tighter controls in terms of ensuring how curricula correspond to standards. The introduction of the NQF and occupational standards is also expected to increase the flexibility of the provision of competences and qualifications permitting the implementation of the modular training system. The introduction of the NQF and occupational standards is based on the competence approach, but there is a different readiness of the VET and higher education to accept the competence approach:

We can state, that in VET we have already shifted to competence based training through the introduction of competence based VET standards and the introduction of the competence based NQF will be accepted by VET system more easily and willingly. In the field of higher education and in the levels of higher education qualifications we will face the problem of correspondence between the credits of studies based on the duration of learning and competences.

The most important methodological challenge here is to express the knowledge, skills and abilities in terms of competences. This difficulty, according to the expert, sometimes makes the designers of qualifications frameworks to change the definition of competence with other, more neutral definitions, but in fact keeping the same meaning of the defined phenomenon – application of the knowledge, skills and key skills in the situations of activity. Referring to the above mentioned there can be stated, that the introduction of NQF is also regarded as the process which should facilitate the conceptual and contents coherence in the design of qualifications in the different sectors of education and activities.

One of the most important characteristics of the design of qualifications, which are influenced by the characteristics of the existing VET regimes and models of social dialogue in VET and higher education is the level of the openness of design of qualifications and occupational standards (Laužackas, 2005). This opennes of the design of qualifications can be defined as level of prescriptiveness of qualifications and occupational standards to the process of vocational training – how strongly and strictly the standards and descriptors of qualifications define the contents of curriculum of vocational education? It is very closely related to the level of involvement of the employers and other stakeholders in the field of VET. In school based model, where the employers and employees organizations and training providers are involved in the vocational training and design of qualifications on the basis of corporate agreements or nationally defined obligations, the VET standards and descriptors of qualifications more strictly and comprehensively define the training aims in the curriculum of training. The providers of training have much less authonomy and decision making freedom in applying these standards for the training process. In case of VET standards of Lithuania, these standards not only define the competences, but also prescribe training objectives and specifications for the assesment of competences.

Other important characteristic of the design of qualifications which is influenced by the characteristics of the existing VET regimes and models of social dialogue in VET and higher education is the role of state regulation and governance in the design of qualifications. In the school based VET model of Lithuania, due to the weakly developed social partnership between the employers, trade unions and VET providers the functions of design of qualifications are very strongly concentrated in the hands of the government institutions. The Ministry of Education and Science is the main policy maker and coordinator of the Lithuanian VET system. The Centre for Development of Qualifications and Vocational Education (former Methodological Centre of Vocational Education and Training) under the Ministry of Education and Science provides methodological assistance to the design and provision of qualifications in the system of VET. Based on the legal acts of Lithuania, mainly the state or the state founded institutions, with the exception of the Chamber of Commerce and the Chamber of Agriculture, remain the main actors in the VET

system. For this reason the governmental institutions have had a big influence in regulation of the design of qualifications and setting of VET standards. The VET standards are elaborated by the Methodological Centre of Vocational Education and Training in cooperation with the branch expert groups, representing the interests of employers, unions and vocational training schools. Strong role of the governmental institutions in this process compensates the lack of involvement and activeness of the employers and especially trade unions in this field. However, in the same time there can be presumed, that such strong governmental regulation does not create sufficiently favourable conditions for the development of the initiatives and involvement of employers and trade unions in this process.

The school-based VET model of Lithuania experiences important changes and transformations, such as flexibilisation of training pathways and stronger involvement of employers in the processes of education and training. These changes have the following implications for the design of qualifications:

1. Wide acceptance of approach, that employers must play the key role in the process of design of qualifications. For example, in Lithuania the core ideas which provide the sound basis for this consensus is the approach, that qualifications are designed and assessed by the world of work, referring to the existing and future needs of the professional activities. This idea is rather clearly expressed both in the concepts of qualifications and competences, as well as in the conceptual design of the descriptors of the National Qualifications Framework.
2. Attempts to increase the role of sectors and sectoral stakeholders in the design of qualifications. Representatives from the Ministry of Education and Science of Lithuania and Qualifications and Vocational Education and Training Development Centre indicated, that the current VET development strategy of Lithuania is very much oriented to the sectoral approach and the sectoral bodies will be the major players in designing of occupational standards, as they currently are important participants in the development of the VET standards. Representatives from the VET institutions and colleges expressed their readiness to take more active part in the designing of qualifications and their interests to establish closer links with the sectoral organisations of employers.
3. Attempts to increase the flexibility of quite robust qualifications provided by the school based VET system and traditional higher education institutions in the same aiming to reform the system of provision of qualifications making it more flexible and adapted to the changing requirements of labour market. For example, the introduction of the competence based approach in design of qualifications is accompanied with the initiatives and proposals for the introduction of the system of modular training.
4. The reforming and restructuring of the vocational education and training seeking to increase its flexibility and responsiveness to the market needs and in the same time to sustain the benefits of the school based model of VET – width of qualifications and provision of sound knowledge basis for the continuing skills upgrading. In Lithuania these attempts take form of the introduction and promotion of apprenticeship and modular training, strengthening the sectoral approaches in the organization of practical training, integration of initial and continuing vocational training, introduction of the new forms of vocational training institutions with the involvement of employers as stakeholders in their ownership, etc. The approach and orientation towards the concepts of learning outcomes and competences is integrated in the state led curricular reform in initial vocational education at the upper secondary level. The curriculum of VET is based on learning outcomes and competences "which systematically supports the complementarity and equivalence of all acquired skills, independently of how they were acquired." Despite of that, there can be noticed, that the curriculum design in VET to some extent integrates the learning outcomes or competence approach with the subject or discipline based approach. In the VET standards the training goals which lead to the achievement of competences are achieved in the subject-based

theoretical and practical training. It permits to provide the stronger knowledge basis ensuring flexibility and versatility of VET schools leavers.

In the **Netherlands** one of the most distinctive features of the system of qualifications is the effective and durable partnership between the different stakleholders. The state Government usually plays the role of initiator and coordinator of the interests and responsibilities of stakeholders in their negotiations. The experience of the seek for compromise between the different stakeholders and its achievement in the so called Polder model of social partnership help to implement different challenging prpjects and reforms in the system of qualifications. Collective bargaining and labour relations regulation at a sector level implies higher involvement and participation of the sectoral stakeholders in the designing of qualifications. In the Netherlands the designing of vocational qualifications is led by the sector stakeholders organizations - landelijke organen voor het beroepsonderwijs. The designing process itself is regulated by the state legislation.

The main changes in design of qualifications in the Netherlands are related to the shift to the competence based standards and broadening of the qualifications seeking to reduce their fragmentation in the sectors and to increase employability.

The qualification structure of the Netherlands describes all the occupations for which the sector offers vocational courses, plus the competences needed to practise those occupations. This structure, which is the mainstay of Dutch vocational training, is designed and maintained jointly by vocational colleges and employers' and employees' representatives. The qualification structure is undergoing extensive remodelling towards competence-based learning in order to meet society's needs for modern and flexible employees. Qualifications must be broadly based and robust and should indicate what qualities and attitudes are needed in the workplace, not how a training course should be designed.

In **Slovenia** the preparation of occupational standards and catalogues is based on the social dialogue. When it comes to the acquisition of vocational qualifications, chambers, employer associations, professional organizations, non-governmental organizations, trade unions and responsible ministries as partners foremost perform the following tasks:

- *launching initiatives for new vocational standards and catalogues at all complexity levels,*
- *proposing the members of sectoral committees for vocational standards,*
- *carrying out other tasks as determined by the law and other rules.*

Roles and responsibilities of the social stakeholders in the designinmg of qualifications are transparently divided according to their main expertise and functions:

-employers identify basic skills demands and continuous introduction of changes

-trade unions ensure the consideration and reference to the rights from work in connection to changes and demands of vocational tasks

-government agencies provide organizational and expert support of stakeholders at introduction, execution and improvement of educational and training programmes.

All the stakeholders are included into the process of development of occupational standards by their membership in trade committees. Trade committees are for occupational standards are named by the minister for labour. Their task is to admit occupational standards, initiate designing of new ones, name experts for the expert work teams. National Institute for Vocational Education and Training (CPI) is responsible for coordination of the activities of trade committees and expert teams.

However, as in Lithuania and in the other new member states of the EU one the most important problems in the designing of qualifications is undeveloped social dialogue and difficulties to involve trade unions in this process. One interviewed representative of education institution stressed the problems arising due to the lack of social dialogue and the mismatch between the

ambitious policy goals of the government and lack of readiness of stakeholders to participate in the achievement of these goals:

Effective social partnership in qualification designing is the only mean of expected results at labour market. Partners should seek adjustment of different interests, should be able to monitor execution of common tasks, recognize problems and suggest long term development. It has already been proven in the past that introduction of changes is not possible if one or more partners are not really prepared (dual system for just one generation of apprentices (!), too fast a change of legislation in introduction of master's exams…). In both cases government agencies overestimated real readiness of employers, the probable reason being recent introduction of such partnership

The interviewed stakeholders also noticed, that the difficulties in involving stakeholders and establishing of the social dialogue in the process of designing of qualifications makes government to take more responsibilities in the coordination of this process, making it more centralised in order to avoid the fragmentation of the process, when the involvement of stakeholders in the process *is based ob individual contacts and preferences.*

2. Comparison of the institutional models of designing of qualifications and their influences to the contents and structure of qualifications in Austria, England, France, Germany, Lithuania, the Netherlands and Slovenia

Institutional models of designing of qualifications in this report are defined as the established settings and networks of public and private institutions and organizations involved in the process of designing of qualifications. These institutional netwroks and settings can include different institutions, which act in much wider fields of activities, also outside the field of the designing of qualifications. This chapter will provide the overview of the main similarities and differences of such institutional models and their influences to the comparability of qualifications.

In **Austria** the institutional model of designing of qualifications is clearly based on the social partnership on the sectors' level. The legislative framework consists of the School Organisation Act (SchOG) and School Instruction Act (SchUG) and can be changed by Parliament acting with a simple majority following a consultation process. The curricula of the various school types are decreed by the BMUKK as ordinances. Certain areas of the VET sector fall within the remit of other ministries, such as of the Federal Ministry of Economy, Family and Youth (e.g. company-based training of apprentices and accreditation of professional qualifications), the Federal Ministry of Health (e.g. schools for healthcare and nursing) and the Federal Ministry of Agriculture, Forestry, Environment and Water Management.

The VET curricula are drawn up in close co-operation between experts of the school administration, industry and the business sector as well as the social partners (trade unions, Chamber of Labour, Economic Chamber). The social partners are also given a say in the examination of curricula and other regulations or laws, so that they may contribute with their experience and represent their interests. Designing of sectors' qualifications in Austria is based on the collective agreements. The process of design of qualifications is coordinated by the General Directorate for Vocational Education and Training, Adult Education and School Sport (GD VET). The coordination of interests of stakeholders and interest groups in the design of qualifications in Austria is ensured by the established institutional framework consisting of active social partners committees in the sectors , inter-professional commitees of stakeholders working on the parity basis, as well as national level organizations, auch as National VET council (Berufsausbildungsbeirat) and institute for VET (IBW). Such partnership based organization of the design of qualifications with the state coordination of this process ensures clear division of tasks

and responsibilities between different institutions. For example, *the chambers' responsibilities in the design of qualifications include the coordination and matching of the interests of industry or sector, as well as participation in the development of occupational profiles and training plans.*

Very complex institutional framework in designing of qualifications sometimes lack the flexibility and creates administrative hurdles, as it was expressed by one interviewed stakeholder. The interests of different stakeholders in the design of qualifications for higher education are coordinated and respected via feedbacks from the school leavers and employers regarding the quality of studies, employment situation, match of the skills to the needs of workplaces and the future developments of the skills needs in the sector. Here these interests are coordinated by the institutions of higher education as providers of qualifications. The representative of university of applied science claims, that establishment and introduction of the new programmes of studies is very long process, when designing of programme takes 2 years, accrediting – 1 year and the validity of accredited programme is only 5 years.

In England the institutional framework of design of qualifications has been recently changed due to the reform of the National Qualifications Framework. National Council for Vocational Qualifications (NCVQ) which was previously responsible for the maintenance and development of the National Vocational Qualifications with the establishment of the qualifications and cdredits framework was replaced by the Qualifications and Curriculum Authority (QCA) in 1997. The QCA's role was much wider than NCVQ as it was set up to develop and regulate the (school) national curriculum, assessments in schools and qualifications.

QCDA has been left with a small rump of work in delivering, and building on, QCA's non-regulatory work. In practice, the focus of QCDA's work is now almost exclusively focused on schools and the 14 – 19 age group. Qualifcations regulation is now the responsibility of Office of Qualifications and Examinations Regulation - Ofqual established in 2007. They regulate qualifications, examinations and assessments in England and vocational qualifications in Northern Ireland. Their prime purpose is assessment up to 19, but they also support the development of the QCF and act as the regulator of market for vocational qualifications. Ofqual are responsible for regulating QCF qualifications and assessments to maintain standards. Higher education qualifications, such as degrees, are the responsibility of the Quality Assurance Agency (QAA).

There can be noticed the orientation of Governement to establish more open and flexible approach of the regulation of design of qualifications. Current institutional strcuture of the designing of qualifications is flexible, open and liberal.

The QCF is governed by the Regulatory Arrangements for the Qualifications and Credit Framework (2008). These regulatory arrangements cover all the requirements applying to organisations operating within the QCF: the units and rules of combination that they may develop and the credits and qualifications they may award. The arrangements do not therefore rely on any other regulatory criteria or codes of practice, although the qualifications regulators may also from time to time produce requirements, information and guidance for framework users intended to support the effective regulation of the QCF and the operation of the qualifications system. It shows open, flexible, inclusive and responsive institutional structure of the design of qualifications, permitting to the different stakeholders and organizations to be involved in this process to the extent of their capabilities and consistence with the specifications and standards of the Regulatory arrangements for the Qualifications and Credit Framework.

Different types of organisations have separate requirements detailed in the Regulatory arrangements for the Qualifications and Credit Framework. Certain organisations are approved to **create and submit units** into the databank, to be included in accredited qualifications. Some organisations will be recognised to **develop rules of combination** for qualifications that meet QCF specifications and make effective use of the units available in the databank. Some organisations will be **recognised as awarding organisations**, and will be responsible for:

- developing assessment arrangements for units and qualifications;
- submitting qualifications based on agreed rules of combination for accreditation;
- assessing learner achievement;
- awarding credits to learners for the achievement of units;
- supporting credit accumulation and transfer;
- recording learners' achievements in their learner records.

Openness of the institutional structure is strengthened by the involvement of the institutions which provide expertise and know-how in the field of design of qualifications. In April 2008, the government created the UK Commission for Employment and Skills (UKCES). UKCES operates to provide independent advice to the four UK Governments and besides the functions of counselling it has a key role in relation to standards and qualifications, working with partners across the four UK nations and the European Union to make sure they meet employment and learners' needs. The UKCES Qualifications team works with Sector Skills Councils (SSCs), Sector and Cross Sector Bodies and other key partners in the field of designing of National Occupational Standards (NOS). Active involvement of these sectoral bodies ensures flexible and direct reaction to the workplace needs in the development of occupational standards. However, M. Young notices reluctance and lack of expertise of sectoral bodies in developing the vocational curriculum and qualifications. Delegation of the designing of qualifications to sectoral bodies let to "considerable diversity between sectors and a largelly ad hoc approach to specifying underpinning knowledge" (Young, 2009).

In France the institutional framework for the designing of qualifications can be characterised as state coordinated and regulated multipartite negotiations and discussions between different institutions and stakeholders. The Consultative Professional Commissions ("Commissions Professionnelles Consultatives - CPC") established at the level of different ministries are in charge of the development of qualifications standards. They are quadripartite committees composed of representatives of the public authorities, the employers, the employees and experts who design qualifications, curricular contents and their development in the concerned vocational field within their branch of activity. Each CPC commission is composed of 17 active members and presided alternately by a representative of employers' or employees' organisations. They have, at the level of each ministry (education, employment, agriculture, youth and sport, etc.), a General Secretariat responsible for planning their work, technical support and logistics and monitoring the quality of the process of designing and updating qualifications.

The Professional Consultative Commission (CPC) analyses, assesses the submitted request and takes the decision concerning the introduction of the requested qualification (diploma). If the decision is favourable, the CPC commission proceeds to the design of related "referential standards". While there are several bodies which took in charge the development of their own "referential standards", most of them position themselves in relation to those of the Ministry of Education.

This work is coordinated by The National Commission for Vocational Qualifications/Certifications "CNCP" . This institution has the following functions in the field of design of qualifications:

- establishing and maintaining a National Repertory for Vocational Qualifications/certifications (Répertoire National des Certifications Professionnelles -RNCP), considered since its creation in the same year 2002 as the Repertory of the NQF ;
- overseeing the reform and updating qualifications (diplomas and certificates) on the basis of developments in education and the labour market needs.
- providing recommendations to organisations that deliver vocational qualifications and provide information about the relationship between different types of qualification;
- follow-up of the European developments about qualification transparency;
- construction a new grid of qualification levels and referencing them to the EQF;

The National Commission for Vocational Qualifications/Certifications (CNCP) meets about five times a years (in a plenary session) to assess and take a decision concerning the inclusion of created (or updated) qualifications (certification). It is composed of 43 members: ministerial representatives (16), social partners (10), qualified experts (11) and representatives of the Chambers (3) and the Regions (3).

Referential standards are developed and / or validated through the following organisations/institutions:

- A Professional Consultative Commission (CPC-Commission Professionnelle Consultative) as it is the case with the State certifications delivered by its following ministries:
- *The Ministry of Education* for the upper secondary vocational certifications (such CAP, BEP, BTn, BT and Bac Pro.) including BTS (Bac + 2: a two-year university level diploma). 14 CPCs are in charge of the development (creation and updating, including the design/re-design of related "referential standards") of over 700 certifications connected with about 14 sectors of activity.
- *The Ministry of Agriculture* with one CPC in charge of in creating and updating 150 certifications;
- *The Ministry of labour* with 6 CPCs in charge of creating and updating 300 types of certifications;
- *Ministry of Sports* with one CPC in charge of in creating and updating about 100 types of certifications.
- A National Pedagogical Commission (CPN- Commission Pédagogique Nationale) for the Univeristy Diplomas in Technology (DUT- Diplômes Universitaires Technologiques). The CPN is in charge of 25 specialities of the DUT certification.
- The National Council of Higher Education and Research (CNESER - Conseil National de l'Enseignement Supérieur et de la Recherche) , which validates national higher educations certifications delivered by the universities. About 10,000 certifications are concerned.
- The Commission for Engineers' Grades (CTI-Commission des Titres d'Ingénieurs) which is an independent body, mandated by French law since 1934 to accredit all engineering courses, develop the quality of training, to promote the engineer's grade and profession in France and abroad. About 800 specialties are taken in charge by it.
- Visa Commission (Commission des Visa) for non-state certifications, usually issued by other institutions other those of the Ministry of Education.

The Vocational Qualification Certificates (CQF-Certificats de Qualification Professional) are sector or inter-sectoral certificates, created and developed by the sectors under the responsibility of social partners. The initiative of creating a sector specific vocational qualification certificate (including the design of its referential standards) is usually taken in charge by the "Joint National Commissions for Employment" (CPNE-Commission Paritaire Nationale pour l'Emploi) (as a joint body composed of employers' and trade-union representatives) at the level of concerned sector (or sectors). For, this purpose, CPNE relies also on bodies created on sectoral level such as the Training funds Insurance (FAF-Fonds d'Assurance Formation) and the Accredited Joint Fund Collector (OPCA-Organisme Paritaire Collecteur Agrée) and the Training Associattion (ASFO-ASsociation de FOramtion). About 400 certificates have been created by more than thirty sectors. Their registration (for 5 years) within "RNCP" is requested by the concerned sector bodies and approved by the National Commission for Vocational Qualifications/Certifications ("CNCP").

The main actors designing qualifications in Germany are the social partners, even expertise providing institutions like the Federal Institute for Vocational Education and Training (BIBB) are only acting as agents.

An initial application approach is made to the federal ministry responsible, generally the Federal Minister of Economics and Labour (BMWA), the respective training benchmarks are stipulated in consultation with the Federal Ministry of Education and Research and with the ***consent*** of the leading employers' and employees' associations, all of this then forming the basis for the development of draft training regulations and the coordination of these with the outline curriculum of the secretariat of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK). The Federal Institute for Vocational Education and Training (BIBB), in collaboration with experts nominated by the leading employers' and employees' organisations, has fundamental overall control for the development of the draft training regulations (for the in-company element of the training).

The draft outline curriculum (for the school-based element of the training) is developed by federal state experts nominated by the individual ministries of culture and education. One of the ways in which coordination of the contents and timeframes of the two drafts takes place is through ***mutual participation*** in meetings by the experts.

There is a strong regulatory power of the government regarding the quantity of designed qualifications.

The German governmental position is quite strict: The amount of vocational profiles should not exceed the actual amount of about 350. This has the direct consequence that each reorganisation leads to a struggle between the stakeholders; each organisation is trying to save as much of their (sometimes obsolete) contents as possible. "It is not possible to abolish any handcraft qualification, because each craft guild master is draped with the German order of merit. [(...) einen Handwerksberuf kann ich nicht abschaffen, weil am Bundesinnungsobermeister immer das Bundesverdienstkreuz hängt.] "

Here we can see contradictions arrising from the strong regulatory influence of state in the design of qualifications (the limitation of amount of vocational qualifications) and the approaches of stakeholders in preserving the status and contents of their „managed" qualifications leading to the problems in the reorganisation or adaptation of the qualifications in the sectors.

Institutional framework of the designing of qualifications in Lithuania currently experiences important transformations related to the implementation of the National Qualifications Framework. This institutional framework for the design of qualifications is foreseen in the recently adopted amendment of the Law of Vocational Education and Training. Here is the scheme of this institutional framework which shows the composition of the different institutions (green boxes) and their functions in the process of design of qualifications (yellow boxes):

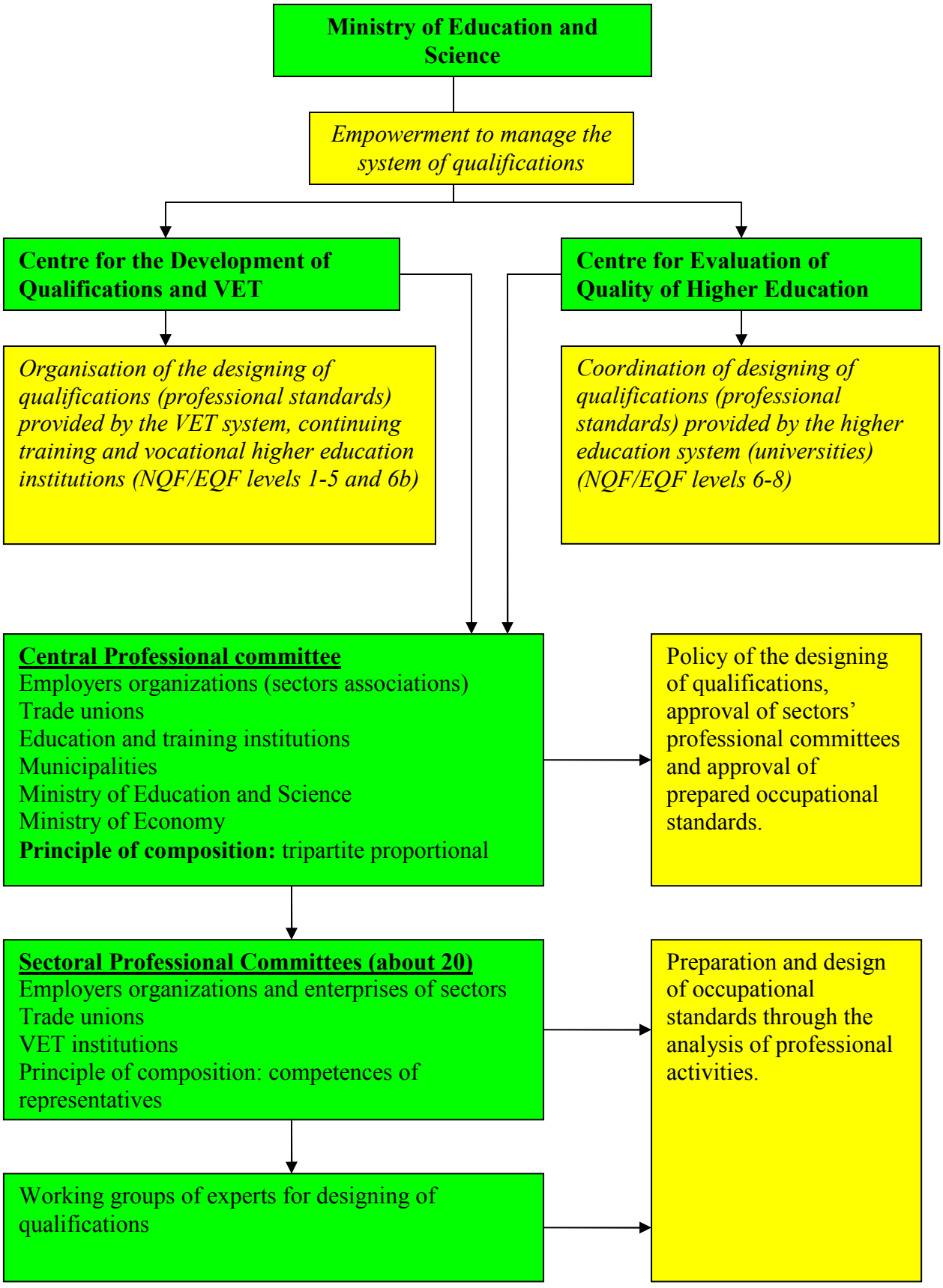


Fig.2 Institutional scheme of design of qualifications in Lithuania

According to the iunterviewed expert from the Centre for Development of Qualifications and Vocational Education the new institutional order will bring the following changes:

1) Current VET standards will be replaced by the occupational standards. In principle their structure is quite similar, but occupational standards do not prescribe the training aims and specifications of competence assessment – these standards indicate competences, limits of competences etc.

2) There will be implemented the National Curriculum of Modular Training which will permit to acquire vocational qualification through different modules in the different VET institutions. It will also bring the credit transfer to the vocational training on the national level. *Today we (in Lithuania) have the problem that the credit transfer in VET is not feasible, when each VET provider has its own training curricula.*

How the social stakeholders will be involved in the new institutional scheme of design of occupational standards? They will take part in the Central Professional Committee which will be established at the Centre for Development of Qualifications and Vocational Training and in the sectors professional committees. These institutions will be established by the order of the Minister of Education. Regarding the characteristics of social dialogue in this process the interviewed expert noticed, that here the tripartite principle was not followed very strictly. For example, in the Central Professional Committee the representatives of the 3 national employers associations will be involved (2 representatives from each), also representatives of the 3 trade unions (1 representative from each), there will be representatives from the Rectors Conference, Colleges' Directors Conference and VET schools directors' association. Afterwards there are involved state government institutions from the ministries of Education and Science, Ministry of Agriculture and Economy, National Council of Science and Association of Municipalities. Central Professional Committee will be responsible for the policy formation: defining of priorities in the design of occupational standards, approval of standards and the main legal documents regulating the process of the design of standards. As it was indicated by the inteviewed expert, formally all social stakeholders will be invited and involved, but it does not provide any assurance that these stakeholders will be active and ready to take part in the process of deesign and development of qualifications. Sectors committees are established on the principle of competence and not on the principle of balanced tripartite partnership. *Of course, employers and trade unions will be represented there, but not necessarily on the equal tripartite proportions, because these committees will be responsible for the design of the standards, where the expertise and competence play the crucial role*. It is planed to establish about 20 such sectors committees. Of course the sectors are quite different by their size and weight in the economy and by the number of occupations and qualifications. In this sense very big sector is engineering sector, because it is not possible to separate mechanics from electronics. Sectors committees will be approved by the Central Professional Committee. The preparation of occupational standards will be executed by the established working groups, involving different experts of occupations and training.

Analysing the role and type of the social partnership model in the institutional scheme of the design of qualifications in Lithuania, there can be noticed the adaptive approach in this field. As it was expressed by the representative of the Ministry of Education and Science:

We shape our social partnership model in design of qualifications and professional standards by applying the experience of different countries – UK, Scandinavian countries, France, Germany etc. By using the experience of these countries we try to select and to use those aspects of experiences which are the most useful for Lithuania as the small country which still makes the first steps in the implementation of the NQF bases system of qualifications and professional standards.

According to this expert, the main criteria for selecting these experiences and models is the implied costs effectiveness and suitability for the small country. *There are very well elaborated models of design of qualifications which require big investments and well established complex institutional schemes making them not feasible for the small countries. We also consulted the*

experiences of small countries like Slovenia, which also apply very similar mechanisms of social partnership.

Interviewed expert noticed, that the core goal of social partnership in the field of design of qualifications and occupational standards is the codetermination of the interests of employers, employees and learners. Here very important and central role is played by the providers of training, studies and qualifications, which are just obliged to consider the interests of the all stakeholders. The main obstacle and problem here is the weakness of the development of employers organizations (to lesser extent) and trade unions (to bigger extent) and the lack of their experience and expertise in the field of qualifications and vocational training:

Sometimes employers express their current needs and interests of competences and qualifications largely ignoring the possibility, that in the nearest future these needs may change and the person with such competences and qualifications will not find the job at their enterprises. Therefore the balance of all interests of social stakeholders which is ensured by social partnership is crucial for the design of professional standards. In the countries with well established traditions of social partnership the center of gravity of this social partnership is the social dialogue between employers organizations and trade unions. In Lithuania we are only on the initial stage of development of trade unions (current trade unions often lack expertise in this field and their approach is more centred on the limitation of the competition in the labour market). Trade unions pay more attention to the specific functional skills and knowledge and very often ignore the importance of transferable skills and key skills which enable and enhance mobility of employees in the labour market. Very similar approach and attitude very often can be noticed amongst the employers. Such approaches need to be seriously and definitely changed in the design and implementation of the professional standards and the NQF.

The expert from the Centre for Development of Qualifications and Vocational Education in this regard noticed, that the implementation of the NQF *should certainly increase the roles and responsibilities of employers in design of the qualifications. What concerns trade unions it is difficult to say today how their role will change, because today trade unions in Lithuania are not very interested in the contents of training and qualifications. Besides, even in the European documents I do not see much attention to the role of trade unions in the design of qualifications, NQF, EQF and in the VET in general. The possibilities will be provided to all stakeholders, but the initiative to take part in the design of qualifications should come from the stakeholders (trade unions) themselves. We can not impose anything from above, if there are no initiatives from the trade unions themselves. Employers already expressed their initiatives and interest.*

There can be descerned the following characteristics of this model and their influences to the specificity of qualifications in Lithuania:

- Foreseen instituitional model of the design of qualifications in Lithuania is based on the same main principles (tripartite representation of stakeholders, involvement according to the competence and expertise) as in many other countries and is designed using the experiences of other countries. It increases the similarity of the structure and contents of occupational standards and qualifications to those in other countries.
- Formally it is foreseen, that social stakeholders will play important role and could influence the process of designing of qualifications (what provides the comprehensive and precise reflecting of the technological, organisational and economic requirements of activities in the occupational standards). However, the real possibilities of involvement of stakeholders are quite different leading to some disbalance of their influences in design of qualifications: employers being more active competent and experienced in this field, trade unions lagging behind in these fields. It will require more active role of the governmental institutions and educational institutions in the design of occupational standards, what could potentially decrease their relevance to the real requirements of the workplaces and especially to the real needs of the employees in the field of qualifications.

In the Netherlands the institutional framework of the designing of qualifications is established on the sectors' level. Sector-specific bodies ('landelijke organen voor het beroepsonderwijs' or LOBs) develop skill standards for all the training programmes in their sector.

The Vocational and Adult Education Act ('Wet Educatie en Beroepsonderwijs' or WEB), effective from 1 January 1996, sought to improve the operation of the VET market through decentralisation and deregulation and through making the system more flexible. Various responsibilities were decentralised from the Ministry of Education, Culture and Science to new regional education centres ('regionale opleidingencentra' or ROCs). The ROCs were formed through mergers between different vocational and adult education schools in each region. The objective of the WEB was to achieve a self-regulating system with a balanced role for the various actors in the field of education.

According to this law 21 sector bodies of social partners became responsible for the definition of qualifications in the sector qualifications structures.

On the basis of evaluation research in the framework of the evaluation of the Adult and Vocational Education Act it was concluded that the lack of coordination between National Vocational Education Bodies caused a greater differentiation in the qualification structure than was desirable.

Delegation of the design of qualifications to the sector bodies together with the public funding of this process depending on the amount of qualifications also lead to the development of narrow qualifications and higher fragmentation of the structure of qualifications in the sectors.

A Steering Committee for the evaluation of the Dutch Adult and Vocational Education Act recommended reducing the amount of National Vocational Education Bodies to realize the necessary coherence in the qualification structure. The coordination between the new Bodies should be tight, for vocational domains are to an increasing extent going beyond one educational sector. The Steering Committee proposed to fund the Bodies no longer on the basis of the amount of qualifications, which they control, because such a funding system hampers the development of broad qualifications (Polder, in press; Stuurgroep Evaluatie WEB, 2001).

According to the Nieuwenhuis and Shapiro the Dutch structure of VET institutions and social partnership model established by the law of the vocational education and training in 1996 is mainly based on the assumptions of the industrial VET-system, where employers are able to formulate their needs of qualifications in the sectoral qualifications structures and the employees are well organised in the networks and trade unions which protect the permanence of their employment status and ensure social welfare (Nieuwenhuis, Shapiro, 2004). The new paradigm of the knowledge based economy requires different ways design of qualifications and cooperation in this field. The design of qualifications should be changed from the prescription of the training needs by employers to more broad standards of qualifications which could enable "the flexibility and expertise of colleges to organize flexible pathways towards competence in close cooperation with the local companies." (Nieuwenhuis, Shapiro, 2004).

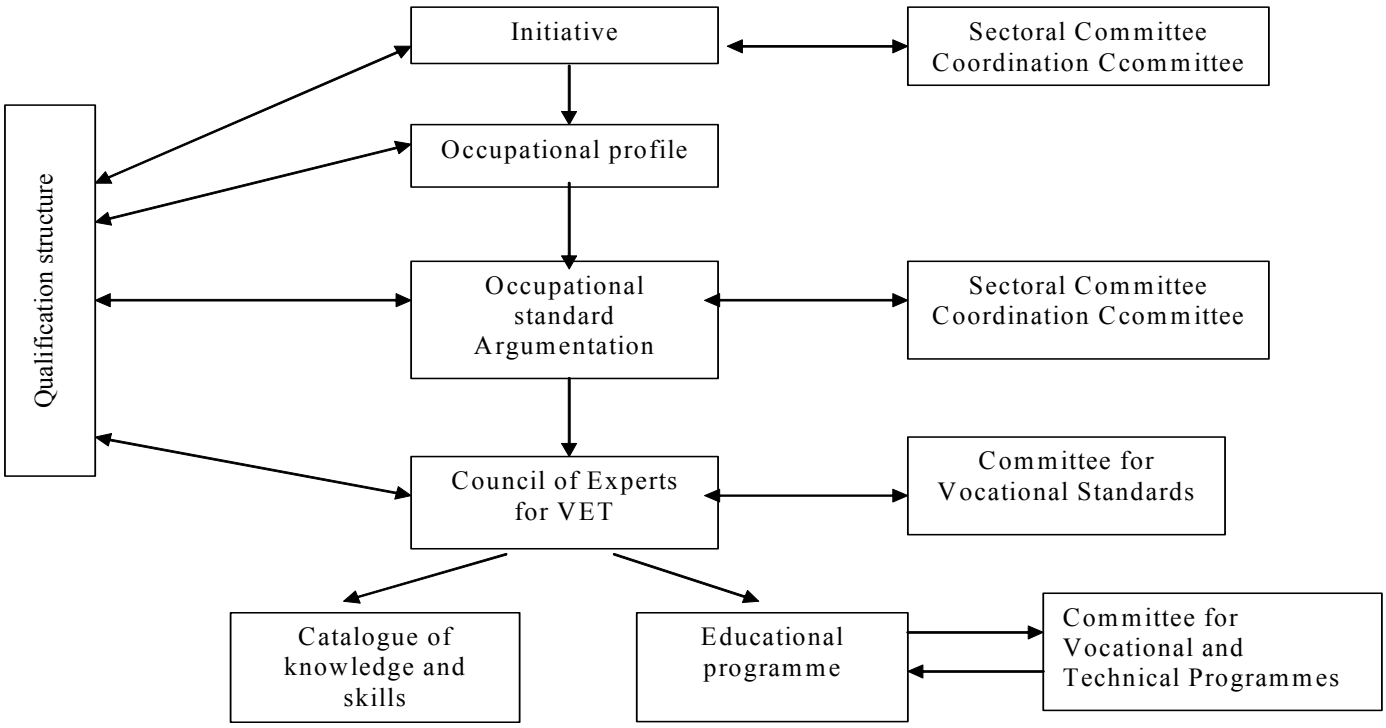
The designing of qualifications in Slovenia is nationaly coordinated tripartite process with very strong collegial share of responsibilities and functions of different stakeholders and institutions in this process.

The main control functions in the design of qualifications are executed by the state institutions. The procedure of designing of the new qualification begins with an **initiative** submitted on a specific form to the National Institute for Vocational Education and Training, which records it, provides an expert assessment and submits it for discussion to the sector committee for occupational standards. When discussing the initiative, information on the needs of the labour market, on the comparability of standards for a specific qualification among EU member states, and, if necessary, on compliance with regulations and norms at EU level are especially important. If the sector

committee for occupational standards considers the initiative to be well-founded, experts proposed by the competent sector committee for occupational standards, with methodological support from the *National Institute for Vocational Education and Training*, prepare a proposal for an **occupational profile**.

Based on the occupational profile, experts proposed by the competent sector committee for occupational standards, with support from the *National Institute for Vocational Education and Training*, prepare a proposal for an **occupational standard** which defines professional competences, knowledge and skills necessary for a particular profession or set of responsibilities. The occupational standard is coordinated within the competent sector committee for occupational standards, which proposes it for discussion to the Council of Experts of the Republic of Slovenia for Vocational and Technical Education. An expert committee for occupational standards operating within the Council of Experts of the Republic of Slovenia for Vocational and Technical Education discusses the occupational standard and proposes its adoption or rejection. The final decision is taken by the Council of Experts of the Republic of Slovenia for Vocational and Technical Education, which thereupon proposes the occupational standard for adoption and publication in the Official Gazette to the minister responsible for labour.

On the basis of the occupational standard, a working group prepares a proposal for a **catalogue of standards for technical knowledge and skills** which is finally coordinated by the sector committee for occupational standards. Once the coordination is completed, the sector committee proposes the catalogue for discussion to the Council of Experts of the Republic of Slovenia for Vocational and Technical Education. The expert committee for occupational standards and the commission for educational programmes, operating within the Council of Experts, propose to the Council the adoption or rejection of the catalogue, and thereupon the Council proposes it for adoption to the Minister of Labour, Family and Social Affairs



The National Professional Qualifications Act (OG 83/2000, 81/2003, 118/2006) distributes responsibilities and basic duties of expert bodies, public institutions and other organisations responsible for putting the system into practice.

Expert Council of the Republic of Slovenia for Vocational Education and Training is in charge of*:*

- proposing vocational standards and certification catalogues;
- adopting methodology for the design of vocational standards and catalogues;
- passing priorities for elaborating vocational standards and catalogues within a specified time period and on the basis of long-term requirements of the labour market;
- proposing training programmes for committee members aiming towards obtaining a license.

The National Institute for Vocational Education and Training performs all expert, technical and other activities related to vocational standards on behalf of the Expert Council of the Republic of Slovenia for Vocational Education and Training.

When it comes to the acquisition of vocational qualifications, chambers, employer associations, professional organizations, non-governmental organizations, trade unions and responsible ministries as partners can launch initiatives for new vocational standards and catalogues at all complexity levels and propose the members of sectoral committees for vocational standards.

4. Methodological approaches in the designing of qualifications in the partners' countries and their influence to the structure and contents of the descriptors of qualifications

This chapter will examine how the learning outcomes approach is applied for the design of qualifications in the project partners' countries trying to identify specific features of it's application and to disclose the inflence of learning outcomes approach to the inter-country comparability of qualifications.

In Austria learning outcomes approach is still in the stage of implementation in the VET curriculum design. E.g. the Vocational Colleges in the field of construction (Hochbauer, Tiefbauer) already have implemented learning outcomes oriented curricula and training plans. There are some contradictions and difficulties in shifting to learning outcomes approach in the dual system of VET. First of all the acquisition and awarding of qualifications in the dual system is traditionnaly based on the holistic approach to occupation and vocational knowledge.

For example, Berufsbildende Höhere Schulen (BHS) provide students in addition to in-depth general education an advanced vocational training over a period of five years, culminating in a Reife- und Diplomprüfung (matriculation and diploma exam). **VET colleges** offer a Reifeprüfung certificate and VET diploma, which – with the acquisition of professional qualifications, the general higher education entrance qualification, and recognition of these programmes at a European level – ensures that graduates achieve a **high qualification level**: EU Directive 2005/36/EC provides access to a regulated profession in another Member State where access is contingent upon possession of a diploma certifying successful completion of higher or university education of (up to) four years' duration.

This entitles them to admission to university, higher technical colleges and post-secondary colleges. Universities and higher technical colleges are required by law to give students credit for specialized knowledge acquired by BHS graduates.

Contents of Höhere Technische Lehranstalten (HTL) curriculum has to provide with the solid knowledge backgrounds for the development of specialised technical and economical skills.

For example, in the construction sector technicians specialise in the fields of construction of buildings, infrastructural construction works and construction business (Hoch- und Tiefbau, Bauwirtschaft, Holzbau). In the training process the future technican is offered a wide and rich range of skills development possibilities and can additionnaly acquire the know-how and skills of bricklaying, carpentry, plumbing and other fields. Such curriculum provides solid wide knowledge and skills permitting him/her to work in the architects or construction engineeers offices, construction departments of industrial enterprises, construction works in the municipalities and regions. After the required period of practical work exprience and passing of the Baumeister exams he/she can establish and manage construction business enterprise.

Once they have worked in their field for three years, graduates of most Höhere Technische and Höhere Land- and forstwirtschaftliche Lehranstalten (higher-level secondary industrial, agricultural and forestry colleges) may apply to the Federal Ministry of Economics and Labour or the Federal Ministry of Agriculture, Forestry, Environment and Water Management for authorization to use the professional title of "lngenieur". Such pathways to the acquisition of qualifications are based on the curricula and standards oriented to the holistic system of the traditional sectoral requirements. Such approach is not compatible with the way of modularization and splitting of qualifications into autonomous units of competence. Besides the evident merits of the holistic approach to occupation in the designing of qualifications, there can be noticed some weaker points and one of them is that such approach can decrease the abilities of the training system to react to the current changes of the labour market and solid qualifications can create some problems of communication between the different levels of qualifications.

Currently there are efforts to shift the curricula to a more outcome-oriented approach. E.g. 5 curricula of different branches of Upper level technical colleges (HTL) – including construction – have been already redesigned. These curricula include a complex matrix list of fractional competences and different levels of learning acquisitions, linked together by specific descriptors.

Interviewed employers wished, that designed qualifications would ensure the better updating and norming of the education and training sub- systems and better coordination between the different levels and fields of training, as well as widen the possibilities for the assessment and recognition of the non-formal and informal learning.

In England one of the key methodological issues in designing of qualificationns is above mentioned introduction of credit based system in design of qualifications. It permits to integrate the learning outcomes with the volume of qualifications and to measure the extent of acquisition of learning outcomes. The Qualifications Credit Framework (QCF) uses volume as well as level so that the system of credits can operate across units as well as whole qualifications. The major advantages of the credit based system are that it recognises qualification size and gives a more flexible approach to learners' needs. The QCF is a structure that clearly shows how the different types of qualifications interrelate and allows credit from assessments to be transferred flexibly between qualifications. It can be regarded as the shift from quite radically outcomes oriented qualifications (as it was before the introduction of QCF) to certain compromise approach integrating learning outcomes with the inputs – learning time, volume and level of efforts in the learning process.

Qualifications in the QCF will consist of a number of designated units, each of which will have an approved credit value and level. These credit values represent the number of credits a learner will be awarded for successfully completing the unit. One credit is awarded for those learning outcomes achievable in 10 hours of learning time. An Award may have between 1 – 12 credits, a Certificate 13 – 36 credits and a Diploma over 36 credits. This approach introduces a

more flexible way of recognising achievement by awarding credit for qualifications and units (small steps of learning) and allowing learners to gain qualifications at their own pace along flexible routes (along similar lines to the Scottish system). One of the aims was to create a new framework of qualifications where it would be easier to understand and make the difference between qualifications clearer than in the NQF.

The level signifies the level of challenge or difficulty. The value indicates the amount of 'notional' learning time required, on average, for a learner to achieve a unit. Notional learning includes activities that learners need to do while supervised in order to complete their qualification, such as classes, tutorials, practical work and assessments. In addition notional learning time includes non-supervised activities such as homework, independent research, unsupervised rehearsals and work experience. Introduction of the credits permits more precise and in-depth comparison of qualifications, because it captures the complexity of the acquisition and development of knowledge and skills related to qualification. The work with the NQF and in the last five years in comparing qualifications across England, Scotland, Wales, Northern Ireland and the Republic of Ireland in terms of broad equivalence highlighted the necessity of comparing size, content and level of qualifications as closely as possible – 'level' alone appeared as an inadequate indicator. Each qualification in QCF, like the NQF before, has a level. Qualifications with the same level are broadly similar in terms of the demand they place on the learner: effectively they have the same difficulty. On the NQF, however, different qualifications at the same level could be very different in terms of content and duration. On the QCF all qualifications have a credit value, so it is easy easy to see which qualifications at the same level may take longer to achieve. This makes it easy to compare the difficulty and size of qualifications. In the QCF each qualification is made up of units – these describe specific areas of learning within a qualification. Some qualifications have optional units, and some have specific approved pathways. Within the QCF the regulators have specifically equated some vocational qualifications to general secondary education and A-levels for purposes of progression in order to ensure that qualifications for 14 to 19-year-olds are broadly comparable in some respects.

Sectoral bodies can now design qualifications to support learning and development rather than design qualifications in order to meet targets for increasing numbers of people with higher level qualifications. The weaknesses of relying on outcomes standards alone are now widely recognised – the quality of learning processes are important too.

Higher level qualifications are dominated by HE-accredited learning. However, in the UK HE qualifications incorporate learning programmes and qualifications with a very strong practitioner focus and subject areas which are unlikely to be found in some other countries (e.g. green-keeping). There has also been the development of vocationally-oriented foundation degrees (short-cycle two year sub-degree programmes). There is not therefore a strong distinction between higher level academically-oriented and vocationally-oriented qualifications which involve a high learning volume (e.g. more than several thousand notional learning hours), and all such provision undertaken in HE in the UK (outside Scotland) is regulated by the Framework for Higher Education Qualifications in England,Wales and Northern Ireland (FHEQ).

Within HE generic descriptors are 'translated' into subject language and some descriptors may not be addressed in a programme and new descriptors may be added. Within HE there are also differences in the extent to which studies are disciplined-based (or clearly within the sphere of the development of academic learning) or are vocational or employability-related. There can also be major differences in the importance of a knowledge-base: whether in relation to a learner's skills of manipulation of knowledge (analysis, synthesis evaluation and application) or in the capacity of the learner to deploy knowledge in tackling tasks / solving problems. Employers, such as those in investment banking, sometimes specify that they will only take graduates who have mastered a dsiciplinary knowledge base (interestingly they accept engineering, history, maths etc. as well as economics, but they will not usually accept graduates who have studied business studies or more

vocational subjects). Their argument is that mastery of a knowledge base is itself a transferable skill and investment banking requires mastery of a particular knowledge base.

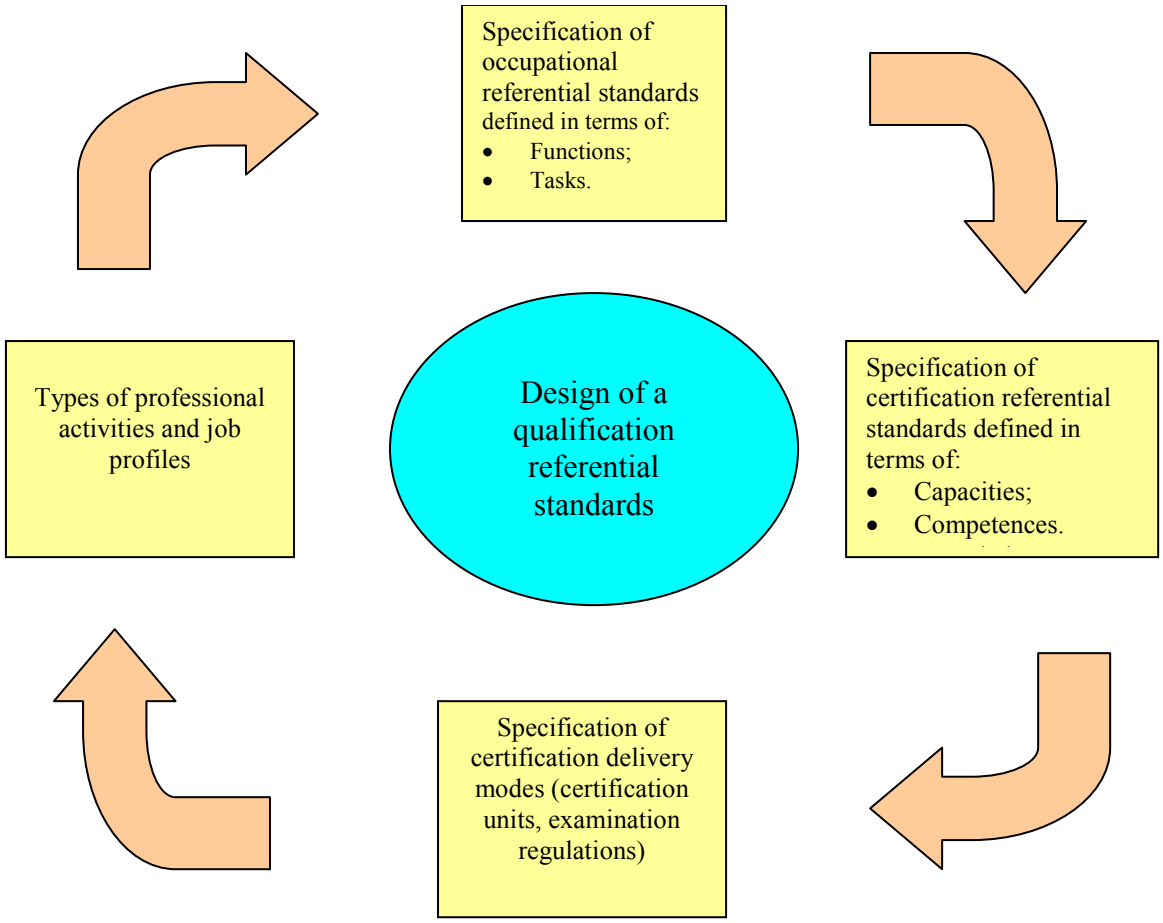
One of the most important factors influencing methodology in designing of qualifications in France is the goal of standardization of qualifications to ensure the sound quality of education, high quality of skills and effective coordination and management of the provision and awarding of qualifications executed by the state institutions. Establishing a direct link between the educational system and labour market via combining both occupational and certification referential standards as a reinforcement of the move towards competence and learning outcomes approach together with rather detailed prescriptive but regularly adapted contents of qualifications are one of the most typic outcomes of this goal.

The current "referential standards" for the design and provision of qualifications ("le referential de certifications") in VET were first developed at the beginning of the 1980's within the Ministry of Education and organised (classified) within a nomenclature of levels and fields, which strongly influences other classification systems, either inside or outsides the whole educational and training system. Thus, the use of term and the approach have spread throughout most organisations setting up specific educational and training curricula outside this ministry, particular curricula for adults organised by the Ministry of Labour and those set-up in various professional sectors. While there are several bodies which took in charge the development of their own "referential standards", most of them position themselves in relation to those of the Ministry of Education. As they concern basically over 60% of the delivery of qualifications in France (if we include those delivered by other the ministries whose qualifications are automatically registered within the NQF repertory), one can say that they constitute the basic "referential standards" with a great influence on the format of other qualification standards in other bodies and institutions (public and private) .

Viewed in grater details, the process of designing the "referential standards" of a qualification (such as, for instance, a "professional baccalaureate" for a "building technician" in "organisation and production of structural works", FQF4 – EQF4) includes three basic consecutively interrelated forms (see diagram 1 below):

- Referential of occupational activities;
- Certification referential of the qualification;
- Referential of certification delivery modes (design of the qualification units, establishing the examination regulations, definition of validation tests, fixing-up the required workplace training periods, establishing a table of correspondence between qualification units and validating tests including specifying the exemption units).

Diagram 1: ***Process of designing the referential standards of a qualification***



The descriptors of referential standards include:

- An introductory brief summary defining the basic activities that can be done by the holder of the qualification, their end purposes and the professional situations in which these activities can be exercised;
- A brief description of the professional context which concretely situates the exercised activities within the firms and the sectors;
- Delineation of boundaries and relative importance of exercised activities. The boundaries indicate the operational functions exercised by the holder of the qualification within the firm, including the main performed tasks with autonomy. The relative importance of these activities is determined according the relevant criteria in the concerned field of activity.

Functional approach is used in describing the activities in terms of "functions" and tasks".

For each undertaken function (activity) and task, the individual is assigned a level of responsibility and autonomy from 1 to 3 where (in the case of a "building technician" holding a "Bac. Pro." in "organisation and production of structural works", FQF4 – EQF4)

Thus, the *"occupational referential (RAP-Référentiel des Activités Professionnelles)"* describes the professional activities to be exercised by the holder of the qualification. It is based on the functional analysis of the real activity and anticipates its developments. It does not describe the professional activities of a beginner, but it identifies a professional target by taking into account the

broader process of adaptation to employment and employability requirements. It is this referential which constitutes the basis for designing the certification referential of the qualification, based on a set of identified competences which go through an assessment and validation processes which constitutes the subject of certification.

The *certification referential (le référentiel de certification)* is a regulatory document which describes the skills and competences to be attained in a vocational field. The document applies to competences assessment just as the occupational referential applies to working situations. A diploma is awarded to attest these skills and competences. The certification referential specifies the conditions and the indicators for the assessment of skills and competences. It should be noted that only the occupational field is considered since the field of general knowledge is subject to another principle of definition and validation.

The structure of "certification referential" is based on three sets of descriptors of competences and knowledge:

- Capacities ("*capacités*") as a way to qualify in general and transversal know-how (for example, analyse, prepare, communicate, implement).
- Competences ("*savoir faire*"), meaning here the know-how held by the individual and related to his or her actions in the surrounding technical and social environment.
- Associated knowledge ("*savoirs associés*") corresponding to the whole body of knowledge or information in the domain held by the individual and relevant to the objects and the environment, the properties of these objects and the laws related to this environment.

Each competence is described by specifying what the qualification holder should be capable of, and the implementation conditions and resources and the evaluation criteria of expected performance.

The relationship between the "occupational referential standards" and the "certification referential standards" is specified by means of a table in a matrix format linking different tasks in the occupational activities to capacities and competences in the occupational field.

Associated knowledge corresponds to all information acquired by the qualification holder, which are relevant to the objects and the environment in of the concerned field, including the properties of these objects and the laws related to this environment. The description includes:

- Summary description of associated knowledge: For instance, in the case of a holder of a qualification (Bac.Pro.) as a building technician in organisation and production of structural works", we find nine basic elements of associated knowledge (S:"savoirs associés") in the following fields:

- *Knowledge about the professional environment* (S1- Administrative and legal context of the act of building; S2 - Construction and communication techniques);
- *Scientific, technical and regulatory knowledge* (S3-Living comfort, S4-Scientific and technical approach in construction works, S5-Construction technology)
- *Carrying out of construction works* (S6- health and safety at work, S7-construction techniques and implementation rules, S8 equipment – tools, S9- Construction work management, and S10- Site supervision).

Then within each of these basic elements of associated knowledge, sets of elementary components are specified. For example, within S2 (construction and communication techniques), the following elementary elements of associated knowledge are specified: tools and techniques of representation (S2.1), tools and techniques for quantifying (S2.2), oral, written and graphical communication (S2.3).

- Detailed description of associated knowledge: Detailed specification of each basic and elementary element of the associated knowledge in terms of notions and concepts used and the boundaries of required knowledge.

In a matrix format table, the relationships between the basic elements of associated knowledge and competences in the whole field of occupational activity concerned by the qualification are specified.

Professional certifications are organized into units (professional units). Each consists of a coherent set of competences and knowledge that are associated with these competences.

The definition of the contents of units of the certification (a diploma) is intended to specify, for each of them, what tasks and competences are involved and in what context. It is intended for both:

- Allowing for mapping the professional activities and units within the regime "validation of acquired experience (VAE)";
- Establishing the link between the units (corresponding to exams and test) and the "occupational referential" in order to specify the assessment modes and frameworks.

In this process, qualifications are structured in units in order to take into account within the structure of related certifications the diversity of the candidates' learning and professional trajectories and needs (personal and professional learning and training courses). This is based on the principle that there is no single model for the preparation and certification path. Therefore:

- The vocational certifications are structured around units, regardless of their delivery mode.
- The certification referential is focused exclusively on the objective of certification of qualification;
- There exist pathway bridges between the certifications of the same level or levels, or even between different sectors.

The unit is the basic element in the certification structure of the qualification. This is what the candidate seeks, regardless of the chosen delivery mode. The units are capitalized over time, until graduation (usually within the limit of 5 years maximum of accumulation). Although it is possible to transfer a qualification to another within the qualification system of national education, there is no transfer from one system to another outside it without explicit agreements among different awarding bodies. The units do not show progressive learning in terms of the required level: in fact, the unit is defined by its content which coherently associates the characterizing competences with related occupational referential standards. Thus it is important to underline that the units are primarily constructed on the basis of professional activities. They consist of competences described in the referential standards and take into account the real professional activities while avoiding excessive generalization or fragmentation, as this excessiveness might eventually undermine the value of the undertaken assessment. The number of units is variable according to the nature of the certification of the qualification.

Holistic approach to design of qualifications is typical to the dual system of VET in **Germany.** This approach in the design of new qualifications require systemic and comprehensive research of activities. Design of new profiles of qualifications is based on the comprehensive and systemic research of professional activities and their specifications. Researchers (f. e. Spöttl) agree that the beginning of the process is the demand for a new profile. But for obvious reasons the process/the methods of defining a new profile are more in their focal point, f. e. Blings/Spöttl lined up the standard methods (LitVET-Report 2008):

1. Company visits: to get a direct picture of concrete work situation, occupational daily work and practice oriented qualification needs,
2. Case studies: for analysing comprehensively a typical work place and its qualification needs to cope with the work requirements,
3. Representative analyses of tasks: for analysing and identifying comprehensive and representative all requirements of work tasks,
4. Expert interviews: for clarifying specific problems, which are not possible to experience directly at the company, for example future developments,
5. Committee expert interviews: to reflect the data basis and the process of decision for the content shaping and the integration of pedagogic, economic and societal aspects.

Such holistic approach in design of qualifications (despite of certain dualism in the process of design and provision of qualifications) is not compatible with the flexible and unit-based structuring of qualifications promoted by the ECVET policy and instruments. Respecting that ECVET is not implemented yet in Germany there are developed neither modules (units) nor outcome-oriented curricula nor crediting systems, the expected influence is only speculation (but at least well founded). Some of the ECVET-Recommendations (Transparency, Learning Outcomes) are in-line with the German discussions and modernisations of the design of qualifications – others are contrary. Especially the prohibition of double assessment and the determination on assessment of each unit separately could lead to strong contradictions to the established approach of final exams. Another potential problem is the change from minimum to regular standards by crediting the units - this is easy feasible in school based systems but not in dual ones. Each company that is certified for apprenticeship in Germany has to tackle all content-areas of the profile, but the time and the meaning they spend on the single positions is open to huge differences. In other cases many small or specialised companies would not be able anymore to have apprentices.

One of the challenges and, in the same time, reactions of the design of qualifications in the dual system to the processes of „learning outcomes" orientation and modularisation is strengthenning the match between *the practical [in companies] and theoretical [in schools] competence areas* in the curricula. Respecting the different organisation of work in the enterprises this does not mean that each competence area must be taught at both places in the same period. But to derive these areas by analysing work processes and to develop both (school & company) curricula accordingly is a pretty modern approach. The enterprises in aircraft industry go even one step forward:

"Experiences showed that the required competences [through European countries] are partly – or not partly, **mainly** [highlighted by the interviewee] – identical, but the way to gain these competences is very different." The idea is to formulate these necessary competences together in Europe and each national vocational training system seeks and chooses according answers.

The requirements of competences from the wrokplaces can be rather similar or vene identic, but the ways of acquisition of these competences can be very different. The main question is to what extent the independent pathways of the acquisition of these competences in the various training processes in the countries would influence the similarity (or differences) of the skills and performance of the holders of qualifications.

Breadth of German curricula and holistic approach to the contents of occupation and it's requirements for the vocational knowledge and skills sometimes create problems of compatibility with the European skills standards and requirements in the sectors. For example, in the sector of aircraft maintenance there is not only the EACEA (Education, Audiovisual and Culture Executive Agency**)** *recommending* frameworks but also the EASA (European Aviation Safety Agency, run by the ministries of transport) *setting* standards by formulating modules and assessment procedures. These standards are not in line with the German curricula (actually the curricula are much broader but do neither contain certain key-words nor have the assessment methods the EASA is asking for). These EASA-modules gave the kick-off to initiate a reorganisation in the field of aircraft electricians and mechanics.

In **Lithuania** qualifications provided by the VET system are defined and described using learning outcomes approach. The existing VET standards which describe the qualifications provided by the initial VET institutions are based on competences. The definition of competence in the NQF corresponds in principle to the definition of learning outcomes. The sub-sector of university higher education is only at the initial stage for defining and describing degrees and qualifications and for setting standards by the learning outcomes. There has been recently launched the national project for the implementation of the ECTS system which will facilitate the defining of the higher education degrees and qualifications in terms of learning outcomes. The sub-sector of

colleges (vocational higher education) also uses the standards described in terms of competences. VET curricula are also based on competence approach and are described in terms of competences according to the VET standards. However, the VET curricula also provide the indications of the corresponding subjects, which provide the knowledge and skills related to the outlined competences. The curricula of the university higher education is largely based on the subjects (input) and oriented to the time, or credit based approach. The process of the reorientation of the university curricula to the learning outcomes approach is only at the very initial stage.

However, the current situation of the shift to learning outcomes approach in the fields of vocational training and higher education shows the lack of systematic approach in this undertaking. This shift is only at the very initial stage of implementation: VET sector made some progress in the fields of VET standards and curriculum design, but the provision of training is organised mostly on the subject basis and time of training, providing almost no possibilities for the learners to choose the training modules, learn in different ways and in different duration.

It is expected, that the shift to learning outcomes will be enhanced and reinforced by the introduction of the modular training system on the national level, as well as by the introduction of the system of recognition of the non-formal and informal learning.

The concept of competence used in the designing of qualifications and in the NQF of Lithuania is derived from the the interrelations between the system of work and the system of education (Concept of the National Qualifications System of Lithuania 2007). Here competences are understood as a bridge between the system of work and the system of education. Competences are the main elements of existing VET standards and planned occupational standards. Together with the characteristics of activities reflecting the requirements of activities to the performed functions, competences are the main parameters for the referencing of qualifications to the levels in the NQF. Here competences present the response of the system of education to the needs of the system of work Looking to the structure of the discerned types of competences, it can be noted that the competences of each type are constituted of the skills, knowledge and key skills and abilities with different weight of these components, depending on the type of competence: skills predominate in the functional competences, knowledge – in the cognitive competences and the key skills and abilities – in the general competences.

According to the interviewed expert from the Centre of Development of Qualifications and Vocational Training the methodology for the design of qualifications was quite comprehensively revised and rethought. The biggest challenges are seen not in the contents and development of methodology of design of qualifications but in the application of this methodology in practice:

However there we can notice some divide in quality between the theoretical frameworks and methodologies and their practical implementation: theoretical part seems to be of high quality, but the problems start with the practical implementation. Even in the guidelines of the research of occupations and designing of standards there are some quite misleading ideas and recommendations, as for example, that the research of activities can be implemented only by the qualified researches with doctoral degree. Here lies the danger of the drift to academism in designing of qualifications, ignoring the main requirement in this process – to know and to understand the contents of professional activities. Know how and experience of the field are the most important factors in the designing of occupational standards and these factors are not related with the academic achievements of degrees.

What regards the originality of the existing VET standards and regulations of higher education studies, the expert noticed, that there can hardly be noticed any original or specific treats of the regulations of higher education studies – these documents are quite bureaucratic. The VET standards were developed by the local experts in cooperation with the foreign organizations, such as European Training Foundation. These standards are quite original and include some original elements.

The main original characteristics of these standards is that they integrate standardized descriptors of occupations providing the information on the goals of occupation, objectives and derived competences with the training objectives for each listed competence. Of course these standards are not completely original, because a lot of know-how and ideas came from the participation in the Peers Advisory group organized by the ETF. Working in this group permitted to analyse the experience of different countries and to learn from it.

The original and innovative elements and aspects in the VET standards were introduced in the process of designing of these standards by trying to solve the encountered problems and challenges. Many of these innovations were also based on the learning from the already existing experiences and solutions from the other countries:

For example, the initial version of VET standards did not include the limits of competence. The limits of competence were introduced later. After we prepared the first drafts of standards, for example VET standard of waiter, it included the competences with many variable elements (to advice to the customers in selecting beverages – alcohol beverages, soft drinks, juices etc.). In the first version of standard this competence included only advice in selecting alcoholic beverages. We understood that describing competences we have to provide as wide and complete range of variables of their application referring to the reality of practical application of these competences. That is how the limits of competence appeared. We have learned from the experience of the different countries but it was not the case of the direct transfer of experience.

The structure and contents of VET standards was shaped in the discussions between the Ministry of Education and Science, the Centre for the Methodology of VET and the Centre for the Vocational Education and Research at Vytautas Magnus University. Therefore the structure of VET standard was quite original and different from the analogue documents of the other countries, but the basic ideas came from the learning from the different achievements and experiences.

Analysing the stnadardisation approach used in the VET standards of Lithuania, the expert noticed twio aspects: orientation to the minimal common requirements of activity to the performer and lack of attention to the future skills needs. The VET standards are oriented to the minimal common requirements: they indicate what is obligatory and necessary to achieve for the competent performance of activities. They do not foresee any excellence levels or steps which would be needed for the etalons of quality in performance. Equally, in the design of currently prepared standards there was no sufficient attention to the future skills and knowledge.

The main orientation was quite short-term: what knowledge and skills are needed for the work performance at the moment. One of the possible reasons is the limitations of the available resources. Comprehensive research of activities and skills needs forecasting is very expensive. Therefore the design of VET standards is made in more simple way: starting from the definition of the title of occupation and qualification, the work group consisting from the representatives of VET institutions and employers (but mostly from the VET institutions) brainstorm the list of competences. Then these experts with the prepared list of competences go to the different selected enterprises (big, medium and small, different levels of technological development etc.) where they are discussed with the employers and employees whether the selected competences reflect the current work practices. Therefore the new competences appear at the initial stage of these visits and later the list of competences become sufficiently saturated and no new competences are added. Normally there are visited up to 10 enterprises. Sometimes enterprises indicate what competences and skills will be needed in the near future but in most cases they are focused on the current skills needs.

The main changes in design of qualifications in the Netherlands are related to the shift to the competence based standards and broadening of the qualifications seeking to reduce their fragmentation in the sectors and to increase employability.

In the Netherlands the shift to competence based approach let to the changes in the contents and structure of qualification for upper secondary vocational education. These qualifications consist

of core competences and have triple target - functioning of the student on the labour market, societal functioning and transferring to higher vocational education (Ministry of Education, 1996). In 2006 the first students graduated according to the restructured qualification structure, consisting of competencies. Instead of the existing total of 700 detailed descriptions of professions in the qualification structure as a whole, a more flexible qualification structure (more generic) has been introduced, which is directed at the future career of participants (employability and lifelong learning). Not only knowledge and skills, but also attitudes and competencies for citizenship belong to it. This educational innovation is also the strong wish of organized industry, the Ministry of Education and the ROCs (Uitleg, 2002a).

The qualification structure describes all the occupations for which the sector offers vocational courses, plus the competences needed to practise those occupations. This structure, which is the mainstay of Dutch vocational training, is designed and maintained jointly by vocational colleges and employers' and employees' representatives. The qualification structure is undergoing extensive remodelling towards competence-based learning in order to meet society's needs for modern and flexible employees. In the same time it is aimed to design broadly based and robust qualifications indicating what qualities and attitudes are needed in the workplace, not how a training course should be designed. It also leads to the increase of the breadth of VET curricula. Narrow, highly job-specific training programmes would not be eligible for an independent place within the qualification structure. Consequently, not every industry or occupational field would have its own curricula at all levels of vocational qualifications.

The learning outcomes approach is already embedded in the **Slovene** educational system and generally accepted. The term educational outcomes is used by the Decree on the introduction and use of the classifications system of education and training (Klasius) and defined as 'the set of knowledge, skills and competences for "life and work" achieved by learners in the process of formal, informal and non-formal learning. Educational outcomes are certifiable as a rule'. But, for qualifications acquired after completition of nationally accredited programmes additionally input criteria are used, e.g. access requirements, typical length of the programme and inputs in term of volume of learning activites in VET and HE defined also in credit points.

An overarching Slovenian qualifications framework that is being developed is also defining learning outcomes in terms of knowledge, skill and competence which are standardized on particular qualification level. It is a statement about what a candidate on a certan qualifying stage after the completiotion of the learning period knows, is able to do and decide. Learning outcomes can be developed in conection with the courses, program units, modules, programs. In these conections, the learning outcomes are linked to qualification or education. However, since slovenian qualification framework (SOK) is not accepted yet, this will be a matter of discussion till the april 2011 – after this date we ll accept SOK on a legal basic. Anyway, I think this is good to mention, although we can not be 100% if this ll be final definition of LO in our framework.

Educational programmes have moved from a content-based to an objectives-based approach. The relation between objectives and outcomes, and between learning objectives/outcomes and learning standards, are now being discussed. A balance is being sought in emphasising the role played by general knowledge and acquired key competences, sufficiently broad technical knowledge and certain pedagogical processes in the definition of educational outcomes.

In VET, the learning outcome approach is seen as a very useful way of bringing vocational programmes and schools closer to 'real life' and the needs of the labour market. Occupational profiles and standards are closely related to the VET curricula and make National VET framework curricula.(The similar situation is currently in Lithuania: there are established VET standards for the part of qualifications). The basis for all VET qualifications is a system of occupational profiles and

standards, identifying knowledge and skills required in the labour market. National VET framework curricula define expected knowledge, skills and attitudes to be acquired by students.

Syllabuses usually follow the Bloom taxonomy/concept of learning outcomes. Broad competence concept in catalogues for modules/subjects is defined as ability and readiness to use knowledge, skills and attitudes in study and work contexts. In addition to the national VET framework curriculum, the school curriculum was introduced and represents an important innovation in Slovenia giving schools increased autonomy in curriculum planning and especially in taking into account the local environment and employers' needs when developing the curriculum.

New programmes in general education (compulsory and upper secondary) include learning outcomes to be achieved either at the end of the three stages in compulsory education or at the end of upper-secondary education tested in the external Matura examination.

The National Professional Qualifications Act (2000, amended 2003, 2006 and 2009) enables the validation of vocationally-related knowledge, skills and experiences acquired out of school. The NQF and the validation of non-formal knowledge in Slovenia are based on assessment qualifications catalogues (catalogues of standards for professional knowledge and skills).

Therefore, two methodologies for the preparation of occupational standards and catalogues are prescribed, which ensures the transparency and comparability of occupational standards and catalogues of standards for technical knowledge and skills. Occupational standards and catalogues are prepared for individual professions which are recognised by the Statistical Office of the Republic of Slovenia and classified into the Standard Classifications of Occupations.

Although the occupational standards and catalogues are closely related to a particular sector and profession, general competences necessary to work effectively in a profession should also be included. For example: quality assurance of work, ICT skills, communication skills, work planning and organisation, health and environmental protection, etc. This means that at the moment the national professional qualifications system is not able to verify general competences, which, on the other hand, undoubtedly increase the horizontal as well as vertical mobility.

The national methodology represents a uniform basis for all occupational standards and catalogues, and thus ensures transparency and comparability of documents at national level. The methodological support for the preparation of occupational standards and catalogues is provided by the National Institute for Vocational Education and Training.

Concluding remarks

1. The goals of the designing of qualifications in the partners' countries are quite similar and can be classified into following groups:

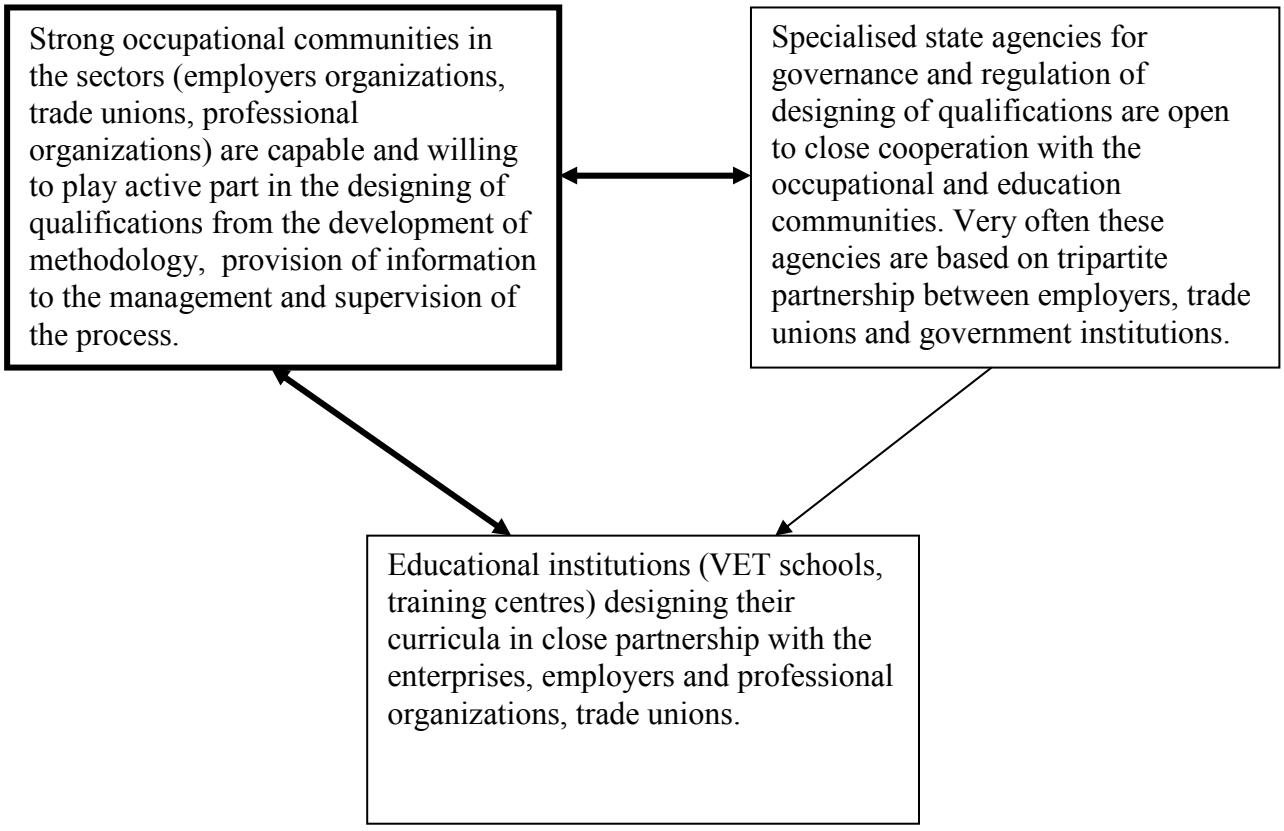
- Reformative goals directed to the enhancement of the changes and improvements of the existing systems of education and training (eg. to contribute to the promotion of learning path fluidity and complementarity between formal, informal and non-formal learning, icluding the reinforcement of quality assurance and the move towards comptences and learning outcomes approach in the whole educational and training system)
- Communication goals related to the establishment and improvement communication between the education system of the enterprises, seeking to improve the match between the qualifications provided in the education and training system and labour market needs.
- Standardization and referencing goals directed to the preparation of the standards and referentials for the prpovision and assessment of learning outcomes
- Internal improvement and development of the contents of qualifications (eg. increase of the interdisciplinarity in the contents of qualifications to broaden the training and open better possibilities for wider and more universal qualifications , for example construction engineer at the

bachelor level, while at the masters level the design of qualifications should focus on the responsibility and management skills; *ensuring capacity to certify knowledge, skills and competence that have not yet been incorporated in formal education and training programmes*).

2. Some goals of designing of qualifications reflect the priorities and problems of existing education and training and skills development models in the countries. For example, *giving access to legally recognized (state regulated) and non-legally recognized(sector regulated) occupations(Austria) and* increase the permeability between the different strands and levels of qualifications (Germany) reflect the strong vocational (Beruf) orientation of the dual VET system and the problems of permeability between VET and higher education in this system. Similarly, the goal related to *structured communication of the needs of skills, knowledge and key skills from the world of work (business) to the system of education* (Lithuania) reflects the challenges of reform of school based VET system in the transitional socioeconomic model of society.

3. Designing of qualifications in the partners countries is based on the different models of social partnership and institutional cooperation. Analysing the power and influence of different stakeholders belonging to the occupational, government and education communities in the process of designing of qualifications there can be discerned four main models having different impacts to the comparability of competences and qualifications. These models are designed in the schemes below. The bolded frames and arrows indicate dominant stakeholders and relationships in the process of the designing of qualifications.

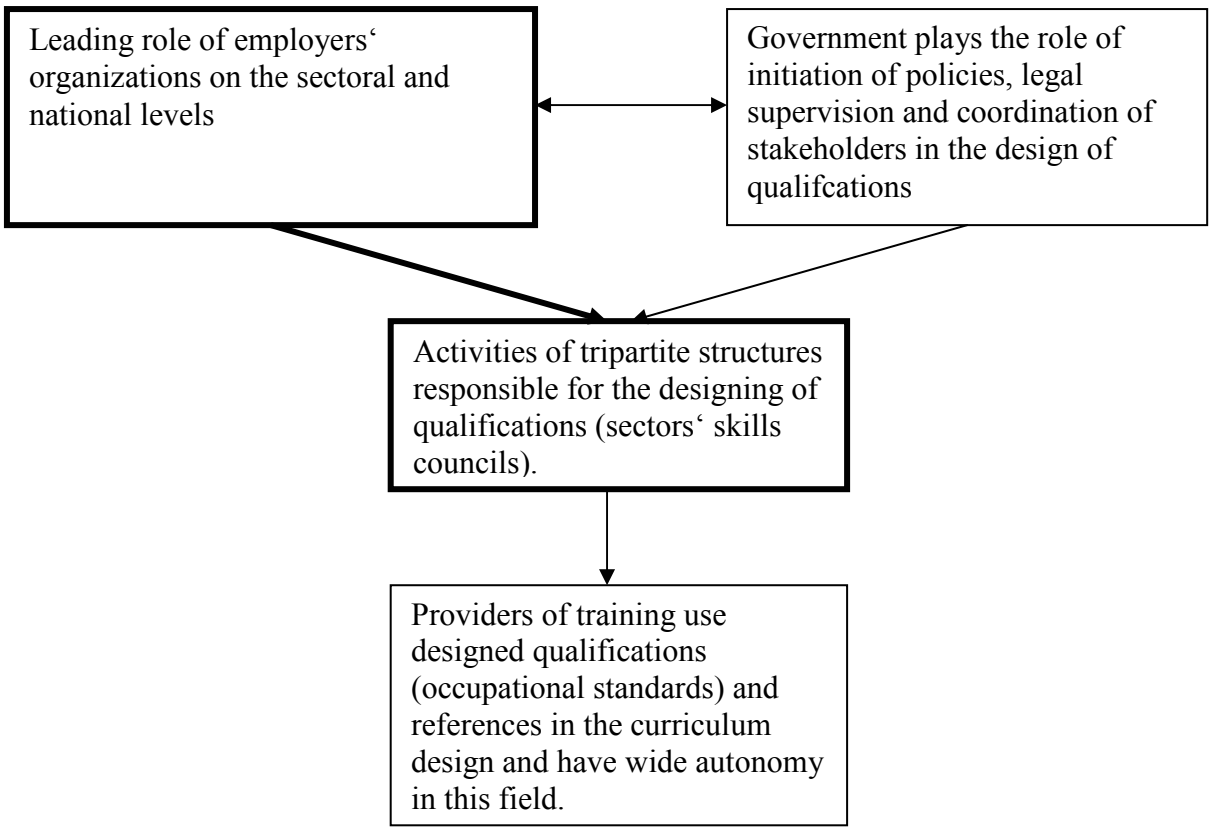
A. Corporate sectoral model (Austria, Germany, the Netherlands)



Specific impact to the designing of qualifications:

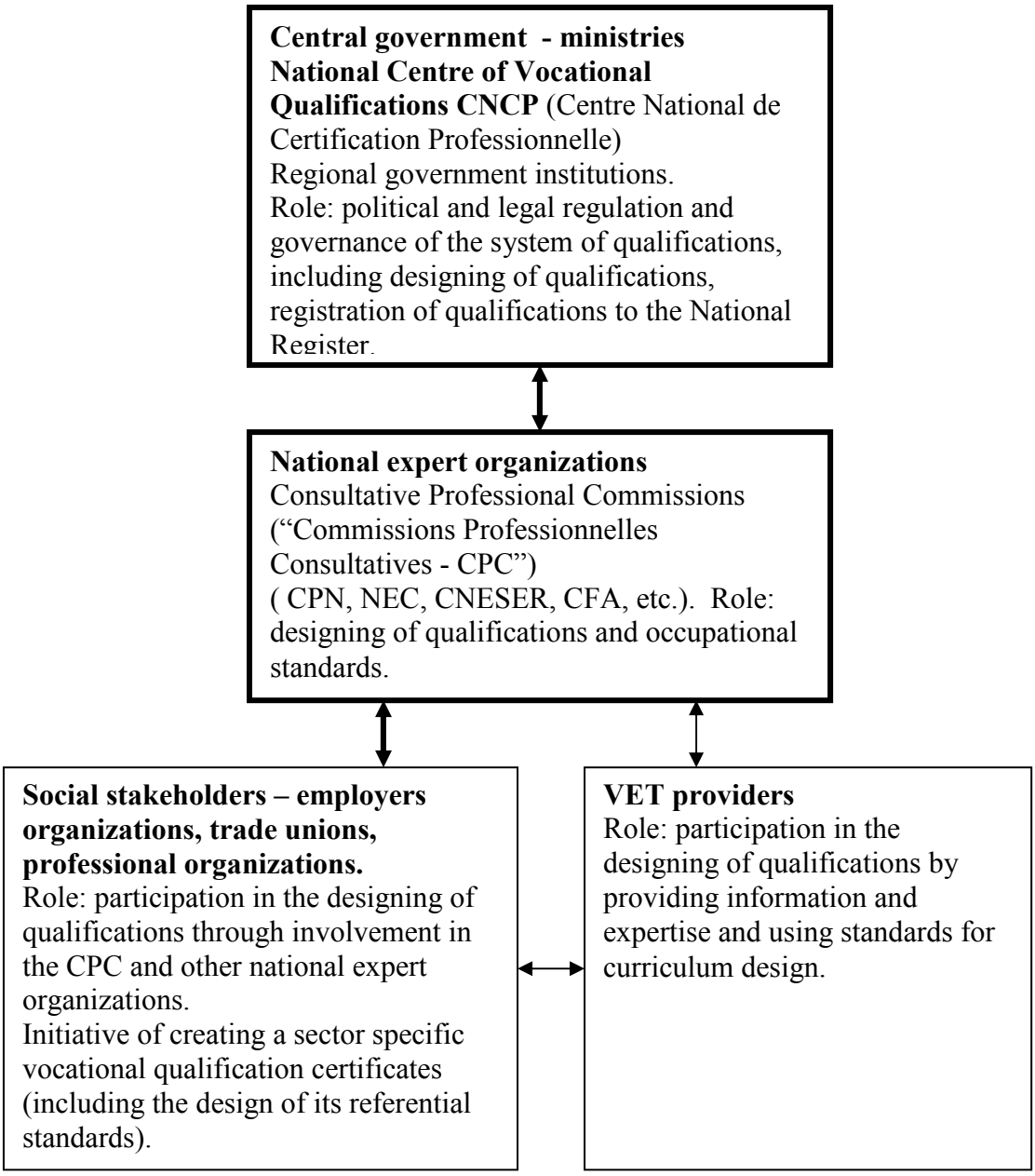
- Strong occupational orientation and holistic approach to the contents of qualifications, systematically considering the objectives and tasks of activities and ensuring comprehensiveness of the contents of training regulations and curricula.
- Strong influence of the internal norms and requirements of activities to the criteria of structuring of qualifications and referencing these qualifications to the levels of qualifications frameworks.
- Robust and systemic links between occupational knowledge (know-how) and skills.

B . Flexible market-based model (England)



Specific impact to the designing of qualifications:
- Bigger focus on the current skills needs of workplaces.
- Flexible structure (modular, unitų based) and contents of qualifications adapting to the variety of workplaces.
- Lower level of regulation of the contents and structure of qualificationsleading to „considerable diversity between sectors and a largelly ad hoc approach to specifying underpinning knowledge” (Young, 2008)

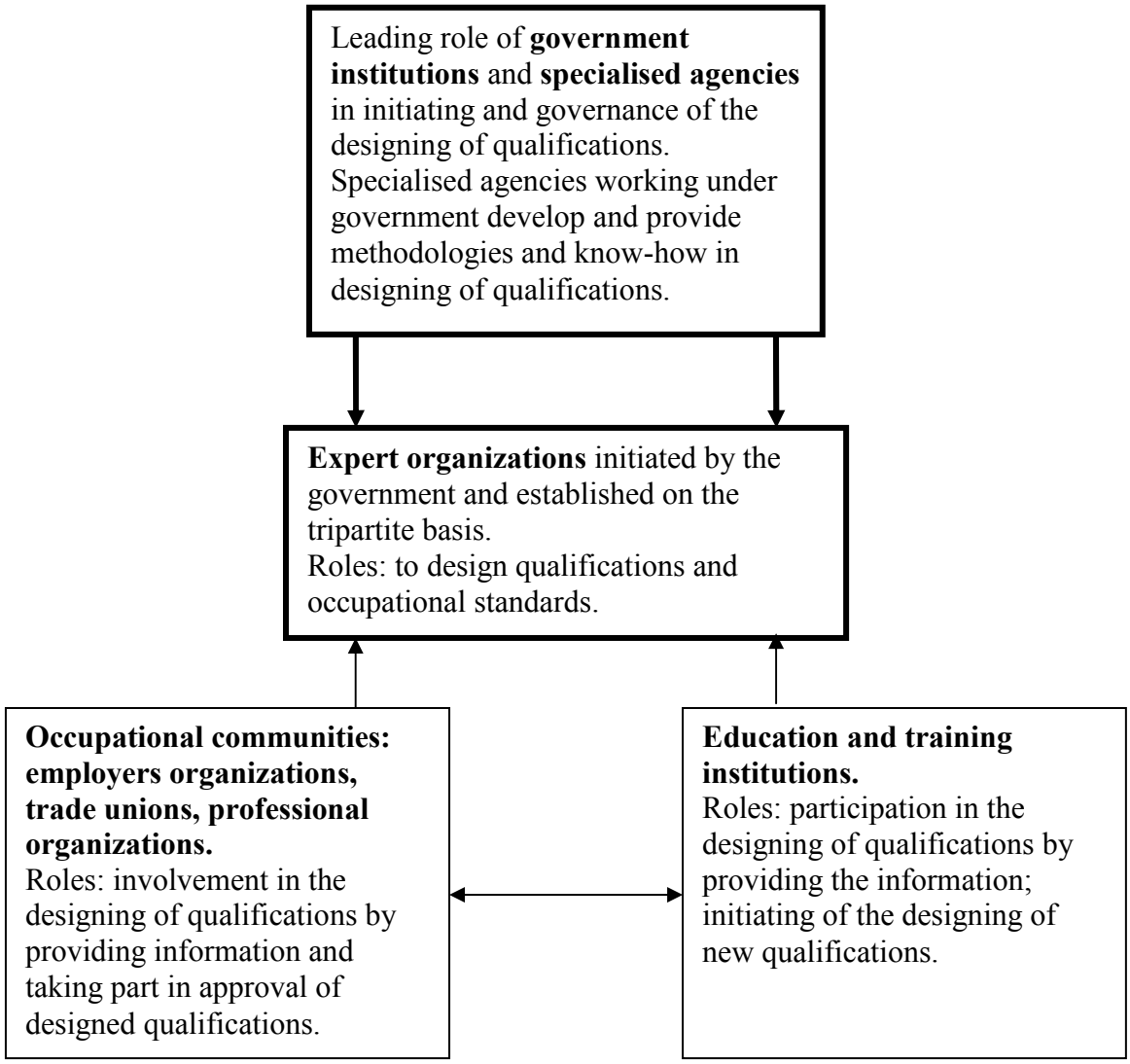
C. State regulated corporate model (France)



Specific impact to the designing of qualifications:

- Combination of centralised regulation of the process of designing of qualifications and active involvement of social stakeholders in this process through the national expert organizations permit to manage variety of qualifications and in the same time to promote this variety reacting to the labour market needs.
- Despite of it's complexity, the existing system of social partnership and institutional cooperation in the designing of qualifications provides the right to all the stakeholders to initiate the designing of the new qualifications, ensuring better match of designed qualifications to the different changes of the labour market, technologies, etc.

D. Transitional model of designing of qualifications – Lithuania and Slovenia



Specific impact to the designing of qualifications:

- Ensures standardization of qualifications on the national level.
- Uneven participation and involvemement of stakeholders (especially trade unions and professional organizations) due to the lack of their know-how and experience in designing of qualifications may cause the insufficient consideration of the changing labour market and workplace skills needs in the designing of qualifications.
- Lack of developped communities of trust (including employers, employees organizations, education providers) create challenges for the real recognition and trust in designed qualifications by all stakeholders.

4. Analysing and comparing methodological backgrounds applied for the designing of qualifications in the partners‘ countries, there can be noticed, that learning outcomes approach is still in the stage of implementation in this field. Partners‘ countries have different experiences in this field. In Austria and Germany this process is characterised by rather important contradictions between the learning outcomes approach and holistic, more subject based approach to designing of qualifications together with requirements of professional experience and approvals of professional organizations. In England there can be noticed the transition from radical learning outcomes

approach to the credit based qualifications, which integrate learning outcomes with inputs – learning time, volume and level of efforts of learners. In France the designing of qualifications combines occupational and certification referential standards. Here competence and learning outcomes approach is combined with rather detailed and prescriptive, but regularly adapted contents of qualifications. In Lithuania and Slovenia learning outcomes approach is introduced as a tool of reform, helping to strengthen and sustain the orientation of the VET and higher education to the needs of economy and labour market. Here rather radical transformation of former state led and school based model of initial vocational training to more open and market oriented model create favourable conditions for rather wide acceptance of learning outcomes approach in designing of qualifications. This comparison shows, that transition to learning outcomes in the design of qualifications is a very dynamic process which takes rather different directions in the countries. It can contribute to the development of differences of qualifications between countries in terms of their structure and contents.

5. Alan Brown discerns the following implications of the design of qualifications to the usage of the qualifications frameworks in the comparison of qualifications:

There is no reason why skills, knowledge and competence should be at a similar level in education, training or employment settings and frequently they are not. In the design of qualification this assumption requires different and new concept of qualifications, as dynamic and highly variable entities comprising the sets and combinations of skills, knowledge and competence belonging to the different levels of complexity. It decreases the weight of the level of qualification in the comparison of qualifications and increasing influence of the volume and breadth of learning and skills development needed for the acquisition of qualification, as well as of the breadth and volume of the work tasks contents. Furthermore, levels are treated as if they have some universal meaning and this assumption acts as a bar to genuine skill development: in reality all skill profiles are likely to be spiky (as performance in some aspects are much stronger than in others), whereas attribution of a level represents an aggregation of performance. For example, some hospital consultants could benefit from development of basic communication skills, but getting consultants to sign up to such courses, rather than high level specialist courses, is problematic, principally because their image of themselves as learners and specialists means they consider they long ago progressed beyond that type and level of learning. Attribution of qualifications to levels is also always a political process, as it depends upon valuing certain types of skills, knowledge and understanding over others, and upon decisions about how demanding to make initial qualifications. The focus upon levels, qualifications and learning outcomes is also a misdirection in that, as previously argued, it can draw attention to the need for people to become more highly qualified (in moving towards a higher level), when in order to become more skilled and more effective in terms of improvement of their performance it would be beneficial to pay attention to the development of their skills, knowledge and understanding at lower levels. The third way the focus upon levels, qualifications and learning outcomes can misdirect attention is that it gives the impression that learning at a particular level can be considered complete: the learning outcomes have been achieved. Whereas in practice, such attitudes can lead to what Argyris (1990) called ‘skilled incompetence’, where the focus on doing current activities well can nevertheless result in neglect of professional growth and development to the long-term detriment of the organisation.

Large integrated programmes of learning and development have a much wider range of social, educational and developmental purposes than short focused qualifications – the volume of learning being just one obvious difference. For the design of qualifications it implies orientation to the broadening and enrichment of the contents of qualifications by stressing the knowledge, skills and competence which enable and enhance personal and socio-professional development of the learner.

Age, prior experience and purpose are inter-related and many people and their careers may not fit a basically linear model of moving (upwards) through levels which seems to underpin the EQF and NQFs. It demands strengthening of the horizontal transferability and permeability of qualifications in the NQF descriptors and occupational standards: flexibilisation of the structure of qualifications, outlining of the pathways of the ‚broadening of qualifications' provided by multi-skilling in the different workplaces of fields of activities, introducing of the references in the descriptors of qualifications and qualification frameworks for the guidance of learners in the horizontal broadening of their qualifications through the multi-skilling approach.

Skills, knowledge and competences all change over time depending upon degree of use or non-use following qualification – even if exact equivalences could be applied at the moment of qualification, individual paths can and frequently do diverge sharply thereafter. It can create the need for the further development and implementation of the credit approach in the designing of qualifications permitting to grasp the changes in the development of skills, knwoledge and competences in the process of usage of qualifications.

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ANNEX No. 1

Centralization and unification of the approaches in design of qualifications and their implications to the inter-country comparability of qualifications

Ratio of unification and diversification in designing of qualifications Modes of regulation and initiatives in design of qualifications	Nationally unified process of designing, structure and contents of qualificatons (strict unification in applied methodology, approaches, procedures, legal basis, functions and rights of stakeholders).	Sectors apply their own unified approaches in the methodology, procedures, functions of stakeholders leading to unified structure and descriptions of sector‘s qualifications and related differences between sectors.	There is applied wide range of different approaches, methodologies and procedures in designing of qualifications, which are used differently by various institutions and stakeholders involved in the process.
Top-down approach. Initiatives in designing of qualifications come from the government and the whole process of designing of qualifications is centrally regulated by government, prescribing in the laws the roles and responsibilities of institutions and stakeholders.	Design of vocational education and training standards of Lithuania. Strongly centralised and unified approach in designing of standards led by the Ministry of Education and Science and Centre for Development of Qualifications and Vocational Education (former Methodological Centre of Vocational Education and Training) under the Ministry of Education and Science. The standards are prepared and discussed with the participation of the sectoral bodies which provide the information and assess designed standards. The VET standards and descriptors of qualifications strictly and comprehensively	Designing of national qualifications **in France co-ordinated by t**he National Commission for Vocational Qualifications/Certifications “CNCP” and executed by the Consultative Professional Commissions (“Commissions Professionnelles Consultatives - CPC”) established at the level of different ministries and composed of 17 active members representing different stakeholders. The centralization in designing or qualifications is supported by establishing and maintaining a National Repertory for Vocational Qualifications/certifications (Répertoire National des Certifications Professionnelles – RNCP).	

	define the training aims in the curriculum of training. The providers of training have much less authonomy and decision making freedom in applying these standards for the training process.		
Mixed approach. 1. Initiatives in designing of qualifications can be exerced by sectors or stakeholders, but all process of designing is centrally regulated by the governmental institutions. 2. Government delegates part of regulation functions to regions or sectors.	Future designing of the occupational standards in **Lithuania (**planned but not yet implemented process**)** and designing of occupational profiles and occupational standards in **Slovenia.** In the both processes the main control functions in the design of qualifications are executed by the state institutions. The control role of the specialised governmental bodies (National Institute for Vocational Education and Training in Slovenia and the Centre for Development of Qualifications and VET in Lithuania) is supplemented with the strong advisory and expert role of the sector bodies responsible for development of occupational standards. It is aimed, that sector bodies directly participate and make the main contribution in the designing of occupational standards. However, the initiatives of stakeholders and their roles in designing of qualifications in Lithuania and	1. Designing of VET standards (Ausbildungsordnungen) in Germany. National Institute of Vocational Education BIBB in collaboration with experts nominated by leading employers organizations and trade unions control the development of the draft training regulations for the in-company element of the training. There are tensions between the strong regulatory influence of state in the design of qualifications (the limitation of amount of vocational qualifications) and the approaches of stakeholders in preserving the status and contents of their „managed“ qualifications. It leads to the problems in the reorganisation or adaptation of the qualifications in the sectors. 2. Designing of sectors‘ qualifications in France according to sectors‘ agreements. The Vocational Qualification Certificates (CQF-Certificats de Qualification Professional) are	

	Slovenia are weakened by the lack of competence and readiness of social stakeholders to work and cooperate in the process of designing of qualifications, making their involvement rather fragmented and insufficient.	sector or inter-sectoral qualifications, created and developed by the sectors under the responsibility of social partners. Their registration (for 5 years) within "RNCP" is requested by the concerned sector bodies and approved by the National Commission for Vocational Qualifications/Certifications ("CNCP"). 3. Designing of the VET standards in Austria. Designing of sectors' qualifications in Austria is based on the collective agreements. The process of design of qualifications is coordinated by the National VET council. The interests of the stakeholders in the design of qualifications in the dual system of VET are coordinated on the national level by the activities of the General Directorate for Vocational Education and Training, Adult Education and School Sport (GD VET) of the Austrian Federal Ministry for Education, the Arts and Culture (BMUKK). The voice of practictioners in the design of qualifications is represented through the involvement of the representatives of companies and	

		economic interest groups. The chambers‘ responsibilities in the design of qualifications include the coordination and matching of the interests of industry or sector, as well as participation in the development of occupational profiles and training plans. 4. Designing of the occupational standards in the Netherlands. In the Netherlands the designing of vocational qualifications is led by the sector stakeholders organizations - landelijke organen voor het beroepsonderwijs. The designing process itself is regulated by the state legislation. Sector-specific bodies (‘landelijke organen voor het beroepsonderwijs’ or LOBs) develop skill standards for all the training programmes in their sector.	
Bottom-up approach. Initiatives in designing of qualifications, as well as management of the processes of designing, stakeholders involvement, quality assurance etc. are exercised by different stakeholders and institutions.	1. The case of designing of the regulations of higher education in **Lithuania.** Universities design and develop their own syllabi according to the requirements contained in the Order of the Minister of Science and Education of the Republic of Lithuania (11 December 2003). In recent years, the Centre for the Quality	Designing of the occupational standards in England. The designing of qualifications is strongly influenced by the priorities and aims of the sectors, which are reflected in the Sector Qualifications Strategies (SQS) prepared by each of 25 sector skills councils. Qualifications regulation is now	The case of designing of the higher education degrees and qualifications in England. Different types of organisations have separate requirements detailed in the Regulatory arrangements for the Qualifications and Credit Framework. Certain organisations are approved to **create and**

	Evaluation of Studies has introduced some standardised practices in the design of higher education programmes. 2. The case of designing of the higher education regulations in Germany.	the responsibility of Office of Qualifications and Examinations Regulation - Ofqual established in 2007 and responsible for regulating QCF qualifications and assessments to maintain standards.	**submit units** into the databank, to be included in accredited qualifications. Some organisations will be recognised to **develop rules of combination** for qualifications that meet QCF specifications and make effective use of the units available in the databank. Some organisations will be **recognised as awarding organisations.**

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Adding a design perspective to study learning environments in higher professional education

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Abstract How to design learning environments leading to learning-, thinking, collaboration- and regulation skills which can be applied to transferable, knowledge oriented learning outcomes is still controversial. We studied the designs of learning environments in innovative higher professional education more closely. To characterize learning environments we identify designable elements and position them on a scale ranging from specified, to emergent elements. Next, the main problems with the designs are identified. We introduce adaptive elements as a potential solution. We observed participants adapting such elements to suit their own needs or the needs of others. The designable and adaptive elements fulfill a dual function: they should offer contextual clues that would be available in professional practice and scaffold learners in need of support.

Keywords Higher professional education · Innovative higher education · Learning environments · Design perspective · Case studies

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Introduction

Established roles, resources and locations of learning are extended, changed and replaced in current higher education. The rapidly changing knowledge-based economy puts pressure on higher education to extend, change and replace established roles, resources and locations of learning and deliver flexible, employable, high qualified professionals. Tynjälä et al. (2003) indicate that the massification and diversification of the higher education system, economic globalization, novel modes of knowledge production, new professional requirements and the establishment of new vocational higher education systems in many countries have challenged higher education to develop new forms of collaboration with working life. They state that learning environments in which learners work collaboratively on actual (or simulated) real-life problems are good examples of forms of collaboration between education and working life.

As a consequence of the changing relationship between higher education and working life, we, as a society of politicians, parents, teachers and company representatives, strive for new learning outcomes (Simons et al. 2000) that can be characterized as durable, flexible, functional, meaningful, generalizable and application-oriented. These characteristics relate to the transferability of more knowledge oriented learning outcomes, besides, there is also need for learning-, thinking-, collaboration- and regulation-skills that can be applied on such transferable knowledge and the process of learning.

How to design learning environments leading to these learning outcomes is still controversial. Cognitive apprenticeship (Brown et al. 1989), situated learning and legitimate peripheral participation (Lave and Wenger 1991) are approaches attempting to break the encapsulation of school learning in different ways (Engeström 1991). Kirschner et al. (2006) state that current literature offers recommendations that most experienced educators find almost impossible to implement or are reluctant to implement because they require learners to engage in activities that are highly unlikely to result in effective learning outcomes. This triggered us to study the designs of higher professional education more closely from a design perspective. The following main research question will be addressed in this article: *How can we characterize learning environments in innovative higher professional education from a design perspective?*

The following definition of a learning environment will be used: (1) the physical setting in which a learner or community of learners carry out their work, including all the tools, documents and other artifacts to be found in that setting and (2) the physical setting but also the social/cultural setting for such work (JCALT 2001). Designs of learning environments will be studied when they are enacted in the context of innovative, higher professional education in the process of changing its current educational practice. We will study the problems with the design in use as well. The results will be used to identify a potential design solution for the problems that occurred.

Problem definition

Dichotomies in current educational research

To characterize learning environments many dichotomies have been introduced. On a conceptual level a distinction can be made between the acquisition and the participation metaphor (Sfard 1998). In the acquisition metaphor, knowledge is considered as a commodity that can be acquired, applied, transferred and shared with others. The participation

metaphor characterizes learning as becoming a member of a professional community. A second dichotomy refers to the definition and acquisition of knowledge in relation to professional competence. On the one hand knowledge is defined as formal knowledge that can be identified as separate from skills and attitudes. On the other, knowledge is seen as an inherent component of competence (Billet 2001a, b).

The two previous dichotomies relate to theoretical perspectives on learning, knowing and expertise, a third dichotomy has to do with the design of learning environments. On the one end there is an accent on encapsulated, school learning and on the other, on open learning approaches, such as, learning by expanding (Engeström 1991). A fourth dichotomy relates to teaching methods. Kirschner et al. (2002) identify the traditional cognitivist paradigm in which curricula are subject matter oriented, versus competency based learning based on situated cognition in (electronic) learning environments that more or less mimic real world contexts. This last dichotomy concerns the amount of instructional guidance offered to students. On one end of this distinction, there is direct instructional guidance, defined as providing information that fully explains the concepts and procedures that students are required to learn as well as learning strategy support that is compatible with human cognitive architecture. On the other side, is the minimal guidance approach which foster learning by challenging students to solve "authentic" problems or acquire complex knowledge in information-rich settings and in which minimal support is offered (Kirschner et al. 2006).

Operational framework and research questions

Most teachers and designers are struggling with the current paradigm shift from knowledge oriented teaching to more innovative, competence based learning and there is surprisingly little knowledge about designing (Kirschner et al. 2002).

Complementary to the abovementioned dichotomies we introduce a dichotomy with respect to the *specificity of a design* of a learning environment. This dichotomy is related to the amount of guidance dichotomy, but should have a better fit with a design perspective. It also takes account of the concept of 'friction' (Vermunt and Verloop 1999) into account, which refers to the interplay between teacher- and student-regulations of learning processes. We take the concept of design broadly, including all elements as specified in the curriculum documents and/or material (Van den Akker 1999). Designs of learning environments can be specified by educators or they can be less specified and be left emergent. The emergent elements of a design will gradually emerge in the course of joint interaction during learning activities. As basic parts of the designs of learning environments we distinguish the spaces in which learning activities will take place, the things or artifacts that play a role in the activities and the learning activities that are planned and organized. For conceptual clarity, the learning activities that are planned and organized are named 'events'. The spaces, artifacts and events can be characterized as designable elements. These elements can be specified in advance or left emergent to develop in-action gradually. Learning environments have to be designed in such a way that they lead to the intended learning activities. The main goal of these activities is to lead to the intended learning outcomes, which we defined as transferable knowledge oriented learning outcomes and the learning-, thinking-, collaboration- and regulation-skills that can be applied to such transferable knowledge and the process of learning (Simons et al. 2000).

To overcome the duality inherently related to dichotomies, Simons (1999) suggests to look for dimensions and degrees instead of dichotomies. Following this suggestion, the distinction between specified and emergent can be positioned on either side of a scale (see Fig. 1). The

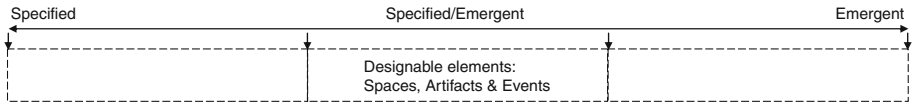


Fig. 1 Operational framework

resulting operational framework consists of designable elements as specified in the curriculum documents and/or material (Van den Akker 1999), defined above as spaces, artifacts and events. These elements can be positioned on a scale, ranging from specified elements to emergent elements.

The framework will be used to characterize the designs of learning environments in innovative, higher professional education. Next, these designs are studied in-action. While in-action, the use of specified elements and the development of emergent elements can be studied. Besides, the problems with the use of specified elements and the gradual materialization of emergent elements are examined. Furthermore, we discuss a potential design solution for the identified problems. The main research question consists of the following sub-questions:

- How can we characterize the designs of learning environments in innovative, higher professional education, consisting of spaces, artifacts and events, on a scale with on the one end of the scale 'specified' and on the other end 'emergent' ?
- What problems can be identified during the use of specified elements and the development of emergent elements when a learning environment is in-*action?*
- Which potential design solution can be created to address the identified problems?

Structure of the article

The remainder of this article is structured as followed. In the method-section, the selected case study method is discussed. The next section describes the collected data and the data analysis. We present the results, consisting of a list of designable elements with which the studied learning environments are characterized. Next, the results from the designs in use, including the problems with using these designs, are presented. The identified problems are presented in terms of their relations with the designable elements. Besides, we present three sub-cases describing a potential design solution. The article concludes with the discussion-section.

Method

Case studies

To answer the research questions we carried out three in-depth case studies. The strength of the case study method is its ability to examine, in-depth, a "case" within its "real-life" context (Yin 2005). This method was selected to study the designs of learning environments in-action within their real-life contexts. Both the designs themselves, as well as the designs in-action, were studied in-depth. While a design could be studied separately from its context, a design in-action can only be studied when it is enacted in its real-life context.

The case studies were carried out in three different educational contexts. In each context, one learning environment was studied. The three learning environments were

situated in one educational institute. The educational institute is a Dutch University of Applied Sciences with about 35,000 students. The institute consists of six independent faculties. To select suitable cases, in each context, preliminary meetings were held with coordinators of the learning environments. During these meetings the learning environments were discussed.

Two main selection criteria were checked: (1) the level of authenticity, including the intended learning outcomes and (2) the prospective active involvement of the innovative educational context in question.

The first, decisive criterion was the level of authenticity, namely, whether the learning environment involved learners working collaboratively on actual (or simulated) real-life problems (Tynjälä et al. 2003), while also aiming for learning outcomes as mentioned before (Simons et al. 2000). This criterion was met by the selected cases. In the first case, learners worked on patient cases based on cases from real patients. In the second case learners worked on the design and development of websites for real, external clients. In the third case, learners worked on project from real, external clients in the domain of urban area development. This criterion was considered as decisive since the intended learning outcomes are considered as the most directional force of a design (see Fig. 2). Designable elements have to be designed in such a way that they lead to the intended learning activities, which in their turn should lead to the intended learning outcomes.

For the second criterion, it was confirmed that the participants of the innovative educational context in the process of changing their current educational practice (especially the educators directly involved) should potentially be willing to be actively involved in educational research from a design perspective for a prolonged period of time.

The following three case studies were selected, for an overview see Table 1.

1. Faculty of Health care: Physiotherapy, Nursing and Speech therapy, in collaboration with an accelerated, 4-year medical program of an Academic teaching hospital (Case-1).
2. Faculty of Communication and Journalism: Digital communication (Case-2).
3. Faculty of Natural Sciences and Technology, Institute for the Built Environment. This context was open to students from other faculties and educational institutes (Case-3).

Below, short descriptions of the selected case studies are presented.

Case-1

The first case study was carried out in the medical and paramedical domain. The learning environment involved 32 students and four teachers for a period of 8 weeks. Students worked on a case of stroke-patients requiring the treatment and care of different healthcare professionals. The patient-cases were based on real patient-cases and the case material consisted of video and paper, instead of real patients. The aim of this learning environment was to learn to collaborate in an interprofessional healthcare team.

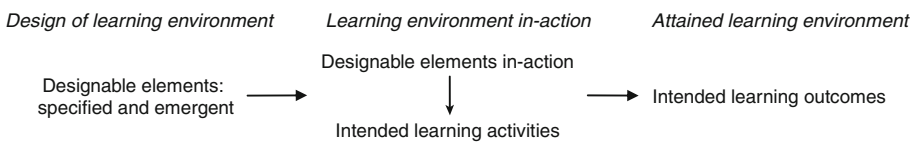


Fig. 2 Learning outcomes as main directional force

Table 1 Overview selected case studies

	Case-1 (2005)	Case-2 (2006)	Case-3 (2006/2007)
Faculty and Study program(s)	Faculty of Health care: Physiotherapy, Nursing and Speech therapy. Academic teaching hospital: an accelerated, 4-year medical program	Faculty of Communication and Journalism: Digital communication	Faculty of Natural Sciences and Technology, Institute for the Built Environment. Open to students from other faculties and educational institutes
Topic	Interprofessional collaboration	System development	Management of Urban area development
Number of students	32	150	26
Duration	8 weeks, 4 ECTS[a]	8 weeks, 14 ECTS	6 months, 30 ECTS
Position in overall study	Elective module for third-year students of the Faculty of Health care; Obligatory for first-year students of medical program	Final, obligatory module for first-year students	Elective minor course for third-year students

[a] European Credit Transfer and Accumulation System. The student workload of a full-time study program in Europe amounts in most cases to around 1500–1800 h per year and in those cases one credit stands for around 25–30 working hours (European Commission, Directorate-General for Education and Culture 2007)

Case-2

The second case study was carried out in the domain of digital communication. It was an obligatory learning environment for first-year students and the concluding course of their first study-year. The learning environment was set up in the form of an organization: two educators enacting the role of coordinator, twelve educators enacting the role of senior professional, and 150 students enacting the role of junior professional. The work was carried out in small project teams of three to four students. The project teams worked on the design, development and implementation of a website for external clients. The clients were from the small and medium enterprises domain or the non-profit sector. At the end, each client could select the website s/he considered the best. On request, the selected project team would implement the website and put it online.

Case-3

The third case was carried out in the domain of urban area development. There were 26 students involved, four project coaches and four external clients. There were four projects, with four different types of urban development problems in the Dutch area. The projects were globally defined by the project coaches and the external clients beforehand. Each project consisted of six to seven positions, for example, project leader, domain-expert and designer. At the start, students were required to formally apply for a position in a project, by sending an application letter and their resume. On the basis of these applications the project coaches made the formation of the project teams.

Subjects

Subjects were the learners participating in the selected learning environments. They were mainly been studied from a group-perspective and not from the perspective of a single,

individual learner. The focus was on how the respondents handled the designable elements in-action. In each of the cases the spaces, artifacts and events for the whole group of participating learners were studied. In each of the cases, the whole group was divided in sub-groups. The observations, which are described below, were focused on one sub-group.

Data collection

To study the specified, designable elements all the educational material was collected. This material consisted of both the material designed in advance and the material that was added in-action. To study the designs in-action, observations were carried out. The face-to-face activities organized for students in each studied learning environment were observed. During the observations, extensive field notes and photos or screenshots[1] were taken. The observations were focused on studying the specified, designable elements in-use. The field notes were used to describe the events, while the photos and screenshots were taken to systematically collect data about the spaces and the artifacts. The trustworthiness of these observations was increased by the use of prolonged engagement and persistent observation (Guba 1981). All organized face-to-face events were observed and the interaction in the accompanying digital learning environments was monitored. In Case-1 and Case-2 these observations took place for a period of 8 weeks, in Case-3 for a period of 6 months. These data were used to answer the first sub-question of how to characterize the designs of learning environments in innovative higher professional education.

Evaluation questionnaires were used to triangulate (Guba 1981) the above types of data. These questionnaires were not made specifically for the purpose of this research, but were part of the standard evaluation procedure of the educational institute in question. A similar evaluation questionnaire was distributed to all participating students in each case. The response to the questionnaire was as followed: Case-1: 94%; Case-2: 21% for the whole group, 62.5% for the observed sub-group, and Case-3: 100%. The answers to the final open question of the questionnaires were used to study the learning experiences. These data were used to answer the second sub-question of identifying the main problems with the designs of learning environments in-action.

For each participating educational context, an evaluation report was made on the basis of a global analysis of the above data. The evaluation reports included recommendations to solve the identified problems. These evaluation reports were discussed with peers, both educational researchers and educational experts, as a form of peer debriefing (Guba 1981). They were also discussed with participants of the educational contexts with a coordinative role, as a form of member check (Guba 1981). These data were used to answer the third sub-question of finding a potential design solution for the identified problems.

Data analysis

First, the designable elements were identified by globally analyzing the three cases. The identified designable elements were used as a coding scheme for analysis of each case. The designable elements of each case were identified and the level of specificity/emergence was determined. Next, to identify the main problems, the data from the questionnaires were used. The answers to the open questions were categorized to identify the main problems across the three cases.

[1] Screenshot: a picture taken of a computer-screen and saved as a photo-file.

The analyses so far produced a specific characteristic of designable elements, namely, adaptivity. Adaptive designable elements can be adapted by teachers, external participants and learners while a learning environment was in-action. From each case study, one sub-case was selected to showcase adaptive designable elements.

The above described data analysis process was carried out in close collaboration with an educational expert. Multiple, consecutive rounds of discussion took place, until consensus was reached. This collaboration can be considered as an intensive form of peer debriefing (Guba 1981).

Results

Identified designable elements

The selected cases were holistically analyzed to further specify the designable elements: spaces, artifacts and events. Table 2 lists and describes the designable elements. We found that the designable elements could be categorized at three levels along the continuum of specified-emergent, namely: highly specified, intermediately specified/emergent and highly emergent.

When the physical spaces were highly specified, they were available at fixed times in the schedule. Also, the educators, to suit the planned event in question, specified the positioning of the tables. In case of intermediately specified/emergent, the spaces were available at fixed times, but they were designed in such a way that they could be used as workspace for project teams in different ways. When highly emergent, a physical space was reserved for the whole duration. How this reserved space was used, emerged from the joint interaction in this space.

For the digital spaces similar distinctions were identified. From a very specific digital space used as information channel, which could not be changed by participants, to digital workspaces which were partly specified by educators (intermediate), to digital workspaces which were only made available (highly emergent).

The artifacts which functioned as resources varied from specific, detailed student material that was obligatory and had the form of a student manual, a reader and hand-outs. At the intermediate level, resources which facilitated the process were offered, such as, methods, guidelines, formats and software. These resources were found to be similar to resources used in professional practice. When left emergent, learners had to find their own resources. The artifacts in the form of descriptions of deliverables which were expected from learners varied from specific descriptions to generic descriptions. Highly specific were the reports, summaries and presentations requested after each activity. Intermediate were the descriptions of a professional nature, like a diagnosis or a treatment and care plan in Case-1 and a project plan, prototype and website in Case-2. The highly emergent deliverables only specified a project plan, one intermediary deliverable and the final deliverable.

The types of events varied from very specific and planned in each detail (e.g. lectures and guided group assignments), to guided project work (intermediate), to meetings on request (highly emergent). The role descriptions varied from highly specific descriptions for a role within one activity (e.g. Chair person), to roles within a project (intermediate), to functions with multiple roles (highly emergent). Highly emergent were also the roles of the external clients, which could be enacted by the client as s/he wanted. The sequence of events varied from hourly schedules (highly specific), to a weekly planning accompanied by a sequence of

Table 2 Identified designable elements

Designable element	Highly specified	Intermediately specified/ emergent	Highly emergent
Physical spaces	Lecture hall Classroom available at set times in schedule. Positioning of tables specified by educators	Classroom available at set times during the week to be used as work space for the project teams of one sub-group (6 h in total)	Classroom reserved for the duration of the learning environment, to be used for all types of activities (6 months)
Digital spaces	Common digital space used as information channel (announcements, changes to planning, material etc.)	Workspace made for each project team, including an inbox to hand in final results for assessment	Access to digital workspaces
Artifacts to be used as resources	Specific, obligatory resources: student manual, reader, hand-outs	Resources to facilitate the process: methods, formats, guidelines and software	Suitable resources have to be selected by learners
Artifacts : descriptions of (intermediary) deliverables	Specific descriptions of deliverables of all activities: reports, summaries, presentations	Descriptions of deliverables of a professional nature: diagnosis, treatment and care plan; Project plan, designs, prototype, website	Generic deliverables: project plan, intermediary result and final result.
Different types of events	Lectures Self-study assignments Guided group assignments Presentations by learners	Project work guided by educator in role of senior professional and expert. Meetings with external clients planned by educators. Visits to workplaces of external professionals	Unguided project work Meetings on request with project coach. Meetings on request with external client.
Role descriptions	Specific instructions for role in activity (e.g. Chair person)	Descriptions of roles in a project, like project leader, functional designer and graphical designer	Descriptions of functions with multiple roles in a project. No strict role description for the external client
Sequence of events	Weekly and hourly planning of events. Breaks and sequence within events specified as well	Weekly schedule of 1 lecture and 6 h of guided project work. Project divided into 2 phases. Sequence of deliverables was specified	Global sequence of project: project plan, intermediary result and final result. Global sequence of types of events: presentation of intermediary/final result to client followed by a review by a panel of experts

deliverables covering 8 weeks (intermediate), to a global sequence covering 6 months (highly emergent).

Cross-case comparison of the designs

The listed designable elements at three levels of specificity/emergence were used to compare the designs of the three learning environments studied. The differences between the levels of specificity/emergence are that highly specified designable elements were specified at a micro-level, intermediate elements were specified globally and highly

emergent elements were specified generically. As such, a learning environment can also be seen in terms of granularity. The highly specified learning environment was fine-grained, while the highly emergent learning environment was coarse-grained. In Table 3 an overview is presented of the levels of specificity/emergence and the overall granularity of the learning environments studied. Case-1 consists mainly of highly specified elements that are specified at micro-level. Case-2 consists of globally specified elements at an intermediate level of specificity/emergence. Case-3 consists of generic and highly emergent elements.

Identification of the main problems

Next, the designs of the learning environments were studied in use. The problems which occur when using the designable elements are identified. They are described in terms of their relation with the designable elements.

The students experienced the specified, fine-grained elements of the learning environment of Case-1 as '*tedious*', '*too slow*', '*repetitious*' and '*not challenging enough*'.

The observations showed that learners did not extensively use domain-specific resources about stroke-patients during the various activities. In the questionnaires, they complained about the lack of attention to domain-specific knowledge in the learning environment. The learners did not seem to realize that the domain-specific resources were left highly emergent, which was in sharp contrast with the highly specified other elements of the learning environment. Two events that were also left more emergent, namely, the two interprofessional meetings similar to professional practice, were experienced as highly valuable: '*Eventually, I learned a lot from the interprofessional meetings'*; '*more interprofessional meetings!*'.

In Case-2, the learners experienced working for a real, external client of which his/her role was left highly emergent, as very positive: '*It was great to work for a real client*'; '*It made us feel a lot more responsible for the results we had to deliver*'. There are also negative experiences with the external client, since students experience a lack of feedback. '*There is too little feedback from the external client, and it is much too slow*'. '*The external client should have been screened better at the start, to avoid that he changes his mind during the course*'. As in Case-1, the more specific elements of the learning environment contrasted with the elements which were left emergent. The sequence of events and the (intermediary) deliverables were specified on a weekly basis. Slow feedback and a client changing his/her mind, did not align with the stricter sequence of events and deliverables.

Another problem experienced in Case-2 was related to the technical complexity. The learners were allowed to determine the level of technical complexity of the website they were expected to deliver, this aspect was left emergent. At the same time, it was specified that the external client was to pick the best website to go online. As a result, learners did not seem to want to lower the level of technical complexity to match their capabilities, since they expected this would also lower the chances of being selected as the best project team by the client.

As in Case-1, learners were expected to find their own technical resources and study them. At the same time, a series of lectures and obligatory books were specified for them. Similar to Case-1, on the one hand, resources were specified in the form of lectures and books, while on the other hand, they were expected to find their own resources. Observations showed that learners found their way to online, technical resources about the software, but not to many other technical resources.

Table 3 Cross-case comparison

Designable element	Highly specified	Intermediately specified/emergent	Highly emergent
Physical spaces			
Case-1	All classrooms + positioning of tables specified		
Case-2		Classroom available as workspace for project teams	
Case-3			Classroom reserved for 6 months for all activities
Digital spaces			
Case-1	Information channel which cannot be changed	Common spaces to be used by learners	
Case-2		Workspaces for project teams, partly specified	
Case-3			Workspaces available
Artifacts to be used as resources			
Case-1		Methods, formats, guidelines	Select own domain-specific resources
Case-2		Methods, formats, guidelines and software	
Case-3			Select own resources
Artifacts : descriptions of (intermediary) deliverables			
Case-1	Specific descriptions of deliverables (reports, summaries, presentations)		
Case-2		Global descriptions of deliverables of professional nature	
Case-3			Generic deliverables
Different types of events			
Case-1	Lectures, self-study assignments, guided group assignments, presentations	Two events similar to professional practice	
Case-2		Guided project work Planned meetings with external client	
Case-3			Meetings on request with project coach and external client
Role descriptions			
Case-1	Specific instructions for role within an activity		
Case-2		Global descriptions of project roles	No strict role description for the external client

Table 3 continued

Designable element	Highly specified	Intermediately specified/emergent	Highly emergent
Case-3			Descriptions of functions with multiple roles No strict role description for the external client
Sequence of events			
Case-1	Weekly and hourly schedule		
Case-2		Weekly schedule Sequence of deliverables	
Case-3			Global sequence of 6 months
Granularity			
Case-1	Fine-grained Specified at micro-level		
Case-2		Medium-grained Globally specified	
Case-3			Coarse-grained Generically specified

In comparison to the other cases, most elements were left emergent in Case-3. The learners complained about the vagueness and bad planning. The learners were expected to specify their own weekly schedule and physical and digital workspaces. They were also expected to specify a sequence of deliverables and the professional methods and instruments they would use. In Case-3, the learners felt most overwhelmed. Not all the project teams made arrangements for a schedule or their workspaces, adding to the overall experience of vagueness and bad planning. In comparison to the other teams, one of the project teams developed emergent elements in joint interaction more purposely. In this team, it was made specific where to work (physical spaces) and the team made extensive use of Gmail[2] as supporting digital workspace. Besides, they made a specific weekly schedule and an overall project plan with a sequence of activities, intermediary deliverables and a choice for domain-specific methods.

The other major problem experienced by most of the learners was the mismatch between what they expected they could learn and the projects which were globally specified in advance by the educators: *'There should be enough work for every project member'; 'The project should be screened better or less architects/designers should be admitted!'; 'The projects should have a better match with the functions that were on offer'*. They did not seem to realize they were expected to organize additional workshops and lectures when needed, as this aspect was left emergent. They also did not seem to realize that they could change the specifications of the project, which was only globally specified in advance, to suit their own learning goals. In Case-3, the elements left highly emergent were broad and extensive. Though they did specify many aspects themselves, specifying the boundaries of project itself seemed like a step too far for many learners.

[2] Gmail: an online e-mail facility. For more information, see www.gmail.com.

In Case-1 and Case-2 the identified problems were related to the contrast between highly specified and more emergent elements. Observations showed that the learners do not develop the emergent elements. The experiential data showed that the learners have negative experiences with emergent elements. At the same time, in Case-1 learners complained about the highly specific elements. Alternatively, in Case-3 all the elements were left highly emergent. Observations showed that learners did not develop the necessary emergent elements and the experiential data confirmed that the learners experienced problems. We will now turn to a potential design solution for the identified problems.

Adaptive designable elements

During the data analysis we found a specific characteristic of designable elements: adaptivity. Analysis showed that some elements could be adapted by participants when a learning environment was in-action. Educators, learners, senior learners and external participants were observed to adapt designable elements. The adaptive elements were not specified in advance by educators, but were specified by participants to suit the situation while in-action. They also differed from emergent elements, which would gradually emerge from the joint interaction during learning activities. Participants adapted designable elements by specifying them for their own use or for the use of others. The next three sub-sections will present the selected sub-cases showcasing adaptive designable elements.

Case-1: adaptive artifacts

Case-1 took place in the Healthcare domain. To support communication and collaboration between different healthcare professions, a common framework has been developed for the diagnosis, treatment and care of patients from multiple perspectives. This framework can be translated into a visual representation, a feature that is of benefit in educational contexts (Allan et al. 2006). The framework was used as one of the fundaments for the learning environment. Observations showed that when a teacher noticed that the students had difficulty with the analysis of a patient case, she drew the visual representation of the common framework on the whiteboard. In interaction with the students, the patient case was ordered according to the framework. Other observations showed students using the visual representation to summarize patient cases, to exchange these and to give each other feedback, when one student turned out to be more knowledgeable than another. Furthermore, students found resources about the framework online, using the Web to complement resources offered in the learning environment.

By introducing artifacts from professional practice with different representations, both educators and learners were able to adapt the artifacts to suit the situation.

Case-2: adaptive use of physical space

The learning environment of Case-2 was relatively large scale and involved 150 students. To feasibly accommodate this large number of students, the learning environment was positioned at the physical location of the educational institute. There were six sub-groups, for each sub-group, a regular classroom was available as workspace for a fulltime working week. At scheduled times, 6 h each week, a duo of teachers was present in the workspace. The sub-groups, consisting of about seven project-teams worked side by side in

classrooms. Students helped each other and showed each other intermediary results. There was also a senior student, fulfilling the role of account manager (liaison between the project teams and the external client). Students also requested advice and feedback from the senior student. When the teachers were present, students could request help or show intermediary results to receive feedback. Besides, the teachers also walked around, offering their advice without a direct request.

By having a physical space available according to a weekly schedule, with access to educators, a senior peer, peers and team members, the participants were able to adapt their workspace and support to suit the situation.

Case-3: adaptive event with external participants

In Case-3, students worked more independently than in the other two cases. This independence was caused by the differences in projects. In Case-1 students worked on the same patient cases, in Case-2 students worked on similar projects, while in Case-3 the students worked on very different projects. To help students improve the quality of the (intermediary) results, students were required to present their intermediary and semi-final results to a panel of practitioners/experts three times. During these sessions, students received feedback on how to improve their results. The content of the activity could be adjusted to suit the needs of students. The panel, consisting of external participants, offered more structure and guidance where needed, while for other project teams, the feedback closely resembled feedback as given in professional practice.

By planning the above event and organize it as described above, the external participants were able to adapt their feedback to suit the situation.

In the above three sub-cases three adaptive, designable elements have been showcased. These adaptive elements differed from both the specified and the more emergent elements. The specified elements were specified in advance and were to be used as specified. The more emergent elements were to be jointly developed during interaction. The adaptive elements were left open to be specified by all participants, educators, learners and external participants when needed. An individual learner could specify them or they could be specified for a group of learners. Besides, how specific the designable element in question were to be made, could be determined in-action and could therefore be adapted to suit the situation.

Discussion

In this article, a design perspective is taken to characterize learning environments in innovative, higher professional education. To help characterize learning environments, dichotomies in current educational research are explored. To complement these dichotomies, we provide an additional focus from a design perspective: the level of specificity of the designable elements of a learning environment. To this effect, we introduce a scale with on one end ‘specified’ and on the other end ‘emergent’ allowing the positioning of designable elements. This operational framework can be used to characterize the designs of learning environments and identify the main problems of design in-action.

As a potential design solution, adaptive elements are introduced, as we observed that participants adapted designable elements by specifying them for their own use or for the use of others when suitable.

The designable elements as introduced in this article can be related to the concept of 'scaffolds'. The original use of scaffolding described interactions between a parent and a child or a tutor and a student in which the parent or tutor offers support. Since then, 'scaffolding is no longer restricted to interaction between individuals – artifacts, resources, and environments themselves are also being used as scaffolds' (Puntambekar and Hübscher 2005). Puntambekar and Hübscher state that there are two main facets of the current construct of 'scaffolding'. Firstly, the current construct is enriched with techniques of providing support. Secondly, they state that current implementations of scaffolding lack an emphasis of necessary process-aspects, such as, the process of continuous diagnosis of the need for support and the process of fading of scaffolding when suitable are replaced by more permanent and unchanging support. The lack of emphasis on process-aspects is also recognizable for the designable elements we introduced: either they are specified by the educators or they are left more emergent. The adaptive elements do provide means for more emphasis on process-aspects. They can be designed in such a way that participants, educators, external participants senior learners and learners, should be able to continuously diagnose whether support is needed. If this is the case, the element can be specified for single or multiple learners, not only by educators, but also by other participants.

Additionally, an important function of the designable and adaptive elements is to help contextualize a learning environment. Learners are expected to work on deliverables in physical and digital spaces situated in educational institutes. When they would work in a professional context, the spaces, artifacts and events in that context would provide contextual clues of how to proceed. In an educational context, these clues need to be specified by educators when needed. Designable and adaptive elements can be designed to fulfill a dual function: they should offer contextual clues that would be available in professional practice and scaffold learners if they need support.

In relation to the amount of guidance dichotomy of Kirschner et al. (2006), we claim here that a well-designed learning environment can provide suitable and sufficient guidance without retreating to strictly traditional methods of direct instruction or being forced to offer minimal guidance, which is not always suitable. However, it is a major challenge to do so, since the implementation of innovative approaches is not a linear process and involves tackling a great many problems (Windschitl 2002).The results of this study might be helpful in this process.

The results presented in this article are the result of in-depth, qualitative research. Future research will be carried out to study the effectiveness of the adaptive elements introduced here. Future research will also include studying how to systematically improve the design of learning environments in innovative, higher professional education.

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Practice as the basis of knowledge

Monitoring as support for innovation in vocational education

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Colophon

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Preface

Until quite recently, educational innovation was constructed on the desks of academics and was subsequently implemented in schools without protest under the guidance of process management. Research intended to demonstrate the effective implementation of innovation and the effects took a long time, while the results only belatedly became known. This made it difficult to correct the process when necessary. A different tradition has developed in the area of vocational education. The framework for innovation is determined by the government, while the practical implementation is the responsibility of the schools themselves. This manner of working makes other demands upon research and the development of knowledge about educational innovation.
Firstly, research must serve the day-to-day practice in schools and regions where innovations are implemented with variable success. For the development of national policy, research must demonstrate what the schools can deliver in terms of results. In which areas are improvements achieved? What information is required in order to direct the dynamics of innovation towards the intended objectives?
In order not to lose the experiential knowledge acquired in such processes, the researcher has the task of relating experiential knowledge with the 'body of knowledge' about vocational education.

Given this background, the CINOP Centre of Expertise[1] has worked in recent years to develop a new research methodology which departs from the local practices of innovation, but which seeks to generate knowledge about the results of national innovation programmes. Furthermore, the expansion of knowledge for vocational education as a whole takes place on the basis of 'practice based evidence'. The new method is implemented among others in national innovation arrangements for The Platform for Vocational Education and the Platform Applied Technology, but can also be used without a direct link with a national programme. An example is the co-operation with the Regional Education Centre

1 As of January 2009 all activities of the CINOP Centre of Expertise and the Max Goote Expertise Centre for VET will be continued by the Centre for Expertise in Vocational Education and Training (ecbo).

Midden Nederland. In this ROC, an extensive change process is supported by research, primarily to adjust the process and in addition to strengthen the learning capacities of the organization. The knowledge which is generated in this manner is also used to systematically strengthen the general body of knowledge about change processes in vocational education.

This method is of interest in that it can contribute to bridging the gap between research and practice. This does not mean that it is not necessary to continue discussions among others with regard to the appropriate instruments, the roles of the interactions between researchers and practice, and the relations between specific and general knowledge. The authors will no doubt make their own contribution.

Drs. Henny Morshuis
Interim Director of the Centre for Expertise in Vocational Education and Training

Introduction

During recent years the CINOP Centre of Expertise has developed a research methodology for monitoring vocational education which is concerned with connecting practical action and the development of knowledge.[2] This methodology has been developed with and implemented in the monitoring of the innovation arrangements for the Platform Applied Technologies (PBT) and The Platform for Vocational Education (HPBO).[3] The key to the development of the methodology is the long-standing question about the relationship between research and practice, and how the generation and application of knowledge can be improved. Improvement can be best achieved by:

- linking-up of processes of knowledge generation at the local level with higher levels;[4]
- viewing actors in day-to-day practice as legitimate sources of knowledge;
- establishing constructive links between research and developments in practice;
- creating a productive division of tasks between researchers and actors in local practice within the process of knowledge development;
- making optimal use of diverse qualitative and quantitative research techniques.

A number of publications about this subject have appeared in recent years. A recent example is *The gap between educational research and educational practice* (Broekkamp & Van Hout-Wolters, 2006). This was a meta-study which describes the problems, causes and possible solutions for this gap. In their study, the authors apply a broad definition of educational research[5] which ranges from fundamental research to action research, 'in which practitioners themselves

2 This methodology has been developed in close co-operation with Jan Geurts, Pedagogy of Vocational Learning, The Hague Professional University, and Elly de Bruijn, Faculty of Education, Professional University of Utrecht/ University Utrecht.

3 Other applications and experiences are currently available from other innovative programmes involving the CINOP Centre of Expertise: the innovation programmes of Project Directorate Learning and Working (PLW), the consortium MTS^{plus}, and the Foundation Consortium Vocational Education (SCBO).

4 The next chapter will explore these concepts of knowledge in greater depth.

5 'Structures, processes and persons who are part of systematic and focussed forms of knowledge development in education', p. 12.

undertake research and utilize the results to optimize an educational situation.'
We agree with the authors' conclusion that a number of perspectives about knowledge – from positivism to social constructivism – provide the basis for different models of solutions. Each of these perspectives offers a partial answer to closing the gap: models are complementary rather than in conflict with each other, and can be applied as such.
In this publication, the research methodology for monitoring vocational education will be explicated and located in the context of the development of knowledge.

Chapter 1 will explore assumptions about the development of knowledge which provide the basis for monitoring: the links between knowledge development processes and multiple sources of knowledge, and the significance of this for the roles of practitioners and researchers. Chapter 2 will describe the actual situation with reference to the organization of innovation processes in vocational education together with the roles of practitioners and researchers involved in these processes. Chapter 3 deals with the relationship between monitoring and knowledge development in the innovation process. This chapter also describes the respective roles of researchers and practitioners in the different phases in the monitoring process. Chapter 4 looks at the design of the monitoring process together with the forms of knowledge generated in terms of variables. In the conclusion, attention is paid to those aspects of the monitoring process which call for further development.

Assumptions about knowledge development

1

The monitoring methodology is based upon assumptions about knowledge development which relate the development of knowledge to action:

- Links between local and higher-level processes of knowledge development;
- Broadening the concept of knowledge so that knowledge can be developed in many contexts.

The linking-up of knowledge development and actions has consequences for the roles of the actors in these processes:

- The role of the researcher is broadended to that of the 'critical friend' and the development of knowledge on different levels of knowledge;
- Practitioners acquire a more important role in the development of knowledge as 'co-designer' and 'reflective practitioner'.

1.1 Linking multiple processes for knowledge development

The research methodology constitutes a further development of the ideas expressed in the Ph.D dissertation by Doets (1982), together with reactions to these ideas expressed in *Working with arguments that temporally apply…* [6]. Doets argued that the researcher who is concerned with practical action but also wishes to develop generally valid knowledge employs two search processes. Firstly, the search process in one or more practices which is based upon the knowledge questions of practitioners. Secondly, the search process that is devoted to the development of generally valid knowledge which can be applied in a broad range of comparable contexts whether or not these are related to a national innovation programme. An important source for the latter form of knowledge comprises the experiential knowledge of local practitioners.

6 Published by CINOP Centre of Expertise on the occasion of the retirement of Cees Doets as its director, October 2007.

Knowledge can subsequently be related to the knowledge available in a specific field of practice. In addition to the method presented in this publication, knowledge can be developed in a number of ways. These include survey research, experimental research or classical evaluation research. It is our opinion that the results of research, dependent upon the methodology employed, should be judged from the perspective of complementarity.
Accumulation of knowledge – 'practice-based evidence' and 'evidence-based practice' – takes place within the context of disciplines – for example educational science – and is referred to here as disciplinary knowledge.[7] From the perspective of knowledge development, generic knowledge related to national innovation programmes[8] is located between specific knowledge and disciplinary knowledge.

In vocational education, each school is itself responsible for the organization of innovation processes. However, important themes in innovation are nonetheless managed in terms of national programmes. Chapter 2 will examine this in greater detail. It is important to note that there is still a close connection in innovation practices between local and national programmes for the development of knowledge.[9] However, the division of tasks between national and local actors is changing.[10] This change is above all manifest in the management of the problems associated with innovation and the relevant demands for knowledge. In the past, the government at national level posed the need for innovation at the level of individual schools. Today, it is up to the schools themselves to formulate their ambitions for innovation. Within the terms of this new relationship, local practices are no longer the object of national innovation programmes, they have become key actors in knowledge development in

7 In this publication we make use of the concept 'field knowledge'. This field knowledge comprises all the available knowledge at a given point in time about a specific field of activities: 'the state of the art'. This involves diverse knowledge products varying from the classical testing of theories to practical experiences validated as 'good practices'. An interesting discussion is whether the concept of 'theory' is useful in order to synthesize all the available knowledge. Given the primacy of the action perspective, it is more a question of the development of an extensive data-base with which practitioners, in relation to their own context and objectives, can acquire knowledge. Compare the discussion recently launched by Chris Anderson (see: *NRC Handelsblad*, 24 juli 2008, p. 1 and p. 8).
8 For example Deltaplan Exact Techniques, Innovation Arrangement Vocational Education.
9 National knowledge development refers to the ambition to make locally developed knowledge available relevant to other situations.
10 Compare: De Bruijn & Westerhuis, 2004.

the service of their own practices.[11] The role of national programmes is moving towards a framework for local innovation: offering a soft rather than a hard management style with a focus on local agendas for innovation; supporting the development of knowledge at system level, and the organization of links between research and developments in practice. Generic knowledge, which we have located between specific practice-related knowledge and disciplinary knowledge, is most apparent at the level of the system and is above all manifest in terms of national innovation programmes. This context provides the framework for the generalization of knowledge in relation to the local practices associated with the national programmes. It is also possible to realize a relationship between specific and generic knowledge without a national programme. Management of change here is the responsibility of the researcher in relationship with local actors.

The purpose of the monitor is to generate specific locally-related knowledge and to translate this knowldege into generic knowledge at the level of national programmes, and, furthermore, to transform both kinds of knowledge into disciplinary knowledge.[12] In this manner, monitoring can contribute to the accumulation and circulation of knowledge at different levels.

It is significant that action-related knowledge is the key: specific knowledge, generic knowledge and disciplinary knowledge are actor-related. Different actors can be distinquished with regard to and within each kind of knowledge. The specific knowledge of local actors – for example, management – with reference to progress in the realization of new educational practices can be utilized to manage their own innovation processes. Generic knowledge of successful management at national level can facilitate the correction of national innovation programmes. Disciplinary knowledge about successful didactic methods can be used by teams to introduce new forms of guidance in their own situation.

11 Compare: Geurts, 2004.
12 For example, through methods of 'plausible reasoning' (see: Rescher, 1976).

The monitoring method binds three forms of knowledge:

- The framework of local practical developments. In this context, the development of knowledge in a specific setting is related to the research process;
- The framework of national programmes or system-related innovations. In this context, the accumulation of locally-related knowledge leads to generic knowledge which can be utilized by system-related actors at both national and local levels;
- The framework of disciplinary knowledge. In this context, knowledge derived from the two preceding frameworks can be related to disciplinary knowledge and transformed into 'state of the art' knowledge in specific areas. Disciplinary knowledge – for example, educational science – is the result of a broad range of research methods.

Within these three frameworks, different questions about knowledge can be involved, for example policy questions or didactics. Different qualitative and quantitative research methods and instruments can be employed in order to generate knowledge.

1.2 Broadening the concept of knowledge

Interest in knowledge development in relation to action has contributed to the broadening of the concept of knowledge. The distinction is now well-known between Gibbon's two models of: a) cognitive objective knowledge as the result of scientific research, and, b) practical and technical knowledge as the result of local, context-related development of knowledge. One can also refer in this context to Weggeman's definition that: 'Knowledge is the capacity which makes it possible for an individual to carry out a specific task on the basis of links between knowledge from external sources with their own information, experiences and attitudes'.[13] Also of relevance here is the distinction made by Nonaka and Takeuchi (1995) between formal and experiential knowledge. Their point of

13 Weggeman, 1997, p. 31.

departure is that these types of knowledge not only exist alongside each other, but that they can mutually interact in such a manner that there is not only knowledge development in any one area.

Figure 1.1 Typology of knowledge development by Nonaka & Takeuchi

Knowledge accumulation	***Experiential knowledge***	***Formal knowledge***
Experiential knowledge	Socialization	Externalization
Formal knowledge	Internalization	Combination

The accumulation of knowledge between these categories can arise when this is organized in research processes:[14]

- Sharing and making experiental learning explicit, for example in 'knowledge circles' or 'communities of practice', as forms of socialization.
- Relating experiential knowledge to knowledge developed elsewhere, for example via the results of literature studies or reviews of comparable knowledge questions, as forms of externalization;
- The translation of generic (formal) knowledge into action-related knowledge, for example via actor-related conceptualizations and forms of communication which relate to the language and forms for the acquisition of knowledge used by actors in their practice[15], as forms of internalization;
- Relations between experiential and formal knowledge, for example via analysis of the relations between new practices and their effects, together with additional research, in forms of combination.

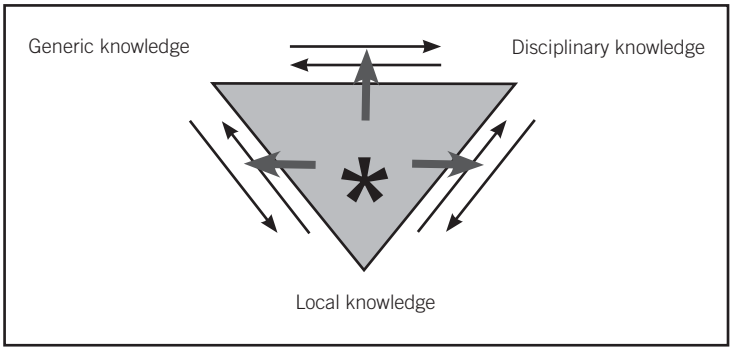
The core is formed by the broadening of the concept of knowledge in such a manner that it is no longer defined by the demands of the scientific method. The value of knowledge is more importantly determined by the usefulness of knowledge for practitioners. In the words of De Wilde (2001): 'The shadow of the capital has fallen over the world of knowledge.'

14 Compare: De Bruijn, 2008, pp. 24-25.
15 Compare: Doets, 1982, p. 142 and further.

1.3 The researcher as knowledge-developer and 'critical friend'

Broadening the concept of knowledge has consequences for the role of the researcher. An important dimension of this role is establishing links between different processes for knowledge development. In principle, these processes are iterative and cyclical. Local knowledge is synthesized into generic and disciplinary knowledge, but these higher-level forms of knowledge are themselves practitioner-related and available as such for local practices and actors at the level of national programmes.

Figure 1.2 The role of the researcher in linking multiple knowledge development processes



The first step in linking knowledge development processes is the transformation of knowledge in local practices into knowledge at the system level.[16] Such knowledge is constructed by the comparison of practices and the integration of knowledge drawn from diverse local sources.

The second step is strengthening the level of knowledge – the state of the art – in specific disciplines. This involves the generation of disciplinary knowledge from both local practices and national programmes at system level. Both of these forms of knowledge are transformed into disciplinary

16 This involves vocational education in all its variety, for which the term 'system' is used here.

knowledge. An important role is played by the dialogue between researchers engaged in a specific discipline.[17]
Researchers involved in the monitoring methodology are involved in establishing links between the knowledge processes in three 'knowledge communities': local actors, actors at system level, and the community of researchers active within a specific discipline as the scientific forum.[18]

A second dimension is that the researcher also fulfills the role of 'critical friend' in local practices by expanding the available possibilities for action. It is a characteristic of innovations in vocational education that those involved must judge the results, while at the same time they participate in the processes which determine the results achieved. There is a risk here in the sense that critical distance may be compromised with regard to both processes and results. It is important, above all in complex innovation processes, to be able to identify from a distance those patterns in processes which are not recognized by those most directly involved. The role of the researcher in such processes is to collect the facts which can expand the vision of those directly involved. We make use of the term 'critical friend' to delinate this role.[19] The professional task of the researcher is devoted to the exploration of the capacity for action of those directly involved, to make processes explicit, to identify patterns and make blind spots visible, to identify information about progress and results, and to distil alternatives for action.

1.4 Practitioners as 'co-designers' and 'reflective practitioners'

Broadening of the concept of knowledge means that the professional researcher is not the only player in the process of knowledge development. In the context of innovation programmes, knowledge development involves interaction between researchers and other actors. The interaction between research and action is strongest in the

17 The relevant instruments require refinement, for example, the plausability of the knowledge generation process (see: figure 2.2), together with the validity and relevance of the results also in relation to the improvement of the results of other methods.
18 This is discussed in more detail in 3.2.3 below.
19 See, for example, Swaffield's definition of the 'critical friend' as someone who offers a new perspective upon what is normally assumed to be the case (Swaffield, 2002).

relationship between the researcher and actors in local practices and the actors involved in related national programmes.

For both of the last groups of actors, this means that they fulfill the role of co-designer in research in order to be able to utilize knowledge for the correction of national and local ambitions, and the reorganization of innovation programmes and processes. They are not only those with the problems to be solved, but they are also users of knowledge produced. The role of national actors in co-design can vary from the articulation of questions and products with regard to knowledge production, to the formulation of a programme of demands with regard to research techniques and instruments. The role of local actors in co-design can range from participation in the design of the monitoring process to the determination of research techniques and instruments.[20] The pre-condition of constructive forms of co-design is a professional division of tasks between local and national actors together with researchers within which the parties involved complement each other rather than assuming each others' roles.

Local actors perform the role of 'reflective practitioners' in the development of specific knowledge.[21] The links between developments in practice with the research process is the pre-condition for the generation of knowledge with which local innovation processes can be managed. This involves the elucidation of experiential knowledge – above all intuiton and 'tacit knowledge' – and systematic reflection about this experience, together with establishing links between this knowledge and other sources of knowledge drawn from comparable practices and systemic knowledge above the local level. As 'reflective practitioners', local actors look critically at the progress of innovation processes, at the effects achieved, and the conditions under which these results are achieved. This role is also associated with dialogue involving local stakeholders – committees, managers, trainers – which translate the results of reflection in terms of their own action.

20 This role is partly dependent upon whether there is 'national programme', which will be the assumption of subsequent description of monitoring.
21 Compare: Schön, 1983, and Korthagen, 1990.

In their role as 'reflective practitioners', local actors critically examine the innovation process, its effects and the conditons influencing these effects.[22]

1.5 Key elements of the monitoring methodology

In figure 1.3, the key elements of the methodology are summarized. It makes clear that knowledge development processes are related within the shared innovation agenda of actors at different levels. In terms of content, this can involve, for example, the ambition to train more people in technical occupation, or to achieve improved transitions within vocational education. The task of the researcher is to link-up multiple knowledge development processes in order to develop local knowledge, system knowledge and disciplinary knowledge.

Figure 1.3 Key elements of the monitoring methodology

Shared innovation agenda		
Local practice	System	Discipline
Accumulation of experiences into local knowledge = Make explicit/generalise	Accumulate local knowledge into programme-related knowledge = Generalise/synthezise	Accumulate specific and generic knowledge into 'state of the art' knowledge = Synthetizise/integrate
Local actors	System actors	Disciplinary actors*
Specific knowledge	Generic knowledge	Disciplinary knowledge

* Comparable with the classical 'scientific forum', where the distinction between developer and user is relevant. Users involve all actors who can/wish to make use of disciplinary knowledge. In most cases, these will be actors at the local and system levels.

22 Compare: De Bruijn, 2008.

The context of monitoring

2

The practice of innovation in vocational education is complex. This is a consequence of multiple innovation processes and the fact that many actors, at different levels and with varied positions, are involved in these processes. Innovations are not determined top-down for the vocational education sector, but they are not left entirely to the institutions. The themes of innovation, and their implementation in practical renewal, acquire their form through discussions between those responsible for local initiatives, managers of national programmes, and evaluation committees. This context and the positions of the actors involved largely determines the concrete implementation of monitoring.

The core of knowledge development is based upon local processes. In the following paragraphs, three perspectives of looking at these processes will be introduced: contents, conditions, and effects. In the second part of this chapter, attention will focus on the positions of actors involved in innovation processes: local actors, national actors, and researchers. In this regard, two dimensions will be examined: the types of knowledge questions expressed by actors, and the kinds of knowledge products they need in relation to the character of local innovation processes.

2.1 Innovation processes

These processes and their results can be looked at from three perspectives.

2.1.1 Contents

In terms of the contents of innovation, these involve the renewal of the primary processes of teaching and learning. Renewal takes the form of changes in the curriculum, pedagogical-dictactical methods, and organizational issues. However, educational innovations also involve external organizational processes in the form of co-operation with regional partners in both education and business. Possibilities to address innovations at system level demands that partners can agree on the same agenda.

Working on the basis of consensus is a characteristic of educational debate in The Netherlands. Policy research has demonstrated that pragmatism dominates such debates. Keep and Brown (2004) argue that the core of innovation policy in Dutch vocational education is the '… clear and explicit attempt to plan the reforms systematically and to design a new system as a whole.'[23] Leune (2001) had earlier concluded that pragmatic and business-like arguments dominate the Dutch educational debate.

There is a significant degree of consensus about the innovation agenda at institutional, regional, and system level. Recurring themes involve:

- Articulation within the vocational education system: in the form of flexible transitions between different levels which facilitate the learning trajectories of participants;
- Powerful learning environments: rich in context, close to work and attractive learning environments, reduce drop-out and improve completion rates and encourage the transition to higher level courses;
- Training for up-to–date skills: education is devoted to the development of up-to-date skills together with the appropriate changes in goals, contents, guidance and assessement, organizational forms and processes of co-operation;
- Network approach: intensive co-operation with partners in regional vocational education and businesses, and a network approach as the basis of the regional knowledge infrastructure;

23 Keep & Brown, 2004, p. 258.

- Flexible organization of education: demand-led organization which is able to respond to regional developments and can anticipate new demands for training;
- Transparent qualification structure: a relatively transparent structure of measurable competencies.

2.1.2 Conditions

Innovation processes can be successful given specific conditions. Recent research has identified five categories of conditions for successful innovation which determine the results:[24]

1 Shared responsibility: innovation is a priority at all levels of the institution, and for the partners in vocational education and businesses;
2 Powerful concept of innovation: an inspiring concept of innovation which challenges the partners to use both internal and external knowledge to implement the intended innovations;
3 Developmental approach: leadership and professionalism – in terms of commitment to both processes and results – which are invested in implementing the innovation;
4 Transparent results: partner organizations demonstrate the will and ability to make results transparent in order to provide a basis for correction;
5 Explicit learning: organization of internal and external reflection in order to learn from changes and to anchor the learning experiences and successes in the policies of the partner organizations.

2.1.3 Effects

The third perspective is concerned with the effects of innovation processes. In the longer term, innovations will not be judged in terms of the quality of the concept, but in terms of the results achieved. Results cannot be seen in isolation from contents and conditions. Each objective must be formulated in terms of the results intended. Furthermore, the

24 Compare: Van den Berg & Geurts, 2007.

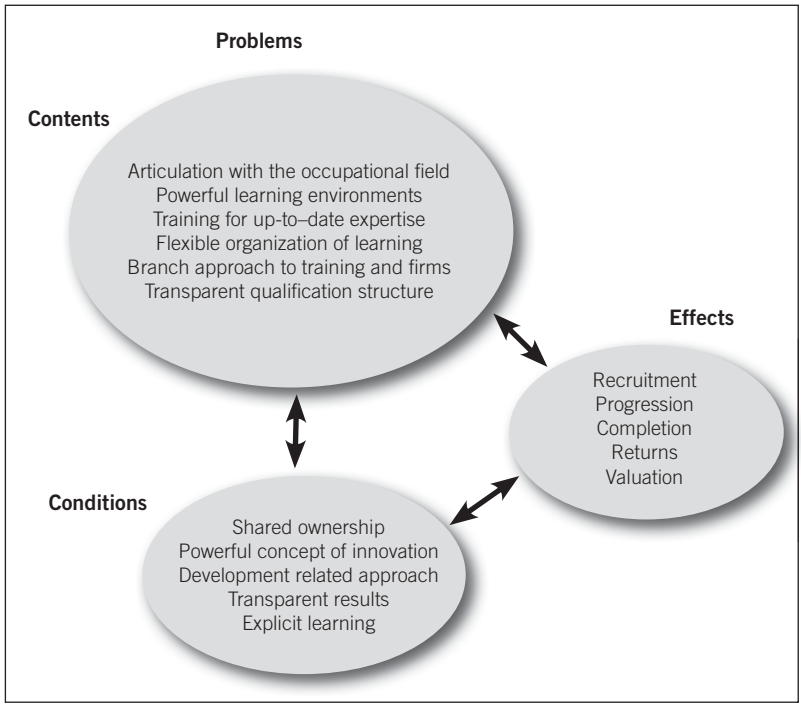
conditions must be created in order to facilitate the achievement of objectives and the results intended. There are two kinds of effects:

- Quantitative effects: recruitment, progress, completion, and reduction of drop-out;
- Qualitative effects: appreciation by diverse local and national actors for the progress made and the results achieved in the implementation of innovations in practice.

2.1.4 Relation between contents, conditions and effects

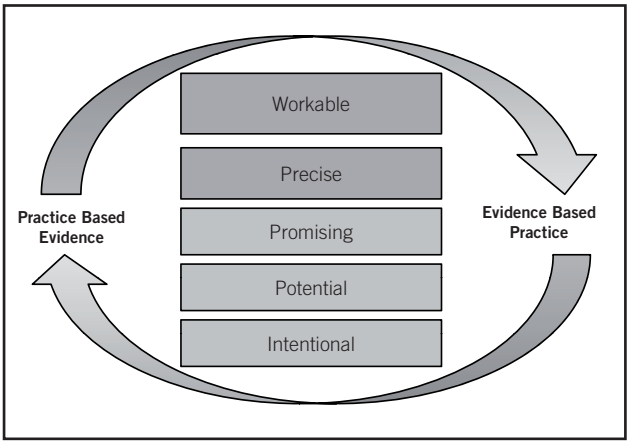
Innovation processes in vocational education are largely organized in terms of projects. Project plans formulate the contents, conditions and intended effects, and these plans function subsequently as the framework for the management and accountability of the project leaders and teams involved. Contents and process are often separated; it is assumed that the content will develop within the agreed framework. Such an approach negates the interaction between content, conditions and effects. The reality is that the intended contents change during the innovation process. This is certainly the case with regard to complex problems. Within innovation processes, there is a constant exchange between formulations of the problem and the choice of actions to be undertaken. This is certainly the case when more actors are involved who each look differently at the problem, contents, conditions and effects.
Figure 2.1 illustrates the relationships between the three perspectives.

Figure 2.1 Relations between perspectives in local innovation processes



If we can talk of an innovation practice which can be called 'evidence based', it is necessary to research the relationship between contents and effects, together with the conditions that make this possible.
It is extremely difficult to establish causal relationships in non-experimental research. It is more a question of developing practice-based evidence on the basis of plausability and qualitative analysis of comparable cases. Within the perspective of knowledge accumulation, it is useful to make a distinction between levels of proven relationships. Figure 2.2 represents the different phases in the development of new practices. This makes it possible to formulate the proven effects of new practices in terms of: intentional, potential, promising, precise, or workable.

Figure 2.2 Ladder of effects[25]



Effects	*Description*
5. Workable	Like 2, 3 and 4, but there is empirical evidence that the effects are related to the new practices.
4. Precise	Like 2 and 3, but there is evidence that effects are directly related to the new practices.
3. Promising	Like 2 and 1, but there are theoretical arguments that the effects are related to the new practices.
2. Potential	Like 1, but there is now an explicit argument that the intended effects relate to the new practices.
1. Intentional	There are assumptions that intended effects are related to the new practices.

25 Source: Bronnenboek praktijkgestuurd effectonderzoek, NIZW/Praktikon/Ministerie van VWS, 2006.

2.2 Actors

Local and national actors together with researchers are involved in innovation processes. These actors have different positions, and thus they have different knowledge questions.

2.2.1 Local actors

As local actors, schools and businesses – as the providers and customers of vocational education – are in the position to determine the innovation agenda with which they wish to be associated. They determine the priorities, design the innovation process and implement the innovations in their own way and at their own speed. Local actors comprise an heterogeneous group including learners, teachers, administrative staff, managers, governing boards, and stakeholders, etc. Their knowledge questions and needs are related to their roles in the innovation process. During the implementation of innovations there is a constant exchange of information between the design of new practices, the creation of the necessary pre-conditions, and corrections based upon the available interim results. Knowledge development runs parallel to the innovation process and it functions to make the relations between these processes transparent. Given the dynamic processes involved, the knowledge development process is devoted to the generation of practical tips in the service of 'just-in-time' action by those directly involved. Knowledge identified by research with regard to these local processes is not necessarily knowledge which informs action. This can only be achieved when local actors have created enough space in the innovation process to use this knowledge to enable interim adjustments. Furthermore, the knowledge produced must take account of the actors' needs for knowledge. The researcher can make a contribution when knowledge products are made available 'just-in-time' to the heterogenous groups involved.

2.2.2 National actors

National actors fulfill roles in the facilitation and promotion of innovation processes. Their facilitation role is based upon making financial means available and the assessment of project proposals. Their promotional role involves the development of programmes and advising about financial possibilities. Prior to the actual process for the development of knowledge, national actors play an important role in determining the questions asked, the relevant variables and the project design. These are determined by the innovation agenda and the innovation strategy. For national actors, knowledge development means that they can assess progress, with regard to contents, conditions and effects, in order to adapt the programme and introduce modifications. They must also translate and disseminate the results of knowledge development to local practices, whether within or outside national innovation programmes. Because both long-term and comparative processes are involved, the process of knowledge development has the objective of producing 'evidence-based' knowledge products. A characteristic position of national actors is that they recognize both the need of local actors for knowledge products – in the form of 'good practices' – and their own needs for knowledge products concerning the progress of local innovation processes, which can serve in turn, as the basis for the modification of national innovation programmes. The programme stuctures for national actors must make it possible to take account of knowledge about local practices in order to improve the effectivity and efficiency of national programmes. Although the questions of national and local actors can differ, the researcher can make a contribution to the utilization of knowledge by making knowledge products accesssible for action.

2.2.3 Researcher

The position of the researcher in local innovation processes can be characterized as the 'critical friend', who maintains a half-way position between engagement and distance.[26] The engagement of the researcher is manifested in his/her contribution to improving the practical action of local actors and co-operation in the process of generating of knowledge for use in local contexts. The researcher performs this task via the stimulation of the professional and systematic ways in which research processes are developed and anchored in local innovations. The researcher makes this contribution on the basis of his/her professional skills and know-how. The researcher will make use of ways of working and concepts – and indeed transform these with the help of analogies – in order to serve the knowledge questions and needs of the local 'knowledge community'.

This role also demands the necessary distance from local innovation processes. The quality of the contribution of the researcher is dependent upon his/her capacity to collect valid and reliable locally relevant knowledge, and to relate this to the accumulation of generic and disciplinary knowledge. This role of the researcher balancing between engagement and distance has been clearly formulated by Zoontjes (2008) in terms of the changing role of science as follows: 'There were great expectations about the contribution of science for innovation policy.'[27] Educational innovations were conceived by researchers and implemented in educational practice by professionals employed by advisory organizations.[28.] Given the recognition of the importance of practitioners in the determination of the agenda for educational innovations, the role of the researcher and the research community has become more dependent upon innovations. Researchers operate increasingly as professional developers of knowledge, but also as the recipients of the knowledge

26 This chapter concerns the role of the researcher in local innovation processes. Furthermore, the researcher has to deal with actors at the system or national level, and the community of researchers active in a specific domain of knowledge (see: 3.2.3).
27 Zoontjes, 2008, p. 80.
28 See: De Bruijn & Westerhuis, 2004.

developed in local innovation processes. The latter serves for the development of generic and disciplinary knowledge.

Organization of monitoring 3

This chapter describes the organization of monitoring. This requires the practical organization of the relationship between knowledge development processes (chapter 1) and innovation processes (chapter 2).
The first part of this chapter describes the function of monitoring within the perspective of action and the knowledge development. The second part will address the phases in the monitoring process.

3.1 Functions of the monitor

The core of the monitoring process is the periodic collection of data on the basis of a standardized set of indicators, which establish the state of progress and results of innovation processes in terms of the interaction between contents, conditions and effects.
On the basis of these insights, actors can modify their actions. Within this perspective the functions of monitoring are:

- Learning: acquiring insight in to what does and does not work in specific educational contexts, and what the effects are of the conditions within which innovation processes take place;
- Interventions: introduction of demonstrable improvements in educational practice;
- Imbedding: implementation of demonstrable improvements for imbedding the results of innovation processes in practice;
- Translation: translation of demonstrable findings from multiple local practices to the national level, and providing feedback in order to create better innovation practices.

The challenge is to combine these four functions, and to organize the monitor in such a manner that the knowledge generated is useful for specific situations and also has a generic purpose.[29]
The monitor delivers different types of knowledge products including:

- Conceptual knowledge: concepts and frameworks within which innovative ambitions are explicated;
- Content-related knowledge: examples, models, instruments and suggestions to provide content and form for new practices;
- Process-relate knowledge: actions, interventions and tips with regard to embedding innovative ambitions in practice;
- System-related knowledge: conditions and measures at the level of the system which are necessary for the realization of innovative ambitions in practice;
- Evidence- and practice-based knowledge: knowledge about the effects of innovations which confront the results of the monitoring process with the results of other forms of research.

It is essential for developing of these kinds of knowledge products that the methodology for the distillation of knowledge from local practices meets the criteria of social scientific research. This involves a mixture of complementary techniques and sources of knowledge.[30]

3.2 Phases in the monitoring process

Monitoring is organized in three phases: the phase of 'observation', the phase of 'valuation' and the phase of 'action'. These phases are closely related in an iterative process.

29 Compare: De Bruijn, 2008; Nonaka & Takeuchi, 1995.
30 Compare: Broekkamp & Van Hout-Wolters, 2006.

3.2.1 Observation

The phase of observation involves the collection of information about the innovation process with the help of valid and reliable instruments.[31] The precise nature of the information collected will be determined by the frame of reference of the innovation. This frame of reference provides the perspective within which the innovation process is viewed, and it is a beacon for all the actors involved in the innovation. This commonly held framework involves a set of indicators which refers to those phenomena that produce a picture of the contents, conditions and effects of the innovative process. Development of this frame of reference takes place in dialogue with the actors involved in the monitoring process. The determination of this framework is not a single occurrence, but is a cyclical, dynamic and iterative process.[32]

Furthermore, the relations between the indicators are also examined. For example, the relationship between progress and the effects of the innovation process. Given the complexity of innovations in vocational education, in which experiments and implementation are closely related, only limited use can be made of the analysis of data associated with quasi-experimental research designs which identify the influence of independent and dependent variables. More appropriate is qualitative analysis, such as 'plausible reasoning'[33] in combination with quantitative analysis, in other words in the form of 'mixed methods'[34].

Observation delivers a picture of the situation at a specific moment in time: a picture of the innovative process with regard to both contents, conditions and effects. In this phase, the researcher can play both direct and indirect roles. In the direct role, the researcher not only delivers the research instruments for examining the innovation process, but is also

31 This involves instruments in the broadest sense: from ways of working to questionnaires.
32 Chapter 2 referred to the complex processes involved in innovation processes in vocational education. The fact that innovations are sometimes formulated only at national level in terms of distinctive plans adds to this complexity. Such demarcations are less distinctive in practice where multiple innovations can be involved in a common process, while they are regarded on paper at national level as distinctive projects. What do we refer to when we talk of the 'innovation' or the 'innovative process'? Programme information relating to partial realities is ineffective. For this reason alone, the determination of a framework involving local and national actors is needed.
33 See, for example: Rescher, 1976.
34 See, for example: Tashakkori & Teddlie, 2003.

ultimately responsible for the collection of data. However, the researcher can also play an indirect and supportive role. In this case, the researcher facilitates the explication of the experiential tacit knowledge which emerges during the innovation process. The researcher provides the instruments for observing the innovation process and stimulate the development of 'reflective practice'. The responsibility for the collection of information resides with those who wish to implement the innovation in practice.
In both situations, the role of the researcher is that of 'developer of instruments' and 'critical friend', in which he/she tests the collected data in terms of validity and reality.

One of the challenges for the researcher is to relate the demands of methodological validity with practical relevance.[35] Observation is intended to facilitate action. Facts, but also meanings and contexts, will be examined: possibilities for action are not only determined by facts but also in terms of evaluations and context. A similar challenge also applies to reliability in which not only statistical criteria are important, but also the earlier mentioned concept of 'plausibility' (Reschner, 1976). Relevant criteria in this regard are:

- Relevancy and transparency of information in relation to the indicators;
- Consistent and congruent assertions and arguments;
- Providing the foundation for evidence as to to presentation of results.

3.2.2 Evaluation

Observation delivers both facts and opinions about the state of affairs in the innovation process at a specific point in time. This information is evaluated in terms of the criteria of expected performance. An evaluation is a conclusive statement about the current state of performance with regard to these criteria. Performance criteria refer to the contents, conditions and effects of innovations. Evaluation can take place from different perspectives. The most common perspectives are:

35 This involves among other things the manageability, the level of support and the goal-directedness of knowledge products. See: Doets, 1982, pp. 142 and further.

- Normative: comparison of innovative reality with political expectations;
- Efficiency: comparison of innovative reality with economic returns;
- Growth: comparison of innovative reality at different moments in time;
- Reference: comparison of innovative reality with a specific setting with other settings on the basis of bench-marking.

Evaluation can involve different actors – for example, the initiators, platforms, and practitioners – and different levels – for example, local, regional and system levels. Such evaluation can take the form of a direct confrontation between researcher and practitioners, debates between those directly involved, or a commission of arbitration.

The researcher contributes to the evaluation process by contributing in a professional manner to the determination of the distance between reality and expectations. At the same time, the researcher can also conduct comparative assessments, and, where necessary, collect additional data. This can involve both quantitative and qualitative points of measurement. The perspectives indicated above determine which comparison is relevant. For example:

- difference between the numbers of enrolled students compared to those who acquire a diploma – the efficiency perspective;
- actual co-operation between (vocational) education and businesses in comparison with what was desired – the normative perspective;
- increase in the number of students – the growth perspective;
- sense of security of learners compared with all Regional Educational Centres – the reference perspective.

3.2.3 Action

The third phase is that of action. Observation and evaluation provide an evidence base for action, provide feedback about the effectiveness and purpose of action, and suggest indications for the eventual modification of actions. In this regard, the researcher is expected to make the findings of observation and evaluation explicit, and to translate them in terms of the practices of the actors involved, preferably in terms of offering a repertoire

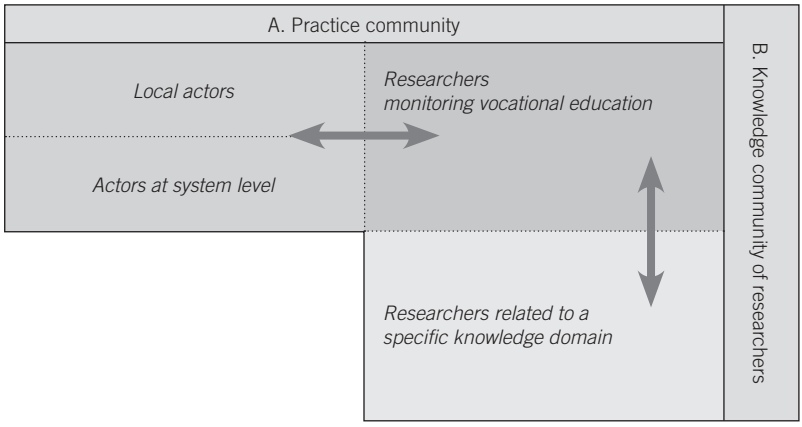
of action in the context of the actors. This translation to action applies to the local level, together with the system and disciplinary levels.
At the level of action, a distinction can be made between different levels – strategic, tactical and operational – and different perspectives – policy, practice and science. The common element is that they are all concerned with the the improvement of action in practice.[36]
Within the methodology of monitoring, observation and evaluation are organized within the perspective of action. This involves an additional dimension to the classical role of the researcher – in terms of observation, comparison and objectivity – in the direction of explaining and giving meaning to locally-developed knowledge in the form of a repertoire for action as a contribution to the development of both specific, generic and disciplinary knowledge.
For the researcher, this involves making a contribution to different knowledge communities in both the development and the translation of knowledge. Furthermore, the researcher needs to possess competences in order to fulfill these tasks in an adequate and professional manner.
In the first instance, the researcher is active in the local community of local actors and the innovation process. These actors are the owners of the innovation and are as such of crucial importance to both the development and utilization of the knowledge products. The researcher is expected to place the monitoring in a practical context, to establish relationships with practitioners at different levels, and to deliver instruments which relate to search processes at the lcoal level.
Furthermore, the researcher has to relate to actors involved in the innovation process at national level including the knowledge community at the system level. These actors are in part responsible for the innovative programmes and above all they are responsible for the design of the frames of reference and evaluation. They are also important users of the generic knowledge from multiple local practices. This means that the researcher must translate specific knowledge in terms of the repertoires of action for national actors.

36 'Practice' is used here in the broadest sense of the word. It refers to a broad range of practices ranging from policy processes at the system level to the didactic action of teachers/teams.

Finally, the researcher is involved in the knowledge community of researchers – the scientific forum – within a specific field of disciplinary knowledge. This is a less concrete – also virtual and international – community of actors who concern themselves professionally with the accumulation of knowledge: researchers, academics, professors, etc. Their interest in innovation processes is steered by the field of knowledge with which they are concerned, and within which diverse theoretical and practical questions prevail. There will be numerous links with the research community, for example, literature research, consultation with the developers of research programmes, tuning of research programmes, the legitimation of knowledge, etc.[37]
The links with practice in the service of knowledge accumulation will have to be organized in local innovation processes, and, in particular, by researchers who are associated with these local processes.

Figure 3.1 illustrates the positions of the researcher in the three knowledge communities.[38]

Figure 3.1 Positions of the researcher in the three knowledge communities



37 This involves the time- and place-related position of the researcher in relation to the duration of the innovation programme and the local practices participating in the programme. The relationships of the researcher in this context are diverse and dynamic, and they cannot be easily captured and named. They can be stimulated by the further development of the knowledge structure for vocational education.
38 Compare: Doets, 1982, pp. 189 and further.

Design and products of monitoring

4

The practical design is developed via interaction between the researcher and the actors involved, see chapter 2. Undertaking research for and with practice involves bridging the gap between two different worlds of thinking and doing, the worlds of theory and practice. As a consequence, an interactive way of working has to be adopted: the design and implementation of research are not two distinct sequential phases. During research, reflection will continue about the design. Researchers are alert to the need to continuously validate their way of working in relation to the results, partly from the perspective of practical relevance. However, the basic-principles of social scientific research prevail.

4.1 'Multi-level' and 'mixed-method' design

In the context of monitoring with the engagement of different actors, a 'multi-level' research design is required. In principle, the design will include the following themes.

1. A frame of reference supported by all the actors which formulates the innovative ambitions in terms of the realization of new practices, concrete conditions, and intended effects. There will be a threefold focus on the development of practice (in the local context), the development of the system (national context), and the development of disciplinary knowledge (for example, educational science).
2. The explication of the frame of reference in a set of variables and appropriate instruments with which progress and the results innovations can be captured.
3. Periodic assessment of progress at local level and the interpretation of progress from the perspective of local innovation ambitions. The purpose is the modification of the local innovation process.
4. Periodic assessement of progress at system level and interpretation of progress from the perspective of system development. The purpose is

to make adjustments to the programme-based national innovation process.

5. Development of disciplinary knowledge by relating locally developed knowledge to knowledge developed elsewhere, whereby a 'practice-based' knowledge product arises which has both a conceptual and instrumental character in the form of a repertoire for action.
6. Distribution of knowledge developed to the field of vocational education, policy and science.

Given this design, monitoring is also positioned in the broader context of the structure of knowledge about vocational education. Actors within this structure of knowledge have different and changing roles. They can be the exponents, makers, and users of knowledge. With a view to the links between different sorts and sources of knowledge, it is important that those conducting the monitor can speak to these actors from different roles.[39]

The researcher will need to possess a wide range of quantitative and qualitative methods and techniques. These methods and techniques must not only be directed to measuring variables, and observation, they must also have a practical application, valuation and action.

This calls for a 'mixed-method' design in which both deductive as inductive logic and techniques have a place.[40]

In all phases of the research, the 'multi-level' character of the design demands giving attention to both transparency and responsibility in making choices about methods and techniques.[41]

4.2 Products of the monitoring

The results of monitoring yield data about progress with regard to:

- Innovation process: the degree to which the conditions for effective innovation have been created;

39 See: De Bruijn & Westerhuis, 2004.
40 See, for example: Tashakkori & Teddlie, 2003, pp. 24-25.
41 In general terms this involves the following phases: formulation of the research problem and questions, research plan and development of instruments, the collection, analyse and interpretation of data, reporting of the results. See: Prangsma & Van Vlokhoven, 2008.

- Content of the innovation: the degree to which new practices – approaches, products, processes – have been realized;
- Effects of the innovation: the degree to which quantitative and qualitative effects have been achieved at the level of both the beneficiaries – participants and firms – and the practitioners – trainers and management.
- The coherence between new practices and intended effects.

It is crucial that research collects information which can contribute to improving the actions of the actors involved. In order to collect this information, the researcher, in interaction with those involved, must determine the essential variables in the innovation process. Furthermore, the researcher must determine the manner in which these variables can be measured, together with decisions about the available, or to be developed, research instruments. The researcher is confronted with three clusters of variables, each of which demands its own instruments.[42] These are:

- Dependent variables: the intended effects of the innovation, which can include both qualitative effects – for example, valuation by participants and firms – and quantitative effects – for example, enrolments and completions.
- Independent variables: variables relating to the manner in which the innovation acquires both form and content in primary, secondary and tertiary processes, and are related to the processes which can be manipulated by actors.
- Conditional variables: variables relating to conditions that influence the realization of the innovation, and which can be manipulated by actors. These variables are part of the innovation process at local level.[43]

42 In this publication, reference is made to the classic methods of measurement in the form of questionnaires, interviews, and analysis of data-sets. Other forms of measurement are, of course, also possible, such as observation, focus groups, logbooks, and reports of reflection. Compare: Ponte, 2006; McNiff, Lomax & Whitehead, 2005. The application of combination of qualitative and quantitative instruments within the monitoring methodology are in development. See: De Bruijn & Huisman, 2007; Prangsma & Van Vlokhoven, 2008.

43 It is also possible to identify a set of 'intervening variables'. These are not the object of local innovations but they can be of influence: variables at macro- and system-level, for example, structures, legal rules, and funding – together with macro-economic developments, for example, growth/shrinkage of the labour market. This publication pays little attention to these variables. They are introduced here as intervening variables because the researcher and other actors must be aware of their possible influence.

In order to compare local practices and generate local knowledge, variables must be applicable in multiple local situations. This chapter introduces some sets of these variables which are illustrated in three tables (4.1, 4.2 and 4.3). Dependent upon the specific knowledge questions in an innovation, use can be made of the whole or parts of these sets of variables. The tables below illustrate clusters and the appropriate sets of variables. At the same time, possible sources of information, global operationalizations, and possible ways of measurement will be indicated. These tables are based upon the monitoring of the innovative arrangements associated with The Platform Vocational Education and the Platform Exact Techniques.

4.2.1 Dependent variables

A distinction is made between qualitative and quantitative effects. Quantitative effects can be more or less objectively observed by those involved. Qualitative effects can be observed by those directly involved. In determining qualitative effects, use is made of subjective criteria, for example, valuation scales about the attractiveness of a course of study. In determining quantitative effects, use is made of objective criteria, for example, the number of participants or percentage of drop-outs. With regard to a number of these quantitative effects, those involved have to agree upon accepted definitions, for example, 'What is drop-out?' or 'What is expertise?'

Quantitative effects

With regard to quantitative effects, the emphasis is upon measuring the variables in a more or less objective and numerical manner. In many cases, administrative data are employed. This involves four key variables: recruitment (A), progression (B), completion (C) and productivity (D) (see: table 4.1).

Table 4.1 Dependent variables: quantitative effects

Variable	*Data about*	*Operationalization*	*Measure via*
A. Recruitment in vocational education	Participants	Numbers and characteristics	Administrative information/ questionaires participants
B1. Progress	Participant	Numbers and characteristics	Administrative information/ questionaires participants
B2. Unqualified exit	Participant	Numbers and characteristics	Administrative information/ questionaires participants
C1. Qualified exit	Participant	Numbers and characteristics and qualifications	Administrative information/ questionaires participants
C2. Exit to/ articulation labour market	Participant	Numbers and characteristics, position on labour market	Administrative information/ questionaires participants, via firms
C3. Exit to/ articulation continuing education	Participant	Numbers and characteristics, location continuing education	Administrative information/ questionaires participants, via schools
C4. Expertise	Participant	Work performance	Firms/participants (longitudinal, questionnaire)
D1. Effectivity	Schools	Duration training, effectivity	Administration courses (development effectivity per participant)
D2. Efficiency	Schools	Costs of courses	Administration courses (development efficiency per participant)

Qualitative effects

This is a question of the quality of effects expressed in valuations by local and national actors. A distinction is made here between **beneficiaries** – learners/parents, firms, subsequent education – and **providers** – trainers, management –. The valuation of both groups is indicative of the effect of the innovative process.

Table 4.2 Dependent variables: qualitative effects

Variable	*Data about*	*Operationalization*	*Measure via*
Valuation course (content, methods, organization, results)	Participants/ parents	Via valuation scales with number of dimensions (satisfaction, usefulness, basic career)	Questionnaires or interviews
Valuation course (content, influence, co-operation, results)	Companies (management, trainers)	Via valuation scales with number of dimensions (suitability graduates, induction period)	Questionnaires or interviews
Valuation course (content, influence, co-operation, results)	Encouraging continuing education (management, teachers)	Via valuation scales with number of dimensions (articulation, attunement, relevance)	Questionnaires or interviews
Valuation course (content and methods, own role/ task)	Teachers, management	Via valuation scales with number of dimensions (relevance, influence, own expertise, etc.)	Questionnaires or interviews
Valuation organization (internal, relations colleague organizations)	Teachers, management	Via valuation scales with number of dimensions (work satisfaction, co-operation, etc.)	Questionnaires or interviews
Valuation system (legal framework, regulations)	Management education and companies	Via valuation scales with number of dimensions (room for experiment, influence, etc.)	Questionnaires or interviews

4.2.2 Independent variables

Innovations in vocational education are largely based upon the national innovation agenda which expresses expectations about the development of education/training activities, organizational development and regional embedding. These acquire form and content at the local level and can be regarded as the independent variables in the innovative process. Through measurement of these independent variables, it is possible, in principle, to assess how they contribute to the effects as dependent variables.
While it is possible to define an extensive set of independent variables, monitoring will focus, for practical purposes, on the most commonly held set of variables which can be indentified in policy documents and the ambitions of various innovation programmes.
Tabel 4.3 provides an overview of the most prominent variables and the ways in which these can measured. Given the nature of these variables, measurement will have a strong qualitative character, in particular in the form of formal descriptions of 'good practices'.

Table 4.3 Independent variables

*Variable**	*Data about*	*Operationalization*	*Measure via***
Articulation with occupations	Courses and educational providers	Degree of match and continuity (methods, organization and contents, APEL, etc.)	Analysis courses (in terms of articulation)
Powerful learning environments	Courses and firms	Degree of rich contexts, attractiveness, integration learning/working, integration contens of learning, general competences, etc.	Analysis courses (development of a number of dimensions)
Training for modern expertise	Courses and firms	Degree of competence-based learning, directedness, career as departure point, involvement participants, role teacher, competency-based assessment (formative/summative), etc.	Analysis courses, questioning participants and employers (development of measures of up-to-date expertise with a number of dimensions)
Regional networking	Courses, providers and firms	Degree of co-operation (including content, nature and level, etc.)	Analysis of co-operation (development of measures of co-operation)
Flexible organization of learning	Courses	Degree of responsiveness, demand related, and adaptability, etc.	Analysis of organization, questioning teachers, participants and employers (development of measures of organizational development)
Transparent qualification structure	Courses and firms	Degree of competence-based learning, stability, simplicity, applicability, etc.	Analysis of qualification structure, questioning employers

* There are many examples. The independent variables involved are utimately determined by specific innovations where agreements or 'contracts' have been established in national programmes.
** In all cases, interviews with those involved can supplement such analysis.

4.2.3 Conditional variables

The third set of variables to be measured are those which concern the conditions under which innovations take place in practice. Chapter 2 has already indicated that this involves five variables.

Table 4.4 Conditional variables

Variable	*Data from**	*Operationalization*	*Measure via***
Joint ownership	Management (of all the involved co-operating partners)	Ownership at management level, translation in activity plans, substantial contribution at all levels, etc.	Questionnaires, analysis of documents and intervieuws
Powerful concept of innovation	Management and practitioners	Professionally challenging vision of vocational education, insight into success/failure factors, view of relation between processes and effects, etc.	Questionnaires and interviews
Development oriented approach	Management and project leaders	Clear leadership, realistic plans, facilitative conditions and technology, adequate provision of support services	Questionnaires, analysis of documents
Transparent results	Management and project leaders	Ambitions translated into qualitative and quantitative results and targets, etc.	Questionnaires, analysis of documents
Explicit learning	Management, project leaders and practitioners	Feedback, make explicit what works and does not work, create conditions for embedding results, etc.	Questionnaires, analysis of documents, and interviews

* Such conditions apply for all those involved. Measurement should ideally take place with them all. The appropriate column indicates those actors from whom information must necessarily be gained.

** For each variable, it is preferable to develop a scale with different dimensions.

Final statement

This report has described the methodology developed by the CINOP Centre of Expertise for monitoring in vocational education. Given the background of the authors, it has been written from a research perspective, and is intended to make a contribution to the discussion about the role of research in support of the development of practice. Although emphasis is placed upon providing support for local innovations, the methodology is also examined from the perspective of generating action-related knowledge for vocational education as a whole. The challenge for the future is to strengthen the process of knowledge accumulation, in other words to successfully translate locally-related knowledge into system-related knowledge, and to ensure the translation to disciplinary knowledge. An important question here concerns the further development of valid instruments within the methodology of monitoring together with the combination of qualitative and quantitative methods and techniques. The systematic linking-up of knowledge development processes within the monitoring methodology contributes to innovation in vocational education and the capacities of the actors involved at differerent levels.

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11

The Dynamics of Curriculum Design and Development: Scenarios for Curriculum Evolution

Juan Manuel Moreno

> After her six years' residence at the Mall, I have the honour and happiness of presenting Miss Amelia Sedley to her parents, as a young lady not unworthy to occupy a fitting position in their polished and refined circle. Those virtues which characterize the young English gentlewoman […] will not be found wanting in the amiable Miss Sedley. […] In music, in dancing, in orthography, in every variety of embroidery and needlework, she will be found to have realized her friends' fondest wishes. In geography there is still much to be desired; and a careful and undeviating use of the blackboard for four hours daily during the next three years is recommended as necessary to the acquirement of that dignified deportment and carriage, so requisite for every young lady of fashion. In the principles of religion and morality, Miss Sedley will be found worthy […]. (*Vanity Fair*, Thackeray 1848: Chapter I)

Introduction

Curriculum is a socio-historical construction which is expressed through general systems of knowledge characterization and hierarchy; these systems are in turn translated and transformed into legislative and administrative regulations, academic/achievement standards, textbooks and teaching aids, and the practice of teaching and learning in classrooms and schools. Goodson (2000) claimed that curriculum researchers should aim to comprehend how particular forms of knowledge are canonized and how power consolidates them. This chapter presents and deals with two fundamental dynamics of curriculum design and development—the very processes whereby curriculum is constructed as a social institution—change/control, on the one hand, consensus/conflict, on the other. This chapter will analyze specific elements of

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curriculum policy that allow us to have a deeper understanding of such dynamics. Stemming from the contrast and intersection between the dynamics of both curriculum design and development, four different scenarios of curriculum evolution and change can be identified and used in the analysis of current worldwide trends of curriculum reform. The resulting analytical framework will be supported and illustrated with specific curriculum trends and country examples from different regions of the world.

The dynamic of change/control in curriculum development

Alternative policy choices with regard to curriculum design and development can be accounted for in the light of a dynamic of change/control, which operates as a sort of engine for such processes. A comprehensive/explanatory model of this dynamic has been used in different ways by many authors in the field of educational change and innovation, school improvement and educational reform. Rodriguez Romero (2001) carried out a literature review in this regard, where the issue is presented in terms of the stability/change dynamic. Quoting Popkewitz, the author states that "the study of stability has been traditionally absent from research on educational change" (Popkewitz 1983: 175). Nonetheless, and even if it emerged in another context and with very different policy intentions, research on the implementation of educational reforms and, more specifically, on *factors* affecting such implementation has been informing us for decades about the individual and institutional dimensions of change, innovation and reform in education, and about the conditions in which such stability is expressed and assured.

In the context of a comparative study of secondary school-leaving examinations (Moreno 1992), I suggested that, instead of stability and control, the specific dynamics involved in curriculum design and development were rather of *change and control*. National/public examinations are the best possible example of this dynamic: external examinations are used in many countries as tools to steer the curriculum in the desired direction, creating a whole system of incentives for students, parents, teachers and local education administrators. Curriculum change and control have a radically dialectic relationship with great potential to understand and explain the issues at stake; this vision of curriculum dynamics, in addition to accounting for the phenomena, processes and levers of curriculum change and control as such, allows for the analysis of more complex issues involved in the *control of change* initiatives and, naturally, in the *change of control* mechanisms.

Using external examination as a policy tool, educational authorities can propel the school curriculum in the most desired direction: more generalist or specialized, more vocational or academic oriented, more or less demanding in terms of performance standards, and with stronger emphasis and premium on selected knowledge areas, competencies and skills. External examinations can simultaneously fulfill the functions of innovation and reproduction, curriculum change and curriculum control (Eckstein and Noah 1993). In other words, examinations are particularly amenable to political utilization, both in terms of political debate, or as Tyack and Cuban put it (1995)

political chat, and from the governance standpoint, to control and change the school curriculum at each and every level of decision-making.

As for their potential as instruments of curriculum change, it is remarkable how external examinations can be effectively used to legitimize and consolidate new subjects and knowledge areas, pushing up their market value, while usually (though not always) devaluing others. Granted, this is the way examinations reflect wider and stronger socio-cultural, economic and political trends; yet there is little doubt that the strong presence—or the explicit elimination—of any given subject in a secondary school-leaving examination confirms its social status as a knowledge area. And this has a number of important effects and implications on the corresponding status of the related professional families. Hence, the fact that most of the struggle to obtain—and to keep—a recognized place in the school curriculum has occurred in the context of external and public examinations faced by students at critical points during their school experience. In this regard, for instance, the multiplication and diversification of examinations in many education systems in order to integrate and mainstream new vocational tracks in upper secondary education has played a crucial role in their development, consolidation and increased recognition within both secondary and tertiary education.

In parallel, the evolution of both the content and the format of examinations may lead to changes in pedagogical methods and strategies used by teachers. Thus, teachers tend to make different curriculum and pedagogical decisions, depending on whether the upcoming external examinations for their students are going to be a standardized multiple test, an essay test, an oral examination or a practical test—to name but a few examples. In those different testing scenarios, schools and teachers tend to select and arrange curriculum content, design activities and choose materials that are going to better ensure the success of their students. In other words, the potential attributed to textbooks and other curriculum materials in shaping the curriculum in action may be dwarfed by the shaping power to be found in external tests and examinations. *Teach to the test* is the short way to describe what happens in primary and secondary schools, especially during the years immediately before external testing and high-stakes examinations take place. The trend to multiply the number of theses texts and to enhance their diagnostic reach obviously has to do with increased demand for school and teacher accountability but, as we argue here, also with an important capacity to shape the curriculum.

The agenda-setting function of curriculum design and development

The function of curriculum control is complementary and runs parallel to the one of curriculum change. Perhaps the best way to illustrate this lies in the crucial relationship between the content and results yielded by examinations and public perception about the overall level of student performance. Increasing publicity and media attention devoted to examination and test results and its political utilization—especially in the context of international comparative studies of student performance—have become one

of the key issues not only in the professional or the academic education debate, but in the mainstream political debate as well. Thus, the content, format and specific arrangements of tests and examinations have a strong shaping influence on quite a few other elements of what is commonly understood as the process of curriculum design and development. As a result, both teachers and students need to align their curriculum choices with the features and specific incentives implicit in tests and examinations (thus blocking potential change initiatives). Schools and local education authorities have to carefully weigh the available options when they use their autonomy in curriculum matters, and even textbook publishers take external examinations and tests—their format, content and priorities in terms of examined skills and competencies—as the guiding criteria to design their products. In addition, tests and examinations, as quality-assurance mechanisms, fulfill a control function for the uniformity and consistency of the curriculum delivered by every school under any given administration.

When it comes to the dynamics of change and control, school curricula seem to fit the principles of the agenda-setting theory. This theory was put forward by McCombs and Shaw (1972) in the field of mass-media communication. It provides evidence to state that mass media are not quite so successful at telling us what to think as they are at telling us what to think about. As a result, the theory goes, it is assumed that if people are exposed to the same media, they will place importance on the same issues, i.e. will have a similar agenda, even if their personal stances for each of the agenda items differ sharply. Transposing the theory to the curriculum field, one can argue that the school curriculum sets the agenda for students, teachers, parents, employers and the other educational stakeholders. Even if specific contents and dominant classroom practices of curriculum areas differ sharply, the overall framing of the curriculum tells everybody what to think about and to what extent it is important. And disciplinary-based interest groups assume that if students are exposed to the same curriculum, they will develop a similar mind frame about what is worthwhile knowledge, a certain hierarchy of knowledge areas, and a set of specific conceptions and beliefs on each of them.

This leads us to the second and complementary dynamics of curriculum design and development.

The dynamic of conflict/consensus in curriculum development

Curriculum can also be defined as a public space of debate; as a matter of fact, curriculum development could be depicted as an ongoing public, policy and even electoral arena; also as a process of professional deliberation between teachers, their representatives and education managers and administrators; it is also a process of social debate among the different stakeholders of the educational community at local, regional and national levels. As an arena of ideological confrontation and political struggle, the school curriculum reflects ideological, religious, professional, economic, corporate and strictly academic interests.

To be sure, the school curriculum features high in the political debate and, in many countries, even in election campaigns. This necessarily implies ideological clashes, conflicts of interest and difficult processes of consensus building. Ever since education has been publicly and politically conceived as a strategic sector of the economy, it is possible to better understand nowadays frequent political statements that link educational performance and outcomes not just with national economic competitiveness but with national defense interests as well. Slogans and political labels in that regard are just the mass-media translation to the world of politics of the perennial issues that traditionally occupy educational debate. If we were to collect all these slogans and electoral campaign stereotypes related to education, we could put together a 'repository' of standard arguments, sometimes very strongly rooted in our societies and cultures. At other times, it is just a product of the 'political chat' about the school curriculum and the set of practices related to it.

So, for instance, we have to mention one of the most recurrent—and resilient—educational slogans and discourses that have existed ever since formal school systems were set up (and even before then): complaints and accusations about the 'lowering of standards' in schools and student performance as a result of allegedly mistaken policies and interventions or, sometimes, just as a token of the overall *decadence and degradation of education* and the urgent need to go 'back to basics'. If effectively handled, such discourse can have a huge impact on public opinion, even to the point of creating a certain awareness of national emergency. The United States is probably the most visible national example in this regard, where education reform has been presented—at least since the late 1950s and the 'Sputnik Shock'—as a key issue in terms of national defense (i.e. the now legendary National Education Defense Act). More recently, the results of PISA studies are being used by the media and some politicians in a similar way, especially in countries like Germany, Chile and Spain.

The struggle for a recognized place in the curriculum

Parallel to the dynamic of change/control, there is also a dynamic of consensus/conflict as an explanatory model of curriculum design and development. In this case, the constant succession of conflicts, confrontations and pressures, and the necessity to reach agreements and consensus, no matter how provisional they may be, not only refers to the macro-political dimension of curriculum design and development, but especially to the micro-political dimension of each school community, teaching staff and individual classrooms (curriculum in action). The school curriculum emerges there as a space of deliberation in which all stakeholders try to build consensus on the best possible arguments at any given time to back and support decisions to be made. Thus, curriculum design and development become a cyclical, evolutionary and deeply situational process, since the task is about constructing and reconstructing, through complex plans, the curriculum of a particular school. Deliberation and—as a potential outcome thereof—consensus turn curriculum design into a matter of practical problem solving. Senge (1994) identifies two types of consensus, namely, a leveling consensus,

which looks for the minimum common denominator out of multiple individual perspectives, and a forward-looking consensus, which aims to reach beyond the perspective of each individual stakeholder. Thus, consensus can be pursued as a conservative search for the minimum common denominator, or it can be understood as a more risky bet to accomplish a *moral commitment* among those involved in curriculum decision-making. To be sure, it is this second type of consensus that is sought after in the framework of deliberative rationality or, in the words of Habermas, 'communicative rationality'.

However, despite these principles, mostly related to curriculum *in action*, the dynamics of consensus/conflict have to do mainly with the fact that the *struggle* for a recognized place in the curriculum is at the core of political debate and confrontation at various levels and instances of public life. In our societies, perhaps one of the most frequent ways for groups and individuals to claim that some knowledge area or particular skill is of utmost importance and should be seen as a priority is, precisely, to say that 'it should be taught at school'; or to put it in our academic jargon, that it should enter the school curriculum as worthy knowledge that should be part of the common experience of all citizens. Thus, to give but a few examples, it is common currency in the media, NGO communiqués and in political campaigns to read or to hear that schools should be teaching cinematography, chess and HIV & AIDS prevention. Schools should also devote time—and therefore money—to prevent smoking and alcoholism, and to teach children what to do in case of a natural disaster. Students should be working with the Internet; there should be a poetry workshop in every classroom; and at least two foreign languages should be taught as compulsory subjects from as early an age as possible. The school curriculum should also deal with selected democratic values that need to be taught within every subject and as cross-curricular themes. This entails gender equality, environmental education, citizenship ethics, consumer education—and even driver training. Schools should also address the issues of racism and xenophobia and, in so doing, they should highlight studies on ethnic minorities, countries, languages and cultures that are not mainstream. Schools need to teach students to think but also to develop competencies that go beyond cognitive skills; and, of course, the curriculum has to be relevant to the labor market if schools are going to remain attractive and meaningful to many students and to their families. This last means that the applied dimension of all subjects, even the most academic ones, should be stressed. This list, as we know well, could go on for several pages!

The most important nuance, though, is not the increasing number of demands on what should schools deal with and how. Rather, the key is that such demands, in most cases, tend to be formulated in quite a radical way, that is to say, their promoters are not only asking for it to have a place into the curriculum, they are also claiming that the new area or skill should be *compulsory for all students*. Hence, it is a part of the common experience that every citizen should have access to. The more importance and relevance is assigned to a particular area, the greater curriculum centrality and duration is going to be claimed for it. A good historical anecdote that fits well here is brought by Tanner and Tanner (1980: 218) and refers the case of a state governor in the United

States in the nineteenth century who forcefully defended before the state capitol that the penal code should be adopted as a mandatory textbook in all secondary schools.

The pressure on the school curriculum comes from new contents, skills and knowledge areas that are being promoted by different groups. These new *entrants* seek more curriculum time, more human and material resources and, ultimately, more social recognition and economic reward. But time and space in the school curriculum are not endless; on the contrary, financial constraints in many countries are actually limiting them more and more. As a result, there is a harsh struggle among all those claims, forces and pressures. Behind the struggle, there are interests of all kinds, beginning with professional and corporative ones. Let us look at some basic examples. Behind the demands to introduce cross-curricular themes, one finds, first of all, the *experts* in each of those areas who see their specialized knowledge more demanded and, therefore, more rewarded. Behind the demand to increase the number of compulsory and optional foreign languages, one can see philologists and foreign-language teachers, especially those of minority languages. It is not difficult to figure out who is behind the drive to introduce ICTs, both as curriculum content and as teaching/learning materials. In short, acquiring a recognized place in the school curriculum equals—or is closely related to—occupying a recognized place in the patterns of socio-economic reward and recognition and, as a result, in the labor market and occupational hierarchy.

Furthermore, in all of the previous examples, there are also political interests and goals of a quite different nature and reach: There is data available on the social and financial impact of HIV & AIDS preventive education in secondary schools in Africa (World Bank 2005a). The increase of *collective competency* in foreign languages is nowadays considered one of the best indicators of national competitiveness and, in particular, the marketing capacity and tourism potential of any given country. The penetration and, more specifically, the effective use of computers in secondary schools is an indicator that matches almost perfectly the national competitiveness index. And it would be perfectly possible to come up with a quantitative estimate of the benefits and externalities (including budgetary savings) derived from the introduction of chess in the school curriculum, in terms of reduction of impulsivity and increases in reflexivity of pupils (among many other possibilities).

Conversely, if and when a decision is made to drop classical languages as compulsory subjects in the secondary school curriculum—or even to eliminate them altogether—the interests of educators and researchers of Latin and Greek are seriously threatened. Their realm of work is devalued and job opportunities become severely endangered. Ensuring a recognized place in the curriculum leads to creating the conditions to attract the more able students, so that the related occupations in the job market maintain or increase their status. Shaping and developing in students what Bernstein (1977) called ‘disciplinary loyalty’—specialization, to use a not so literary and less-precise word—would be one of the most relevant and interesting correlates of the dynamics of curriculum conflict and consensus. Studies about the formation of school subjects could be framed in the context of this particular dynamic (Goodson 1985; 1987b).

Schooling and the construction of individual and collective identity

In the framework of the dynamics of conflict and consensus, the main challenges our school systems are facing are the dilemmas emerging from globalization and related to the role of educational institutions in the construction of personal and collective identity in a multi-ethnic and culturally plural society, which aims to continue to exist as a democracy. The dialectic play between consensus and conflict, both as it refers to policy decision-making and to the daily life of schools, is now under unprecedented pressure and tensions in the history of our school systems. Such pressures and tensions even go beyond the realm of the curriculum that has been dealt with so far in this chapter.

Against the fading away of national identities as a result of globalization, there is the paradoxical emergence of a series of local identities underpinned in religion, language and ethnic background. Thus, the more globalization advances, the greater the resurgence of local identity as a way of not giving in to the logic of homogeneity. As a reaction to the identity crisis brought about by globalization, many contemporary education systems tend to highlight local cultures as a way to offset the fading national identity. Local and regional administrations, taking advantage of the leeway created by educational reforms promoting decentralization, are keen on pushing traditional contents and even new subjects based on local cultural traits into the school curriculum. Ironically, many of these attempts at restoring traditions and reconstructing knowledge related to the local heritage indirectly reinforce the academic side of the most traditional school subjects. One of the paradoxical consequences of globalization is that schools in many countries find themselves compelled to adopt a defensive stance embracing parochial and self-centered values.

Globalization has definitely changed the conditions of personal and collective identity formation. For those with less success in the global market, the search for identity is now taking very different directions. Religious fundamentalism is one of the alternatives now chosen by those who do not know how—or do not want—to be successful in that market. Religious fundamentalism is also, paradoxically, a globalization phenomenon to the extent that it is an identity culture that transcends any national project. Cultural identity, be it religious, ethnic or gender-related, local, national or global, is an antidote against the complexity and the cruelty of the global market as the ultimate judge on the value of each and every individual. If schooling—increasingly democratic and massive throughout the world—is presented as a market and takes on the role of being the *first measure* of success and competence in that global market, then it is only normal that those who fail that test may tend to build and shape their identity through one of the 'antidotes' mentioned above, thus abandoning the school as the source of collective identity. Speaking again of religious fundamentalism, it is no coincidence that a good part of its confrontation with secular states takes place precisely around public schooling.

Yet, despite all of the above, to the same extent that schools are the arena for struggles about the definition of culture, they also represent, for those not included in

the global economy, the most important route to access relevant knowledge and key competencies. For minorities of all kinds, there is a dilemma between being acknowledged as different and, at the same time, that active recognition not standing as an obstacle to access the traits of a global identity, including the competencies and skills of high value in the global economy. There is sharp paradox in the fact that the hegemony of meritocracy as an ideology, based on the ethos of the free market, overly harms those minorities and disadvantaged groups. At the same time, it may be the only available vehicle for the inclusion and upward mobility of those minorities and collectives.

Scenarios of curriculum evolution

The discussion on both dynamics creates a new analytical framework with some potential as a general explanatory model for the processes involved in curriculum design and development. A very basic graphic representation is shown in Figure 11.1.

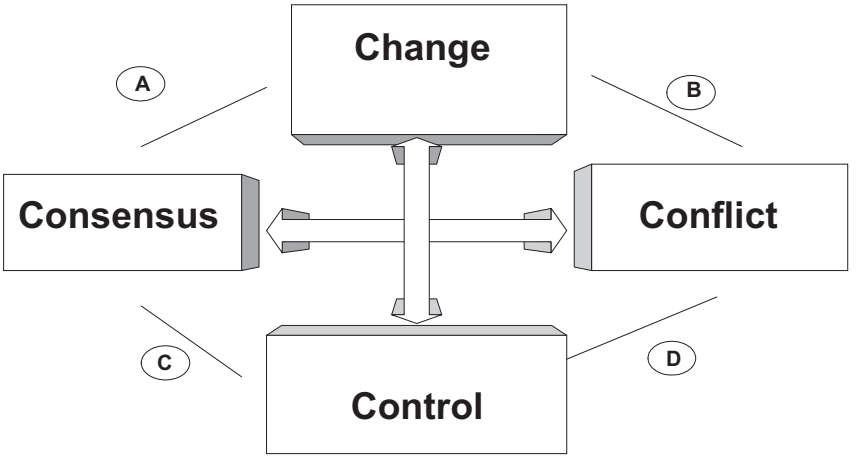


Figure 11.1: Four scenarios of curriculum evolution

Despite the need for a more careful *fine-tuning* of this model in order for it to clearly distinguish and effectively reflect the macro aspects of curriculum policy and the micro dimension of curriculum in action, we can tentatively suggest that four different scenarios of curriculum evolution and change emerge from the contrasting dynamics of change and control on the one hand, and consensus and conflict, on the other. These are: (a) scenarios of change/consensus; (b) scenarios of change/conflict; (c) scenarios of control/consensus; and (d) scenarios of control/conflict.

Scenarios of change/consensus

The best examples here are to be found in the *big-bang* large-scale education reforms of the 1960s and 1970s around the world. Also, the legendary literacy campaigns in some developing countries—Nicaragua, South Africa—would fall under this heading. Scenarios of change and consensus tend to emerge around initiatives of curriculum reform related to and aligned with simultaneous changes in the process of constructing and defining a new national identity in a country or a given community. In contemporary times, the national projects of post-conflict reconstruction of education in countries such as Kosovo, Sierra Leone or Cambodia are the most visible national cases in that regard (World Bank 2005b).

But scenarios of change/consensus also belong within the realm of the well-known comparative assertion that there are world patterns of educational institutionalization that include an increasingly uniform and converging school curriculum (Boli, Ramírez and Meyer 1985; Meyer and Ramírez 2000). To be sure, it is quite remarkable that our knowledge society—or *late modernity*, in Giddens' vocabulary—has produced such a wide consensus on a number of new skills and competencies that are said to be crucial for individual socialization and national competitiveness in the twenty-first century. All over the world, government reports and white papers cluster around the need to implement a competency-based curriculum in secondary education, where emphasis is placed on problem-solving, teamwork, peaceful conflict resolution, dealing with complexity and living with ambiguity, thriving with change, becoming lifelong learners, etc. (See Table 11.1 with a summary from the Definition and Selection of Competencies Project—DeSeCo.) Nevertheless, while there seems to be consensus on the competencies, there is still profound disagreement as to what is the right balance of disciplines and pedagogical approaches for students to acquire such competencies. Or, in other words, the challenge remains as to how to integrate the discourse and the substance of the key competencies in a traditionally framed school curriculum. Key competencies are certainly at the top of the curriculum agenda—to bring back our agenda-setting function of curriculum design and development—but school systems, especially at the secondary level, are far from being able to align their implemented curricula with them.

The second global trend in the curriculum scenario of change/consensus is the introduction of information and communication technologies (ICTs) in schools. Nearly all countries in every world region are investing heavily, setting ambitious targets in providing Internet connectivity to every school and lower and lower ratios of available computers per student in primary and secondary schools. Yet, even in developed countries, the outcomes of those huge investments seem to be quite frustrating or, in OECD terms, 'disappointing' (OECD 2004). In an apparent paradox, as skepticism mounts concerning the potential impact of ICTs on educational quality and student performance, governments in both the developed and developing world continue to increase their investment in ICTs for education (World Bank 2005c). The issue here is not the often-alleged resistance of teachers to use ICTs in the classroom; the difficulty

is rather how to carry out the curriculum integration of ICTs. The secondary education curriculum has a *grammar* that does not easily let these changes take hold and this constraint on the curriculum integration of ICTs is probably the key in explaining low levels of use—and also irrelevant use—of ICTs in schools.

Table 11.1: Key competencies (Definition and Selection of Competencies Project)

Interacting in socially heterogeneous groups	**Acting autonomously**	**Using tools interactively**
Relating well to others	Acting within the big picture or the larger context	Using language, symbols, and text interactively (written and spoken communication, and mathematical skills in multiple situations)
Co-operating	Forming and carrying out life plans and personal projects	Using knowledge and information interactively
Managing and resolving conflict	Defending and asserting one' rights, interests, limits and needs	Using technology interactively (understanding the potential of technology and identifying technological solutions to problems)

Source: Rychen and Salganik 2003.

Scenarios of change/conflict

As suggested above, the school curriculum, particularly at the secondary level, is a political battlefield, where different and opposing interests clash with each other, often turning curriculum reform efforts into political nightmares for Ministers of Education. Scenarios of change/conflict in the evolution of curriculum reflect and project power struggles that go well beyond the arena of education policy decision-making. Thus, one can speak of the existence of 'curriculum lobbies', both national and international, as the active players in the change/conflict scenario of curriculum development.

The first illustration of curriculum evolution within this scenario has to do with the massive and increasingly democratic nature of contemporary education systems. In such a context, curriculum change and reform become ever more challenged with the issues of student cultural, ethnic, linguistic, cognitive, sexual and religious diversity

and, as a result, is turned, *de facto*, into a social artifact designed either to include or to exclude people. The most significant changes taking place in the curriculum nowadays have to do with the *politics of difference*, i.e. with attempts at the mainstreaming of cultural and knowledge traits of marginalized groups and, therefore, utilization of the school curriculum as a tool to combat social exclusion. Some seemingly technical issues are involved here, since it would appear that both interdisciplinary and cross-disciplinary approaches have failed to accomplish this goal, and contra-disciplinary approaches would be required instead (Giroux 1994).

A related manifestation of the scenario of change/conflict is to be found in what one may call the *textbook wars*. Usually—but not only—in the field of civics, history and social studies in general, textbook wars reflect the wider curriculum wars already referred to above. Examples can be drawn from many countries, from the banning of evolution theory in science textbooks in many states of the United States to the strong resistance to authorize alternative history books in Romania. Strikingly enough, textbook wars have recently become internationalized, when changes in Japanese history textbooks concerning the Second World War led to street riots and demonstrations in the Republic of Korea and China in April 2005.

Finally, it can be argued that efforts to reduce curriculum overload are probably the best illustration of the change/conflict scenario. In practice, curriculum overload may work as a device for student drop-out and failure and, therefore, exclusion. For example, in Eastern Europe and Central Asia, curriculum overload is a critical issue that stands on the way of successful secondary education reform. During the early 1990s, the focus in the region was on cleaning up the ideological slant embedded in official curricula and on reviewing textbooks in some key curricular areas. A few years later, traditional subjects were revisited to introduce national elements, and new subjects were added in line with curriculum reforms then being carried out in countries of the European Union. Currently, reformers are incorporating the discourse of standard-based, skill-centered and outcome-oriented curricula. Despite the appearance of curriculum modernization, the practical outcome has been widespread curriculum overload and a *de facto* increase in academic demands and requirements for secondary school students. In Ukraine, secondary students deal with up to seventeen different subjects, and in some tracks or streams almost half of the students receive only one hour or class session per week in some subjects. In Uzbekistan, the average secondary school student may be taking twenty-eight different subjects (World Bank 2005a). While these are extreme cases, the fact is that most students in upper secondary schools throughout the world are faced with overloaded timetables and with encyclopedic curricula (McLean 1995).

Scenarios of control/consensus

Curriculum development processes resulting from decentralization reforms, enhanced school autonomy and increased accountability may be identified within this scenario of control/consensus. These reforms have been strongly pushed in both the developed and

developing world over the last couple of decades on the assumption that interventions that focus on improving governance in general and governance of social services in particular may be the most cost-effective way to increase student retention and student learning for the society of the twenty-first century. Moreover, the discourse of devolution of power to regional and local authorities and some approaches to teachers' new professionalism have also boosted this 'zero-cost education reforms', as Carnoy (1999) calls them.

Among others, school-based curriculum development, school-based review and school-based management are all trends reflecting the drive for more local and institutional control of the curriculum in a frame of the overall steering control on the part of the state (Caldwell and Spinks 1998). Australia and Canada, among OECD countries, and Chile, El Salvador and South Africa in the developing world may be the most representative national examples. The emphasis in this scenario lies in the production of school curriculum projects as a result of local professional consensus among teachers and with local stakeholder participation, including parents, employers and sometimes even students.

School improvement policies, including competitive grants and the creation of networks of innovation, are also to be mentioned here, linking teachers' professional development needs with the process of curriculum design, adaptation and innovation in school contexts. In such a context, services and institutions of external support to schools become crucial, as they function as *controlling* buffer bodies between local and regional education authorities and teachers and schools (Moreno 1999). In short, it could be argued that control/consensus scenarios seem to be the ones creating the space and the opportunity for grass-roots and bottom-up curriculum change and innovation.

Scenarios of control/conflict

The movement towards curriculum standards is the global trend at the core of scenarios of control/conflict. To be sure, curriculum standards mean very different things in the United Kingdom, in France or in the countries of the former USSR. But, in all of them they reflect a growing stress on the outcomes of schooling, and the corresponding decline in public and political attention to input and process variables. The legal enactment of standards as the drivers of curriculum-making implies that national tests and examinations, as suggested earlier this chapter, are really steering the implemented curriculum in the classroom.

Test results are demanded and valued as the grounds for informed decision-making on the part of educational authorities, and as the substance of how educational providers are made more accountable to tax payers. Policy-makers use them to close down schools and to fire principals and teachers; or as a justification to hire new inspectors, superintendents and school principals, to change textbooks or to retreat to back-to-basics curriculum approaches. In an increasingly complex world, decision-makers, media and public opinion are craving for simple and, most of all, nuance-free information. And what is more nuance-free than a ranking? This is probably why the

publication of school league tables at the national level and of country rankings stemming from the results of international comparative studies of student achievement has such a remarkable impact on the media and public opinion at large.

These policies, because of the incentives they create among all educational stakeholders, are leading to a *de facto narrowing* of the implemented curriculum in many countries. Moreover, the narrowing of the curriculum, as reflected in standardized tests, leaves out of the public and political focus everything that goes beyond basic knowledge and basic competencies. In other words, it pushes down to a nearly invisible position most of what schools are actually doing and teaching to students. This may end up consolidating a much more restricted and artificial hierarchy of worthwhile school knowledge, apart from strongly limiting the public view on the desired effects of schooling. On the positive side, however, the standards movement could potentially serve as a radical measure against curriculum overload. Once again, the perennial curriculum question of 'what counts as good education' emerges here.

External tests and examinations can be used—and in fact have been used in some countries—to claim (with quite fragile evidence, by the way) that public delivery of education is inefficient, almost by definition. But, obviously, tests and examinations may also be used to identify districts, schools and even individual students in need of more attention and targeted resources. The political utilization of tests and examinations implies that they may become a regulatory practice which allows investing more and spending better in education, and not as an alibi to invest less.

Conclusion

Education reform all over the world is increasingly curriculum-based, as mounting pressures and demands for change tend to target and focus on both the structure and the very content of the school curriculum. At the same time, school curricula show high levels of stability and resilience and it is indeed difficult to name a country where the majority of education stakeholders are not complaining about the irrelevance of the curriculum, especially in secondary education (World Bank 2005a). Thus, it is quite perplexing—and sometimes even alienating, especially for teachers—to watch the contrast between the nonstop curriculum reform initiatives and *moves* on the part of successive education administrations and the fundamental conventionality and traditionalism of the implemented curriculum—the grammar of the school—when seen in historical perspective. There seems to be extreme volatility on the one hand; and extreme stability, on the other. The chapter by Kamens and Benavot in this volume provides convincing evidence of such paradox when the authors report that between 1980 and 2000, 41.7 percent of the countries in the world decided to move from a comprehensive secondary curriculum to a 'multi-track' model while a strikingly identical percentage of countries were making exactly the opposite reform, i.e., adopting a comprehensive curriculum in secondary education, exactly over the same time period. As far as curriculum reform is concerned, there seems to be a lot of movement but not much progress; lots of *chat* but not much discourse; lots of

declarations of intent, but not that many full-fledge and long-term policies. One could even argue that the keys to the governance of the school curriculum appear to be similar to those of, for instance, monetary policy so that Curriculum Development Centers at Ministries of Education would behave pretty much like Central Banks, which raise or lower interest rates depending on context-specific circumstances within different and evolving economic scenarios. In that regard, the key issue is not just some sense of 'progress' implicit in a series of reforms but rather the extent to which curriculum policy—and the resulting curriculum change in historical perspective—is responsive to the evolution of the needs and demands of any national society and, in turn, contributes to shape and steer those demands.

The analytical framework presented in this chapter has attempted to elicit and then make sense of all those paradoxes. The contrasting dynamics of change- control and consensus- conflict enable the mapping of curriculum evolution in a systematic way, accounting for the tensions, dilemmas, contradictions and *games* involved in curriculum design and development processes in contemporary education systems. A whole research program can be envisaged in that regard, one which is equally relevant for sociologists and historians of the school curriculum, curriculum policy analysts and comparative and international educators: For a start, it would be interesting to identify which of the four scenarios prevails in different world regions and countries, according to development levels and other political, economic and strictly educational variables. A second issue open for future research is the use of this analytical framework based on the dynamics of curriculum change to determine indicators of democratization of the curriculum, and the analysis of the concrete policy interventions which appear to lead to such democratization in different countries and world regions.

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The implementation and impact of National Qualifications Frameworks: Report of a study in 16 countries

Stephanie Allais

Skills and
Employability
Department

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Foreword

This is the report of an international research project conducted by the Skills and Employability Department of the ILO on the implementation of National Qualifications Frameworks (NQFs) and their use and impact. The research aimed to produce empirical evidence and analysis of countries' experiences as a basis for advising countries on whether, and if so, then how, to introduce a qualifications framework as part of a strategy to achieve their wider skills development and employment goals.

A qualifications framework is intended to improve understanding of qualifications (degrees, certificates, or recognition of experiential-based learning and capabilities) in terms of the information they convey to an employer about prospective workers' competencies. Frameworks are also intended to explain how qualifications relate to each other and thus can be combined to build pathways within education systems.

The focus on NQFs is important because some 100 countries are now involved in some way in designing or implementing qualification frameworks. Whether the emphasis is on increasing the relevance and flexibility of education and training programmes, easing recognition of prior learning, enhancing lifelong learning, improving the transparency of qualification systems, creating possibilities for credit accumulation and transfer, or developing quality assurance systems, governments are increasingly turning to qualifications frameworks as a policy tool for reform. In some cases national developments are propelled by the emergence of regional frameworks (such as the European Qualification Framework). In some cases the implementation of NQFs has been widely supported by international organizations and is often linked to aid money and even loans.

Despite the growing international interest, there is very little empirical research about the actual design process, implementation and results of NQFs in the labour market. This international comparative analysis of the implementation and impact of qualifications frameworks takes an important step towards filling this gap.

The research goes beyond sharing information about various approaches to NQFs taken by countries. Rather, it examines the evidence of their results to date and the extent to which stakeholders have confidence or questions about their eventual effectiveness.

For example, this study sought to discover to what extent employers are using qualifications frameworks in their hiring decisions. To what extent are national qualification authorities monitoring whether the qualifications they develop are being awarded and what difference these qualifications make to workers in the job market? And amongst those who are responsible for designing and implementing national skills systems, is there confidence that qualifications frameworks are helping to make the most of investments in education and training, or is there concern that these efforts are crowding out investments in extending accessibility of good training, improving teacher training and working conditions, or developing labour market information systems and employment services?

At its core, the research asks discomforting questions, such as whether NQFs are sometimes being relied on to provide a technical solution to complex social objectives (better matching skills provision and demand, better accountability of training providers, better involvement of employers and workers in training systems, etc.); or whether some countries are developing NQFs based on the rhetoric surrounding them rather than on the evidence of their effectiveness.

The fundamental objective of policy advice is to help constituents avoid "borrowing" policies from elsewhere, and to help them inform their own policy choices based on consideration of a good menu of options, capacity to assess needs, and understanding of the

potential costs, risks, and benefits of different approaches and policies. The ILO Skills and Employability Department is continually asked by constituents to provide advice in adapting and applying the principles and practices included in the *ILO Recommendation concerning Human Resources Development: Education, Training and Lifelong Learning, 2004 (R-195)* to their specific needs and objectives.

Thus empirical research on NQFs, as on policy issues, looks at what works under which circumstances, with what efforts by which stakeholders over what period of time, and with what complementary or related policies, institutions, and capabilities. The research design rightly focuses on countries' experience with NQFs at the decision and design stage as well as at the implementation stage in order to identify the source of problems and the elements of success. The Skills and Employability Department will take full account of this research in developing policy advice for member States, employers' and workers' associations, in designing further research, and in working with other international agencies.

The research report was presented to an international experts meeting held at the ILO on 13-14 May, 2010. Representatives of international organizations and bilateral agencies, and independent researchers discussed the findings and analysis and compared them with their own research and experience. Different strategies for achieving some of the goals of NQFs were also explored.

As a Research Associate in the Skills and Employability Department, Dr. Stephanie Allais (now postdoctoral fellow at the University of Edinburgh) led the development of the research, oversaw the country studies, and wrote this final report. Professor Michael Young (Emeritus Professor at the Institute of Education, University of London) has served as senior research advisor. Professor David Raffe (Professor of Sociology of Education, University of Edinburgh) has also acted as an advisor to the project.

The research programme has been carried out in cooperation with the European Training Foundation (ETF), where the research was led by Borhene Chakroun and Arjen Deij. The ETF is advising and assisting more than 20 countries around Europe on the reform of their qualifications systems, in particular in the wider context of reforming technical vocational education and training (TVET). However, this report is a result of the author's analysis of the case studies and does not necessarily reflect the views of the European Training Foundation or the European Union.

All good research inevitably leads to further research questions, especially when, as is almost always the case, it is undertaken with limited financial resources and under a deadline. This is certainly true for this study. It does not pretend to be exhaustive or to offer conclusive findings on all questions. It does, however, contribute fresh empirical evidence that should inform policy debate at country and international levels. I would like to thank Dr. Allais for her leadership and timely completion of this study. I am grateful to Michael Young and David Raffe, and to Ron Tuck, for supporting this project through their experience and insights. I appreciate the partnership with the ETF throughout the development and implementation of the project, including their preparation of three of the country studies. Along with the ETF, I would like to acknowledge our gratitude to all those who prepared the country case studies and to the practitioners and stakeholders who made time to respond to their questions and share their insights. Finally, I would add my thanks to colleagues who helped organize country studies and provided comments on the research methodology and early drafts, including Akiko Sakamoto, Olga Strietska-Ilina, Ashwani Aggarwal, Fernando Vargas, and Michael Axmann.

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Abbreviations and acronyms

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BNVQF	Botswana National Vocational Qualifications Framework
BOCCIM	Botswana Confederation of Commerce, Industry and Manpower
BTEB	Bangladesh Technical Education Board
CARICOM	Caribbean Community
Cedefop	European Centre for the Development of Vocational Training
CONOCER	National Council for Standardization and Certification of Labour Competence (in Mexico)
EQF	European Qualifications Framework
ETF	European Training Foundation
GNI PPP	gross national income purchasing power parity
GTZ	German Technical Cooperation
HDI	Human Development Index
ILO	International Labour Organization
INTES	Turkish Construction Industry Employers' Union
IVTB	Industrial and Vocational Training Board
NQFs	National Qualifications Frameworks
NTVQF	National Technical and Vocational Qualifications Framework
NVQs	National Vocational Qualifications
NVQF	National Vocational Qualifications Framework
OECD	Organization for Economic Cooperation and Development
PMETyC	Technical Education and Training Modernization Project (in Mexico)
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
SCQF	Scottish Credit and Qualifications Framework
SENCE	National Service for Training and Employment
SQA	Scottish Qualifications Authority
TVET	technical vocational education and training
UAPMETyC	Administrative Unit of the Technical Education and Training Modernization Project (in Mexico)

List of researchers

Listed alphabetically by case study, the following individuals carried out the research and wrote the case study reports:

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Turkey*: Safir Sumer, independent researcher

* Case studies commissioned and overseen by the European Training Foundation.

A note on some terms used in this report

A difficulty involved in research on qualifications frameworks is the terminology involved. One aspect of this is that the area tends to be dominated by jargon which can become complex and opaque to outsiders, thus making people less likely to want to or be able to contribute to the debates. Another is that many different policy interventions seem to go by the same name, and conversely, different terms are used for what seem to be similar interventions. In addition, qualifications frameworks themselves are introduced to try to change the way qualifications are used, with implications for how the word 'qualification' is used and understood. Further, the terms 'qualification', 'qualifications framework', and 'national qualifications frameworks' are used in a variety of ways across countries. This report does not attempt to start from one set of definitions of qualifications frameworks. As discussed further in Chapter 3, the focus was on examining how the countries in the study understand national qualifications frameworks. The report recognizes and tries to respect variation of uses across countries, stakeholders, and researchers. Nonetheless, it may be useful upfront to briefly discuss some terms used in this report.

'**Qualifications'** is obviously a key term in this report. The word 'qualification' is used in different ways in the case studies and the literature. The first, and more traditional way in which the word 'qualification' is used, relates to formal means of signifying that someone has completed a prescribed process linked to an education or training programme offered in an educational or training institution. In some countries the term 'qualification' means something close to a 'competence' for a given occupational practice. Qualifications have also been linked to official statements that an individual has been accepted to practice in a certain area (such as, a lawyer, plumber, or teacher). Whereas until about 30 years ago, the term 'qualification' was usually restricted to trades, crafts, and professions and did not apply to school certificates or university degrees or diplomas, **degrees, diplomas, and certificates** are now all seen as *types* of qualifications. Qualifications in this light are all formal '**awards**' which signify that the bearer has some knowledge or competencies, or that they have successfully completed some learning programme.

A different type of usage of the word 'qualification' is where it is used, as occurs in some of the case studies for this research, as synonymous with (or short-hand for) education programmes. Reformers of qualifications systems over the past 30 years, including the advocates of qualifications frameworks, have suggested the need to sever the link between the institutions in which individuals obtain education and training and the qualifications obtained. This perhaps has led to a new and also third different way in which the word 'qualifications' is used, in reference to (or short-hand for) the sets of formal requirements for achieving a qualification. This usage is common in official policy documents relating to qualifications frameworks, and occurs in the current case studies. In this usage, the 'qualification' is the statement of learning outcomes and associated requirements for awards. Thus, policy documents or individuals interviewed in the process of this research refer to the 'design of qualifications', or the 'number of qualifications that have been created'. The 'creation' of a qualification here refers to the official development of a set of requirements for the awarding of the qualification in practice.

What is **competency-based training**? Is it the same as **competency-based education**; is it the same as **outcomes-based learning**, or **outcomes-based education**? What is the relationship between competencies, competence, outcomes, and qualifications frameworks? Gonczi and Arguelles (2000, p. 9) define competency-based education as "education based on learning outcomes and predetermined standards". Vargas (2005) sees the implementation of competency-based training in Latin America as a necessary precursor to the introduction of qualifications frameworks. This may be because qualifications frameworks are described as focused on the outcomes of qualifications and not what are seen as 'inputs', such as curriculum, or the processes of learning. Guthrie (2009) suggests that **competency-based training** includes training which is based on competency

standards, is outcomes and not input or process focussed, industry involved/led, flexibly delivered, involving self-paced approaches where appropriate, performance-oriented, assessed using criterion referenced rather than norm-referenced assessment, and allows for the recognition of prior learning. Much of this is similar to Jessup's (1991) notion of **outcomes**. However, other authors suggest that there are considerable differences in meaning of the term '**learning outcomes**' in different countries and contexts, as well as the term '**competence**' (for example, Cedefop, 2008; Bohlinger, 2007; Brockmann, Clarke and Winch, 2008). This partly reflects the ambiguity between different languages and partly that terms like outcomes always have to be understood in terms of the national traditions in which they are located. One definition of 'outcomes' might include what another calls 'competencies', while others distinguish even between 'competencies', 'competences', and 'competency'. There are other terms introduced into the discussions on these areas, such as 'generic' or 'key' 'competencies', as well as 'capabilities'. In many cases, authors (or policy makers) seem to attempt to use a different term to distance themselves from an approach with which they disagree or which is seen to have failed.

Associated with qualifications frameworks, competency-based training, and outcomes-based learning are terms such as '**competency standards**', '**occupational standards**', '**achievement standards**' and '**unit standards**'. The ILO's Regional Model Competency Standards (ILO, 2006), which were developed to assist countries in the Asia/Pacific region to develop **industry-based competency standards**, suggests that these are different from **occupational standards**. This is because, "one industry may use skills from many occupations and, conversely, occupations can cross a number of different industries" (ibid, p. 7). The report uses the words 'outcomes' and 'competencies' interchangeably to describe the Model, and suggests that the standards in the Regional Model of Competency Standards are focused on "what is expected of an employee in the workplace rather than on a learning process or time spent in training or education." (ibid, p. 4). In some of the case study reports, it appears that countries have moved from one term to another to signal a policy shift or hoped for shift. As will be seen in the report, involvement of industry (employers but sometimes also trade unions) is a key issue in many of the countries, and sometimes new terms seem to be adopted for approaches that are intended to improve industry involvement. The term '**unit standards'** is sometimes used in the same way, but sometimes in a broader way, as any statements of learning outcomes which can be individually awarded, but which can be accumulated towards a qualification.

Accreditation is a term that occurs frequently in this report. At the broadest level it refers to the process of granting official, legal, or governmental authority to an organization, public or private, to provide a service—in this context, to offer a learning programme, conduct assessment, or issue a qualification. The term has different force and implications in different countries.

Two other terms which recurred in the research, and which are found in the report, are 'register of qualifications' and 'sub-framework'. In this research, '**register of qualifications**' mainly refers to a list of all the qualifications that are officially accepted, authorized, or supported within a particular country or region. In this report, the term '**sub-framework**' refers to a qualifications framework in a particular sector of the education and training system or in an occupational or industrial sector, which together with other 'sub-frameworks', forms part of a broader NQF. However, it should also be pointed out that in some countries in the study, the *national* qualifications framework is sectoral (i.e. only for technical vocational education and training), and therefore may be the same as a sub-framework in another country.

Chapter 1 Introduction and summary

1.1 Introduction

Raising skills levels, reforming education and training systems, and improving qualifications systems are among the policy priorities of most countries around the world. A particular concern for many countries is improving the relationships between education and training systems on the one hand, and labour markets on the other. Increasingly, qualifications frameworks have been seen as a useful policy tool to achieve these and other goals. The last five years have seen a dramatic increase in the number of countries adopting NQFs, with over 100 countries now implementing, or developing, or considering NQFs, or involved in regional qualifications frameworks. The implementation of qualifications frameworks has also been widely endorsed by influential international organizations and bilateral agencies, and is often supported by aid money and even loans.

But there is little research evidence about the impacts, strengths, and weaknesses of NQFs, particularly for developing countries. There is also little researched information about circumstances, starting points, different policy goals, and different approaches when decisions are made whether to *adapt* rather than *adopt* existing models. Publications currently available about qualifications frameworks include suggestions about what qualifications frameworks are supposed to achieve, but often give little information about the problems which have occurred with their implementation, or evidence of actual measured achievements. In other words, **countries are investing considerable resources in a policy mechanism which is largely untested and under-researched.**

It is in this context that the Skills and Employability Department of the ILO designed this research, hoping to answer the questions:

> To what extent are qualifications frameworks a way of achieving the various desired policy objectives associated with them?
>
> What models of qualifications frameworks and which implementation strategies and approaches (including broader policy agendas and institutional arrangements) are most appropriate in which contexts, in order to achieve the various desired policy objectives associated with qualifications frameworks?

In asking these questions and examining them through actual country experience, this report is an important new contribution to an under-researched but increasingly important policy area. It presents findings from a cross-country empirical study, and provides insight into the development of qualifications frameworks in 16 countries around the world. As discussed in the following chapters, the research revealed far more about the former question than the latter.

The research reviewed existing research on the English National Vocational Qualifications (NVQs) and the early reforms leading to the Scottish Credit and Qualifications Framework, as well as the other three 'early starter' qualifications frameworks (Australia, New Zealand, and South Africa) in five case studies based on existing research and documentation. A further 11 case studies were based on new fieldwork. Chile and Mexico were researched as these countries started work on the development of Labour Competence Frameworks in the late 1990s, even though they do not yet have NQFs *per se.* Botswana, Malaysia, and Mauritius can be described as 'second

generation' NQFs. Bangladesh, Lithuania, Russia, Sri Lanka, Tunisia, and Turkey, and have more recently started developing qualifications frameworks, with Russia being the most recent. The study also involved a review of available literature, a critical analysis of the different roles of qualifications in educational reform, and the development of a proposed typology of qualifications frameworks.[1]

1.2 Summary of key findings[2]

Qualifications frameworks seem to capture and represent many hopes and dreams. This research does not have straightforward, simple recommendations or definitive conclusions about what they can or cannot achieve. This is partly because the claims made for them are extremely broad, and it is virtually impossible to obtain evidence (at least in the short-term) that specific changes are causally related to the introduction of an NQF. Perhaps the two central messages which must be emphasized is that there is no single right model of NQFs, and that NQFs do not provide quick-fix or simple solutions to the complex problems facing countries in relation to education, skills development, and employment.

Expectations that qualifications frameworks can achieve the ambitious policy objectives claimed for them in relatively limited time periods seem to be ill-founded. This research found little evidence that NQFs are achieving their goals. In many instances this was because NQFs are a recent intervention, and it may be simply too early to tell. Nonetheless, the absence of clearly available evidence of successes, particularly for the older frameworks, is an important finding for a policy that has been so widely accepted internationally. Some specific evidence of qualifications frameworks having failed to achieve their goals was found. Considerable evidence of difficulties associated with implementing qualifications frameworks was also found. The framework which emerges from this study as the most successful, the Scottish Credit and Qualifications Framework, had relatively limited ambitions and may also be the most difficult to replicate, because of the very long-term incremental policy reform process of which it was a part, and the relatively strong educational institutions in Scotland.

The research found little evidence that NQFs have substantially improved communication between education and training systems and labour markets. In Scotland, there is some indication of the framework being used by a national career guidance service. Case studies were not able to find evidence demonstrating that employers found qualifications easier to use than they had been prior to the introduction of an NQF, nor were other data found to demonstrate that qualifications frameworks have improved the match of supply and demand between education and training institutions and the labour market. Representatives of qualifications authorities, government agencies, and industry bodies interviewed, did not have concrete evidence, evaluations, research that there had been achievements in this regard, and neither did publically available information from these organizations contain such evidence.

With regard to articulation amongst educational providers there is greater evidence of success, although there are also suggestions that qualifications frameworks have in fact

[1] A short note on qualifications frameworks in Germany was also prepared. In Latin America, a third country study (on Colombia) was initiated but not completed.

[2] This summary is of the *findings* only, and not of the entire report; it does not include any information about the methodology used or the limitations of the research, which are discussed in Chapter 2.

reduced learner mobility in some countries. There is some evidence of increased numbers of certificates which recognize existing skills, knowledge, and abilities of workers and potential workers being awarded, although this is on a small scale in most of the countries in the study.

In a number of the countries with longer experience of NQFs, a common problem seemed to be that many new qualifications (the word is used here in the sense of formal specifications to obtain a qualification) had been designed and registered on the frameworks but not used.

Similar reasons for introducing NQFs

Despite dramatic differences in the contexts and histories of the countries in this study, similar reasons were provided for the introduction of NQFs. In the countries examined, stakeholders and policy makers in general supported NQFs, seeing them as vehicles to improve communication of existing qualifications systems; increase transparency of qualifications; improve relationships between education and training and labour markets; support learners to move between sectors as well as enter or re-enter education and training; enable the recognition of prior learning; improve quality as part of quality assurance systems, as well as by involving industry in the setting of standards or learning outcomes; increase the flexibility of provision of education and training; and increase the status of qualifications from technical vocational education and training and workplace-based training. There are differences of emphasis between countries which aimed to improve how their qualifications system is used and understood, and countries which were more focused on achieving transparency for individual qualifications. Another difference was the extent to which an NQF was seen as a way of organizing existing qualifications, or as a system for developing new qualifications. There were also differences with regard to the level of expectation placed on the framework.

Policy borrowing

Policy borrowing emerged as a strong reason why NQFs are being introduced, as well as playing a significant role in how they are being developed. Many countries appear to be influenced more by the claims made about NQFs in other countries than by their proven track records, without considering differences in contexts, and without understanding all aspects of how the framework was developed and implemented. The English NVQs in particular were mentioned in many of the country studies as having played an influential role in the adoption of NQFs or competence frameworks. Donor and development agencies seem to play influential roles, in some cases with regard to decisions to adopt a framework as well as which model to adopt, and in others with financial support.

Uses of learning outcomes

The main mechanism to create transparency in most of the countries is the specification of learning outcomes or competency statements, as well as broader outcomes in level descriptors. Official sets of levels have been created in all the countries, and level descriptors in most of them. While there are considerable expectations about what level descriptors can achieve, the study found little specific evidence from any of the countries that they are useful in making decisions about the location of qualifications on the framework, or about credit transfer, with the exception of Scotland, where they are described as assisting professional judgements. In many cases the implementation of outcomes or competency based approaches seems to necessitate very elaborate and detailed rules and specifications, which may account for why so many qualifications and competency-standards were developed but not used.

Nearly all case studies suggest that the lack of employer involvement in the existing systems is a key reason why qualifications do not meet their needs, and many cite lack of

willingness of employers to participate in education and training systems as a reason for introducing NQFs. Many of the countries in the study had attempted to implement competency-based training prior to the introduction of a qualifications framework, often with considerable donor support. Except for one instance where the NQF was described as being created on the basis of a previously successful competency-based training reform, in most instances it was hoped that an NQF would solve the problems that previous reforms had not solved. However, in many cases the approach seems to be similar to that of previous reforms.

Implementation success factors and problems

The research suggests that what is key, in particular for developing countries, is the need for serious consideration of policy priorities as well as the sequencing of policies. Countries that have been most successful have been those which have treated the development of frameworks as complementary to improving institutional capability rather than as a substitute for it or as a way of re-shaping institutions, and have seen outcomes of qualifications and programmes leading to them as intimately related rather than separable. Successful use of learning outcomes seems also to be based in strong professional associations and strong educational education institutions. The relatively successful Scottish framework has been led by educational institutions and awarding bodies, and while it uses learning outcomes, it has a flexible approach to how they are created and used, and is described as using them in relation to 'inputs'. Sectoral approaches for specific industries seemed more viable than attempting to create one system for all education and training and for all industries.

In many instances, how educational institutions and systems are governed and managed is affected by NQFs, and in turn, existing governance structures at times conflict with NQFs. There were instances of strong support from governments, instances where governments appeared to not be in the driving seat, and instances where different government bodies were at odds with each other. There were instances of support from certain bodies representing employers and/or industry, as well as instances of lack of employer involvement or belief in this type of approach. There were instances where trade unions had strong aspirations for what qualifications frameworks could do for their members and workers in general, and instances where trade unions were not involved, or were disillusioned with qualifications frameworks. Many education and training institutions in the countries in the study seemed to have reservations about qualifications frameworks, although instances of support were found.

The importance of social dialogue, and the involvement of a range of different stakeholders, is emphasized in the study. However, the study suggests some difficulties. One is the involvement of industry, as mentioned above. The weakness of trade unions in many countries was a particular concern. If employees' interests are going to be addressed in NQFs or other education and training policies, clearly there needs to be more public concern for building and supporting the involvement of trade unions. The role of education and training institutions was also a point of concern in the study, as in many instances they appear to be dissatisfied with NQFs and related reforms. The experiences from the various countries in the study also suggest that far more thought needs to go into considering what roles different stakeholders can and should play, in what types of structures, and in which processes. The study suggests that the increasingly influential role of qualifications authorities themselves in the design and implementation of NQFs, and in broader education and training policies is an important future focus for research.

1.3 Structure of the report

The details of the **methodology** of the study are provided in **Chapter 2**. **Chapter 3** provides a **brief overview of the existing literature and documentation**. **Chapter 4**

provides a **short summary of the case studies**, organized roughly chronologically according to when countries started developing their qualifications frameworks. **Chapter 5** discusses the **key drivers** behind the introduction of qualifications frameworks. **Chapter 6** provides information and analysis of how NQFs have been **designed** in the different countries. **Chapter 7** provides information and analysis of how NQFs have been **implemented** and how they are being **used** in the different countries. Looking at how countries are implementing and using NQFs was a key focus of the research, as in many cases development is still at an early stage, and it is far too early to evaluate impact. **Chapter 8** then considers what evidence there is on the **impact of NQFs,** and their successes and failures. This draws in particular on the experience of employers, trainers, and workers in using qualifications frameworks. Finally, **Chapter 9** provides some **reflections** on the overall findings of the research, some analysis of the findings, and proposes a framework for the analysis of qualifications frameworks.

Chapter 2: Methodology

The study examined differences within and between countries and types of qualifications frameworks. It involved a mapping of global qualification reforms based on existing research, websites and official documents, communication with officials where possible, and information from donor organizations and development agencies. The study also undertook a critical analysis of the different roles of qualifications frameworks in educational reforms, and developed a proposed typology of qualifications frameworks. An ILO Working Paper has been produced to share the initial theoretical ideas developed through the project (Allais, Raffe, and Young, 2009), and is available at www.ilo.org/skills.

The focus of the research then consisted of the production and analysis of 16 case studies, which are discussed in more depth below.

2.1 The case studies

Selection of countries

The research examined qualifications frameworks in the following countries and regions:

Africa

The Republic of Botswana (henceforth, Botswana)

The Republic of Mauritius (henceforth, Mauritius)

The Republic of South Africa (henceforth, South Africa)

The Tunisian Republic (henceforth, Tunisia)

Americas

The Republic of Chile (henceforth, Chile)

The United Mexican States (henceforth, Mexico)

Asia and Pacific

The Commonwealth of Australia (henceforth, Australia)

The Democratic Socialist Republic of Sri Lanka (henceforth, Sri Lanka)

Malaysia

New Zealand

The People's Republic of Bangladesh (henceforth, Bangladesh)

Europe

England, Northern Ireland, and Wales: the National Vocational Qualifications (NVQs)

Scotland

The Republic of Lithuania (henceforth, Lithuania)

The Russian Federation (henceforth, Russia)

The Republic of Turkey (henceforth, Turkey)

The selection of cases was based on an attempt to balance a range of criteria. Firstly, countries were chosen to ensure inclusion of four regions: Africa, the Americas, Asia and the Pacific, and Europe. Within regions, cases had to meet the criterion of there being at least some progress in terms of implementing an NQF, so that there would be something of substance to research. There was also an intention to include countries which were outside the Anglophone tradition which has dominated a lot of NQF literature. The selected countries also represent a wide spread of levels of economic development, and a range of differences in terms of geographical and population size, and so on. The study also deliberately included two countries which have not yet started developing NQFs, but which have many years experience in developing frameworks of occupational competencies, Chile and Mexico. This decision was taken because the frameworks of occupational competencies in these countries have much in common with NQFs in other countries, and sharing lessons from Latin American countries was seen as important; Vargas (2005) argues that the competency-based training systems in many of these countries can be seen as part of the long-term development of NQFs.

A specific mention should be made of the case study on the English National Vocational Qualifications (NVQs), which did not include other developments with regard to qualifications frameworks in England, Northern Ireland, and Wales. This is because the NVQs were the first national attempt to base vocational qualifications on the idea of competences or outcomes, and, although they have been criticized and changed in various ways, they have been very influential.

Practical considerations also affected the selection of countries—primarily, locating appropriate researchers in a very short time frame. Individual researchers were expected to have a minimum of three years professional experience at the national level in education or skills development research or policy implementation, demonstrated ability to undertake research and excellent analysis and writing ability, proven ability to be constructively critical and objective, knowledge of local policy environment, and ability to secure meetings with key role players. One of the more challenging criteria was to identify researchers who were knowledgeable about skills development systems in those countries but had not been directly involved in the development or implementation of NQFs and thus were more easily able to take an objective view.

Two additional countries were selected: Colombia and Germany. Unfortunately, reasons beyond our control led to these case studies not being completed. This was a disappointing gap. However, with regard to the former, the Inter-American Centre for Knowledge Development in Vocational Training, ILO/Cinterfor, has recently compiled information about qualifications frameworks in Latin America and the Caribbean. With regard to the latter, Germany's widely respected 'dual training' system of technical vocational education and training and successful economic record make it a very interesting and important addition to the countries involved in developing qualifications frameworks, albeit a very recent one. It is hoped that future research will be able to include these and other countries.

The frameworks in the study include a range of differences with regard to scope:

- Five cases in the study (Australia, Mauritius, New Zealand, Scotland, and South Africa) have attempted or are attempting to implement comprehensive NQFs. They all include an outcomes-based sub-framework (in other words, a framework for one sector of the education and training system) for skills/workplace learning certificates, and in one case for all vocational education.
- Five cases in the study (Bangladesh, Botswana, the English NVQs, Sri Lanka, and Tunisia) have frameworks which were designed only for technical vocational education and training. Sometimes this includes workplace training. In Turkey, the NQF officially

includes all vocational and technical education at primary, secondary, and tertiary levels, but excludes all professional qualifications.

- Three of the frameworks in the study (Lithuania, Malaysia, and Russia) are described as comprehensive but exclude school qualifications. One of these includes a sub-framework of outcomes-based skills standards for the skills/workplace learning sector only.
- Two countries in the study (Chile and Mexico) had attempted to implement frameworks of occupational standards for workplace learning. Some attempts were made to apply these frameworks to the technical vocational education and training sector.
- The study did not examine any frameworks which were only for higher education.

Data collection and analysis

The research was carried out through case studies on each of the 16 qualifications frameworks. Five case studies on the early starter qualifications frameworks (Australia, the English NVQs, New Zealand, Scotland, and South Africa) were conducted on the basis of existing research and documentation only. No field work was conducted. As qualifications frameworks in these countries have been under implementation for some time, there is a broad existing body of research, literature, evaluations, policy analysis, and official documentation, on the basis of which the case studies were produced. Researchers were asked to summarize the debates about what has and has not been achieved by qualification frameworks in their respective countries and why. They were also asked to comment on what they saw as the lessons that might be learned from the experience of introducing a qualification framework for countries at very different stages of political and economic development. These five case studies have been published in an ILO working paper (Allais, Raffe, Strathdee, Wheelahan, and Young, 2009), which is available at www.ilo.org/skills).

The case studies in the remaining 11 countries were conducted through two stages of field work. For the first stage the focus was on a description and analysis of the qualifications framework and on the existing system of qualifications that it is designed to reform. For the second stage, the focus was on implementation, use, and impact of the qualifications framework.

Researchers were asked to provide an analytical description of why a qualifications framework was decided upon, how the qualification framework in question has been/is being designed, the progress that has been made, and the problems that have arisen. Researchers were asked to focus on the main design features of the qualifications framework, the ways in which it is intended to achieve its objectives, and how it will overcome weaknesses of the existing qualification system. They were asked to comment on the likelihood of their respective framework achieving its goals and what changes might be needed. Researchers were asked to learn from employers, training providers, workers, government agencies the extent of their use of the qualifications frameworks and the extent to which they felt it was serving their needs. Exploring the extent of the use of the qualifications framework was a necessary first step to exploring how well they were achieving some or any of their broader goals. If the framework in question was still in the initial stages of development, researchers were asked to attempt to understand the extent to which stakeholders feel that, given the design and implementation strategies, it is likely to be used and to succeed in achieving its objectives.

Researchers were provided with a draft template of headings to structure their reports. This was with a view to ensuring that the case studies were as comparable as possible. However, researchers were given autonomy to shape the research and structure the report according to the logic of the framework in question and broader history of education and training in their country.

For the first phase, researchers collected and summarized official documentation, including:

- Statements of how the qualifications framework is expected to work;
- Examples of actual qualifications and level descriptors (if they exist);
- Descriptions about the roles of different organizations/institutions;
- Evidence of impact, such as information on uptake of qualifications, results of evaluations or reviews, and so on, where such information is available.

Documents were collected from, as appropriate, the official agency responsible for the qualifications framework, ministries of education and labour, and international and donor organizations working in each country.

Researchers conducted interviews with some of the following individuals, depending on the specifics of the country in question:

- Officers from the qualifications authority;
- Leading government officials responsible for developing and implementing the qualifications framework (including members of ministries of education and labour if appropriate);
- Members of task teams responsible for developing the qualifications framework.

Guiding documents for interviews were supplied, but individual researchers developed schedules of interviews based on what was applicable in their countries. In many instances, researchers conducted a number of follow-up interviews to obtain additional information.

Researchers participated in an intensive workshop midway through the project to share the findings of the first phase of the research and discuss research methods with the senior advisers and ILO staff. The workshop included presentations and discussions of conceptual issues involved in researching qualifications frameworks, and a detailed analysis of the information which had been obtained from each country up to that point. The workshop developed focus areas for the second stage of the research, as appropriate for the stage of development of the qualifications frameworks in the various countries. It also provided assistance and support to researchers.

The second phase of the research included interviews with a wider range of stakeholders and important role players/users, with a focus on understanding the use, implementation, and impact of the qualifications framework (in some cases this may be only in the implementation stage), as well as further information on what those interviewed feel the framework will achieve. Interviewees included:

- Representatives of unions from leading industries as well as teacher unions;
- Employer representatives and representatives from leading industries;
- Education and training providers;
- Officials from bilateral or multilateral agencies providing assistance on qualifications frameworks, or consultants and officials from qualifications framework agencies in other countries providing assistance.

Researchers were in contact with the research team based at the ILO for feedback, guidance, and review during the process of conducting interviews as well as writing the case studies. This helped ensure that the case studies remained as comparable as possible, while allowing flexibility in the approaches taken by individual researchers according to the logic of the framework they were exploring and the stage of its development.

The individual case studies are available at www.ilo.org/skills.

Evaluation criteria and nature of the evidence

Analyzing qualifications frameworks is complicated—and many of the complexities emerge in the body of this report. Impact analysis of any policy is a highly contested and complex endeavour, and one which seldom enjoys the existence of a clear base line with regard to well developed indictors. Starting from the assumption that qualifications frameworks may differ substantially in different countries, with respect to aims, design, development, approach to implementation, and use, specific evaluation criteria were not developed. Instead, researchers were asked to focus on three main issues:

- What systems or approaches exist for monitoring or analyzing impact? How do the designers and managers of the framework expect to see and evaluate impact?
- Is there, in the view of designers and managers of the NQF, evidence of impact, and what is it?
- How do stakeholders view impact? What do/did they expect from the NQF, and did it meet/is it meeting/do they think it is likely to meet their expectations?

Researchers were provided with an indicative list of possible positive and negative outcomes, and possible indicators for them. For example, a positive outcome could have been increased numbers of people gaining qualifications (through institutional provision and through assessment of informal learning); increased progression of learners to higher levels; increased opportunities for credit accumulation and transfer; evidence of impact in labour markets (e.g. use by employers in recruitment, improved match between education and labour market, and any indicators that this would improve labour market performance, better links between qualification levels and wage/salary rates, emergence of new industries, reduction of gender differences); evidence of continuing involvement by stakeholders; evidence that qualifications had assisted migrants/returning migrants in accessing the labour market. Some possible negative outcomes included a proliferation of unused qualifications; bureaucratization of assessment (e.g. evidence of over-specification and 'box ticking' types of assessment); lack of trust in the new qualifications by employers or educational institutions; opportunity cost—valuable resources redirected into qualifications framework development at the expense of more important priorities such as building or improving educational institutions, upgrading teachers and lecturers, and so on. The emphasis, however, was on researchers finding out what was considered to be evidence of success and failure in their respective countries.

2.2 Limitations

As with all research, this project had considerable limitations, and as such does not make any comprehensive or definitive claims about its findings for qualifications frameworks in general.

Perhaps the project's most substantial limitation was time: the research was conducted and completed in less than a year, giving case study researchers and lead researchers severe time constraints. This inevitably limited the amount of information which could be collected, the amount of analysis which could be conducted, and the possibility of engaging with theoretical literature and available documentation on NQFs. Nonetheless, the short time period for the research had an advantage: it enabled the production of a research report which contains considerable empirical information and data about qualifications frameworks in an area suffering from a great dearth in this regard. It is hoped that future studies can build on the findings presented in this report to start to develop a far more complete picture and analysis.

Any comparative educational research is a limited, complex, and fraught endeavour. There are difficulties of terms used in different ways, as well as institutions, systems, and processes which are taken for granted inside a country and not made explicit, but may lead the same policy to be manifested very differently. As Noah and Eckstein (1998) point out, even if studies are 'merely' descriptive, a tremendous amount of effort has to be exerted simply to acquire systematic parallel data on different educational systems. Qualifications frameworks are particularly problematic as they are arguably the product of global comparisons and internationalization as much as they are an object of study within these areas.

Another limitation was that many of the qualifications frameworks were in the early stages of development. This is reflected in the findings, as more was learnt about design and implementation of qualifications frameworks than about impact. Researchers were asked to consider *use* of qualifications frameworks as far as possible, as an indicator of likely or possible future impacts.

A further limitation was that researchers in many instances tended to interview the experts who were involved in the design and implementation of the NQF, arguing that others did not know enough about the area to comment on it. This leads to what Fernie and Pilcher (2009) describe as a tendency when researching NQFs which is equivalent to ancient Babylonian geocentric physics—assuming that NQFs are at the centre of policies and practices of education systems. The difficulty is that NQFs are almost certainly the concerns of only a small group of people in any country; many will never have even heard of them years after they have been launched. Furthermore, researchers are likely to be biased towards their own country—even if they aim to be critical of it. In addition, researchers were only able to interview small numbers of representatives of employers' organizations, trade unions, and educational institutions. As such, the studies provide some perspectives, but cannot claim to be comprehensive.

Researchers were asked to try and go beyond the claims that are made for the qualifications framework in their country and to ask their informants how they think the new framework will achieve the claims made for them. For example, if a country put a priority on the recognition of informal learning, researchers were asked to find out how and by whom the assessment would be undertaken, who would award the certificates, how they would be linked to existing certificates, and what mechanisms were being put in place to ensure that they would be recognized by employers and educational providers. In most instances, researchers struggled to obtain this type of information, and tended to provide rhetorical statements and wish-lists. As Fernie and Pilcher (ibid) warn, a danger with this type of approach is that it does not give voice to potentially hidden conflict, tension, controversy, and confusion which were arguably present in the countries. This researcher's dilemma is in no way exclusive to research on NQFs; but researching NQFs certainly highlights it.

The hope then is not to present definitive findings or a 'how to' handbook, but to provide some empirical evidence and open up a debate about what NQFs are for, how far they are achieving their aims, and possible directions for alternatives.

Chapter 3: Introducing NQFs: A brief review of research and experience

This chapter starts with a consideration of how qualifications frameworks are defined. It provides an overview of the historical emergence and development of qualifications frameworks, as well as an indication of where qualifications frameworks are being developed around the world. It considers what countries aim to achieve through qualifications frameworks, according to policy documents and literature. It touches very briefly on a few of the conceptual and theoretical debates.

3.1 What are qualifications frameworks?

The starting point in attempting to discuss this question is to answer the question, 'what are qualifications'? Traditionally, qualifications have been seen as signifying that someone has gone through a prescribed process linked to an education or training programme offered in an educational institution or an institution accepted as a training institution. Qualifications have also been linked to official statements that an individual has been accepted to practice in a certain area (such as, as a lawyer, plumber, or teacher). Reformers of qualifications systems over the past 30 years, including the advocates of qualifications frameworks, have suggested the need to sever the link between the institutions in which individuals obtained education and training and the qualifications obtained. The Organization for Economic Cooperation and Development (OECD, 2007, pp.21-22) provides the following definition of 'qualification':

> A qualification is achieved when a competent body determines that an individual has learned knowledge, skills and/or wider competences to specified standards. The standard of learning is confirmed by means of an assessment process or the successful completion of a course of study. Learning and assessment for a qualification can take place during a programme of study and/or workplace experience. A qualification confers official recognition of value in the labour market and in further education and training. A qualification can be a legal entitlement to practice a trade.

In official policy documents relating to qualifications frameworks, the word 'qualification' is sometimes used to refer to the sets of formal requirements for awarding a qualification. In other words, the 'qualification' is the statement of learning outcomes and associated requirements for awards. Thus, policy documents or individuals interviewed in the process of this research refer to the 'design of qualifications', or 'how many qualifications have been created'. The 'creation' of a qualification here refers to the official development of a set of requirements for the awarding of the qualification in practice. This notion a 'qualification' seems to be that which is invoked in discussions of qualifications frameworks, and indeed, qualifications frameworks are often explicit attempts to improve the information available in the official documentation which comprises the requirements for the award of a qualification. Qualifications frameworks can then be seen as official ways of regulating and listing the available qualifications in a country/sector/region.

Most countries have historically had formal descriptions of their qualifications systems. Sometimes these have presented in diagrammatic form the main publicly recognized qualifications in the country and how they related to each other. These diagrams may look similar to diagrams of NQFs. Also, most countries have lists of occupations in different sectors of the economy, and in some these are linked to various types of classification and regulatory systems. A publication by the Commonwealth of Learning and South African Qualifications Authority (2008) distinguishes between 'old style frameworks', which are simple graphic representations of the main pathways between qualifications in a country, and 'new style frameworks' that take the form of NQFs. Coles (2007, p. 4) suggests that "NQFs are considered to add value by making explicit the levels

of qualifications thus reducing the scope for differences of interpretation." In other words, the key difference is seen as that NQFs contain specific descriptions of different levels, and qualifications are designated as occupying these levels. Here, the relationship between NQFs and outcomes becomes apparent: NQFs can be seen as attempts to provide broad levels of outcomes, to create levels, on which more specific sets of outcomes, contained in qualification documents, are located. However, not all policies which are described as NQFs operate in this manner. So, for example, the Australian Qualifications Framework has been comprised of a set of qualifications, with no specific descriptions of levels.

Ron Tuck (2007) argues that some countries have qualifications systems which have 'framework-like tendencies'. By this, he means that the links between qualifications are explicit. But, he argues (ibid, p. 4), that the first NQFs introduced had features that were not present in traditional qualification systems—i.e., they were *not* just a more explicit mapping of qualifications:

> The most important and distinctive characteristic of these NQFs is that the qualifications they contain are viewed as being independent of the institutions that offered the programmes leading to the qualifications. In simple terms this means that educational and training qualifications become 'national property' rather than being owned by the education and training institutions themselves.

So, Coles emphasizes the creation of agreed statements of levels as the key innovation contained in NQFs, while Tuck introduces the notion of qualifications are separated from the institutions which offer learning programmes. Tuck then defines NQFs as follows:

> A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally. The Qualifications Framework indicates the comparability of different qualifications and how one can progress from one level to another, within and across occupations or industrial sectors (and even across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework).
> (Tuck, 2007, p. v)

He goes on to suggest that while traditionally in most countries the public has implicit understandings of the relationships between qualifications, a qualifications framework is usually understood to make these *implicit* national levels of qualification *explicit*. Tuck's definition is partially a statement of intention about what it is hoped an NQF will achieve. This appears to be the case with many definitions of NQFs. For example, the European Commission provides the following definition:

> "national qualifications framework" means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society.
> (European Commission, 2008, p. 11)

A research report on qualifications frameworks in the Asia-Pacific Economic Cooperation (APEC) area makes suggestions about what qualifications frameworks can contribute:

> A qualifications framework is an instrument for classifying qualifications according to a set of criteria for levels of learning outcomes. Considerable benefits are expected of national qualification frameworks (NQFs). If backed by a good system of quality assurance**,** they can support the development of workers' skills, facilitate educational and labour market mobility, and help improve the access of individuals to higher and different levels of education and training over their lives. Education and training providers and authorities are able to design

> more consistent and linked qualifications when descriptors of qualifications are developed within NQFs. Employers benefit in their recruitment and training of staff when they can understand and have confidence in qualifications. The international recognition of an economy's qualifications can be enhanced by the transparency of qualifications to which an NQF can contribute.
> (APEC Human Resources Development Working Group, 2009, p. 1)

The OECD suggests that:

> A qualifications framework is an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. This set of criteria may be implicit in the qualifications descriptors themselves, or made explicit in the form of a set of level descriptors. The scope of frameworks may take in all learning achievement and pathways or may be confined to a particular sector, for example initial education, adult education and training or an occupational area. Some frameworks have a tighter structure than others; some may have a legal basis whereas others represent a consensus of social partners. **All qualifications frameworks, however, establish a basis for improving the quality, accessibility, linkages and public or labour market recognition of qualifications within a country or internationally.**
> (OECD, 2007, p. 7, emphasis added)

These definitions are not empirically derived, but describe what people hope qualifications frameworks *should be* and *should do*. To make matters more complicated, although the terminology used in creating and describing qualifications frameworks is very similar in different countries—including terms such as 'learning outcomes', 'competence', 'standards', 'validation', and even, 'qualification'—in fact, these terms often refer to very different things.

Some researchers have therefore tried to understand NQFs through the development of typologies of different forms of NQF in terms of their purposes, structures and implementation strategies (for example, Raffe, 2003; Raffe, 2009c; Tuck, Hart, and Keevy, 2004; Young, 2005; Allais, 2007a). As Allais, Raffe, and Young (2009) suggest, the idea of a typology of NQFs is important conceptually as it enables researchers to explore the links between a general model of NQF structure and development and the case of their particular country. A typology is also important because it can enable policy-makers to move beyond what the American sociologist C. Wright Mills, described as "**personal troubles**" ("why is my country having so many difficulties in implementing its NQF?") and see such problems as 'public issues' that are common to all NQFs, and therefore explicable even if not immediately solvable. For example, politicians often expect policy-makers to introduce an NQF as an immediate change when all the international experience suggests that the reform of qualifications can only be done incrementally and when many other policies are also in place.

Another way of understanding NQFs is through comparing how they have been designed and implemented in different countries. Some have unfolded slowly as part of an overall reform processes, whereas others have been introduced in order to rapidly change existing systems. Some see educational institutions as the drivers and owners of the framework, while others see the framework as a way of reducing the influence of educational institutions over qualifications. Some introduce new organizations and systems, while others build on existing systems.

Given these complexities, this current study did not start from a specific notion of what a qualifications framework is. Instead, it aimed for a more empirical approach, which began by identifying what different countries describe as the introduction of a qualifications framework, and exploring what this means for the countries, and how it is being carried out.

As reforms linked to education and training programmes, qualifications frameworks are intended to affect curriculum and pedagogy. Understanding NQFs (and hopefully,

designing, developing, and implementing them) involves understanding theoretical and empirical research in these areas. Theories and debates in political economy and economics also have considerable bearing on qualifications frameworks, as they are designed to change the relationship between governments and education and training systems, as well as between education and training systems and labour markets. A few of the conceptual issues raised in the research literature are very briefly discussed at the end of this chapter.

3.2 What do governments intend to achieve through NQFs?

From a study of policy documents it appears as if NQFs are seen as a solution to many of the problems with education and training systems, based on similar diagnoses of problems. Countries or regions are described as being at a comparative disadvantage because of their weak education and training systems, and it seems to follow that a qualifications framework will assist in overcoming these weaknesses (for example Leney, 2009, p. 63). Qualifications frameworks are seen as a specific policy tool that will act as a major instrument for the reform and expansion of educational provision in ways that will raise skills levels, improve labour market productivity, and contribute to economic growth.

Policy documents and other documentation and reports[3] associated with NQFs suggest that they can achieve some or all of the following policy objectives:

- Make national qualifications systems easier to understand and overview by showing how different qualifications of a country relate to each other;
- Enable different types of qualifications to be compared through a common language of level;
- Avoid duplication and overlap of qualifications while making sure all learning needs are covered;
- Improve the transparency of qualifications and qualifications systems through the standardization of all qualifications and the use of explicit learning outcomes;
- Create parity of esteem for technical vocational education and training;
- Integrate education and training;
- Shift education systems from 'supply' to 'demand' driven;
- Increase the relevance (understood as alignment with the needs of the labour market) and flexibility of education and training programmes;
- Improve labour mobility, including:
    - Improving regional integration of economies by reducing barriers to worker mobility;

[3] For example, Bird (1998), Bjornavold and Coles (2007), Cedefop (2009a, 2009b), Coles (2006, 2007), Commonwealth of Learning and SAQA (2008), Donn and Davies (2003), ILO (2004), Isaacs (2001), Klapp (2003), Leney (2009), Lythe (2008), Moore (2009), Nkomo (2001), OECD (2007), SAQA (2000), Sellin (2007), World Bank (2002).

- Improving the ability of workers from developing countries to find jobs commensurate with their training and experience in other countries, thus increasing remittances sent home;
- Improving the ability of workplaces in developed countries to quickly understand the skills and abilities of migrant workers, thus more easily reducing labour shortages;

- Increase private sector involvement in education and training;
- Provide a reference for quality assurance, thus contributing to improving quality and accountability, and promoting public and professional confidence in the integrity and relevance of national qualifications;
- Create systems to recognize skills acquired through informal means;
- Create possibilities for credit accumulation and transfer—allowing credit towards degrees or certificates to be acquired over time, from different institutions, and by the accreditation of informal or experiential learning;
- Promote access to education and training, and motivate learners to enroll for further study, by certification of existing skills, thereby raising education levels and strengthening international competitiveness;
- Make it easier for learners to enter or re-enter education systems through more transparent certification, and promote lifelong learning by helping people to understand clear progression routes;
- Help learners make informed decisions on the learning programmes and associated qualifications they want to pursue, by comparing the levels of different qualifications and identifying clear progression routes to their chosen career.

These policy objectives will, it is believed, contribute to achieving two significant development goals:

- Social equity: education and training is a human right, but many people have been excluded from it, or not well served by current systems;
- Economic development: education and skills development are seen as major contributors to solving economic problems or, at the least, as something that governments have control over which could improve their economies, through, for example, attracting investment, increasing the quality and quantity of jobs, improving resilience to change in global markets.

These two policy goals are seen as linked: people who have been disadvantaged by current education systems are the ones seen as in most need of a reformed system which will recognize the skills that they already have, give them an incentive to learn, and provide them with flexible opportunities to acquire the kind of education that will equip them for the labour market, as well as enabling them to continue to learn, and continue to be productive as labour markets change. Thus, it is hoped, social justice and improved economic performance will both be achieved, productivity will increase, and prosperity will increase, creating a virtuous cycle. The key driving force behind the current research is a desire to understand to what extent, and in what conditions, qualifications frameworks can achieve any of these aims.

3.3 A brief overview of the development of NQFs

The origins of an outcomes-based approach to qualifications and curriculum has been traced to occupational psychology in the United States in the 1960s, where it was picked up in attempts to measure teacher competence, based on political pressures as school education came under public criticism (Young, 2009; Spreen, 2001). From there, the idea of

specifying learning outcomes was introduced into vocational education (Jessup, 1991) and emerged explicitly in the 16+ Action Plan in 1984 in Scotland, which laid the basis for a series of reforms that led to the launch of the Scottish Credit and Qualifications framework in 2001 (Raffe, 2003; Young, 2003). In the rest of the United Kingdom in late 1987, influenced by some of the ideas espoused in the 16+ Action Plan, the National Council for Vocational Qualifications was created, to develop "a new system of qualifications that deliver the skills needed by industry" (Phillips, 1998, p. 64). Initially the NVQ framework was envisaged as including all existing vocational qualifications, but what emerged was a new set of outcomes-based qualifications alongside some existing qualifications and replacing others.

These two developments—the 16+ Action Plan in Scotland, and the NVQ framework across the UK—different as they were, are generally seen as the origins of the NQF phenomenon. Influenced by both of them in different ways, by the mid-1990s there were frameworks established or in the process of being established in Australia, England, New Zealand, Scotland, and South Africa.

In the late 1990s and early 2000s, frameworks started to be established in other countries. Much of this spread was in vocational education, often using the British NVQ model as a basis. For example, when the first National Training Agency for Commonwealth Caribbean countries was established in Jamaica, it used a five-level framework based on NVQs. Barbados and Trinidad and Tobago followed suit. Both developments were based on competency-based qualifications developed through "industry driven" processes (Holmes, 2003, p. 98). In some Latin America countries, frameworks of labour competencies were also developed, again influenced by the British NVQs, and competency-based training became a major feature of vocational education in Latin America (Vargas, 2005). In the late 1990s what is referred to as 'the Bologna Process' introduced the ideas of levels and outcomes to higher education reform in Europe.

From about 2005, NQFs were developed in many countries in the Asia-Pacific region, particularly for vocational education. There has recently been a dramatic increase in the number of European countries developing qualifications frameworks following the adoption of the European Qualifications Framework (EQF) by the European Union in 2008; according to Cedefop (2009b), all European Union countries are now signalling that they will develop comprehensive NQFs.

Regional qualifications frameworks are also being designed or implemented in different places around the world, influenced by and influencing the development of NQFs. The European Qualifications Framework for Lifelong Learning was adopted by the European Parliament and Council in 2008. It is aimed at post-secondary education and training, and is described as a 'translation instrument.' This seems to mean that although it is called a 'qualifications framework', it will not be comprised of 'qualifications' *per se*, but will rather be the set of level descriptors which will be used to agree on common 'levels' for qualifications across Europe. The framework has already been influential, leading to most European countries adopting an NQF. The EQF has also been used beyond Europe in the development of NQFs, and is seen as the basis for regional frameworks internationally.

The Caribbean Community (CARICOM) qualifications framework has been developed for vocational education in the Caribbean. This framework is specifically focused on the adoption of competency-based education and training, which was endorsed by the Council for Human and Social Development for vocational training in CARICOM member States since 2002. Adoption of this model included accepting a five-level framework of occupational standards already developed in the region; accepting a process of standards development; and accepting a specific process of training delivery and assessment for certification.

The Southern African Development Community (SADC) Integrated Council of Ministers approved the development of a Southern African Qualifications Framework in June 2005. The focus is on technical vocational education and training as well as promoting the development of qualifications frameworks in individual countries. It is intended to ensure effective comparability of qualifications and credits across borders in the SADC region, to facilitate mutual recognition of qualifications among member States, to harmonize qualifications wherever possible, and create acceptable regional standards where appropriate.

Under the Association of Southeast Asian Nations (ASEAN) Australia Development Cooperation Program, the Enhancing Skills Recognition Systems in the ASEAN project was designed to assist ASEAN countries to keep their skills recognition arrangements under review in order to meet emerging industry and employment needs across the region. A framework of occupational competencies at four levels of certificate has been developed, at the semi-skilled worker, skilled worker, tradesperson/equivalent and supervisor/equivalent levels. A regional qualifications framework has been proposed. The need for a qualifications framework is also being considered for nations within APEC (APEC, 2009).

The Pacific Islands countries are developing a unified register, Pacific Regional Qualifications Register, with the longer-term aim of expanding it to a qualifications framework. Parallel to this is the development of an inventory of technical vocational education and training programmes. The development of this register of qualifications by the South Pacific Board for Educational Assessment has been strongly supported by the following Pacific Islands countries: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu (Lythe, 2008, p. 56).

A transnational framework is being developed for small (population-wise) commonwealth countries.[4] It is defined as a 'translation instrument', and includes higher education and post-secondary technical and vocational qualifications. Various members of the regional qualifications frameworks listed above would also be members of this framework.

Many of these frameworks were predated by conventions or declarations developed through UNESCO (for example, the Lisbon convention and Bologna Process in Europe, the Arusha declaration in Africa), which aimed to ensure that countries recognized qualifications and part qualifications within different regions.

Table 1 provides a brief overview of the development of NQFs, starting with the reforms in Scotland that led to the Scottish Credit and Qualifications Framework (SCQF). The information presented in the table is drawn from research and policy documents listed in the references, as well as consultation with policy developers and consultants; specific sources are not provided in the interest of making the table easy to read.

[4] This includes Antigua and Barbuda, Barbados, Belize, Botswana, Cyprus, Dominica, Grenada, Guyana, Jamaica, Lesotho, Maldives, Malta, Mauritius, Namibia, Papua New Guinea, Samoa, Seychelles, Sierra Leone, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Swaziland, The Bahamas, The Comoros (non-Commonwealth), The Gambia, Tonga, Trinidad and Tobago, Tuvalu and Vanuatu.

Table 1: A timeline of qualifications frameworks

1983	The Scottish *Action Plan* (*16-18s in Scotland: An Action Plan*) introduced outcomes-based, portable, 'institutionally versatile', modules for vocational education.
1985	Establishment of Scotvec.
1986	Review of Vocational Qualifications established in the UK which recommended the competence-based NVQ framework. Review in New Zealand suggests 'achievement-based' awards for school system.
1987	*Australia Reconstructed* report: emphasis on the notion of skills and the role of education in making Australia more productive and competitive internationally, exposing providers to competition, establishing recognition system. National Council for Vocational Qualifications established in the UK.
1988	First NVQs awarded in the UK.
1989	Scotvec extended modularization to Higher National Certificates and Diplomas.
1990	New Zealand Qualifications Framework created, with aim of being fully operational by 1997, and phasing out all existing qualifications. First officially titled National Qualifications Framework.
1991	SCOTCAT (Scottish Credit Accumulation and Transfer scheme) launched for all higher education in Scotland. Publication of Gilbert Jessup's *Outcomes. NVQs and the Emerging Model of Education and Training.*
1993	Malaysian National Skills Qualifications Framework (occupational qualifications only).
1994	National Council for Standardization and Certification established in Mexico.
1995	Australian Qualifications Framework established. South African Qualifications Authority Act passed, aiming to phase out all existing qualifications by 2002. Competence framework initiated in Chile.
1999	*Higher Still* introduced in Scotland: 'unified system' of academic and vocational awards for the 16-18 age group. Ireland passes Qualifications Act. A White Paper in New Zealand signals major changes to the framework. Bologna Declaration signed, through which 29 (now over 40) European countries agreed to start aligning their higher education systems.
2000	Singapore National Skills Recognition System.
2001	Scottish Credit and Qualifications Framework officially introduced. Mauritius Qualifications Authority Act passed. Maldives National Qualifications Framework established. New Zealand Register of Quality Assured Qualifications created, incorporating the NZQF. Review of South African NQF commissioned. Brazil competence-based training system initiated.

2002	Qualifications framework established in France. Chile starts competence-based training activities through a national project named Chile Qualifies.
2002-2006	Frameworks under development in Fiji, Samoa, Singapore, Vanuatu, Hong Kong SAR, Maldives, Tonga.
2003	Frameworks established in the Philippines and Ireland. East European and ex-Soviet States join Bologna Process. Belgium initiated Flemish Qualifications Framework development. Germany initiated Qualifications Framework development. First journal of research articles on NQFs (special edition of the Journal of Education and Work).
2004	Latvia start Qualifications Framework development.
2005	Vanuatu qualifications framework adopted. Work started on Qualifications Framework in Finland, Malta, Norway, The Netherlands. Consultation started on European Qualifications Framework.
2006	Work on Papua New Guinea National TVET Qualifications Framework, Albania Qualifications Framework, Czech Republic, Montenegro, Romania, Poland started. First two frameworks (Scotland and Ireland) self-certified against the Bologna framework.
2007	Malaysian Qualifications Framework adopted. Expansion of Maldives Qualifications Framework to incorporate technical and vocational qualifications. Frameworks being developed in Andorra, Armenia, Belgium (French), Bosnia and Herzegovina, Croatia, Georgia, Iceland, India, Lithuania, Pakistan, Sweden, Switzerland. OECD report on qualifications systems published. Colombia initiates competence-based training.
2008	The European Qualifications Framework for Lifelong Learning agreed. Levels established in Viet Nam for vocational qualifications, effectively establishing a framework. Albania Qualifications Framework adopted. New Qualifications Framework developed in Denmark. Frameworks being designed in Austria, Bangladesh, Bulgaria, Italy, Lichtenstein, Turkey. Cyprus and Ukraine decided to develop an NQF. South African NQF substantially changed through new legislation.
2009	Following two years of tests and trials by the Qualifications and Curriculum Authority, the new Qualifications and Credit Framework was approved for England, Northern Ireland, and Wales.

Table 2 provides a picture of which countries are involved in developing NQFs, and their stages of development. Countries are located by region according to the stage of development of their framework. The intention here is to give a very 'broad brush stroke' picture of 'the state of the art'. As NQFs are constantly under development, some countries may have already changed since this was written, but it is hoped that the table below gives some indication of international development of NQFs.

The stages of development in the table below, according to which countries are categorized, are defined in very broad terms. A detailed examination of any one particular country would probably lead to debate about the best classification, as well as about the categories themselves. However, the table, while certainly open to contestation, provides a preliminary indication of which countries are involved in the development of NQFs or related policies.

Five stages or types are distinguished, merely for the purpose of this overview table. These relate roughly to the categories suggested by Deij (2009). However, the table below refers to 'established' NQFs as opposed to 'implemented', as in some countries implementation is rather incomplete, but nonetheless an NQF has been officially established. The fifth category accommodates countries in Latin America, as the experience of competence frameworks has bearing on NQFs. Our category 3 includes Deij's (ibid) 'conceptualization stage', and 'design stage'. The types or stages are as follows:

1. **Established.** The NQF has been made official through formally announced policies or legislation. Structures exist or have been set in place to fulfil the various roles associated with the NQF. There are qualifications on the framework.

2. **Developing and implementing**. The country is in the process of developing policy and structures through which the NQF will be implemented.

3. **Planning and/or designing**. The country is exploring what the NQF should look like, how it should work, and what the roles of various role-players and stakeholders should be.

4. **Considering**. The country is considering implementing an NQF.

5. **Competence framework or competency-based training system**. The country has established or is establishing competency-based training in different levels and covering various qualifications. This includes the development of mechanisms to identify competencies and standardize them as well as recognizing prior learning. This usually occurs in a competence framework with different levels and areas, and does not necessarily imply a move towards a full NQF.

In order to provide an overview at a glance, sources of information here are not provided. They include many of the texts in the reference list, but information was also obtained from consultants and experts. The information is highly provisional, and the table is meant only to provide some indication of trends.

Table 2: A tentative overview of NQFs internationally

	1. Established	2. Developing and implementing	3. Planning and/or designing	4. Considering	5. Competence framework
Sub-Saharan Africa	Botswana, Mauritius, Namibia, South Africa	Lesotho, Seychelles	Angola, Ethiopia, Kenya, Nigeria, Rwanda, Zambia	DRC, Ghana, Madagascar, Malawi, Mozambique, Swaziland, Tanzania, Uganda, Zimbabwe	
Americas & the Caribbean	OECS	Barbados, Canada, Honduras, Jamaica, Trinidad and Tobago	Antigua and Barbuda, Chile, Colombia, Grenada, Guyana		Brazil, Costa Rica, Dominican Republic, El Salvador, Guatemala, Mexico Nicaragua, Panama
Asia (South & East) & Pacific	Australia, Hong Kong SAR, Malaysia, New Zealand, Philippines, Samoa, Singapore, Sri Lanka, Vanuatu	China, Fiji, Maldives, Pacific Islands, Papua New Guinea, Thailand, Tonga, Viet Nam	Bangladesh, India, Pakistan	Afghanistan, Bhutan, Brunei, Cambodia, China, Japan, Laos, Macau, Mongolia, Nepal (has NVQs), Republic of Korea	Indonesia
Europe & central Asia	England, France, Ireland, Malta, Northern Ireland, Romania, Scotland, Wales	Albania, Belgium Flanders, Bosnia, Czech Republic, Estonia, Georgia, Kosovo, Lithuania, Montenegro, Portugal, Slovenia, Turkey	Andorra, Armenia, Austria, Belgium French, Croatia, Cyprus, Denmark, Germany, Greece, Hungary, Iceland, Italy, Norway, Poland, Russian Federation, Serbia, Slovak Republic, Spain	Azerbaijan, Bulgaria, Kazakhstan, Kyrgyzstan, Latvia, Luxembourg, Macedonia, Switzerland, Ukraine, Uzbekistan	
Middle East & North Africa		Tunisia	Algeria, Egypt, Jordan, Morocco, United Arab Emirates	Iraq	

3.4 Some issues raised in the literature

It is difficult to conceive a large-scale national education and training system that does not have qualifications. Historically, a qualification, such as a degree, diploma, or certificate, has been seen as a token or evidence of sustained study for a designated period in a designated area. But over the course of the twentieth century, qualifications have taken on increasing significance, leading to the intense activity now seen around the world in the development of qualifications frameworks. During the twentieth century, access to livelihoods has increasingly been shaped by access to formal education and training, as signified by educational qualifications (Little, 2000). In the latter half of the century, this became more emphasized, as more and more people started to obtain qualifications. Increasingly, more qualifications are on offer and more money is spent by public authorities on administering qualification systems, and by individuals in gaining qualifications (ibid). Simply in terms of scale, as more people take up qualifications, it becomes more important for them to be understandable, and have relationships with each other.

In countries or sectors of economies where there are surpluses of qualified workers, qualifications become used as screening devices, rather than as indicators of the attainment of skills necessary for the job in question (Shields, 1996). This has led to what Dore (1976) described as the 'diploma disease' (his concern was primarily with the negative effects that this trend had on the nature of education). Increased international trade in education and training has also contributed to a growing focus on qualifications (Holmes, 2003). Related to this is the extent to which, in certain professions and trades and at certain levels, labour markets for key occupations have started to function more globally. At the same time, as Johnson and Wolf (2009b) point out, while trade in goods and services has globalized, international movement by individuals is in key respects more restrained than it was in the nineteenth century, and qualifications often part of the regulatory frameworks controlling such movements.

Policy borrowing is a key feature of the literature on qualifications frameworks. This is not unusual: countries seeking to introduce an educational reform often quote each other's policy documents as a way of attempting to establish the credibility of the idea (Levin, 1998). Fragile states seem to adopt models of education from more dominant states to send signals that they are committed to what is viewed as progress and modernization (Chisholm, 2005). Spreen (2001) argues that recent decades have seen an increase in policy borrowing and sharing, and local policy makers use external interest and the availability of external support to elevate the priority of the particular objectives or programmes in which they are most interested. This means that the influence of external agencies has been substantially greater than the direct value of their relatively small contribution to overall education and training spending (ibid, p. 54). Related to this is the work of international consultants and technical experts. As Edward French argues:

> Perhaps the most supportive aspect of the international NQF movement is the collegial community of insiders and engaged practitioners. There is a small international network of experts who know the theory very well and have participated in the short but intensive history of implementation of NQFs, however varied this has been. In as much as it is possible in a world so full of higher-order abstractions, they speak the same language (French, 2009, p. 58)

Edwards, Nicoll, Solomon, and Usher (2004) point out that the construction of education policy internationally is dominated by several common themes: the need for change is cast largely in economic terms, as the enhancement of human resources; education and training systems are increasingly described as failing; changes in education and training are being required without a significant increase in resourcing from governments; educational reform is promoted through changes in forms of governance; education and training organizations are being required to work in more commercial and market-like ways; and there is an increased emphasis on standards, accountability and testing. Qualifications frameworks seem to play a key role in this approach to reform.

As governments have looked for closer links between the economy and education, qualifications have taken on a new significance (Lowe, 2000). Most research which considers NQFs from the point of view of political economy argues that they are linked to neo-liberal public sector reform (Strathdee, 2009; Wheelahan, 2009; Allais, 2007a, 2007c; Young, 2005, 2003; Spreen, 2001; Phillips, 1998). Young (2003, p. 232) suggests that qualifications frameworks represent an "almost paradigm case of government intervention in a neo-liberal economy", as they are attempts both to gain greater central control and to give greater choice to individuals. In reference to the National Vocational Qualifications in the UK, he points out that the increased emphasis on qualifications by British governments since the mid-1980s was closely linked to marketization policies forcing education and training providers to compete for students (and therefore funds). In other words, qualifications offer an ideal instrument for a government in this kind of context as they appear to serve a dual purpose of providing incentives to individual learners and making institutions more accountable. Similarly Tuinamuana (2003) drawing on the arguments of

Ball (1998), suggests that qualifications frameworks can be seen as part of a new approach to management, which emphasizes efficiency and effectiveness, using techniques appropriated from the business sector. She argues that this new approach to management operates in support of a neo-liberal economic system as education policy is increasingly shaped by economic objectives and business priorities.

In the past, the professional judgement of teachers and lecturers was seen as the basis of standards and the guarantor of progression. With more and more individuals obtaining higher levels of qualifications, particularly in richer countries, there has been increasing emphasis on developing more explicit criteria, and more transparent ideas of what actual competences qualifying learners have.

Although Coles (2007, p. 7) suggests that qualifications frameworks involve "defining levels through descriptors that are sometimes written on the basis of learning inputs and sometimes written on the basis of learning outcomes", the main focus in most literature on qualifications frameworks is on learning outcomes. Coles (ibid, p. 22) argues that the intention is "to chart a course from a system with curricula, assessment methods and qualifications that are based on inputs of content, teacher-time and norm-referenced assessments to a criterion-referenced system based on agreed learning outcomes". Coles (ibid, p. 3) suggests that NQFs are intended to make qualifications more "user-oriented", which, he argues, means weakening the control of education and training providers over qualifications.

The 'shift to outcomes' (Cedefop, 2008) is widely (if largely uncritically) supported internationally, and represents a real change in how qualifications are thought about. This may relate to the fact that many qualifications frameworks are only for technical vocational education and training and competency-based approaches have long been prevalent in many countries in technical vocational education and training (Comyn, 2009)'. However, many qualifications frameworks including higher education are also based on learning outcomes, and Cedefop (ibid) suggest that the learning outcomes approach is starting to take hold in higher education as well as in school systems.

Traditionally 'qualifying' denotes a process of learning as well as the completion of a formal, institutionalized assessment procedure (Fuller, 1999). The 'shift to outcomes' is an attempt to create qualifications which are not linked to specific learning programmes or institutions. Specifications for the award of qualifications are developed, which include statements of the outcomes which must be achieved in order for an individual to be awarded the qualification. Such qualifications, it is hoped, can then be awarded to anyone who can demonstrate the appropriate competencies, whether or not they have attended an educational institution. If this shift is implemented, it has important implications for ideas about knowledge and skills in education and training, as well as ideas about managing and delivering education and training. It is generally agreed, for example, by both supporters and critics of NQFs that they shift power away from educational institutions and towards other stakeholders, particularly employers. It is also generally agreed that the radical nature of this shift is not always clear to those involved (Cedefop, 2008; Allais and Young, 2009; Chakroun, 2010). What is *not* agreed is what the effects of this are likely to be, and whether it is likely to have positive or negative results.

Advocates suggest that a learning outcomes approach can increase access to education by making entrance requirements more fair and transparent, and because individuals can be awarded certificates based on what they already know (Jessup, 1991). Learning outcomes are also seen as linked to what are described as better pedagogical approaches (Cedefop, 2008). Researchers who support this move argue that qualifications frameworks represent 'new notions of knowledge', and a 'new hierarchy' in which "education providers are no longer the leaders and standards-setters, and content (or inputs) is no longer the starting point" (Commonwealth of Learning and SAQA, 2008, p. 44). This is captured in a process known as 'designing down', illustrated in the figure below (ibid):

Figure 1: Designing Down

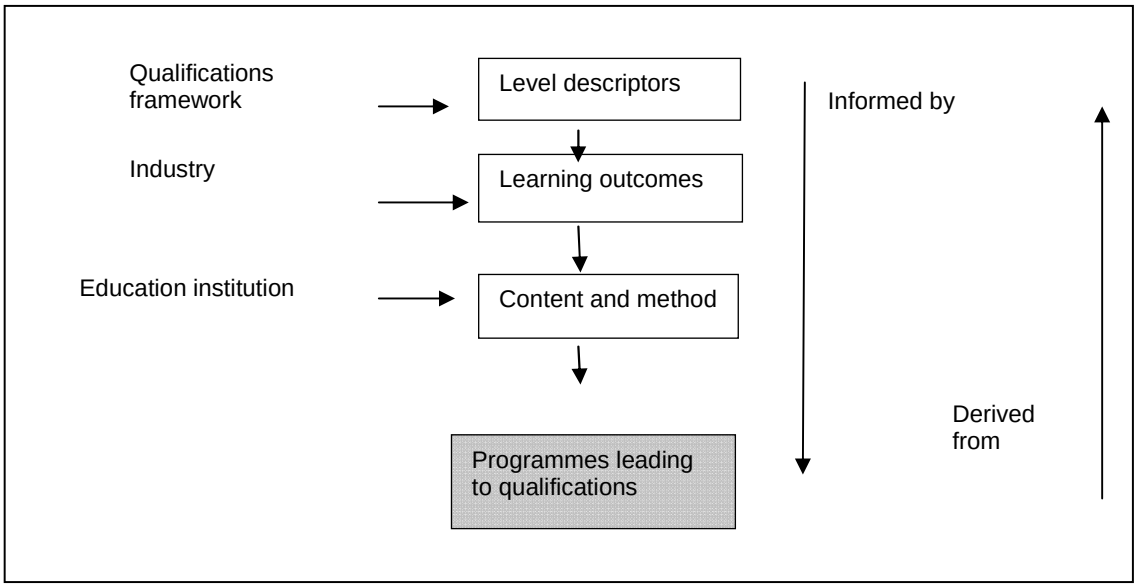


Figure 1 indicates an approach similar to that of competency-based training, but extended beyond vocational and/or workplace-based training to other areas of education and training systems. In this diagram, and in the body of the report which contains it, qualifications frameworks are seen as shifting power over qualifications towards employers, and away from educational providers.

However, there is considerable criticism of this approach. Researchers have shown that when the attempt is made to achieve precision in the specification of learning outcomes (or competences), as in the case of National Vocational Qualifications in England, definitions of outcomes become narrow and ultimately trivial. Guthrie (2009, p. 25), in a largely sympathetic review of competency-based training in Australia suggests that:

> … the assumption that human capabilities can be unequivocally described and accurately communicated by means of language is unfounded. So, at best, written competency standards are rough and ready, though useful, guides, and we should be wary of assuming that actual realities of what competence is are reflected in the words used to describe them. Therefore it is not the words that are important but what they *mean*, and the extent to which what they mean is widely *understood*.

Wolf (1995) provides detailed empirical evidence and theoretical arguments to show that the specification of outcomes and assessment criteria, as well as assessment on the basis of assessment criteria, were unsustainable in the English NVQs. She also demonstrates (Wolf, 2002) how the qualifications created through the NVQ framework were seen as undesirable not only by parents and young people, but also by employers, the very constituency they were primarily aimed at. Allais (2007b, 2007c) explores the same problems in the South African NQF. She argues that outcomes-based education undermines the need for specific expertise in the selection and sequencing of knowledge and skills which are essential to curriculum design, and that in the absence of strong professional associations and strong educational institutions, it leads to very varied standards. Other researchers have argued that NQFs designed according to an outcomes-led or competency-based approach are built on flawed epistemological foundations, and that although they

seem appealing, in practice they are based on misunderstandings about the nature of knowledge and skills.[5]

Wiliam (1996, p. 304, cited in Weeden, Winter and Broadfoot, 2002, p. 32) argues that 'standards' are socially constructed, rather than something precisely measurable:

> Examination results are social facts. Like bank notes they depend for their value on the status that is accorded to them within a social system. As foreign currency markets have found out to their cost, it is not possible to create comparability by fiat. Similarly, all attempts to define 'equivalence' independently of the social setting in which they are created have failed, and indeed are bound to fail. Two qualifications are comparable only to the extent that there are people who are prepared to believe that they are comparable, and trust awarding institutions or bodies equally.

Fuller (1999, pp. 14-15) suggests that:

> …….qualifications gain their worth from the institutional and symbolic meanings they convey between social groups including qualification recipients, parents, friends, and other users such as employers, educational institutions, and occupational and professional associations. These meanings are historically and socially constructed through the use of qualifications in everyday life and through their role in helping to pattern social relations and social reproduction. It follows that perceptions of the value of particular qualifications may alter over time as their meanings are negotiated or disputed.

In other words, the value of qualifications relies crucially on the trust placed in providers and awarding institutions—trust that is built up over time, and cannot simply be established through regulation or decree. Allais and Young (2009) suggest that qualifications are proxies for what people 'know and can do' and therefore are better seen as mediators of different parts of the education system and between education and employment than as drivers of educational reform. However, there is a serious problem where there is little trust in providing and awarding institutions, as may be the case in many countries, and because providing institutions in one country or region may not be known in another country or region.

As already discussed, researchers have also pointed out that while qualifications frameworks are generally described in terms of learning outcomes, the term 'learning outcomes' is interpreted in widely different and sometimes incompatible ways (Bohlinger, 2007; Brockman, Clarke and Winch, 2008; Cedefop, 2008; Coles, 2007).

In his comprehensive overview of qualifications frameworks internationally up to 2005, Young (2005) argues that all countries implementing frameworks have faced problems, and points out that qualifications frameworks have been the subject of a number of reviews, evaluations and critiques. Allais, Raffe and Young (2009) argue that qualifications are not separate factors alterable independently of the other ways in which education and training systems and economies are linked. It is perhaps not surprising therefore that introducing NQFs has had unintended (and often unwelcome) consequences as well as leading to some of the changes that were intended. They suggest that key unanswered questions include: What is involved in changing a qualification system which is closely linked to institution-based teaching and learning programmes to a qualification

[5] For example, Allais (2003, 2007a, 2007b), Allais et al. (2007), Donnelly (2005), Ensor (2003), Gamble (2002, 2004a, 2004b, 2005), Hall and Woodhouse (1999), Morrow (2001), Muller (1996, 1998, 2000a, 2000b, 2001, 2004), Shalem, Allais, and Steinberg (2004), Taylor (1993, 2000, 2002), Wolf (1993, 1995); Young (2001, 2003, 2005, 2007a, 2007b, 2008).

framework which typically expresses qualifications in terms of learning outcomes that are not tied to any specific learning processes or programmes? Can qualifications frameworks drive reform? Can learning outcomes or competency statements ensure that education and training systems meet the requirements of the economy? What is at stake in introducing an outcomes-based or competency-based qualifications framework? What might the losses and gains be? Can qualifications frameworks support changes in economies and education and training systems, and improve the linkages between the two?

The current research contributes to answering these questions. It attempts to provide empirical evidence about how qualifications frameworks have been designed, developed, implemented, and used, as well as how successful they are.

Chapter 4: Summary of the case studies

These short summaries provide very brief information on the development of qualifications frameworks in each of the countries in the study. The summaries do not provide analysis or discussion, and, of necessity, do not offer a comprehensive account of developments in each country. They are intended to help the reader of this report to have a sense of how qualifications frameworks have developed in each of the countries, in order to better understand the discussion and analysis which follows in the remainder of the report, where more details about various aspects of the frameworks are provided. The full case studies are available at www.ilo.org/skills (Australia, Bangladesh, Botswana, Chile, the English NVQs, Lithuania, Malaysia, Mauritius, Mexico, New Zealand, Scotland, South Africa, and Sri Lanka) and at www.etf.europa.eu (Russia, Tunisia, Turkey). The five case studies on the first qualifications frameworks are also available in an ILO Working Paper (Allais, Raffe, Strathdee, Wheelahan, and Young, 2009).

The summaries are presented in roughly chronological order in terms of the period of implementation of the respective frameworks. Brief contextual information is provided about each country, to highlight the very dramatic differences in the countries which are implementing NQFs. This includes GNI PPP (gross national income calculated according to purchasing power parity) per capita;[6] United Nations measured Gini coefficients[7] (which provide a measure of income inequality, with 0 representing perfect equality, and 100 absolute inequality); and each country's ranking on the list of 182 countries on the Human Development Index (HDI) of the United Nations Development Programme.[8] Additional specific contextual information is provided in some cases. Other than those mentioned directly above, the sources for all information cited in the summaries are the country case studies. Where analysis is provided, or assertions made, these are derived from the case studies, which can be read in full on the website.

The NVQs in England, Wales, and Northern Ireland

The United Kingdom is a unitary state consisting of four countries: England, Northern Ireland, Scotland, and Wales. An island country, it occupies roughly 244,820km^2, and has a population of over 61 million. It is one of the biggest economies in the world, with GNI PPP per capita of USD 36,130, and a Gini coefficient of 36. It is ranked 21 on the HDI. Its history as a colonial power as well as its economic success has meant that its education and training system has influenced many other countries in the world.

The United Kingdom has generated several qualifications frameworks; this study focuses only on the National Vocational Qualifications (NVQs), despite the fact that they did not constitute an NQF *per se*, because of their enormous influence on subsequent frameworks in other countries. The NVQs were launched in England, Wales, and Northern

[6] http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf accessed 25th November 2009.

[7] Except for Mauritius, for which the United States Central Intelligence Agency rating is used, and Scotland which does not have a separate rating from that of the United Kingdom.

[8] This is based on a wide range of indicators which can be found at www.hdr.undp.org, accessed 30th October 2009.

Ireland,[9] but not in Scotland, in 1987, as a framework for rationalizing was what described as a 'jungle' of existing vocational qualifications. The NVQs were not intended to be the basis for a comprehensive NQF for all qualifications, but successive governments were committed to using them to replace all other **vocational** qualifications, especially those which involved government funding.

The NVQs originated in a 1981 New Training Initiative, which claimed to introduce 'standards of a new kind', and a Review of Vocational Qualifications which reported in 1986. The Review was partly a response to the fact that government wanted a basis for accrediting the learning of young people who had participated in a recently launched Youth Training Scheme. Related to this was an awareness of the limitations of the existing system of vocational qualifications which had developed at a time when many jobs required few skills and little knowledge. Many occupational sectors had little training available or qualifications which could be obtained, few existing qualifications had any links with each other, and many vocational qualifications were not available at lower levels. Also, the government of the time felt that education and training providers had too much power, and that they 'monopolized' provision, and that trade unions had too much power in the apprenticeship system. Introducing qualifications not linked to specific institutions or awarding bodies, through specifying competencies or outcomes to be acquired, was seen to provide government with a mechanism to tackle these perceived problems.

NVQs replaced the previous 'occupational specialization' approaches to designing qualifications with a generic method known as *functional analysis*, which was applied to all occupations and sectors. Originating in occupational psychology in the USA in the 1960s and the earlier ideas of scientific management, functional analysis attempted to develop statements of competent workplace performance from sets of individual 'elements of competence' and their associated 'performance criteria'. These 'elements of competence' (they later became known as 'occupational standards') were then grouped together into 'units of competence'. Each NVQ was made up of a number of related 'units of competence'.

The NVQs were the first national attempt to base vocational qualifications on the idea of competences or outcomes that were independent of inputs. They remain, over 20 years later, the most widely known, widely copied and most heavily criticized model for a vocational qualifications framework in the world. The NVQs are still used in the United Kingdom, although the original NVQ model has been changed many times, and they are being replaced by the Qualifications and Curriculum Framework that is currently being introduced. Approximately 12 per cent of the workforce in the United Kingdom now have a National Vocational Qualification. However, it is difficult to estimate the proportion of NVQs that are obtained via government funded schemes which make them a requirement. Successive attempts have been made to reform NVQs in response both to the criticisms of researchers and the complaints of employers.

Scotland

Scotland is a small country which occupies 78,772km^2 of the north of the island of Great Britain. It has a population of just over 5 million, with a per capita income of USD 39,680.

[9] For ease of reading, the remainder of the report will refer only to the NVQs in England, or the English NVQs, without the addition of Northern Ireland and Wales.

The Scottish Credit and Qualifications Framework (SCQF) was formally launched in 2001 as a comprehensive framework of 12 levels, consisting of three sub-frameworks for different sectors of the education and training system. The idea of a comprehensive framework emerged in the mid-1990s; the SCQF can be seen as the culmination of a series of preceding reforms starting in 1984. When the SCQF was launched in 2001 much of its architecture was already in place or at an advanced stage of implementation: most mainstream Scottish qualifications were outcomes-based, albeit with varying and typically loose interpretations of outcomes. Most were unitized. Most were placed on a framework of levels, with mainly minor differences across types of qualifications in the boundaries between levels and the ways they were defined. Most were based on a concept of credit, again with relatively minor variations in definitions and metrics. There were well-established quality assurance systems.

The SCQF is intended to accommodate all qualifications and assessed learning in Scotland. It aims to support access to learning and make the education and training system more transparent, and to become the 'national language' of learning in Scotland. It is a voluntary framework, led by a partnership which initially comprised two higher education bodies, the Scottish Qualifications Authority (SQA) (the main awarding body for school and college qualifications), and the Scottish Government, and later included the colleges (multi-purpose institutions which, along with the universities, are responsible for most public, institution-based, vocational and general post-school education). Qualifications in the framework must be credit-rated, which means that each unit must be described in terms of a volume of learning (credit) at a given level of the framework. This in turn requires that units and qualifications are expressed in terms of learning outcomes, but the framework does not impose a narrow concept of outcome or competence. The SCQF has a 'loose' design, although it embraces sub-frameworks which are more tightly specified. The framework was intended neither to establish new qualifications nor to overhaul existing ones.

It is at an advanced stage of implementation, at least as measured by the proportion of learning that it covers. The SCQF has linked the school and college qualifications awarded by the SQA and university degrees, the sub-frameworks owned by its main partners, but it has been slow to accommodate other qualifications, and evidence of *direct* impact on objectives such as increased access and transfer is limited. However, it is *associated with* positive developments in access, progression, and transfer; it has contributed to a more transparent, flexible system; and, above all, it has retained the support of all sectors of education and training. These achievements have enabled the SCQF to assume an almost moral authority among NQFs and to become a source of lessons to others.

New Zealand

New Zealand is a small country (268,680km^2) in the South Pacific Ocean. Its population is slightly over 4 million (the third smallest in the OECD) and it has the fourth smallest economy of the 30 OECD countries. It is ranked 20 on the HDI, with GNI PPP per capita of USD 25,090 and a Gini coefficient of 36.2. It is a small, isolated country with a low population density. It is heavily dependent for its economic progress on exports, still largely agricultural.

Although currently unemployment is very low, in the late 1970s and early 1980s, unemployment was relatively high, reaching 17 per cent for young people aged between 15 and 19 years. The economic problems of this period were an important part of the context leading to the implementation of the New Zealand NQF. In the 1980s and 1990s in New Zealand there was significant economic restructuring and moves towards a less regulated economy. These moves were designed to improve efficiency and promote enterprise through public sector finance management aimed at greater provider accountability and higher levels of user fees. The NQF was located as a key part of these reforms. It

represented an attempt to use outcomes-based qualifications to introduce more efficiency and greater marketization into the provision of education and training at all levels and in all learning areas.

The New Zealand Qualifications Framework was launched in 1991, following a series of educational reviews and reports that date well back into the 1970s. It was the first attempt to introduce a unified comprehensive **national** qualifications framework of 8 levels. The idea was that all forms of education and training would adopt a common system of measuring and recording learning, based on 'unit standards', which were part qualifications which contained learning outcomes and other specifications, and against which awards could be made. However, this original vision did not come to fruition, due to, amongst other reasons, resistance from universities and other groups, especially those involved in upper secondary education.

In some areas of vocational education, progress in developing unit standards and new qualifications was made, and in some areas the new NQF-based qualifications took hold; however, in many others they struggled to win the hearts and minds of users. The New Zealand Qualifications Authority could not convince the universities to adopt the unit standard model and the then government would not force them to. In 1994 the New Zealand Vice-Chancellors' Committee withdrew the university sector from the NQF altogether. Concerns about its implementation in schools led to a series of changes. By the mid-1990s, a stalemate had developed between various agencies involved in the implementation of the NQF, and progress implementing the NQF was limited. In 1999 a new government confronted the problem by broadening the framework. This led to the creation of a 'register of quality assured qualifications', which includes the unit standard-based qualifications as well as more 'traditional' qualifications. The Register, launched in 2001, now provides the structure that brings together all approved qualifications available in New Zealand. All qualifications must be described in terms of course objectives and learning profiles. Institutions do not have to adopt assessment against outcomes or unit standards in the way these were first envisioned and the New Zealand Qualifications Authority delegates the responsibilities for accrediting programmes to different agencies such as the New Zealand Vice-Chancellors' Committee. Recent governments have also adopted a policy approach that has a greater emphasis on investing in educational institutions, and do not control funding rigidly by learner enrollments, although there are clear attempts to steer provision in specific directions of perceived national interest.

Australia

Australia is a vast dry island-continent, 7,617,930km^2 in size, with a population of almost 22 million, mostly concentrated in large cities on the coasts. It is a land of immigrants, with about one quarter of all Australians born overseas. Australia has a strong economy, with GNI PPP per capita of USD 34,040, and is ranked second on the HDI, with a Gini coefficient of 35.2.

The Australian Qualifications Framework was introduced in 1995 and implementation was phased-in over five years. Australia has a comprehensive framework comprised of three sub-frameworks: one for secondary schooling, one for vocational education and training, and one for higher education. This encompasses all post-compulsory qualifications in Australia which includes senior high school certificates, vocational education and training qualifications and higher education qualifications. The framework consists of qualification *types*. Actual qualifications linked to specific institutions are then listed in sector-specific registers. The Australian Qualifications Framework is often portrayed as a relatively 'weak' or 'loose' qualifications framework because it does not have regulatory functions over the three sectors, nor many of the features of other NQFs, such as a taxonomy of learning outcomes, explicit levels, and a measure of volume (or time) of learning. The Australian Qualifications Framework does not play a direct role in accrediting qualifications or in quality

assurance, and accreditation and quality assurance processes are different for each sector. State government accreditation bodies are responsible for the senior school certificates, and a National Quality Council for vocational education and training is responsible for endorsing national training packages that are developed by industry skills councils. Universities are self-accrediting, while non-university providers must be registered by their state government and each qualification they offer must be accredited separately. However, there is currently a policy trajectory towards national accreditation and quality assurance arrangements for all sectors.

While there is one single qualifications framework, there is a strong division between the different sectors of the framework. Vocational education and training qualifications are based on competency-based training, with specifications of required competences or outcomes in 'training packages', while higher education qualifications and senior school certificates are based on syllabus or input models. The decision to develop a national system for all vocational education qualifications was a key driver shaping the Australian Qualifications Framework. There is no similar objective within the existing Australian Qualifications Framework for higher education or senior secondary qualifications in the different states. The vocational education and training sub-framework has much greater regulatory functions than the rest of the framework. When the national vocational education and training system was established in the 1990s, business and unions helped shape the structure and governance of the system, and the nature of qualifications as competency-based. Thus, industry interests shaped the structure of the Australian Qualifications Framework as far as it applies to vocational education and training. Besides creating an 'industry-led' training system, an important driving rationale of reform of vocational education and training has been to create an open, competitive training market. The 'training packages', which are similar to the English NVQs, were a key component of this: they were introduced to function as a regulatory mechanism against which all providers, public and private, should operate.

Despite the apparent indifference of most universities to the Australian Qualifications Framework, the universities' peak body has been influential in shaping the structure of the NQF and in maintaining the sectoral differentiation between vocational education and training and higher education by ensuring that its qualifications are clearly differentiated from vocational education and training qualifications on the framework.

The Australian Qualifications Framework Council is currently undertaking the final stages of consultation to shift from a relatively weak qualifications framework to a stronger one, including ten levels with a level descriptor for each. This will introduce far more prescription, and is based on an attempt to bring greater national coherence across the three sectors, and to facilitate student transfers, pathways, and credit transfer between education sectors. The Australian Qualifications Framework's limited success in achieving these objectives is one of the problems the current proposals are trying to solve.

South Africa

Situated at the southern tip of Africa, South Africa occupies 1,219,912km^2, with a population of over 47 million people. The notorious apartheid system created one of the most unequal and racially segregated societies in the world. Although by UN classification a middle-income country with GNI PPP per capita of USD 9,780, good resources, well-developed infrastructure, and strong financial, legal, communications, energy, and transport sectors, South Africa is only 129 on the HDI, and has a very high Gini coefficient of 57.8. Deeply-entrenched poverty among the majority of the population coexist with high levels of economic wealth and academic achievements among a minority. Forty-five per cent of South Africans live below the nationally determined poverty line, and unemployment levels are extremely high (between 25 and 45 per cent).

The NQF in South Africa was introduced in 1995 as an ambitious attempt to address the educational, social, and economic problems caused by apartheid. Apartheid was not just a political process of disenfranchising the black majority; it restricted most of them to intentionally inferior 'bantu education', and systematically closed off or distorted their participation in the economy. Education and training policy was central to apartheid. It was used to reinforce lack of democracy, as well as social and economic inequality, by destroying and restricting access to education and training, by providing poor quality education and training to most black people, and by controlling the content of syllabuses to reflect the interests of the apartheid state.

The South African NQF aimed to replace all existing qualifications in the country with a set of new qualifications and part qualifications (called unit standards) designed by new, stakeholder-based structures, and expressed in the form of learning outcomes. This was intended to ensure the overhaul of all learning programmes and curricula. At the same time, it was hoped to lead to new provision and new institutions, as well as to many individuals obtaining qualifications based on knowledge and skills that they already had. Models from Australia, England, and New Zealand were influential in the design of the South African NQF.

South Africa initially developed a single comprehensive framework of eight levels which was supposed to be the basis for the development of new outcomes-based qualifications to replace all other qualifications in the country. New qualifications and unit standards were developed and registered on the framework, but old qualifications linked to specific providers were also registered, resulting in a framework of nearly 8000 qualifications.

The NQF was widely supported by many stakeholders. But despite its unquestionably worthy goals, its implementation has been fraught with problems. Shortly after implementation got underway, disagreements and criticisms emerged, and a lengthy (seven year) period of policy reviews ensued. At the same time, implementation continued, largely funded by donors, including development of the new outcomes-based qualifications and unit standards according to the original model, but also accommodating existing qualifications in one single framework (which can thus be described as a 'register of qualifications' similar to that in New Zealand). The policy review was recently terminated by splitting the NQF into three separate but linked frameworks—one for higher education, one for schools and technical vocational education and training, and one for trades and occupational education. The new NQF has ten levels. The first two of the sub-frameworks were to be under the Minister of Education, and the third under the Minister of Labour. The outcomes-based model has been largely abandoned, although many outcomes-based qualifications remain on the framework, and some are still being developed. Most of the outcomes-based qualifications and unit standards have never been used. Nonetheless, the language of learning outcomes was still used, and there is still a single set of level descriptors. Very recently, things have changed again. In May 2009 the single Ministry of Education was split into a Ministry of Basic Education, and a Ministry of Higher Education and Training. All aspects of training, including for trades and occupations, are being moved to the latter ministry, and the Quality Council for Trades and Occupations was launched by the Minister of Higher Education and Training in February 2010. The Minister of Basic Education has introduced changes to the school curriculum, and recently declared that outcomes-based education is officially dead in South Africa. What effects this will have on the NQF remain to be seen.

Mexico

Mexico, at the South of North America, covers almost 2 million km^2, and has an estimated population of 109 million. The economy of Mexico is the 11^{th} largest in the

world, with GNI PPP per capita of USD 14,270. Mexico has a Gini coefficient of 48.1, and is ranked 53 on the HDI.

Mexico does not have an NQF, but has many years experience in the development of a Labour Competence Framework which shares aims and characteristics with many NQFs. The framework was envisaged as the basis for qualifications in technical vocational education and training as well as workplace-based training, but so far has mainly been used in the latter, and there mainly for assessment of prior learning. Educational institutions have continued to develop their own standards. The framework has five levels, and originally had 12 horizontal divisions, but this was later changed to 11, and then later again to 20.

The framework has been developed through two different projects, both of which were broadly concerned with vocational, technical, and workplace training as well as broader human resource development. The first project began in 1994, through the Secretariats of Labour and Social Provision and of Public Education, and funded through a World Bank loan. Influenced strongly by the English NVQ model, a key part of this project was the Labour Competence Standardization and Certification Systems, which aimed to create a transparent set of labour competence standards which, it was hoped, would lay the foundations for a future reform in both technical upper middle education, and workplace-based training. The National Council for Standardization and Certification of Labour Competence (CONOCER), was created, with broad stakeholder and inter-departmental representation, to establish an integrated unitary framework of 12 competence areas and five levels, to develop the labour competence technical standards with which to populate this framework, and to develop an assessment and certification system and the regulatory framework for awarding bodies.

The framework was designed in 1995. Lead bodies, including employers, workers, and sector experts, produced labour competence technical standards, based on the functional analysis approach of the English NVQs. Awarding bodies were accredited by CONOCER to verify the quality of assessment centres where candidates were to be assessed against standards. From 1996 to 2003, the Standardization System registered 601 labour competence technical standards or qualifications. Mainly low level qualifications were developed. From 1998 to 2003, 256,282 certificates were issued against these qualifications. Of these, one qualification generated 29.7 per cent of the certificates, and 80.7 per cent of the issued certificates corresponded to only 26 qualifications. Most of the qualifications remained unused, and many that were used were linked to specific government-driven training projects. Although the overall project included a focus on educational institutions, in most instances the standards developed did not relate to their courses, and they developed their own standards. Pilot projects were commenced in seven priority industries, and tourism and electricity reported some gains in terms of learners achieving certificates.

After the project ended there was an impasse from 2003 to 2005, and the Labour Competence Standardization and Certification Systems almost collapsed, partly due to lack of finances, and partly because of contestation between government departments about the status of CONOCER. This caused a serious problem with certification. In 2005 a new project began, funded by the Inter-American Development Bank. CONOCER was reorganized. This time the emphasis is on ensuring that the Labour Competence Framework relates to educational institutions as well as human resource development strategies in companies, and that stakeholder participation is improved. The grid has been changed to include 20 sectors. There is a stronger sectoral focus in implementation, with ten strategic sectors identified, although so far there is poor industry participation in many of them. From 2006 to 2009, CONOCER issued 121,598 certificates on 128 labour competence technical standards (20 per cent were based on the older standards). Both projects of which the Labour Competence Framework was a component have seen many different formulations of the competence standards. The problem of unused qualifications persists. Most recently there is an attempt to broaden the notion of standards in the qualifications,

and an emphasis on what are described as 'demand-oriented standards'. The first project was highly complex and contested, with different components led by different arms of government. The complexity of the project with so many different participant interests became more difficult to manage as time went by. The second project is led only by the Secretariat of Public Education. In 2008 the Mexican government decided to relaunch CONOCER with a new approach, which is described as working closely with enterprises and producing demand oriented standards.

Chile

Chile is a country in South America occupying a long, narrow coastal strip 756,950km^2 in size, with a population of 16.6 million. It has had sustained levels of high economic growth for 20 years, along with high levels of inequality, with a Gini coefficient of 52. An upper middle income economy, GNI PPP per capita is USD 13,270. It is ranked 44 on the HDI. Inequalities in income distribution are attributed to the low salary level of the unskilled working force, who have limited access to education and training. Chile has an intensely privatized education and training system.

Chile has very recently announced the intention of developing a comprehensive NQF. However, it has many years experience in the development of a National System for the Certification of Labour Competences which shares aims and characteristics with many NQFs, and was the focus of this research, although the developments towards the new NQF were also considered.

Competency-based training has been the focus of most reforms of vocational and workplace-based training in Chile for many years. In this context various attempts have been made to develop a framework of competencies. The World Bank played a major role in financing and supporting various reforms, and other international agencies such as the Inter-American Development Bank and the German Technical Cooperation (GTZ) were also influential. The OECD has been an influential voice through a series of educational reviews and recommendations. In 1999, a non-profit privately-owned corporation called *Chile Foundation* attempted to introduce the approach of the English NVQs. They were particularly impressed by the idea of recognizing experiential learning. Professionals and stakeholders were trained, unit standards were developed using the functional analysis approach, and assessment was conducted through pilot projects. Individuals were assessed to be inspectors in the construction sector, electricians, or plumbers. However, poor linkages persisted between education and training and workplace training, as well as between training and the workplace.

In 2002 the *Chile Qualifies* programme was launched, which aimed at setting up a continuous training system that would link with the formal technical vocational education and training system. Set up in the Ministry of Education, but linked to other ministries, and with a number of small regional teams, the programme involved all key role players. The institutionalization of the National System for the Certification of Labour Competences was a key component of the *Chile Qualifies* programme, and the *Chile Foundation* continued to play a role in this regard. To date, there are around 30,000 workers who obtained certificates through the Chile Foundation pilot project, although their certificates have not been recognized by the formal education and training system because of legal complications. After an eight-year process, the National System for the Certification of Labour Competences obtained legal status in 2008, and is in the process of becoming operational.

Workplace-based training in Chile is coordinated under the National Service for Training and Employment (SENCE). Originally set up as a funding agency, SENCE works through brokers, allocating money for courses. However, the certificates obtained from these courses are not always recognized by the formal education and training system. It was

hoped that the National System for the Certification of Labour Competences would solve this problem by providing a basis for certification. Initially problems with its legal status prevented this from happening. SENCE has now started to use the competencies in its financing of training and assessment. Unfortunately, the *Chile Qualifies* programme has had poor evaluations and is unlikely to continue or be institutionalized.

The Framework of Labour Competences was originally envisaged to apply to technical vocational education and training as well as workplace-based training, but has been mainly used in the latter, and with a focus on assessment of existing skills. Chile also has a framework of qualifications for the mining sector, with 9 levels in theory, but 5 levels for which qualifications have actually been developed.

Recent commissions and government structures have new proposals and plans for creating linkages between secondary vocational education and the world of work and the rest of the training system, consolidating a system of competences relevant to market demands, and evaluating and recognizing experiential knowledge. In the meantime, a qualifications framework has been set up in the mining sector.

Through the *Chile Qualifies* programme, an earlier attempt was made to create a comprehensive NQF. A feasibility study was conducted, and various investigations and plans made from 2003 to 2004. Later, in 2007, the Australian Department of Education, Science, and Training was contracted to provide recommendations on the implementation of an NQF. A major recent driver has been the Quality Assurance Framework set up in 2006 for higher education, with a focus on participation in the European processes, specifically the Latin American Project to implement the Bologna Process agreements—in other words, to align Latin American higher education with European higher education. However, the idea of the Labour Competence Framework is also seen as an important component of the proposed NQF.

Malaysia

Malaysia is a federation of states with a total surface area of about 329,750 km^2 and a population of about 28 million. It is classified as a middle level economy, with GNI PPP per capita of USD 13,740, ranked 66 on the HDI. Unemployment is low at about 3.7 per cent. Income disparities are relatively wide, with a Gini coefficient of 37.9. This is related to a substantial informal economy, and a large and mostly low-wage migrant worker population. The case study argues that there has been a tendency for industry to use low wage, low skilled labour as a substitute for investments in skills and technology transfer.

Malaysia established an official national qualifications framework in 2007. At the same time the Malaysian Qualifications Agency was established to manage the framework and its associated mechanisms. These developments, however, followed earlier developments across higher education, technical and vocational education and training, and the workplace training or skills sector.

Malaysia has a framework of eight levels for all qualifications excluding school qualifications. This consists of three sub-frameworks: a five-level skills framework, for workplace-based or short-term workplace-focused training, known as the National Occupational Skills Standards; a framework for vocational and technical qualifications awarded in the state polytechnics and community colleges; and a framework for higher education qualifications. The National Skills Qualification Framework was introduced in 1993. This was based on a five-level skills certificate framework, which was to merge into the National Occupational Skills Standards system for the skills sector. These qualifications are described as outcomes or competency-based. Mainly low levels of qualifications are awarded, and there is limited opportunity to move up the education and training system with them. In 1996 a National Accreditation Board was established for higher education,

with responsibility for regulating the standards of private higher education institutions (colleges and universities), which had increased in number following the liberalization of markets and increased public investment. School qualifications, which are excluded, have many variants, associated with different types of schools, quality, status, and which pathways they lead learners to, and are ostensibly at a higher level than some other qualifications which are on the framework.

The NQF relates to four types of providers—universities and colleges, polytechnics, community colleges, and skills centres. Funding and administration for these providers has been through three systems—those for universities and colleges, polytechnics and community colleges, and skills centres, respectively. Responsibility for the funding and administration of the skills centres is located in the Ministry of Human Resource Development, and for universities and colleges, and polytechnics and community colleges across separate divisions of the Ministry for Higher Education. A range of professional associations issue their own credentials and overseas qualifications are issued by some providers. As a consequence there have been parallel developments towards qualifications frameworks in Malaysia.

The qualifications in each of the three sub-frameworks are placed on a common set of levels, but the linkages or relationships between them are relatively weak at this stage. The institutions which provide them are quality assured through different agencies, there are different processes for developing qualifications, and there are different assessment and certification systems. The NQF in Malaysia is strongly driven by the higher education sector. For higher education, the focus of the NQF is to extend the 1996 quality assurance system to the public providers. However, the government also has the more extensive and ambitious agenda for the NQF of establishing an overall framework that covers qualifications across all three sectors and the relations between them. Like many other NQFs, it represents work in progress.

Mauritius

Mauritius is an island of 1,864 km^2 situated in the Indian Ocean, with a population of just under 1.3 million. It has a Gini coefficient of 37, and is ranked 81 on the HDI. An upper middle-income economy, it has GNI PPP per capita of USD 12,480, and unemployment is around 10 per cent.

The Mauritian NQF was created in 2001 through legislation that created the Mauritius Qualifications Authority, in the context of increased unemployment, skills shortages, and perceived failures in the education and training system. It was influenced by NQFs in New Zealand, Scotland, and South Africa. The NQF is a comprehensive, loose framework in which each sector (schooling, technical vocational education and training/workplace learning, and tertiary education) is separate, and wide latitude is given to each sector. Mauritius has a framework of ten levels, in which school qualifications, technical vocational education and training and workplace qualifications, and higher education qualifications are located in three separate sub-frameworks.

However, the NQF was also intended to introduce more specific changes to technical vocational education and training. Ensuring a separation of registration and provision, on the one hand, and the development of outcomes-based qualifications on the other, were the two key aims for technical vocational education and training. Previously, the Industrial and Vocational Training Board (IVTB), the main provider of technical vocational education and training in Mauritius, was also responsible for the registration of private technical vocational education and training providers, and managed a training levy. The Mauritius Qualifications Authority took over the function of registration of providers, and a Human Resources Development Council was created to manage the training levy. The Mauritian Qualifications Authority, however, does not have a role in schooling or higher education

with regard to registration of providers, curriculum development/programme approval, assessment and certification, and assessment. Schools are managed by the Ministry of Education, and examinations take place through a separate body, the Mauritian Examinations Syndicate. Higher education falls under a Tertiary Education Commission.

The Qualifications Authority is responsible for the generation of qualifications and unit standards (part qualifications based on specified outcomes) within the technical vocational education and training/workplace learning sector. This was intended within a competency-based training model, to give industry a central role in defining its required competencies. Industry Training Advisory Committees were created for this purpose, and it was anticipated that these qualifications would replace the existing qualifications as well as create qualifications and unit standards in areas that had previously not had formal qualifications. According to the Qualifications Authority 66 qualifications have been generated, although public information is only available on about 20 of these qualifications and 476 unit standards. None of these qualifications have been used by educational institutions or employers, and there is no designated awarding body for them. In the technical vocational education and training sector, the IVTB and many private providers continue to offer the National Training Certificate that predated the qualifications framework. This qualification has a specified curriculum, and is assessed and certified through the Mauritian Examinations Syndicate or the relevant international body. The IVTB continues to play a role in quality assurance for private providers that offer the National Training Certificate. There are also polytechnics for higher level technical vocational education and training provision, but they are managed under a specific structure set up under the Ministry of Education and Scientific Research. This structure may be merged with the IVTB in the future.

The Qualifications Authority works with the key bodies to reach agreement on level descriptors and the definition of qualifications, and coordinates a process of ensuring that all qualifications are located on the NQF, although individual providers make decisions about equivalence with regard to access and mobility of students.

Botswana

Botswana is a relatively large (582,000 km^2) sparsely populated country (about 1.7 million) in Southern Africa. Botswana's economy is often described as one of the most successful in Africa, with excellent growth dominated by diamonds and GNI PPP per capita of USD 13,100. However, unemployment is high, between 30 and 40 per cent, and 30 per cent of the country live below the poverty line. Botswana is ranked 125 on the HDI, and has a Gini coefficient of 61.

The NQF in Botswana was created specifically for the technical vocational education and training sector. In 1998, the Botswana Training Authority was created through a Vocational Training Act, following a 1996 GTZ-funded project to improve technical vocational education and training. This act gave the Botswana Training Authority the mandate to develop the Botswana National Vocational Qualifications Framework (BNVQF) and to facilitate training relevant to the labour market. Implementation of the BNVQF started in August 2004, after a four-year capacity building and staff development programme (March 2000 to July 2004).

The design of the framework was influenced by NQFs in New Zealand, South Africa, and the United Kingdom. The key concept was the development of unit standard-based qualifications; in other words, qualifications consisting of parts which could be separately awarded, and which were defined through learning outcomes or competences. The intention was that these new qualifications and unit standards would be the basis against which all provision would take place. The BNVQF was designed with three levels of qualifications, divided horizontally into 12 fields which were further divided into 64 sub-fields. Task

teams were constituted for 15 economic sectors, and stakeholders were trained in how to design unit standards. Workplace operations were to be the context for setting outcomes statements, broken down into specific outcomes and performance criteria for purposes of assessment. In practice task teams drew on existing curricula as well.

The development of unit standards to populate the framework has been slow, and uptake of those that have been developed even slower. By the end of 2008, 124 training providers were registered by the Botswana Training Authority, probably accounting for most providers in the country. However, most of these providers do not offer courses based on the newly developed standards. These providers are formally described as 'approved', instead of 'accredited'; the former is supposed to be a precursor to the latter. Neither the Botswana Confederation of Commerce, Industry, and Manpower (BOCCIM), which administers an extensive number of training programmes, nor the government-run vocational colleges, have adopted the unit-standards based qualifications. They both instead have continued to offer their own qualifications. Out of the 643 programmes offered across the 124 institutions under the BNVQF, only ten programmes comply with the unit standards specifications. The most used unit standards are 'generic' ones, like using computers and learning about HIV/AIDS, with no direct workplace link. Although no formal evaluation or tracer studies have been conducted, individuals interviewed felt that where courses have been conducted and unit standards awarded, they have not led to jobs or further study, the former because of a lack of available jobs, and the latter because there is no articulation between the vocational qualifications framework and the rest of the education system. However, in two instances, employer organizations who participated in the development of curricula and formulation of unit standards felt that the qualification acquired by employees was relevant to the workplace.

Given the vast nature of the country, and the fact that donor funds are no longer available for this purpose, the Botswana Training Authority's development of institutional quality assurance has been very slow, as visits to institutions are difficult and costly. There is some indication that Botswana is now interested in the development of an overarching NQF to link the vocational framework with the rest of the education system.

Sri Lanka

Sri Lanka is an island 65,610 km^2 in size, in the Indian Ocean about 31 kms off the southern coast of India. It has a population of around 20 million, with GNI PPP per capita of USD 4,460, and a Gini coefficient of 41.1. It is ranked 102 on the HDI.

Sri Lanka established an NQF for technical vocational education and training, known as the National Vocational Qualifications Framework (NVQF), in 2005, through two Skills Development Projects supported by the Asian Development Bank, the first of which started in 2002. This followed initial proposals made in the 1990s, as part of attempts to deal with youth unemployment, a mismatch between education institutions and the labour market, and limited career development opportunities for youth. The NVQF is located in the Ministry of Vocational and Technical Training, in a statutory organization called the Tertiary Vocational Education Commission.

Sri Lanka previously had a National Skills Standards and Trade Testing system, which was largely focused on the construction sector and was limited to four grades, the highest of which was the tradesmen category. This system was created based on the English NVQs, through a World Bank project but with British Council assistance. Technical vocational education and training was delivered through different providers based under 11 different ministries. Curriculum design, training processes, and assessment varied from institution to institution. It is believed that this is in part what has caused training not to meet industry needs, and which motivated the current reforms.

The new system is called the National Vocational Qualifications System. It attempts to bring coherence through a single set of standards and curricula, as well as a single set of agencies overseeing technical vocational education and training. There is a seven-level NVQF which so far has competency standards for 45 qualifications, based on 63 skill standards which were developed between 2006 and 2009. These have centrally-developed curricula which contain specified learning outcomes. Teacher and learner guides are also centrally-developed, and assessment procedures are specified. The majority of provision, 90 per cent, is through Vocational Training Centres under the Ministry of Vocational and Technical Training, and these Centres have been the focus of the implementation of the NVQF so far. Private and non-governmental organization sector vocational training centres have also been registered and accredited to provide NVQF courses within the NVQF.

The National Vocational Qualifications System includes specifications for testing and certification, through the Tertiary Vocational Education Commission and other associated government agencies for the registration of vocational training institutions, quality management and course accreditation systems, curriculum and trade testing instrument development facilities, and assessor training and registration. As part of the same broad reforms, a University of Vocational Technology has been established, and is currently being developed, although it has also started with its first intake of students. This is intended to ensure that there are pathways to higher education for students from technical vocational education and training, as they are unable to enter the conventional universities.

There is a strong emphasis on increasing the accountability of education and training providers to government, as the vast majority of them are government institutions. It is envisaged that the NVQF will play an important role in managing resource allocation to these institutions.

The NVQF builds on existing systems and practices in technical vocational education and training in Sri Lanka, but attempts are being made to make formal training more reflective of industry requirements, as well as standardizing formal training delivery, as these have been problem areas in the past. It is seen as a way of improving the quality of teaching and learning processes through the development of curricular materials (plus other capacity building inputs), and specified assessment procedures. It is hoped that it will provide a basis for the strengthening of accreditation mechanisms, ensuring greater accountability from providers, and improving rigour and relevance of assessment.

Turkey

Turkey is located in South Eastern Europe and South Western Asia. Its total surface is 783,562 km^2, with a population of 71.5 million, and GNI PPP per capita of USD 13,770. It is 79 on the HDI, and has a Gini coefficient of 43.2. Following a series of economic crises, unemployment is high, around 15 per cent.

The NQF in Turkey dates back to a technical vocational education and training reform process in the 1990s supported by the World Bank through which occupational standards intended to link both formal and non-formal training to the labour market were developed. This was coordinated by the *Turkish Employment Agency* (ISKUR), an organization under the Ministry of Labour and Social Security responsible for the provision of public employment services. Stakeholders (state, employers, and employees) were involved. Through the closure of the project in 2000, a draft law for the establishment of an Occupational Standards Institution was prepared. This was followed by an impasse, with debate about the location of the proposed institution. Finally in 2006 the Vocational Qualifications Authority was established under the same Ministry, with wide stakeholder representation.

An NQF primarily focused on vocational qualifications is now being developed through the development of occupational standards in different sectors. Eight levels with level descriptors have been adopted, based on the EQF. The long-term intention is to develop a comprehensive framework but the current focus is on vocational qualifications, with professional qualifications explicitly excluded. To date standards have mainly been developed at levels between two and five, and one qualification has been developed. The Vocational Qualifications Authority envisages that the full range of qualifications will start to be awarded in about five years' time.

Systems for testing, assessment, and certification as well as for the accreditation, authorization, and auditing of education and training institutions and testing and certification institutions are being designed. There is a strong focus on the creation of an accreditation system. Currently, educational institutions conduct assessment and issue certificates, with the approval of the Ministry of Education. The *Confederation of Turkish Tradesmen and Craftsmen* also currently plays an important role in assessment and certification, and awards certificates after the successful completion of examination conducted by its Chambers. This body has a wide network and plays an important role in the provision of practical training through its constituents (Occupational Federations, Tradesmen and Craftsmen Union of Chambers). Under the new system, it is envisaged that these functions will all be conducted separately, by institutions accredited for the specific purposes. An educational provider accredited to conduct assessment as well as to train would not be able to assess the students that it trained. Accreditation will be controlled by two institutions: the Vocational Qualifications Authority and the Turkish Accreditation Agency, which is an organization under the Prime Minister's office created in 2000. Accreditation by institutions with multilateral recognition agreements through the European Accreditation Association would also be valid. It is envisaged that assessment centres will be created. There are currently very few accredited institutions to conduct testing and certification activities.

The qualifications framework design is a voluntary one. Institutions will apply for accreditation for training, assessment, or certification of the qualifications developed on the framework on a voluntary basis. It is hoped that in the long run the NQF and national education and training system will be integrated and that both will award certificates for the same qualification(s).

Lithuania

Lithuania is a small country (65, 200km^2) with a population of about 3.36 million, in the northern part of Central and Eastern Europe. It was part of the Russian Empire from 1795 to 1918, independent until 1940, and incorporated into the Soviet Union from 1940 to 1990. It was restored as an independent state from 1990, but now has to deal with legacies of the former Soviet centralized economy, with highly centralized human resource planning, as well as the challenges of a rapid transition to market economy. GNI PPP per capita is USD 18, 210, and the Gini coefficient is 35.8, while ranked 46th on the HDI.

Lithuania's agrarian history, as well as the history of its incorporation into the Russian Empire and Soviet Union, are described as both having created conditions which led to weak and low status technical vocational education and training. The manner in which the transition to a market economy was handled further undermined trust in education and training institutions and eroded the value of qualifications in the workplace.

The NQF in Lithuania is in a preparatory stage. Design started in 2006 through a project of the European Social Fund, initiated by the Lithuanian Labour Market Training Authority. A team of experts was constituted to examine existing qualifications, develop conceptual documents, design standards, and prepare pilot versions of occupational

standards in the sectors of construction and hospitality. The process is described as a top-down, highly regulatory one.

In January 2008 a National Authority of Qualifications was established through amendments to legislation on technical vocational education and training. The intention was that it would be the central organization with responsibility for implementing the NQF. It was created as an independent agency, separate from the ministries, in order for it to oversee all aspects of qualifications at all sectors and levels. The initial focus was on vocational education. However, the government which came into power in 2008 abolished the National Authority of Qualifications in the same year, and transferred some of its functions to the Ministry of Education and Science. This was described as reducing bureaucratic arrangements and saving costs, and has centralized control over provision of education and training as well as quality assurance in the Ministry. The Ministry has delegated the implementation of the NQF to two subsidiary institutions, the Centre for the Methodology of Vocational Education and the Centre for the Evaluation of the Quality Studies of Higher Education. These are institutions that have played important roles with regard to curriculum design, coordinating assessment, awarding qualifications, and accrediting providers.

One of Lithuania's historical legacies is an absence of civil society institutions, with weak trade unions, weak networks of employers, and little trust in public institutions. An NQF is seen to be a mechanism which can build trust in institutions and social partners. At the same time, participation and partnerships are seen to be necessary in order to make the NQF work.

The Bologna Process is playing an important role in structuring of degrees and other qualifications in higher education. The three highest levels of the framework very closely correspond to the Bologna framework (bachelor, master, doctor) and are designed exclusively for higher education qualifications. The designing of the NQF in Lithuania has also been strongly influenced by the process of implementing the EQF and the general processes of integrating into the European Union (Lithuania became a member in 2004).

A decree to introduce the NQF has been prepared. It has been accepted by the Ministry of Education and Science and is currently with the Ministry of Social Security and Labour. It is hoped that it will be passed in 2010. The proposed framework has eight levels, with additional sub-levels at level 6. There is some concern that even if a comprehensive NQF is created, in practice it will split into vocational and higher sub-frameworks, with little communication between them. It is unclear how the development of the NQF will proceed after the decree has been issued. The next step is the design of occupational standards. However, the detail is unclear, largely because of two other ambitious and strategic projects that are in the pipeline: the implementation of a national modular vocational education and training system and the introduction of the European Credit Transfer System in higher education.

Tunisia

Tunisia occupies 163,610 km² in North Africa. It has an estimated population of just over 10.3 million, and GNI PPP per capita of USD 7,070. It is ranked 98 in the HDI and has a Gini coefficient of 40.8. Tunisia is an export- and tourism-oriented country, in the process of liberalizing its economy. It has had economic growth as well as relatively high levels of unemployment.

The NQF in Tunisia is a recent initiative of the Ministry of Education and Training, as part of attempts starting in 2007 to create what is described as a knowledge economy and a culture of lifelong learning. A major objective was to replace the existing occupational classifications. The focus is on higher education and vocational training. A framework of

seven levels has been proposed, but this may change to an eight-level framework based on the EQF, as aligning with Europe is a key concern in several employers' organizations in Tunisia. The new framework is designed as a classification of qualifications, based on previous classifications of employment, and it is envisaged that the new framework will have a regulatory role in the labour market.

The process of developing the NQF has been supported by the European Training Foundation (ETF) through a regional project involving several other Mediterranean countries, and has built on other reform processes, particularly competency-based approaches to curriculum reform supported by the World Bank, the EU, and French, Canadian, and German aid. A national working group consisting of key ministries, key industry role players, and trade unions, was created to oversee processes. A smaller team based in the Ministry of Education and Training, and supported by technical assistance from the ETF, started on initial work. In 2007 and 2008 there was a focus on design and conceptualization, starting with clarifying terminology, identifying levels of activity corresponding to the realities of the workplace, identifying qualification descriptors for each level of employment independently of the existing system of qualifications, and planning for the recognition of non-formal learning and developing standards. This was followed by periods of consultation and discussion with a broader representative group including other ministries. This process is described as difficult: stakeholders did not always feel equipped, in some instances unions saw the proposed NQF as threatening existing collective bargaining agreements, and participation from other ministries was not always consistent.

A law on vocational education and training passed in 2008 introduced the NQF. A decree was passed in 2009 introducing the NQF design, but the structures which will implement it are still under design and construction. The framework has seven levels, but may be changed to eight. The NQF is referred to as a **Classification** of Qualifications, rather than a **Framework**, as the focus is on rationalizing and improving the existing occupational classifications through level descriptors and learning outcomes.

A high-level stakeholder-based commission under the Council for Human Resource Development will be created, and charged with the governance of the NQF. There is currently debate about the main roles of this structure as well as its composition. The intention is to obtain international expertise to do further planning. In the higher education sector it is envisaged that a national authority for evaluation, quality assurance, and accreditation will be created in 2010 under the auspices of the Ministry of Higher Education. This would build on recent reforms in higher education which introduced a quality assurance system.

The NQF is located as part of a broader set of public sector reforms focusing on improving efficiency and effectiveness, with an emphasis on results-based budgeting and the decentralization of education and training. In the technical vocational education and training sector, this is reflected in pilots that have been established in 15 sectors. They are driven by centres established in each sector, which each have autonomy, a detailed plan of action, and a focus on partnerships with sectoral federations. They are working with French counterparts for expertise and support.

It is hoped that the new framework will have qualification descriptors that will increase transparency, thereby improving information flows in the labour market. There is also emphasis on improving the quality of education and training institutions. There is considerable donor funding and support involved. There is a strong emphasis on consultation and social dialogue, although at the same time there is an emphasis on moving the processes as fast as possible.

Bangladesh

Bangladesh occupies 144,000 km^2 in South Asia. It has a large population of slightly under 150 million, making it the most densely populated country on earth. GNI PPP per capita is USD 1,440, the Gini coefficient is 31 and it is ranked 146 in the HDI. It has a large informal economy. Illiteracy levels are high. It has a very high proportion of the population working as migrant workers in other countries, making it very dependent on remittances back to Bangladesh. It is believed that the value of remittances could be dramatically increased by increasing the skills levels and qualifications of workers.

A national technical and vocational qualifications framework (NTVQF) is currently under design in Bangladesh, having been initiated in 2008. This is part of a broader programme aimed at strengthening technical vocational education and training, with an emphasis on the introduction of competency-based training. (The ILO is implementing this programme with the Ministry of Education and in coordination with the Ministry of Labour and the Ministry of Overseas Workers, and in partnership with the European Union.) This project is aligned to the national strategy for poverty reduction and is complemented by other donor-supported projects. The initiative follows donor-funded studies and reviews which took place between 2000 and 2007.

Bangladesh has a large and complex technical vocational education and training sector, with many government ministries, private, and non-governmental institutions involved. Various agencies, including different government organizations, currently conduct short-term training courses for 'exporting manpower'. There are few industry-managed training establishments. It is hoped that a single framework for technical vocational education and training will bring coherence to this sector.

Prior reforms have included the formation of a National Council for Skills Development and Training in 1979 and the introduction of National Skills Standards in 1985 under the aegis of this Council. This was intended to ensure industry leadership of the technical vocational education and training sector, but was unsuccessful in part due to the lack of strong mechanisms for industry input. Five qualifications were developed, of which the lowest has been the most offered, followed by those on the two levels above. Although attempts were made through curriculum development processes to consider workplace needs, it was felt that these qualifications had no direct relationship with workplaces, or acceptance in workplaces, or relationship with levels of the workforce.

A draft new framework has been proposed, through the technical assistance of the donor-funded project. The proposed framework for technical and vocational education consists of six levels, with an additional two pre-vocational levels, making it effectively an eight-level framework. There is a loose correspondence between these levels and existing qualifications. New qualifications are under development, with the aim for the framework to be the basis for the development of qualifications and competency standards. The framework includes post-secondary qualifications, up to diploma level. The intention is for the new qualifications to be offered in formal education and training, as well as workplace training, in both the formal and informal economy, and all training provided by public and private organizations, whether officially recognized or not.

New institutions have been proposed, in particular, a National Skills Development Council, to replace the National Council for Skills Development and Training. It is hoped that the new Council will have a higher profile than its predecessor, as it has greater representation from relevant ministries and other stakeholder groups, to ensure that it is more effective. This body will oversee and monitor all skill development initiatives in the country, including the NTVQF, although direct responsibility for the new framework will rest with the Bangladesh Technical Education Board (BTEB). Existing institutions will have their roles changed, including the BTEB, which currently has a broad range of functions, including conducting assessment and awarding certificates for the institutions

that are affiliated to it, which are the main formal providers of technical vocational education and training. A key new role will be the management of processes to develop industry-related competency-standards. Standards development is currently taking place through technical assistance of the ILO project. It is also envisaged that the BTEB will revise its curriculum development processes to link with the emerging network of industry skills councils. It will also acquire additional personnel for its expanded responsibilities, including the establishment of a regional presence through a network of new regional government offices.

There is extensive involvement of government agencies, and less involvement from industry at this point, but attempts are currently being made to involve industries in the processes of defining skills levels and generating competency statements. Processes have been established to involve a range of stakeholders.

Russia

Russia is by far the largest country on earth—17,075,200 km^2, with a population of about 142 million. GNI PPP per capita is USD 15,630, while the Gini coefficient is 37.5. Russia is ranked 71 on the HDI. It has the legacy of a centrally-planned economy.

The Russian NQF is currently under development. The framework has nine proposed levels, based on the eight levels of the EQF plus a level for postdoctoral qualification. The first three levels are supposed to be obtained through training or education, and the hope is that qualifications up to the highest levels can also be obtained through both routes. So far standards are being developed for initial and secondary technical vocational education and training.

The ETF initiated a technical vocational education and training policy reform project in 2005, which included the possible implications of an NQF. A sectoral qualifications framework established in the catering sector had positive evaluations, and led to the creation of the employer-led *National Agency for the Development of Qualifications*, created by the Russian *Union of Industrialists and Entrepreneurs*. An NQF was conceptualized with a broad range of bodies involved, including both the state and private sector. A recommendation document has been produced but has not yet been officially approved. It uses the EQF levels, with the further ninth level for an additional type of doctorate as mentioned above. It is intended to establish a transparent system of descriptors of qualification levels. The intention is to involve employers in the process of developing educational standards and programmes as well as assessment. This is seen as part of ensuring appropriate curricula, but also shifting to a regulatory mode which focuses on outputs instead of inputs. Current proposals include the establishment of 500 new certification centres and institutions to support lifelong learning.

Russia currently has a *Unified System of Occupational Classifications and Information Coding*. This is intended to coordinate three other classification systems: the *Russian Classification of Workers' and Employees' Occupations and Wage Grades*, the *Russian Classification of Occupations*, and the *Single Qualifications Reference Book*. This system falls under the jurisdiction of the Ministry of Health and Social Development. At the same time, there is a Russian Classification of Professions, which deals with educational qualifications. This is the jurisdiction of the Ministry of Education and Science.

One of the aims of the NQF process is to try to bring these sets of documents and issues together, but this has proved difficult and complex so far. For example, bachelor and master have been introduced to the educational classification, but they are not reflected in the classification of labour qualifications. In addition, the documents are in use currently, and are in fact constantly under development, despite the many criticisms which are made about them, and the view that they are outdated and inappropriate. It is hoped that the

creation of an NQF, with a set of level descriptors, will enable the rationalization of these various classification systems, and make the relationships between them clear. At the same time, Russia is trying to fit in with European developments, particularly the Bologna Process.

There are currently various processes leading to the development of an NQF. These processes are not coordinated with each other. There is the process of creating educational and occupational standards, correlated with international standards, driven by the Federal Institute of the Development of Education working with the Russian Union of Industrialists and Entrepreneurs. At the same time, a *Unified System of Classification of Occupational Qualifications* which conforms with sectors of the economy is being developed by the Centre of Development of Occupational Qualifications of the Higher School for Economics. Thirdly, the Institute of Labour and Social Insurance is working with the Ministry of Health and Social Development to develop new elements in the system of occupational qualifications, among which are occupational standards. These processes may be at odds with each other, and an ongoing problem is lack of working relations between the Ministry of Education and Science, and the Ministry of Health and Social Development. The case study describes an impression that the NQF is seen by some stakeholders as imposed or imported from elsewhere.

Chapter 5: Why do countries introduce NQFs?

Despite the considerable differences which can be seen from the summaries above, the 16 countries in the study had similar official reasons for introducing qualifications frameworks, and these are very much in line with the literature discussed in Chapter 3. On paper, official aims of qualifications frameworks are similar, in some cases identical, although with differences of emphasis. What follows is a discussion of the various problems policy makers and stakeholders in the 16 countries hope to solve through the introduction of qualifications frameworks, as well as the more specific goals they have for their frameworks. In all countries in this study, what is referred to as technical vocational education and training, or vocational education and training, or workplace-based training and skills development, was a particular concern.[10] In some instances frameworks are only focused on these sectors, and in others they include (and are driven by) other sectors, but technical vocational education and training and workplace-based learning are still a key focus area.

5.1 Improving the communication of qualification systems

The most general goal of the introduction of a qualifications framework is the creation of a nationally accepted single framework of qualifications, which makes qualifications in the country (or educational sub-sector) easier to understand. This could include improving the communication of existing qualifications as well as reducing its complexity: in other words, trying to avoid duplication and overlap of qualifications while making sure all learning needs are covered. This objective of NQFs is sometimes described as increasing or improving the *transparency* of qualifications systems. However, as the notion of 'transparency' is also used to describe specific goals with regards to individual *qualifications*, the term 'communication' is preferred here.

Most countries have some kind of official grid of qualifications, but many of the countries in the study have come to qualifications frameworks through a view that they are plagued by a 'bewildering proliferation of qualification titles', a 'jungle of qualifications', or poor public understanding of qualifications. They want it to be clearer how different qualifications relate to each other. This issue emerged in nearly all the case studies, with a particularly strong emphasis in Bangladesh, Botswana, Malaysia, Mauritius, the English NVQs, Russia, and Sri Lanka. (It is notable how different these countries are, for example just in terms of population size, and hence the number of institutions offering education and training programmes).

This aim can be seen as a part of improving the communication of national qualifications systems. In Botswana and Mauritius, the role of private and overseas providers is emphasized as causing problems. In Botswana, the problems are described as lack of coordination at national level which causes misunderstandings about qualifications; duplication amongst providers; and lack of clarity of relative value of different qualifications, especially foreign awarded. In Mauritius the problem was primarily seen as one affecting higher education, although the 'jungle of qualifications' was seen as contributing to the low status of technical vocational education and training qualifications.

[10] This does not mean that qualifications frameworks necessarily include a technical vocational education and training focus, as the literature shows many which are higher education focused.

The lack of clear certification pathways was seen as contributing to lack of clarity about the relative value of different qualifications. There was confusion about qualification nomenclature: for example, it was not clear exactly what 'diploma' meant, and what the relationship was between a Higher Diploma and an Advanced Diploma, as these titles were designated by each individual institution, and in some instances based on norms from other countries.

In Sri Lanka, it was argued that the technical vocational education and training sector was historically fragmented, with around 300-odd vocational training centres operating in the country under the management of 11 ministries providing courses of differing quality, using differing levels of training equipment and facilities, differing training approaches, and attempting to meet the different needs of urban and rural youth. The creation of a single national framework was seen as the first step in creating a nationally-managed system, and thus creating a point of convergence, and increasing efficiency. In Australia as well, the vocational education and training sub-framework of the Australian Qualifications Framework was seen as important in creating national coherence.

In some countries (Australia, Malaysia, Mauritius, New Zealand, Russia, South Africa, and Tunisia) creating a single accepted national grid of qualifications is one of the explicit goals of the NQF. In others, the introduction of an NQF is part of an attempt to regulate the use of nomenclature for qualifications, such as regulating what a term like 'diploma' is allowed to mean within the country, and whether or not it can be used in relation to qualifications at different levels. In Malaysia the specific focus was on the creation of a single structure for all higher education qualifications issued by public and private universities and colleges, because the rapid expansion of private provision had led to a multiplication of qualifications, and complex and contested accreditation procedures. Lithuania, Russia, and Tunisia have occupational frameworks which include qualifications, occupational levels, and various other aspects of related labour market regulation. Because these documents attempt to capture the various possible positions and levels in a wide range of sectors of the economy, they tend to be long and elaborate. Countries hope that an NQF will enable a simplification of such frameworks. In Botswana, Sri Lanka, and Tunisia, a single classificatory framework for all qualifications is seen as something that can play a coordinating role for other related reforms.

The idea of a national framework is frequently linked to separating qualifications from institutions. One reason for this type of separation is the desire for individuals to be able to obtain a qualification without having to attend a learning programme at a specific institution; another is to create 'national' qualifications whose value is the same regardless of the institution attended. The idea of separating qualifications from educational institutions was most strongly argued for in South Africa; the case study quotes a policy document which argued that the NQF would "remove the obsession with institutional learning as the measure of a person's worth, because national qualifications will be blind as to where the learning takes place" (Human Sciences Research Council 1995, p. 15).

5.2 Improving the transparency of individual qualifications through learning outcomes

Improving the 'transparency' of individual qualifications is something most countries in the study emphasize. The perceived problem is that current qualifications do not provide sufficient information to employers or to education and training institutions about what the bearer of a qualification knows and can do. The hope is that when each qualification has clearly specified outcomes associated with it, qualifications will be more transparent. This is in turn intended to achieve a range of objectives, discussed below.

5.3 Reducing the 'mismatch' between education and the labour market

In most of the cases in the study, mismatch between educational provision and labour market needs is seen as a major problem (Botswana, Chile, the English NVQs, Lithuania, Mexico, New Zealand, Russia, Sri Lanka, Tunisia, and Turkey). In New Zealand, it was felt that poor information about the skills and abilities of qualification holders contributed to credential inflation, particularly during periods of high unemployment. It was argued that this occurred because credentials tended to serve as simple selection devices rather than indicating exactly what skills potential recruits have obtained and because lack of useful information about the abilities of qualification holders reduced the level of trust employers had in educational qualifications; this in turn, it was argued, led to employers demanding credentials far beyond those that were necessary for particular jobs. In Lithuania, relationships between industry and vocational education and training institutions are described as conflictual, with both sides making accusations about each other.

A key aim of many of the qualifications frameworks is to improve employers' understandings of what qualifications mean. Chile and Mexico, in their development of Labour Competence Frameworks, hoped to create a 'meeting point' between education and training and the workforce. In Tunisia, similarly, it is hoped that the classification of qualifications based on learning outcomes will ensure that training institutions and labour market role players 'speak the same language'. Ensuring that employers trust qualifications, and know what it is that they are getting when they employ a person who holds a particular qualification, is an aim in many of the countries, and the issues are the same as those about transparency discussed above. In particular in higher education in Tunisia, it is felt that historically qualifications have had a rather indirect relationship with the labour market, and were seen as very broad stepping stones or levels of achievement. This is changing with the liberalization of the economy and increased levels of unemployment of higher education graduates (caused by dramatic expansion of higher education without changes in the labour market). Now policy makers believe there is a much stronger desire on the part of employers to know *exactly* what competences bearers of higher education qualifications have acquired. While historically qualifications have always provided this information to some extent (such as, that the bearer is qualified to be a nurse or plumber in a particular country), policy makers in most of the countries in the study hope to achieve far greater levels of specificity. This, it is believed, will assist employers in making employment decisions as well as in training and human resource planning. So, for example, in Chile and Lithuania policy makers hope that outcomes/competencies will support management in companies and institutions to aligning human resources processes and systems.

National qualifications frameworks are seen as a way of ensuring that employers are involved in qualifications design, thus ensuring that qualifications are of the right standard (this was arguably less of a focus in Scotland, and in South Africa the initial framework was designed to represent a broad range of stakeholder interests, and not only employers). In all the countries in the study there is an explicit argument that ensuring that industry representatives drive the process of specifying learning outcomes, competencies, or occupational standards through a qualifications framework will ensure that qualifications are relevant and of high quality. For example, government in England, Wales, and Northern Ireland hoped that because employers 'owned' the new vocational qualifications, they would take responsibility for using them to assess their employees, and would use them in recruitment and placement of employees. In Chile, it was hoped that by involving employers in setting labour competences, the abilities, attitudes, and knowledge required by people to be employed and contribute to the competitiveness of the companies would be identified. Policy makers in Turkey hope that the qualifications framework will promote the acquisition of certificates reflecting possession of knowledge and skills really needed in the labour market. In Mexico, in the second attempt to develop the Labour Competence Framework, very specific indicators have been set in this regard, including that students should need less time to find employment after graduation; that the type of employment

found by students after graduation should be more compatible with their education and training; that there should be less time spent between jobs and more time employed in each job; starting salaries for those assessed as competent should be higher than those without certificates; and employers should be happier with graduates from competence-based training programmes.

In nearly all the countries in the study, many previous attempts had been made to involve employers in education and training, including setting up sub-structures such as Sector Councils to involve industry in setting standards. In addition, many countries describe their technical vocational education and training systems *prior* to the introduction of a qualifications framework as competency-based or based on occupational skills standards. Chile is a striking example. The military government introduced a strong emphasis on individual choice and market models in all aspects of the education and training system. It completely decentralized vocational secondary schools, and expected them to work with local industries in order to develop appropriate competency-based curricula. After democratization, the basic thrust of these reforms remained intact, although there was more emphasis on the regulatory role of the state. The decentralization of vocational schools became seen as a problem—it had not achieved labour market linkages with local industries, but led to a highly diverse and fragmented system. The democratic government introduced a curriculum reform which was national, but also based on labour competencies. This was followed by a GTZ-supported project which again used labour competencies, developing occupational profiles through an analysis of labour market and workplace requirements, in consultation with industry, commerce, trade unions, employers, academic institutions, and public organizations. This was followed by the attempts at developing labour competence frameworks, and most recently, an NQF.

Bangladesh similarly has introduced competency-based curricula, and structures to ensure the involvement of industry in its technical vocational education and training system in prior reforms. In Tunisia the NQF is seen as building on existing competency-based training reforms, while in Sri Lanka, past reforms were seen as unsuccessful, and it is hoped that the NQF will now succeed where they have failed. The case study on Sri Lanka cites several decades of donor-assisted projects, including the Asian Development Bank, the World Bank, the United Nations Development Programme, the GTZ, and the Canadian International Development Agency. It is argued that these reforms introduced some improvements but failed to make technical vocational education and training or tertiary education more responsive to the labour market, or more efficient and effective, partly because they were reflective of the work and technological practices of the 1980s, and were predominantly construction sector-oriented while other emerging and important industrial sectors were not accommodated. It is believed that the introduction of the NVQF, with the specification of visible and comparable outcomes, will now ensure both labour market responsiveness and efficiency and effectiveness.

Nonetheless, nearly all case studies suggest that the lack of employer involvement is a key reason why qualifications do not meet employers' needs. Why the existing systems have failed to ensure industry input is not always clear, although nearly all the case studies cite lack of willingness of industry to participate. The case of Mexico is particularly stark, as the aims for the second version of the Labour Competence are very similar to the goals for the policy which is being replaced (although more specific). Countries seem to believe that the introduction of an NQF will enable them to succeed in involving industry, where in the past they have failed.

Policy makers interviewed in the various countries, and official documents analyzed, argued that curricula were irrelevant or outdated, not meeting learners' or employers' needs. In most countries the main emphasis was on the perception that educational provision did not meet the needs of the labour market. In Botswana a slightly different angle on this was presented, where it was felt that the curricula for different vocational courses did not meet the demands of the economy because some were developed outside

the country for altogether different needs—in other words, that international qualifications may not be relevant to local conditions.

It is difficult to understand the nature and extent of this problem, as research-based evidence for it was not cited by any of the individuals interviewed or accessed by the researchers. This is not to suggest that there are no problems: clearly there are. Many employer representatives interviewed in the case studies reiterated the view expressed by policy makers. What the case studies did not manage to uncover, however, is specific evidence of the specific problems. This is clearly a complex area, as employment patterns are affected by a range of factors. For example, in Lithuania, although all types of education and training are described as inadequate for the purposes of the labour market, from 2001 to 2007 there was a decrease in unemployment for all groups. For bearers of higher and post-secondary qualifications unemployment fell from 8.4 per cent to 2.1 per cent; for those with general upper secondary and vocational education from 19.7 per cent to 5.1 per cent; and for those with vocational lower secondary or primary education from 23.6 per cent to 7.3 per cent. Of course these figures say more about the general state of the labour market than the appropriateness or otherwise of education and training programmes. But they are included to indicate some of the complexities of this issue—as conditions in labour markets often seem to be stronger determinants of employment patterns than the nature of education and training programmes.[11]

In Malaysia industry representatives interviewed felt that many graduates from tertiary education lacked relevant skills, and that the quality of education and training is variable; however, private rates of return for tertiary level qualifications are strong, and staff from universities, colleges, and training sectors said their graduates are readily employed, although employment of humanities graduates is seen as lower, especially by industry. The reputation of providers, as well as linkages with industry at an institutional level, is said to be key in this process, and at higher levels, there is a strong preference for graduates from overseas universities. In addition, many stakeholders interviewed in Malaysia argued that demand for skills below a professional level is not strong, because of what they described as historical approaches of low wage, low skill industries, the presence of immigrants who are prepared to work in these conditions, and the weak regulatory framework for work conditions. In Mauritius employers interviewed prior to the introduction of the NQF were mainly happy with the skills levels of their workforces. In Tunisia, on the other hand, there has been a dramatic increase in enrolments in higher education, with no concomitant increase in job possibilities, and consequently, a dramatic increase in graduate unemployment.

5.4 Credit accumulation and transfer

Improving the transparency of qualifications is hoped to improve possibilities for credit accumulation and transfer. Many of the countries were concerned about the lack of comparability of qualifications from different educational institutions, and NQFs are hoped to be the basis for developing systems of credit accumulation and transfer. For example, in Bangladesh, Botswana, Lithuania, South Africa, and Turkey, policy makers were concerned that qualifications from different providers are differently valued. In Malaysia this was an issue across private and public higher education institutions. Increasing the transparency of qualifications is hoped to improve progression pathways within education and training—across different institutions and geographical areas, and across different sectors of the

[11] See de Moura Castro (2000) and Wolf (2002) for discussion of this problem.

education and training system. This point is mentioned in all case studies, and the term 'seamlessness' is popular in describing the aims of qualifications frameworks.

In the countries where vocational frameworks are being introduced, the focus is obviously not on pathways with the rest of the education system, but only between education and training institutions within technical vocational education and training, as well as, in some instances, between workplace-based training and formal technical vocational education and training provision. In some countries, transfer between school and technical vocational education and training is seen as a focus (Bangladesh and South Africa), while in many others movement between vocational education and higher education (or technical higher education) is the priority (Chile, Lithuania, Scotland, and Sri Lanka). In Chile, Lithuania, and Malaysia, an issue of major concern is the transition between workplace-based training and technical vocational education and training. In Malaysia, for example, the qualifications framework has three separate sectors: for higher education, for vocational and technical education, and for skills. Although they are all placed on a single national framework, there is currently very poor articulation between skills and the rest of the education and training system. The case study suggests that this is partly because the skills qualifications are very low level. It is also suggested that because they are based only on skills standards, they lack theoretical or knowledge basis. A difficulty here is that the qualifications are subject to two sets of demands. On the one hand, they are designed to meet industry needs, and industry seems to be relatively happy with them. On the other hand, they should have relationships with other qualifications, but this does not work well, because of the low levels of qualifications and the lack of theoretical knowledge. This issue is also a serious concern in Lithuania although the language used there is continuing training versus vocational education. In Lithuania there are also problems in the relationships between university and non-university higher education institutions. In many of the countries studied, it is believed that there are unnecessary obstacles for people who want to move from technical vocational education and training to higher education. In many countries creating progression pathways from technical vocational education and training to higher education is seen as a way of increasing the status of the former. In Tunisia aligning secondary education with technical vocational education and training is seen to be a key challenge.

5.5 Recognition of prior learning

One of the major aims for all countries is the recognition of competencies, knowledge, skills, and abilities that have been acquired outside formal education and training systems. Countries hope that qualifications frameworks will provide a basis for recognizing a wide range of learning achievements, whether in education and training or informally at work or in the community. Different countries use different terms, with perhaps the most widely used being recognition of prior learning. All countries see the lack of such recognition as a problem. It is seen as creating inefficiencies in education and training (through forcing learners to complete courses unnecessarily) and creating inefficiencies in the labour market (because employers do not know what skills potential employees have). This is described as leading to serious wastages of skills within economies, as well as exacerbation of inequality.

In some countries the emphasis is on the creation of new systems and mechanisms to recognize competencies (Chile, Mexico, and Turkey) whereas in others, there is more focus on trying to ensure that the systems which are used to recognize competencies on the basis of formal education and training are the *same* as those used to recognize competencies acquired in the workplace or in the course of life (New Zealand, South Africa, and Turkey). However, in Turkey there is the hope that the new system will extend to the formal education and training system. In Malaysia the emphasis is mainly on recognition for access to education, while in Chile, Mexico, and Turkey the emphasis is on recognition of competencies for labour market entry and movement within the labour market. In Turkey in

particular there is an argument that assessment systems need to be created and funded by government, for the benefit of industry. In Lithuania, a key issue is a perceived lack of motivation for adults to learn in the workplace and informally. It is assumed that this is because such learning is not certified, and it is hoped that certifying non-formal learning will encourage people to learn at work.

5.6 Access

It is hoped that increasing the transparency of qualifications, thereby enabling the recognition of prior learning and creating credit transfer and accumulation mechanisms, will make it easier for learners to enter or re-enter education and training. It is in this regard that qualifications frameworks are seen as a key vehicle for increasing access (Australia, Bangladesh, Botswana, New Zealand, Scotland, and South Africa), firstly through recognizing skills and knowledge acquired in the workplace and outside of education and training, and secondly through removing what are seen as unnecessary legal or regulatory blockages between existing types of provision. This is seen as necessary to encourage or enable lifelong learning. Related to access, in Lithuania the NQF is seen as a vehicle to motivate individuals to study.

5.7 Quality assurance systems and new regulatory, assessment, and certification mechanisms

In most of the case studies, NQFs were seen as integral to quality assurance systems. A key hope here is that a qualifications framework can be a point of reference external to education and training institutions that provides the basis for quality assurance, for both self assessment by individual institutions and evaluation by external agencies. This, it is hoped, will lead to user confidence in the system, and, where appropriate, provide the basis for government funding. For example, in Lithuania a qualifications framework is seen as necessary to ensure a systematic approach in designing, providing, and awarding qualifications, which in turn are seen as necessary for effective quality assurance. In most countries, the link between qualifications frameworks and quality assurance is assumed to be through regulatory bodies, which will check up on provision against specified standards. This is then linked to changing assessment, certification, and other regulatory mechanisms and systems.

In some countries (notably Chile and Malaysia) qualifications frameworks (the Labour Competence Framework in the former country) have been introduced as a regulatory response to highly marketized systems. In other cases, notably in Australia, England, Wales, and Northern Ireland, New Zealand, and indirectly in South Africa, qualifications frameworks are seen as part of creating markets in the delivery of education and training. This seems to be an emphasis in the emerging frameworks in Russia, Sri Lanka, and Turkey as well. In Turkey it is emphasized that compelling providers to compete against each other will increase efficiency and quality.

In many countries, there are attempts to use the specification of standards to develop what are seen as more flexible assessment systems. In New Zealand and South Africa strong arguments were made against the use of examinations. Outcomes-based qualifications were seen as a mechanism to enable assessment to be site- and workplace-based, as it was believed that they would ensure that all assessors would assess to the same standard. In Sri Lanka, an emphasis on decentralized assessment is intended to ensure greater flexibility and convenience for applicants. In Turkey there is a very strong notion that the qualifications framework will enable the separation of assessment and provision. Here, the proposal is for the development of an accreditation system for institutions which conduct assessment. It seems paradoxical, though, given the arguments for increasing the role of industry in general, that both Turkey and Lithuania seem to be moving *away* from a

centralized assessment model whereby the Chamber of Industry and Commerce plays a major role in the assessment system.

Linked to reforming how education and training are delivered and regulated are attempts to change governance systems. Consider, for example, the governance of education and training in Malaysia. Schools are under the Ministry of Education. Polytechnics and colleges are publicly owned and administered, under the Ministry for Higher Education. Higher education has public universities as well as a large number of private universities and colleges, including branches of overseas universities, and a number of internationally sponsored institutes, also under the Ministry for Higher Education, but through a different division. The Skills system is under the Ministry of Human Resource Development. Respondents in the case study stated that there were considerable overlapping responsibilities of different ministries and agencies for qualifications, and little coordination amongst them. The NQF was introduced primarily to attempt to change these relationships.

Some of the countries also seem to want to change certification systems. This issue is most clearly addressed in the proposed system in Turkey, where institutions will have to apply for accreditation in order to issue certificates. Interestingly, the countries in the study start from very different points with regard to certification, ranging from very centralized systems, such as in Mexico where all certificates are processed through the Ministry of Education, to very decentralized ones, such as in Botswana, where all certificates are issued by individual educational institutions. Certification is the one issue which is least directly addressed in official statements of NQF aims. This is interesting because it is clearly an issue that policy makers want to tackle, and in most instances, they want to de-link qualifications and assessment from providing institutions, which implies the need for new certification mechanisms.

5.8 Reforming delivery of education and training

The changes to assessment, certification, and regulatory mechanisms which are associated with NQFs are seen in many of the countries in the study as part of reforming how education and training are delivered. Increasing the flexibility of education and training, and shifting to what is described as ‘demand-led’ systems are key desires here.

In many of the countries, policy makers suggested that centrally-specified curricula, centralized state delivery mechanisms, and institution-linked qualifications all prevent education and training from meeting the needs of the economy. In relation to the management and delivery of education and training, policy makers argued that educational institutions are rigid and inflexible, with rigid and unreasonable entrance requirements, and inflexibility in terms of how courses are offered. Inflexibility may refer to access criteria (Bangladesh, Botswana) or lack of responsiveness to short-term needs of industry (Mexico, Russia, Turkey) or it may refer to the approaches delivery of education and training which make it difficult for working people to attend (Lithuania). Many of the countries feel that the traditional notion of qualifications linked to specific institutions, specific learning programmes, and specific durations of study, limit flexibility. Thus, ‘time serving’ is quoted as a problem to be solved by qualifications frameworks in most of the studies. Related to this is a desire in many countries to shift to what is described as ‘learner-centered’ pedagogy, which countries also believe can be achieved through the introduction of qualifications frameworks, perhaps through outcomes or competency statements. This is seen as linked, in certain countries, to centralized delivery systems, and decentralization is seen as a solution. In addition, governments that run centralized training systems seem to feel that they do not have sufficient control over what actually happens in training centres. This paradox is seen as one which can be solved through a framework of outcomes or competency-based qualifications, because, it is believed that this will offer a mechanism for

decentralizing provision, increasing competition, *and* ensuring accountability of providers for funds that are given to them (by governments, industry, or individual students).

According to the case study on Turkey, policy makers, specifically in the Vocational Qualifications Authority, believe that industry does not always need students to complete full technical vocational education and training programmes. Often, it is argued, industry is in urgent need of qualified people and cannot wait for them to complete their formal education and training; it is claimed that in many cases the needed qualifications can be acquired through short-term courses. This time (and quality) gap between the world of work requirements and the education and training system is therefore an important area in which it is hoped the NQF can shape change. This issue can be seen in Australia, Botswana, New Zealand, and South Africa, where NQFs were designed to enable learners to gain credit for parts of qualifications (referred to as 'skills sets' in Australia and 'unit standards' in the other three countries).

5.9 Improving parity of esteem for TVET and skills qualifications

In all countries in the study, to differing degrees, it was seen as a problem that technical vocational education and training (TVET), workplace-based or skills qualifications tend to have a lower status than school and university qualifications. In all countries, the hope was that a clearer understanding of what the bearer of a qualification is competent to do (the transparency aim discussed above) will raise the status of qualifications, particularly of vocational and skills-based qualifications. This is in most cases based on a notion (sometimes implicit) that the public perceptions about qualifications are irrational, and due to prejudice, and therefore, can be changed through greater transparency. The low status of TVET is a concern in nearly all the countries, where it is seen as a fall-back option for learners for whom all other routes have been exhausted. In Lithuania, it is argued that workplace-based training is even more stigmatized than formal TVET. Countries hope to 'attract' students to TVET (Bangladesh, the English NVQs, Lithuania, Scotland, and South Africa) by placing vocational qualifications on a framework, thus demonstrating their equivalence to other, more desired qualifications. In Malaysia stakeholders hope that the NQF can create parity of esteem between academic and vocational qualifications and make the skills sector a viable alternative route to higher education. Similarly, in Lithuania, it is hoped that the NQF will raise the status of TVET, by showing that the knowledge and skills are on equal terms with academic education. This, in turn, it is hoped, will help to get more motivated and skillful young people to choose TVET.

5.10 Increasing private sector financial contribution, especially for TVET and skills training

Many of the case studies (with emphases in Bangladesh, Botswana, Chile, Lithuania, and South Africa) cited systemic and protracted lack of funding for TVET as a key problem. Some of the countries (Bangladesh, New Zealand, and Russia) explicitly hope that the introduction of a qualifications framework will encourage industry to invest in education and training, thus reducing expectations of government. The idea seems to be that because the system involves industry, industry will be more interested in investing. In New Zealand there was also considerable focus on increasing individual user fees, and this seems to be the case in the emerging framework in Russia as well.

5.11 International recognition and labour mobility

A major reason for introducing qualifications frameworks is countries' attempts to relate to international systems, and to participate within what are described as globalized labour markets (although of course the latter notion is highly contested from various perspectives in the literature of political economy and economics). This becomes a self-perpetuating policy cycle: as more countries have developed frameworks, and as regional frameworks such as the EQF have come into existence, policy makers seem to feel under increasing pressure to have a framework in order for their national qualifications to fit in internationally. Even the 'early starters' had a strong sense that a qualifications framework will make it easier to indicate its equivalence to international qualifications where this was required. This was a particularly strong feature of the rationale for the NQF in Mauritius, where there are large numbers of people that migrate, particularly to Australia, Canada, and Europe, and according to the case study, reportedly large numbers of people that migrate to Mauritius. However, it is also a strong rationale in Bangladesh, with its large number of migrant workers sending remittances home. Remittances are also a concern in Sri Lanka and Tunisia. In Botswana it is believed by policy makers that Zimbabwean workers in the construction industry are hired instead of Botswana workers because their qualifications are seen as better (although the case study also acknowledges that they are prepared to work for lower wages). All European countries in the study are attempting to fit their qualifications to the EQF, and a national framework is seen as a key step in this process. Many non-European countries are also hoping to align their systems with the EQF; Chile and Tunisia stand out here. A less explicitly mentioned issue, but one which nonetheless appears in some of the studies, particularly Australia, Malaysia, and New Zealand, is the desire to earn foreign currency by attracting foreign students (who in most countries pay much higher fees than local students). International benchmarking is seen as an important part of this process.

The notion of a nationally accepted framework is in many cases linked to other aims discussed below, such as improving transparency, the creation of a set of national standards (as in Bangladesh, Botswana, Lithuania, Russia, South Africa, Sri Lanka, Tunisia, and Turkey), or standardizing the use of academic load or credits in defining qualifications (as in Malaysia). In the attempt to resolve these and other issues, qualifications frameworks may become part of the regulatory frameworks that increasingly control movements of individuals.

5.12 Broader goals

The literature on NQFs generally suggests that countries hope that by achieving the above objectives, NQFs will improve social cohesion and assist people who have been marginalized to obtain qualifications or gain access to educational programmes, as well as promoting access, and motivating learners to get more skills by certification, thereby raising education and training levels and strengthening international competitiveness, and enhancing lifelong learning. These broader goals were mentioned in many of the countries in the current study. Perhaps the strongest example here is South Africa, which had very ambitious hopes for its qualifications framework, regarding it as a key transformative instrument to enable dramatic change in education and training as well as in the labour market and the economy and society more broadly.

Many of the countries come to qualifications frameworks through an analysis of skills shortages. This is linked to the notion of relevance discussed above: the idea is that education and training systems are not producing the appropriate levels of skill in the workforce. So, for example, in Malaysia industry representatives argued that most workforce entrants are people who either have no post-school qualifications, or have basic level skills qualifications. Similarly in Chile a high proportion of the adult labour force has few years of schooling and no qualifications. An explicit goal of the *Chile Qualifies*

Programme, which included the further development of the fledgling Labour Competence Framework, was developing 'human capital'. Most of the countries in the study hope that a qualifications framework can play a role in raising skills levels in their countries.

In most of the countries, TVET reform is seen as key to social and economic reform. Youth unemployment is a particular focus. Increasing the relevance of TVET to industry as discussed in the previous section is obviously a key issue here. Reforming TVET is linked with problems in school systems. For example in Mauritius, low levels of throughput in schooling are seen as a major reason for improving TVET to provide an alternative progression pathway for young people. In many of the countries the poor quality of private provision was cited as a problem, and it was argued that private providers did not have the resources and long-term perspective required; in Chile this problem was described as particularly stark given the high levels of marketization of the education and training system.

Paradoxically, although NQFs are supposed to be policies which allow industry to lead TVET, in many instances governments are not happy with industries' approach to training, or the types of investments that are made, and hope that NQFs will assist them to shift existing practices within industries. They want to encourage employers to invest in education and training (thus reducing strains on public spending), but they also want to shape the nature of industry and employment in their country, which they believe they can do through shaping the type and level of skills acquired by the workforce or potential workforce. In Mauritius, Malaysia, and Tunisia there is a strong focus on building a 'knowledge economy', understood as the idea that economic value will increasingly come from knowledge-intensive work, and less from physical production. In Tunisia policy makers hope that an NQF can be part of a cycle of creating better jobs, and ensuring that individuals have higher levels of skills for these jobs. These countries hope that an NQF can facilitate this through improving the culture of training and raising standards of education and training. It is thus hoped that NQFs will increase the productivity and competitiveness of industry through a flexible and globally employable workforce. Some of the countries specifically target increasing their share of the global labour market through better-qualified workers (Bangladesh, Sri Lanka, and Tunisia). It is also hoped in the case of Sri Lanka that the NQF will enable greater alignment to national development goals.

Some countries explicitly mention the reduction of unemployment and poverty as goals for their NQFs (e.g. Botswana), while others have broad statements of socio-economic goals (e.g. South Africa). As already discussed, most countries link NQFs to increasing access, and hope that in this way the framework can contribute to greater social inclusion. In South Africa this was specifically linked to the redress of past discrimination. Policy makers in Bangladesh hope the framework can improve chances for upward economic and social mobility, and in Botswana it is hoped that the qualifications framework will reduce unemployment by equipping learners with relevant skills. In Mexico the original Labour Competence Framework, as well as the broader project through which it was introduced, hoped to influence employment and employability of people, the levels of productivity and competitiveness, and the rational use of the resources invested in human capital development. In South Africa one of the explicit goals of the NQF is to contribute to the full personal development of each learner and the social and economic development of the nation at large.

An ambitious general goal of NQFs, but also one that is mentioned explicitly by all countries in the current study, is the idea of promoting lifelong learning. For example, the Scottish Credit and Qualifications Framework aims "to help people of all ages and circumstances to access appropriate education and training over their lifetime to fulfil their personal, social and economic potential". In some cases (such as Botswana, Chile, and Tunisia) lifelong learning is simply specified as a general aim of the qualifications framework (possibly indicating a more rhetorical/symbolic approach to this issue). In others, lifelong learning is linked more specifically to the other aims of qualifications

frameworks. For example, in Russia and Malaysia, enabling learners to transfer from one site or sector of learning to another is seen as enabling lifelong learning. In other countries, is seen as the key to enabling lifelong learning, as it is believed that in this way learners will be able to access education and training more easily.

5.13 Differences in goals for NQFs

There are some important differences revealed in the case studies in terms of what countries aim to achieve through the introduction of an NQF.

The case studies in general do not make a clear distinction between the operational objectives and wider objectives. However, there are differences of emphasis in some of the countries. For example, the case study on the English NVQs suggests that a key driver for their introduction was an attempt by the government to achieve greater control over public expenditure by colleges and Awarding Bodies and to shift power over the provision of TVET towards employers, reducing power of trade unions over apprenticeships. In Botswana and Sri Lanka, a focus on provider accountability is very evident, where developing better mechanisms for controlling government expenditure in TVET institutions seems to be a driving goal of government. In Turkey, separating provision from assessment seems to be a key issue. Achieving modularization is a particular focus in Lithuania, as is attempting to develop social dialogue and strengthen the capacity and role of various stakeholders. A driving force in Malaysia has been to extend the existing higher education quality assurance model, which was implemented in the private sector, to the public sector.

Another way of understanding the difference in goals of the various countries is in terms of their relative ambition. There are significant distinctions in emphasis in terms of what is expected of qualifications frameworks, perhaps linked to different expectations about how much specificity can be provided through qualification documentation. Although the term ‘transparency’ is used in all the countries in the study, in some instances, the focus is more on the transparency of the qualification system as a whole—what has been described above as the communication function of qualifications systems. For example in Scotland, the emphasis seems to be on improving understandings of the various qualifications on offer. Mauritius talks similarly about qualifications being readily understood by the public, while Malaysia emphasizes improving public understanding of qualifications, establishing greater clarity of information about qualifications, and facilitating evaluation and comparison of qualifications. In other words, the development of a simplified framework of qualifications with a nationally agreed nomenclature is supposed to make it easier for employers (and others) to understand which qualification fits where, thus to some extent improving their understanding of graduates. These countries seem less ambitious with regard to what a qualifications framework can achieve in this regard.

In other countries, stronger claims are made, and there are greater expectations from qualifications frameworks with regard to making individual qualifications transparent. The Labour Competence Framework originally introduced in Mexico, for example, hoped to provide greater information to employers by providing individuals with qualifications certifying what they were competent to do, and to ensure transparency between educational and training institutions and the productive sectors of the economy. Similarly, in the original NQFs in New Zealand and South Africa, and in Bangladesh, Botswana, Sri Lanka, and Turkey strong claims are made about the role of learning outcomes in *ensuring* ‘transparency’. Similarly, the New Zealand Qualifications Authority proposed providing all learners with an individual record of their learning, which would show *clearly* what learners had achieved and could do. In Lithuania it is hoped that standards can ensure coordination between education and the labour market, thereby enhancing the transparency of qualifications (access to processes of designing, provision, and recognition) as well as information for individuals about the content of qualifications as well as pathways.

These differences can be understood in relation to some of the typologies of qualifications frameworks proposed by researchers in this area, mentioned in Chapter 3. For example, Raffe (2009c) distinguishes between **communications frameworks,** which takes the existing education and training system as a starting point, aiming to make it more transparent and easier to understand; a **reforming framework**, which takes the existing system as its starting point but aims to improve it in specific ways such as by enhancing quality, increasing consistency, filling gaps in provision or increasing accountability; and a **transformational framework,** which takes a proposed future system as its starting point and defines the outcomes-based qualifications it would like to see in such a system, without explicit reference to existing provision.

Another difference is that some countries tried to use NQFs to create a break with previous policies and systems (for example, New Zealand and South Africa) while others have focused on more incremental reform, with Scotland being the most quoted example in this regard. In some of the countries, NQFs are described as aiming to build on previous reforms which seem to be generally regarded as successful (for example, the previous competency-based training reform in Tunisia), whereas in many others, they are attempting to introduce a new reform because previous reforms are seen as unsuccessful (such as in Bangladesh and Sri Lanka).

A final difference worth pointing out is that some countries aim to develop frameworks for specific economic sectors which are identified as key to the economy, with the long-term aim of a national framework. Tunisia and Turkey are described as adopting this approach. Other countries aim for more comprehensive reform in the short-term—for example, New Zealand and South Africa.

5.14 International influences and the development of NQFs

Based on these case studies as well as the broader literature review, policy borrowing and international organizations seem to be at least in part playing a role in the international spread of this discourse. There are important differences between the very early starters, which developed their frameworks as a result of internal reforms, and the more recent frameworks, which are much more influenced by international models and pressure. The only two frameworks in which policy borrowing is not mentioned as an explicit factor in the countries' decision to adopt a framework as well as in its design, are the first qualifications frameworks, Scotland, and the English NVQs. These two frameworks have been particularly influential in other countries, with the Scottish framework offering encouragement about the possibilities of an NQF, and the English NVQs being used more directly as a model. Australia, Botswana, Chile, Mexico, South Africa, and Sri Lanka were explicitly influenced by the NVQs in England, in terms of the specific approach to designing competency-based qualifications. Most countries mention the Scottish framework as influential, and some have used its level descriptors as a basis for their own; in addition the Scottish Qualifications Authority has played an advisory role (for example in Chile and Mauritius).

As frameworks have emerged, they have also started to influence other countries. The New Zealand NQF has been influential in Botswana, South Africa, and Sri Lanka, and in some instances unit standards from New Zealand were adapted for local use. While the Australian NQF *per se* has not been particularly influential, the Australian competency-based training model has played a major role in the development of qualifications frameworks in many countries, including Bangladesh, Chile, Lithuania, South Africa, and Sri Lanka. The South African NQF has been influential in Botswana and Mauritius. Policy documents relating to the qualifications framework in Bangladesh suggest that its designers drew on models being developed in the Philippines, Sri Lanka, and Vanuatu.

Many of the newer qualifications frameworks explicitly describe influences from the EQF. In some cases, such as Bangladesh, Lithuania, Russia, and Turkey, level descriptors were based on or directly copied EQF levels. European countries are particularly influenced by the EQF, but the Bologna Process is also a driving force, more broadly than Europe, as it seems to be a key factor influencing current developments towards an NQF in Chile, and has played a major role in reform of higher education in Tunisia.

In both Lithuania and Russia some stakeholders, particularly in educational institutions, were quoted as seeing NQFs as 'yet another foreign reform', and something imposed on the country from the outside. Nonetheless, the experts involved in the design of the NQF in Lithuania insist that it was designed according to their needs, and not according to international models, nor responding to international drivers.

Although Malaysia explicitly considered models of NQFs in other countries (Australia, New Zealand, Scotland, England and Wales), it seems of all the countries in the study (other than the two initial cases) to be the least directly influenced by policy borrowing.

Donor and development agencies seem to play important roles. For example, according to the case study the idea of an NQF was not known in Bangladesh prior to its introduction through a donor-designed and ILO-implemented project. The role of the ETF is strongly mentioned as an influencing factor in Russia and Tunisia. The GTZ is a particularly interesting case, given that competency-based training is not a feature of German technical vocational education and training, but GTZ is described as supporting competency-based training reforms in Botswana, Chile, and Sri Lanka, and has been involved in developing the new framework for trades and occupational qualifications in South Africa. World Bank loans funded the development of the Labour Competence Framework in Mexico and an initial competency-based reform for the construction sector in Sri Lanka (in both cases drawing on the English NVQ model). The European Social Fund sponsored the development of the NQF in Lithuania. The Asian Development Bank Funding for proposed reforms in the technical vocational education and training sector incorporating the establishment of an NVQ framework is described as an important external impetus in Sri Lanka, and the report on Sri Lanka mentions that the Asian Development Bank has funded similar work in Laos, Thailand, Viet Nam, and other Asian countries. European Commission funds were the major source of the development and initial implementation of the South African NQF. The OECD is seen as particularly influential in Chile. Some of the countries cite the role of consultants from specific countries suggesting the use of their models; for example, an Australian consultancy proposed that the Australian model could work in Chile. The Tunisian case study describes the role of the European Union, World Bank, and French aid in the development of a competency-based vocational training system. Nearly all the developing or middle-income countries in the study (but most noticeably Bangladesh and Sri Lanka) have long lists of donor organizations which have played similar roles in supporting the reform of technical vocational education and training, with a particular focus on competency-based education. All of this is consistent with what was found in the broader literature on qualifications frameworks, discussed in Chapter 3, and considered again in Chapter 9.

Chapter 6: NQF design

What kinds of structures and institutions are created to establish NQFs? Are they new structures, or are existing organizations tasked with new responsibilities? What are the different models of NQFs and how do countries choose among them? What are the links between the goals listed for qualifications frameworks and the ways in which they are being designed? This research hoped to understand the impact of NQFs, but was faced with the fact that many frameworks were in the very early stages of development. In these cases, researchers were asked to get policy makers to explain *how* the NQF was going to achieve its objectives, as well as what kinds of indicators they would use for success, and what their systems for monitoring and evaluation would be. As shown in the country summaries in Chapter 4, countries appear to be doing rather different things under the name NQF or competence framework. However, Chapter 5, *Why do countries introduce NQFs?* suggests that the goals and aspirations across the countries are rather similar. How can this apparent contradiction be understood? The following section explores how frameworks have been designed in the different countries, looking at the institutional arrangements as well as the design of the actual frameworks.

6.1 Key NQF structures, institutions, and systems

In many of the countries NQFs are introduced with and through the creation of new institutions, although in some, existing institutions have developed NQFs, and in some, existing institutions are given new roles in order to implement NQFs. In some instances new institutions are built through old institutions, which means that they have existing institutional capacity, institutional memory, and hopefully, trust and credibility in the countries. The creation of new institutions is sometimes linked to attempts to shift control of qualifications away from educational institutions, but may also be linked to the fact that previous state institutions are not seen as successful, or simply that new functions are being introduced. Involving stakeholders and creating social dialogue is described as important in some of the studies, and new structures may be part of attempts to achieve these goals.

Qualifications Authorities

Many, but not all, of the countries created new Qualifications Authorities to design and/or implement and manage qualifications frameworks. They vary substantially in their extent in terms of operations, size, and capacity.

Malaysia, Mauritius, and Scotland have organizations called ‘qualifications authorities’ whose authority does not extend to the whole education and training system. The Scottish Qualifications Authority covers most education and training other than higher education. The qualifications authorities in Malaysia and Mauritius have a sectoral focus. In Malaysia, the Malaysian Qualifications Authority handles higher education as well as technical vocational education and training but not the skills qualifications. It is also responsible for quality assurance of higher education and technical vocational education and training. According to the case study, it is staffed primarily by people with higher education expertise and interests, and is focused on the higher education sector. Skills are under the Ministry of Human Resources Development, and formally governed by a National Vocational Training Council. This is a tripartite body with an industry representative as the chair, and it formally accredits all providers of skills qualifications. The qualifications are standards-based. For a skills qualification to be included in the overall register of qualifications attached to the Malaysian Qualifications Framework, it must be accredited through this system. In Mauritius, the Mauritian Qualifications Authority has some role with regard to the framework as a whole (mainly in relation to level descriptors), but its powers are basically in overseeing the development of outcomes-

based vocational qualifications, and accrediting technical vocational education and training providers. The Scottish Qualifications Authority is primarily a regulatory and awarding body. It is responsible for regulating school qualifications, the qualifications from mainstream college provision, and all Scottish Vocational Qualifications. It is responsible for overseeing qualifications, curriculum, and assessment in most secondary education and technical vocational education and training. This Authority is one of the partners in the development of the Scottish qualifications framework, and predated the framework. The framework itself does not have a large institutional bureaucracy; instead, it has a Quality Committee which is responsible for maintaining the Scottish Credit and Qualifications Framework guidelines, ensuring consistency in the process and criteria for admitting qualifications and learning to the framework, and aligning the SCQF with other national and international frameworks.

In Russia a Qualifications Authority was created, but it is not clear what its scope of authority is, or how it relates to other relevant authorities. In Botswana, a statutory authority was created, the Botswana Training Authority, through a Vocational Training Act in 1998. It was given the mandate to develop a framework and coordinate training. The Botswana Training Authority registers providers. Certification happens through training providers, and not the Botswana Training Authority.

In Turkey a Vocational Qualifications Authority has been created to oversee standards and qualifications development, testing and certification, and accreditation. This is envisaged to take place through a system of delegating work in these three areas to specific institutions and organizations. However, while the Qualifications Authority is primarily responsible for authorizing institutions to develop standards and qualifications, it is intended that the authorization of testing and assessment will be done *both* by the Qualifications Authority and another agency, the Turkish Accreditation Agency. This is discussed further on under accreditation arrangements. In Chile there is a new structure which is intended to include the Ministry of Labour, the Ministry of Economy, the Ministry of Education, the Workers' Central Union, and the employers' organizations.

In Tunisia the NQF governance is through a Council on Human Resource Development. The Ministry in charge of vocational training remains responsible for the standards of training, assessment, and certification. In Bangladesh, whilst there is no plan to introduce a new qualifications authority, the legislation of the Bangladesh Technical Education Board will be amended to explicitly refer to their role and responsibilities in relation to the NTVQF.

Sri Lanka is one of the few countries not to have created new structures, although the functions of existing organizations have changed. The existing Tertiary and Vocational Education Commission, the main statutory body in the technical vocational education and training system, with responsibility for registering institutions, has been given the role of managing the NVQF.

Structures to design competency standards or outcomes-based qualifications

In many of the countries, new structures have been created to develop competency standards or outcomes-based qualifications. Mainly this has been for technical vocational education and training qualifications, although in South Africa new stakeholder-based structures were created to design *all* qualifications. A key focus in all of these countries has been the attempt to get industry to lead these processes, as the point of this move is to create industry-specified standards which are not linked to specific educational institutions or curricula. Some countries have a greater emphasis on contractualization—government agencies or even a non-government agency (as in the case of Chile) contract organizations or institutions to develop standards. Other countries have a more centralized process where

qualifications authorities or government agencies set up representative structures or task teams for this process, although even here, in practice much of the work is contracted to consultants, and the stakeholders tend to play a ratifying role. Structures with names such as National Industry Advisory Councils (Sri Lanka), Industry Skills Councils (Bangladesh), or Industry Training Advisory Committees (Mauritius) have been established in most of the countries (in some instances, replacing similar structures which are seen to have not functioned well). In other countries (e.g. Botswana and South Africa) more temporary structures were created, envisaged not to have a life beyond the design and development of specific qualifications and unit standards.

South Africa created 12 National Standards Bodies—stakeholder-based bodies, which were given responsibility for overseeing qualifications and unit standards. Under each National Standards Body a large number of Standards Generating Bodies were created. The Standards Generating Bodies were comprised of representatives of experts and interest groups.

In Turkey one of the two key functional departments of the Vocational Qualification Authority is the *Department of Occupational Standards*. This department is responsible for deciding on methods for Occupational Standard development, and for monitoring of organizations accredited for developing occupational standards. The development of standards will be sub-contracted to institutions which could include formal and non-formal training institutions, authorized certification institutions, or industry organizations and institutions who conduct personnel certification. The idea is for standards to be based on job requirements. In Lithuania too it seems as if a sub-contracting approach may be adopted.

In Mexico technical groups of expert workers and technicians were established by the National Council for Standardization and Certification of Labour Competences (CONOCER). In a fairly similar model, Bangladesh is attempting to implement what is described as the UK/Australian approach to competency-based training, where learning outcomes are developed by industry bodies based on the functional analysis of occupations or jobs. The curriculum section of the Bangladesh Technical Education Board will develop learning and assessment materials, which will require endorsement by the new Industry Skills Councils. In Sri Lanka the process is a government-led one, with attempts to involve industry. Qualifications are developed by a team of trainers and industry specialists who have undergone special training in the specified techniques and the documentation systems.

Accreditation, assessment, and certification arrangements

As discussed in Chapter 5, in many of the countries the NQF is seen as part of improving the delivery of education and training through a greater emphasis on accreditation mechanisms and processes. This is often linked to proposed changes in assessment systems. The hope is that the outcomes-based qualifications or competency standards will be a benchmark, against which institutions conducting assessment or providing education and training can be contracted and evaluated or quality assured. NQFs are also seen as a tool to change regulatory functions and relationships with regard to quality assurance and assessment. For example, in Mauritius, the Industrial and Vocational Training Board (IVTB) was both a state training provider and a quality assurer of private provision. The Mauritian Qualifications Authority was introduced partially to remove the latter role from the IVTB.

The Turkish NQF is being created through a double accreditation mechanism. The Vocational Qualifications Authority will conduct accreditation of institutions that want to teach, assess, or issue certificates. But institutions will also have to be accredited by the Turkish Accreditation Agency, or by accreditation institutions that have multilateral

recognition agreements by the European Accreditation Association in order to be eligible for the Vocational Qualifications Authority authorization process. The Turkish Accreditation Agency is a public entity with administrative and financial autonomy and it is a related organization of the Prime Ministry. It started its operations in 2000 and conducts accreditation of laboratories, accreditation of certification agencies, accreditation of personnel certification agencies, and accreditation for public and private enterprises. It is hoped that this 'double' filtering will increase quality and recognition of certificates. Informal communications between the Vocational Qualifications Authority and the Turkish Accreditation Agency try to build common understanding.

In Turkey and Lithuania, assessment as a function is envisaged as being handled through the accreditation of institutions. Separating assessment from teaching and training through accreditation systems is a major focus of the Turkish NQF. Nonetheless, there still appears to be centralized mechanisms for establishing test item banks, for the supervision of testing and certification activities, and for the development and update of test item banks. Interestingly, in Turkey and Lithuania, the move towards an accreditation-based system involved a move away from existing industry-led systems. In both these countries, Chambers of Trades and Industry currently have considerable roles with regard to assessment and certification. In the envisaged accreditation-based systems, these institutions would compete alongside others to obtain accreditation to conduct assessment.

In Sri Lanka there is more of an emphasis on using an NQF to improve accountability of state providers. Visible and comparable outcomes are seen to be the key mechanism in this regard. It is believed that this will make the technical vocational education and training system more resilient and managed by objective measures and fact-led decision-making. Assessment is centralized in the sense that instruments are centrally-developed by one of two national institutions, but it will be conducted by individual assessors, who will be trained, assessed, and registered.

In some countries accreditation and quality assurance mechanisms are not based on outcomes-based qualifications or competency standards, and have a far greater focus on more traditional aspects, which have come to be referred to as 'inputs', such as curricula and duration, qualification of staff, research outputs, and so on. This is the case in most countries with regard to higher education, and can be seen in Malaysia, where the NQF is higher education dominated, and the implementation of the NQF has been primarily through the accreditation and quality assurance of higher education. A key focus of the NQF and the creation of the Malaysian Qualifications Authority has been the extension of the existing quality assurance, which was only aimed at private provision, to all higher education institutions. After the liberal economic reforms of the 1980s, a huge private sector sprung up, which was very unregulated, and had many small providers with minimal facilities and unqualified staff. So quality assurance and accreditation were introduced. However, poor quality has also been perceived to be a problem in the state sector. In addition, industry and the public sector have favoured foreign qualifications, which has been both symptomatic of poor quality and exacerbated it. Thus, the quality assurance regime was later extended to the public sector. As is increasingly the case in many countries, higher education is also an 'export' good, in the sense that it brings in money, through higher fees for foreign students.

Some countries emphasize the role of accreditation mechanisms in 'opening up the market'. For example, in Mauritius it was argued that accreditation against NQF qualifications will enable a larger number of providers to take responsibility for provision and assessment. Australia, England (with regard to the NVQs), and New Zealand all had an explicit focus of increasing marketization of their technical vocational education and training systems. In Russia there is an emphasis on what is called the 'module-competitive' approach, where competition is increased through providers being contracted to provide modules against standards. In Turkey it is argued that competition is seen as necessary to improve quality. On the other hand, there are also concerns about marketized systems. In

Chile and Lithuania it is argued that competition amongst providers is unhealthy and counterproductive. In Chile, the market-based system is seen as restricting access, and producing poor quality, as private providers are unable to build and develop the technological base necessary for technical vocational education and training provision. In Malaysia and Chile, NQFs were seen more as tools to regulate existing markets. In both cases markets were seen as leading to uneven quality.

The issuing of certificates should be a key issue in relation to qualifications. Surprisingly, with a couple of exceptions, most of the case studies were not able to provide much information in this regard. It seems as if it is an issue which has not been the focus of policy attention in many of the newer NQFs. This could be because existing certification arrangements are going to continue. Some of the older NQFs do seem to indicate evidence of this—in Mauritius, for example, the Mauritius Examinations Syndicate has continued to conduct assessment and issue certificates for most qualifications outside of higher education, including vocational qualifications. In Tunisia, certification currently happens through ministries, with separate systems for higher education and technical vocational education and training, and this is likely to continue. This, though, raises interesting questions about how NQFs are supposed to function, and the nature of change that they are intended (and able) to introduce. Unfortunately, this is not an issue which can be explored here, but could be a useful focus for future research.

6.2 NQF design features

A nationally accepted framework

There is clearly debate and different perspectives about what counts as an NQF, and this issue is given considerable consideration at the end of this report. However, as discussed in Chapter 5, the most basic aim of creating a qualifications framework is to have a nationally accepted framework or grid of levels and/or qualifications and qualification types, sometimes for all qualifications and sometimes for specific sectors. Differences in terminology and the configuration of education and training systems make classification of the scope of the frameworks in the study difficult. Bangladesh and Botswana, for example, call their frameworks vocational, but technical qualifications at higher levels are not included. The vocational sector of the Malaysian framework is specifically aimed at polytechnics and colleges, and includes technical and vocational qualifications, but skills qualifications have their own separate sub-framework. Lithuania and Russia are officially discussing and designing comprehensive frameworks (but excluding schools), but the case studies reflect policy attention being focused on technical vocational education and training.[12] The framework in Turkey is also intended to be comprehensive but is limited to vocational qualifications and possibly even workplace-based in practice. The NQF in Malaysia is interesting as it is higher education dominated. The case study argues that the main reason school qualifications were not included in the NQF is that it has been driven from the Ministry of Higher Education. There is, though, the intention to create more coherence between the different systems.

The exclusively vocational focus of some of the qualifications frameworks in this study (Bangladesh, Botswana, Chile, the English NVQs, Mexico, Sri Lanka, and Tunisia) is

[12] It may well be the case that there is also considerable attention on higher education related to the Bologna Process, but it was not captured in the current studies; this suggests that at the least, qualifications reforms in these different sectors seem to be happening through different processes.

interesting given that other research (for example, Cedefop, 2009a) describes a trend towards the development of comprehensive NQFs in all European countries.

The two design features which are seen as most central in most of the countries are level descriptors and learning outcomes.

Level descriptors

Level descriptors are described in most countries in the study as *the* crucial mechanism to achieve the claims made about qualifications frameworks, with the possible exceptions of Australia, where there have been none, although descriptors are now being introduced, Botswana and Mauritius, where it seemed that there was less emphasis on the role of the descriptors, and in the competence frameworks in Chile, and Mexico, where there was very little mention of descriptors. Level descriptors are seen as a guide for clarifying equivalence and rationalizing qualifications systems. They are also seen as a mechanism to increase transparency of qualifications systems, because they try to provide broad information about skills, abilities, and possession/mastery of knowledge areas, which should apply to all qualifications which are pegged at a specific level of a qualifications framework. They are also seen as the mechanism which will ensure that qualifications are broadly 'comparable', and that equivalent qualifications, which are currently not viewed as equivalent, will be recognized as such.

For example, in Lithuania it is hoped that level descriptors can provide instruments to reference and compare qualifications, for the purposes of human resource management and development. In Russia, it is hoped that level descriptors will be an important mechanism to simplify the existing frameworks for occupations. They are seen as a way of ensuring comparability of qualifications and providing for new transition routes from education and training to work. They are also seen as the basis for new systems of assessment. Tunisia has similar intentions: it is hoped that level descriptors will ensure that decisions are made based on clear criteria and not on prejudices. Level descriptors are seen to facilitate the recognition of prior learning because they indicate broad levels of competency, which, it is believed, can be measured or judged. It is also hoped in Tunisia that the level descriptors will enable comparison of graduates from different programmes. In countries where labour markets are more regulated, level descriptors may relate to salary scales, and policy makers in Sri Lanka and Turkey are hoping that in the long-term the NVQF will be related more directly to salaries.

For those countries which see an NQF as a way of designing new qualifications, level descriptors are seen as the starting point in terms of broad specifications of competencies, from which more specific specifications can be designed. For those countries which want to organize and systematize existing qualifications, level descriptors are seen as the tool which will enable this to be done in a clear, consistent, and transparent manner. In other words, level descriptors are seen as the main mechanism that will create or improve transparency.

What then, do these descriptors look like? The existence of the European Qualifications Framework (EQF) as a powerful force in the world of qualifications frameworks may lead to level descriptors looking similar. Turkey, for example, has adopted the EQF descriptors. In Bangladesh level descriptors drew on the EQF, but with some changes. They are based on 'knowledge, skill, and responsibility', and are linked to very broad 'classes' of jobs. However, other countries have developed their own descriptors. Many countries have a large number of domains or competence areas, and each of these then need to be defined for each level of the framework. Examples in the box below provide further details on some of the specific approaches.

Box 1: Level descriptors in some countries in the study

Six types of descriptors in Tunisia

The Qualifications Framework in Tunisia has six types of descriptors of learning outcomes: Complexity, Autonomy, Responsibility, Adaptability, Knowledge, and Know-how and Behaviour.

Five 'characteristic generic outcomes' in Scotland

The Scottish level descriptors specify 'characteristic generic outcomes' for each level (except level 1) under five headings: knowledge and understanding; practice (applied knowledge and understanding); generic cognitive skills; communication, ICT and numeracy skills; autonomy, accountability and working with others. They were developed based on pre-existing descriptors for the different sectors.

Eight 'domains' in Malaysia

Malaysia has eight domains of descriptors: Knowledge; Practical skills; Social skills and responsibilities; Values, attitudes and professionalism; Communication, leadership and team skills; Problem solving and scientific skills; Information management and lifelong learning skills; and Managerial and entrepreneurial skills.

Ten types of 'competencies' in South Africa

South Africa (whose level descriptors are still under re-development) has ten for the higher levels of its qualifications framework: Scope of knowledge; Knowledge literacy; Method and procedure; Problem solving; Ethics and professional practice; Accessing, processing and managing information; Producing and communicating of information; Context and systems; Management of learning; Accountability.

Concise and detailed descriptors in Lithuania

Levels are defined not only by competences but also by types of activities. There are concise and detailed level descriptors. Concise descriptors are for general information purpose, qualification levels may be described briefly. A concise descriptor of level includes: characteristics of activities, content and acquisition of qualification, opportunities for further learning and qualification development and types of the recognition of qualifications. Comprehensive descriptors are for the usage for different experts (designers of technical vocational education and training curricula, experts involved in the assessment of competences and awarding of qualifications, experts responsible for the recognition of qualifications acquired abroad, etc). Levels are described comprehensively with detailed indicative characteristics of the level of qualifications. Descriptors of levels are based on two parameters. Each parameter contains three criteria.

Ten 'indicators of professional performance' in Russia

In Russia, ten most important indicators of professional performance were identified to formulate descriptors—work with information, reflection, ability to learn, business communication, responsibility, motivation, setting up goals, independence, ability to teach, breadth of views. The development of the above mentioned indicators from level to level of education makes the main content of descriptors. Descriptors were developed according to the following accepted rules:

- a descriptor at each level has to be independent of other descriptors. Only at the place of transfer to a higher level a descriptor has to correlate with the descriptors of higher and lower levels;

- descriptors have to be defined in the affirmative grammar form;

- they have to be concrete and clear, words with abstract lexical meaning cannot be used ("good", "narrow", "acceptable" and etc.);

- they cannot contain professional slang, they have to be understandable for non-professionals;

- they have to be formulated in a short form to provide clear understanding of the essence of the given level.

As can be surmised from the discussion and text box, in many countries the development of level descriptors is an intricate, complex, and sometimes arcane process. This involved and contested work may be understandable both in light of what is expected of level descriptors and because of the difficulties involved in reaching agreement across knowledge domains which have developed in quite different ways, as well as between knowledge domains and the world of work.[13] Some of these difficulties can be seen in the descriptors in the various countries. For example, in Russia, interdisciplinary knowledge is seen as at a higher level than disciplinary knowledge. This, however, may be contested by many disciplinary specialists. In South Africa, there was much contestation about how relative autonomy in working practices related to educational levels, as individuals with no education or training were argued to be able to work highly autonomously.

The examples cited suggest a conceptual difficulty which some researchers suggest is inevitable: in the process of attempting to reach transparency, the tendency is to provide more and more detail. It is questionable in practice how many employers or educational institutions would have a clear understanding of what level descriptors mean if there are descriptors for each of ten domains, for each of ten levels of qualifications. If in practice levels are understood through the well-known or accepted qualifications placed on a specific level, it may be that implicit understandings of the known qualifications plays a bigger role than the descriptors in developing an understanding of what the level means. A more serious problem is that the descriptors are seen to be the central mechanism for creating transparency, and it is hard to imagine how they can do so when they themselves are so complex.

Outcomes, standards, and competencies

All the frameworks in the study involve learning outcomes or competences. The notion of learning outcomes or competencies is central to the development of NQFs, and it is specifically linked to many of the claims that are made about NQFs. This is another complex area, one of the complexities being, as discussed above, that terms are used in different ways in different countries, and sometimes, different terms are used across countries to refer to what appear to be similar things. Some countries talk about learning outcomes, while others talk about occupational standards or competency standard. Some of the countries seem to use the term ‘learning outcomes’ in rather different ways, while in other instances, ‘learning outcomes’, ‘occupational standards’ and ‘competency standard’ seem to refer to very similar things. For example, in Mexico labour competencies are seen as specifications separate from learning institutions, while learning outcomes are seen as part of education and training. On the other hand, in South Africa, learning outcomes were supposed to be developed separately from educational institutions, and the notion of competency was rejected as narrow and inappropriate (although in practice the qualifications and unit standards developed were similar to those in other countries). The Sri Lankan NQF uses occupational standards *as well as* learning outcomes. This all makes for complicated analysis. In addition, the use of learning outcomes is an issue that is highly contested by researchers, but at the same time, learning outcomes are seen in many countries as the most important reform tool associated with the NQF. Some of these issues are discussed further in Chapter 9. For now, this section provides an overview of how the case studies describe the use of learning outcomes in the 16 countries.

[13] This seems to be in line with international literature; for example, Markowitsch and Luomi-Messerer (2008) describe the complexities involved in reaching agreement on the level descriptors for the European Qualifications Framework.

As discussed above, the specification of learning outcomes or competencies is seen as a key tool for improving the communication function of qualifications systems and achieving greater transparency of qualifications. The idea is that the level descriptors provide broad descriptors of competency at a particular level, and the specific competency standards or outcomes-based qualifications (or part qualifications, such as unit standards in Botswana, New Zealand, and South Africa) provide more specific competencies in specific fields or areas.

The original NQFs in New Zealand and South Africa were designed based on the specification of learning outcomes separate from educational institutions or specific learning programmes and curricula. In Australia, Malaysia and Mauritius, this approach is used for a sub-framework of the national framework; in Australia and Mauritius for technical vocational education and training, and in Malaysia for skills training. The Botswana vocational framework and the Labour Competence Frameworks in Chile and Mexico were designed according to this approach, and frameworks in Sri Lanka and Turkey are also being designed in this way.

The summary of the English NVQs above mentions the notion of 'functional analysis'. As it recurs in many of the other countries, more elaboration on this idea is provided below, drawn from the case study on the English NVQs, which describes the approach to outcomes as having emerged in occupational psychology in the USA in the 1960s and the earlier ideas of scientific management. In the late 1980s in the UK it was seen as a new approach to the design of vocational qualifications, intended to make a clean break with the two main elements of qualification design prior to the 1980s. These were:

- the importance of specifying the amount of time that an apprentice would need (sometimes as long as seven years) to become qualified; governments in the 1980s saw this 'time serving' approach as leaving too much control to the trade unions;
- the **syllabus** as the basis for teaching programmes and the assessment of off-the-job learning; governments opposed this as leaving too much control to the teachers, the colleges and the Awarding Bodies.

Both these features of traditional qualification design were seen by proponents of functional analysis as out-of-date and backward looking. Functional analysis instead begins with the assumption that a statement of competent workplace performance can be identified and described by researchers in ways that are recognized by appropriate employers. It derives from such statements a set of individual *elements of competence* and their associated performance criteria. These *elements of competence* (they later became known as occupational standards) are then grouped together into *units of competence* which are assumed by policy makers to make sense to, and be valued by employers and hence warrant separate accreditation. Each NVQ was made up of a number of related 'units of competence'.

This approach, developed first through the English NVQs, is described as the basis of many of the NQFs in the study. For example, the Sri Lankan study describes the following approach:

> The NVQF is based on units which in turn are clustered into qualifications by occupation and level. The minutest element is the element of competence which is described through performance criteria. The process adopted is functional analysis, supported by DACUM (developing a curriculum) analysis, verification of analyzed results, and finally task analysis.

This is followed by a series of technical requirements. Many countries have similar requirements, although the Sri Lankan model is different to that in Botswana, New Zealand, and South Africa, in that it only allows for the award of whole qualifications, whereas the other countries also award unit standards (part qualifications). In most of the countries there are detailed specifications of what an outcome/standard should look like. In some countries

there may be different approaches, as the functional analysis technique of developing learning outcomes or competencies is not mentioned in any of these case studies, although most of them include a learning outcomes or competency specification approach.

Countries which adopt this approach to learning outcomes in their NQF (the frameworks in Bangladesh, Botswana, Chile, the English NVQs, Mexico, New Zealand, and South Africa, as well as the vocational component of the Australian NQF, the skills sector component of the Malaysian NQF, and the technical vocational education and training sector of the Mauritius NQF) tend to see the specification of learning outcomes or competencies as a central and key mechanism for achieving the aims of the NQF. It is believed that learning outcomes will ensure transparency as well as making standards clear, and providing a clear basis for quality assurance and accountability.

Countries which include higher education in their frameworks are less likely to use this approach, or may use it for the vocational sector only. In Malaysia, for example, while the framework is described as outcomes-based, the case study argues that this is essentially because of the level descriptors. The technical and vocational sector has not adopted skills standards, and uses more broad-based standards which combine knowledge-based curricula with skills standards. 'Input' factors are seen as important in higher education. In Lithuania, the higher education sector is described as hostile to the competency-based approach, although there seems to be broad acceptance of the EQF level descriptors. It seems that they will reject the idea that they must use occupational standards as instruments to guide their decisions about content. Only in New Zealand and South Africa was something similar attempted at higher levels, although there are indications that some of the newer NQFs may make similar attempts.

In Scotland (except for the Scottish Vocational Qualifications, which are similar to the English NVQs), higher education providers and the certification body for schools and vocational education specify learning outcomes. In this approach, learning outcomes are not seen as separate from specific educational institutions; it is educational institutions that specify the learning outcomes of the qualifications that they offer. Similarly, in South Africa, when provider-based qualifications were accepted onto the NQF (initially as an interim strategy, but later accepted as an ongoing process), institutions were asked to describe their qualifications in terms of learning outcomes.

Some countries (Lithuania, Russia, Scotland, and Tunisia) see frameworks as primarily grids of level descriptors on which existing qualifications can be organized, and through which existing qualifications can be understood, but also hope that the frameworks can provide the base for the development of new qualifications, in the sense that sets of qualification specifications will be developed, for which educational institutions can develop learning programmes, or against which assessment and certification bodies can assess and certify. Here the idea seems to be that systems will be created to set standards or outcome statements which will comprise the official qualification requirements, and training providers will then be able to develop training programmes against them.

Another term which is used differently across the different countries is curriculum. Properly understanding the differences would involve far more detailed study in the 16 countries as well as considerably more theoretical analysis of curriculum than is possible in this study. Some of the studies specifically discuss curriculum in relation to learning outcomes. For example, the case study on South Africa describes a model whereby learning outcomes were supposed to be the basis for designing curriculum, and also explains that South Africa has returned to a model of centrally-developed curricula for vocational qualifications, in conjunction with what is described as a retreat from the outcomes model. In Bangladesh, Sri Lanka, and Turkey case studies suggest that curricula as well as learning outcomes/competency standards will be centrally-developed, and indeed in Sri Lanka this is seen as one of the central improvements introduced through the NQF. While some countries see a specified curriculum as creating inflexibilities and therefore not meeting the

needs of industry, Sri Lankan policy makers argue that the variation in quality caused by the lack of a central curriculum is a more serious problem for industry. The Sri Lankan model goes further and provides additional learning materials, learner guides, trainer guides, and so on. Increasing equipment in vocational centres is also stressed. Turkey also sees curriculum development as something which should continue to be done centrally at the level of the Ministry of National Education, based on the standards which have been set through industry-led processes. In Lithuania, the study suggests that the current model of curriculum development, with the involvement of experts under the coordination of the Centre for Methodology of vocational education and training, as well as industry representatives and vocational education and training institutions, will continue, but suggests that in the future institutions will be more tightly controlled than before, as the curricula will be expected to be based on the specified occupational standards. But it points out that it is not clear how the new occupational standards will relate to the existing vocational education and training standards, and if the two will coexist.

6.3 Monitoring and evaluation systems

Very little information was found by researchers about monitoring and evaluation systems with regard to the aims and objectives of NQFs. Only South Africa had developed a specific set of success indicators, but these were developed through an impact evaluation, and not up front. Many of the studies suggest that there are indicators which have been developed for separate institutions and parts of the qualifications systems. Where qualifications authorities have success indicators, they tend to be based on more operational objectives, such as how many qualifications have been registered or developed. This may be because the aims of NQFs are so embedded in other structures and processes that governments and authorities do not envisage separate monitoring and evaluation, or this may have been a weakness of the research design, as well as time allocated to researchers.

Stakeholders interviewed in Malaysia suggested that success indicators could include:

- the number of qualifications that are included in the register and the amount of use made of the register by students, employers and providers;
- graduate and other user surveys;
- the quality of courses and providers as revealed through the audit processes;
- the number of international students who study in Malaysia towards qualifications that are included on the register;
- employer feedback through committees and consultative forums; and
- graduate tracer studies that reveal information about their patterns of employment and salary levels.

Chapter 7: Implementation and use of NQFs

What is involved in developing and introducing an NQF and what are the factors that facilitate or hinder progress? How are the NQFs in the study being used? What are the indications that they will be used? This chapter considers implementation and use in relation to the design features and institutional arrangements discussed in the previous chapter.

7.1 The creation of NQF structures, institutions, and systems

Qualifications authorities

Qualifications Authorities, as new institutions, have had uneven paths of development, and in some cases have come into conflict with existing institutions and agencies.

New Zealand and South Africa created qualifications authorities which were supposed to be in charge of all qualifications in the respective countries. The New Zealand Qualification Authority was to have authority for approving all qualifications provided by degree awarding institutions. However, authority for approving degrees provided by universities has remained with the universities. This means that in New Zealand degrees can be approved by two bodies; the New Zealand Qualifications Authority and the Universities (via the New Zealand Vice Chancellors' Committee on University Academic Programmes). South African Qualifications Authority, created through an act of parliament in 1995 as a completely new independent statutory body under the joint oversight of the Ministries of Education and Labour, has lost most of its powers with regard to setting standards. The large number of quality assurance authorities has been rationalized to three Quality Councils.

Lithuania established and abolished a National Qualifications Authority within the space of a single year. There are proposals for an Institution of Governance of Qualifications and a Centre for the Development of Qualifications at the Ministry of Education and Science, but no single institution that is driving and coordinating the development and implementation of the NQF. There is concern that if a vocational education and training-based institution is appointed, it will be ignored by higher education, and vice versa.

In Botswana, the Botswana Training Authority could be seen as either rather weak or very pragmatic and flexible, as its main work has been to give official approval to providers, and it has done so on their terms, instead of according to its own rules, in the sense that providers continue to offer their own qualifications, and not the newly-developed qualifications from the qualifications framework. According to official policy, this is a short-term ‘stage’, and in the long-term providers will be accredited based on unit standards-based offerings. However, there is no timetable for the introduction of this longer-term approach.

The newness of the Vocational Qualifications Authority in Turkey is associated with some challenges, particularly limited staff capacity as there are only a few subject matter experts. New staff are recruited with due attention on general technical skills and high qualifications, however, capacity building on the specific area (i.e. qualifications) will take time. In Mexico the National Council for Standardization and Certification of Labour Competence (CONOCER), which has had a chequered history, has been changed in various ways in terms of its functions, powers, and governance.

Governance issues

A striking similarity in most of the countries is that NQFs seem to be in tension with existing forms of governance. This may be inevitable, given the introduction of new organizations, and the changes in modalities of governance. A thorough engagement with theories of the state and political economy would allow for analysis of what this means in the various countries, but this was beyond the possibilities of the current research.

The Malaysian case study argues that a central question for all NQFs and especially national qualifications agencies or authorities is the relationship between the distributed 'ownership' of qualifications (by educational institutions or awarding bodies) and their communities of users or trust and the centralized role of the agencies in ensuring consistency in quality and standards, and the relationships between qualifications. Many of the case studies highlight that qualifications, particularly those which relate to university entrance or entrance to professions, are high stakes issues which touch on many power relations in society, and that introducing qualifications frameworks therefore inevitably results in conflicts and disagreements. It is perhaps partly because of this that the incremental approach in the development of the Scottish framework was successful—key educational role-players are described as having, in most instances, been kept on board and feeling that they were in charge of processes. According to the case study, the strengths of the Scottish model are that it built on other reforms; that it was driven by key stakeholders from within the education system, and especially from higher education; and that it was seen as an enabling instrument which could be used by bodies involved in change, but not as an agent of change in its own right. This was aided by the fact that Scotland is a small country and has a small and relatively homogenous policy community.

In many countries existing systems are at odds with the logic of the newly developing qualifications frameworks, and most of the studies emphasize that institutions in each country have a logic of their own, which the NQF may come into conflict with. This is stark in Russia, with the various existing regulatory frameworks in occupations and education and training. Sri Lanka may be an exception, as the NQF is being implemented through existing institutions.

In nearly all the case studies, implementation is described as having been 'hindered' by differences between different government departments or agencies, lack of power of qualifications authorities, overlapping responsibilities, conflicts between different laws and regulations, and changes in government. This may be because NQFs are often discussed with a focus on implementation, and policy design is assumed to be accepted as given. The case studies offer considerable evidence of failures of government departments and agencies to work together or maintain a consistent policy over time. However, 'hindered' has a negative connotation, and implies, as is described in Lithuania, self-interested bureaucracies guarding their own interests. But caution should be adopted here, as sometimes government agencies may 'hinder' with good reason. In South Africa, for example, the case study suggests that some government departments 'hindered' the NQF at least in part because of problems with the original model.

NQFs in some sense depend on coordination between different government agencies, but they are also brought in order to create coordination—a chicken and egg situation. In the case of Malaysia, the NQF seems to be a substitute for coordinated government systems. Malaysia has a formalized and centralized governance structure and culture which is strongly legislation based, with a high degree of institutional separation between Ministries. A major focus of the NQF development processes has been reconciling differences between government agencies, rather than building support of industry and providers. This is reflected in the composition of the Malaysian Qualifications Agency Council, where the largest group of members is from government agencies.

Managing interrelationships between government agencies seems to be a tricky issue in many of the countries. South Africa shows a move from a system jointly managed by the Ministries of Education and Labour to Ministries of Education only. In Mexico, one of the serious problems of the first attempt to create a Labour Competence Framework was extreme difficulties with working across a large number of government agencies as well as other stakeholders and role players. In Botswana the qualifications framework has been housed in the Ministry of Labour and Home Affairs. However, it is with the Ministry of Education and Skills Development that the Botswana Training Authority does most of its business, and it looks set to relocate.

In Turkey, the Vocational Qualification Authority is represented by its president in the Economic Coordination Council of the government. In Tunisia, the location of the framework in the Council for Human Resource Development is seen as a strategic location which will ensure impartiality and that all certification decisions in all ministries are informed by the level descriptors. In Sri Lanka the Ministry of Vocational and Technical Training is the national oversight Ministry for the technical vocational education and training sector.

Accreditation, assessment, and certification structures and institutions

The English NVQs as well as the South African NQF attempted to introduce decentralized assessment with registered assessors. In the former, assessment was initially supposed to be internal, workplace-based assessment, but this came into tension with the output-related funding, and the perceived need to separate assessment from provision. South Africa had registration systems for providers, prior to the introduction of the NQF, but registration could be described as a very 'light touch' system, with very basic information being required in order to register a provider. This was based on the idea that institutions would be subjected to the same centrally and externally set examinations, which then functioned as the key quality assurance mechanism. South Africa tried to introduce an accreditation system that gave greater autonomy to institutions, subject to meeting accreditation requirements. This was linked to the proposed decentralized assessment model. The idea was that the quality assurance bodies would check up on how well providers were training against the outcomes, and also on how assessment was conducted against the learning outcomes. This did not work for various reasons, one being that standards of assessment were far too divergent. Quality assurance bodies were not able to conduct more than a cursory examination of most institutions, given the number of education and training institutions in the country. There has been a return to centralized assessment.

In Lithuania the idea is that learners should be able to be assessed for each acquired competence separately, as and when they choose. It is believed that the NQF will make this possible as it will be comprised of occupational standards. A first step is seen as taking away the 'monopoly' on assessment currently held by the Chambers of Industry, Commerce, and Trades. There is an explicit notion of marketizing the system, by introducing competition. Any institution should be able to prove its capacity to conduct assessment. But, there is as yet no clarity as to who will conduct this assessment and how. The idea was that the National Qualifications Authority would certify institutions who felt they had the capacity, including employers, trade unions, and so on. But, after the abolition of this short-lived authority, this function has reverted back to the Ministry of Education and Science, who have indicated that they want to continue the function of the Chambers of Industry, Commerce, and Trades. What is not clear is how/if this institution will shift based on a competence-model. One industry representative interviewed described the proposed assessment models as bureaucratic and "difficult to control". Industry representatives were particularly concerned about the notion of new models replacing the experience built up in the Chambers of Industry, Commerce, and Trades. The case study also argues that there is a

dearth of competent professional organizations and stakeholders who can "evaluate and award competences and qualifications acquired in different ways, especially in informal and non-formal ways".

In Mexico, where the labour competence framework was primarily linked to assessment and certification rather than teaching, the focus of accreditation was on giving institutions authorization to conduct assessment. The initial idea was that assessment centres should be third party organizations, but after strong pressure it was accepted that educational institutions could be assessment centres. Various problems were experienced. For example, although assessment centres developed instruments according to an official manual, and based on the same labour competence standards, their quality was uneven. Additional guidelines and specifications were produced. Assessment costs were high, although they varied among assessment centres and awarding bodies, and showed some signs of going down.

The case study on Russia indicates that there is a proposal to set up Certification Centres to enable systems of certification independent of educational institutions; it is not clear how developed this idea is. It would seem that governments are less likely to sub-contract certification through accreditation systems, although this has been done in Chile and Mexico, and is proposed in Turkey. The proposals in Turkey are particularly interesting given that the current journeyman and craftsman (sic) certificates are issued through an organization representing industry. The current set-up is seen as unacceptable because the same body is involved in training provision. In Mexico, the idea of separately authorizing awarding bodies, assessment centres, and independent assessors was seen as a way of guaranteeing the impartiality of the assessment-certification process. Awarding bodies must be third-party organizations—in other words, they cannot be education and training institutions. CONOCER was in charge of awarding bodies' external quality assurance, while awarding bodies were responsible for assessment centre's external quality assurance. In Chile there is a strong emphasis on separating training, assessment, and certification, to prevent conflicts of interest, and to ensure an open market among suppliers of assessment services and certification in order to achieve transparency. The idea is that this will be initially financed by the state, later 49 per cent by the state and 51 per cent by private sector.

In some of the older NQFs, certification was not an initial policy focus, and this led to problems at a later stage. For example, in both South Africa and Mauritius the initial design of the NQF did not make explicit who would be designated to issue the new qualifications. In South Africa, some of the new quality assurance agencies in the economic sectors issued qualifications, but many of them did not have the capacity to do so, and certificates continued to be issued by educational institutions. In Mauritius, the lack of a certification agency for the new qualifications is believed to be one of the reasons why they have not been used.

In some of the countries the new accreditation systems, whether for provision, assessment, standards setting, or certification, seem to imply a large amount of contractualization, including contracts for standards setting, contracts for assessment, and contracts for certification, all based on the oversight of accreditation authorities. In other cases, it is not so much a case of contracting as authorizing these functions. In both cases, there are high expectations from accreditation systems and high expectations that accreditation agencies can effectively monitor the various institutions contracted or authorized to conduct the various functions.

Structures and processes to design competency standards or outcomes-based qualifications

Many of the case studies suggest that the processes of developing learning outcomes have not been straightforward. In some the technical specifications of outcomes have been through various reviews and changes. For example, in Mexico various revisions were made when it was felt that the information contained in the element components was not sufficient and not clear enough, above all for users that had to ask someone to translate the standard contents.

Involving industry in the development of competency standards or outcomes-based qualifications is a major goal of NQFs, as well as being a major way in which NQFs are intended to achieve their goals of relevant education and training. It is important, therefore, to note that industry involvement is a key difficulty in most of the countries in the study. Nearly all the case studies cited difficulties in involving employers, and participation was much lower than governments and policy makers had hoped. Involvement of trade unions is an even greater difficulty, with most case studies reporting little or erratic involvement, or problems such as unions being 'silent partners', as the Lithuanian study suggests. In some cases researchers struggled to find union representatives to be interviewed who could comment on the NQFs, indicating that there had been very little involvement.

In many countries, in practice the work of designing outcomes or competency standards is outsourced to consultants. In most of these instances, there are still some processes or structures for 'consultation', but these are subject to the same difficulties, with poor participation. In South Africa, National Standards Bodies, which were created as stakeholder-driven structures to approve qualifications and unit standards in 12 different areas, were the first structures to be changed, as they were largely dysfunctional. The structures established to design outcomes-based qualifications have also been largely abandoned. In Mexico participation in the technical groups was quickly designated to human resources personnel. In some instances individual workers participated in technical groups to develop standards, but not as trade union representatives. Participation of educational and training institutions was very limited. In Sri Lanka, while some individual employers in some sectors participate, employer organizations are generally not active, and many sectors have little employer representation. In Lithuania employers are described as reluctant to invest the required time and energy. In Bangladesh employers are described as reluctant to be involved, although industry engagement is growing in two of the four sectors piloting implementation of the NTVQF. Where work on NQFs is initiated through technical assistance projects, there is always concern about the long-term sustainability of institutions set up to maintain industry involvement. In the absence of these ongoing donor-funded technical cooperation projects, there is always concern about the long-term sustainability of maintaining industry involvement with the responsible government bodies.

In Lithuania, the development of standards was initially to be located under the National Qualifications Authority. Some work was done by a small group of contracted experts through a European Social Fund project. These experts analyzed existing qualifications, designed standards, and prepared pilot versions of occupational standards in the sectors of construction and hospitality. The National Qualifications Authority in its single year of existence attempted to start the development of occupational standards, but, according to the case study, stakeholders did not have a clear understanding of their roles. Similarly with regard to assessment and awarding of qualifications, there is an ongoing lack of clarity about roles and responsibilities. Now, the development of standards and qualifications will be located under the Ministry of Education and Science, and may involve subcontracting experts from business and researchers.

In Bangladesh the case study suggests that most of the representatives in the Industry Skills Councils did not know about the NQF at that time, and were unable to comment on whether the qualification levels in the framework would fit with levels in their workplaces.

In Russia although a main aim was reducing the complexity of existing occupational qualifications, so far the NQF is not used within the classification of labour qualifications, and is not used for making reports or forecasting. Occupational standards developed through the NQF do not have good linkages with the existing system of labour legislations and classification in the labour sphere. Most educational standards continue to be developed with no reference to occupational standards.

7.2 Social dialogue and the role of stakeholders: employers, trade unions, and providers

Most of the qualifications frameworks in the study are very government-led, although government is trying to ensure partnerships especially with employers and trade unions. Scotland is an exception as the framework is led by educational institutions, either directly through higher educational institutions or through awarding bodies. The higher education sector, SQA, Scotland colleges, and government formed a company limited by guarantee and registered charity (the SCQF Partnership) to manage and lead the framework.

In some, such as Sri Lanka, where provision of technical vocational education and training has been centralized through the government, it is described as inevitable that government should lead such an initiative, but this is not seen as contradictory with involvement of other social partners. In others, such as Lithuania, NQF development is described as a 'top-down regulative approach', where the role of social partners may be undermined. There are cases (such as Russia) where the NQF initiative is led by employers' organizations or, in the case of Chile, where a private foundation has been a key driver. In many of the countries there is strong stakeholder support for the NQFs, and a belief that they will achieve their objectives. However, many of the case studies report serious difficulties as well. In some of the countries, employers and trade unions are described as 'passive' or unwilling to be involved, and educational institutions are described as offering 'resistance'. These issues are explored further below.

The case studies on Malaysia and Turkey reflect some positive experiences. Officials interviewed for the Turkish case study argue that the voluntary participation and involvement of stakeholders (specifically the world of work) in the process as one of the strengths of the emerging Turkish qualification framework. Social partners have been represented in the general board of Vocational Qualification Authority and this gives them the opportunity to express their needs and priorities and to set strategies for the system accordingly. It is further suggested that stakeholders have a say at every stage of the process and system is shaped through consensus. The voluntary approach is supported through continuous representation of stakeholders in the Authority's highest and most important strategic decision-making organ. This involvement is described as enhancing the sense of ownership and having a positive effect on the outcomes of the system. Interviewees from the Vocational Qualification Authority emphasize the commitment and consensus on NQF activities both from the industry and from the education and training side. They also emphasized that the education and training stakeholders know what they are supposed to do and there is consensus at the policy (macro) level among these stakeholders. It is hoped that where there are differing views on further details, these can be discussed and mediated through continuous dialogue.

The Turkish authorities interviewed also emphasized that industry was involved in all key structures. Industry and world of work are represented by various institutions/ organizations in the General Assembly of the Vocational Qualifications Authority. The Confederation of Turkish Tradesmen and Craftsmen, one of the largest civil society organizations having the highest level of representation both from production and service sectors with around 4 million registered members, the Turkish Confederation of Employer Associations, the Union of Chambers and Commodity Exchanges of Turkey, and the Confederation of Turkish Trade Unions are among them to name a few. Members of these

institutions/organizations are authorized to take part in NQF-related activities (occupational standard development) by signing the protocols of cooperation with the Vocational Qualifications Authority. There are some sectors that have not been involved. The Qualifications Authority believes this is due to lack of vision, lack of knowledge about the concept of qualification framework, and lack of resources and capacity.

Similarly in Malaysia stakeholders and role players interviewed felt that processes had been consultative, and in general expressed support for the framework. They pointed out that initially there was extreme tension between participants, particularly over the location of responsibility for quality assurance, as well as for jurisdiction over levels and credit values of qualifications, but that this had been resolved. It should be noted, though, that union involvement is very limited, and professional associations seem to be the main stakeholders. This is a problem for the Skills sector, as well as for technical vocational education and training, as many if not most professional associations only recognize degrees. Industry in general has played a minor role in the development of the Malaysian Qualifications Framework, although it is involved in the Skills sub-framework.

Other case studies reflect more difficulties. Mexico's Labour Competence Framework was initially developed through a complex project which attempted to bring all relevant stakeholders and role players on board. In the Technical Education and Training Modernization Project (PMETyC) governance, the Secretariats of Public Education and of Labour and Social Welfare participated, and an Administrative Unit was created in the Secretariat of Public Education, called Administrative Unit of PMETyC (UAPMETyC). It had a Technical Committee integrated by four under-secretaries from three secretariats, and the heads of CONOCER, the Technical Vocational Education National College, and UAPMETyC, as well as a representative of National Financing Entity (the financial intermediary). Just trying to follow the structures and acronyms in the previous sentences can make one confused, so it is no wonder that the case study suggests that this complicated arrangement had many problems, and led to power struggles among persons who had similar levels in their official positions or did not accept authority of others, specially from other Secretaries of State. The case study also points out that the commendable attempt to build a multi-sector and multi-institutional participatory approach was difficult to put into practice. The role of stakeholders was not quite clear among institutions, organizations, and users of the Project. In the second attempt at building a Labour Competence Framework, CONOCER describes the process of convincing enterprise and trade union authorities to adopt the competence approach as a key strategy.

South Africa has also struggled with stakeholder-based processes, after the failed attempt at an extremely inclusive and consultative approach. There was considerable debate about where and how stakeholder participation is useful or appropriate. In general, while stakeholder consultation is very much valued in South Africa, the new structures which have been created are not primarily stakeholder-driven, and there is a greater emphasis on expertise.

In Mauritius, while some employer representatives, particularly those involved in the Industry Training Advisory Committees, were positive about the processes, and felt that the qualifications would be useful, other employers and union representatives had never seen the new qualifications and were not even aware that the process was taking place. Interviewees from one of the unions had not even been aware that work on an NQF was taking place. Other interviewees in Mauritius, including employers and representatives of private providers, stated that while they have been involved in the process it has been very time consuming and lengthy and that this impacts on the extent to which they can offer the process their full commitment. One interviewee is reported as observing that, "I have been to 47 meetings, there are a few qualifications, and it has been two years!"

In Bangladesh industry is mainly not yet involved, although sustained attempts are being made to involve them. A serious problem is the size of the informal economy

compared to the formal. But even in the formal economy, at this early stage in the process, most employers are unaware of the proposed NQF. There are plans to undertake a significant social marketing campaign. In Sri Lanka some of the newly emerging sub-sectors such as the Catering, Personal Services Industries, etc. have subscribed to the NVQ qualifications as they consider subscription to a national qualification improves the image and recognition of the industry. The National Construction Contractors Association and the Construction Chamber through their training arms are actively engaged in promoting training and certification conforming to NVQs. Most other Chambers have not actively pursued a concerted and focused program to promote NVQ among their member firms. Currently relationships built are more with individual firms and not with employer associations. The absence of a networking or relationship building strategy with employers, and Chambers, and other potential users (direct and indirect), is seen as a key shortcoming.

The case studies on Bangladesh, Lithuania, Sri Lanka, and Turkey all argue that more employers would become involved if more information were provided, so that they could become aware of the potential benefits. In Lithuania, industry was described as sometimes resisting the new approach; the case study attributes this to ignorance, as experts who had been involved in the design of the NQF suggest that it is not sufficiently known by the business community. This is a problem as the proposed model of the NQF is dependent on an active and important role of employers and employees in designing qualifications, organizing training, and conducting assessment. Similarly, experts argue that implementation will only work with strong and active participation of professional associations and trade unions, but unions interviewed felt that they had been ignored in the design processes. The existing problem in the system is their lack of participation. This raises the question: are NQFs dependent on this participation, or can they be a tool or process to facilitate it? The case study on Lithuania also argues that social partnerships are not properly conceptualized, and roles not well thought through, and that in many instances, stakeholders are not fully apprised of the broader intentions of government with regard to processes and structures in which they participate. Furthermore, where roles are better conceptualized, stakeholder representatives are government appointed. Expert groups constituted by industry sector on a tripartite basis plan qualifications and provide information on labour market demands and required competencies; however, these groups are often seen as dominated by technical vocational education and training schools. The case study moreover argues that ultimately stakeholders have a limited role according to how the NQF has been designed, and that they will be subordinate to state institutions. One stakeholder interviewed in Lithuania said discussion on the higher education law amendment reminded him of his youth in the communist youth organizations, where dissenting opinions were not permitted. Other people interviewed said it was hard to find the correct balance: the initial processes had a lot of dialogue but no legal clout. Now government is pushing ahead with law in the absence of social dialogue. Some of the stakeholders interviewed, particularly trade unions, felt that the processes so far have been rather rushed, and have underestimated what is involved. There is concern that tasks are delegated to institutions that don't have sufficient capacity or resources, and timelines are unrealistic. Where professional bodies are strong and where there is strong organization in the academic community, this is seen as a potential strength and something that can assist implementation of the NQF.

In Russia there is a very strong role for industry, as the NQF is driven through the Russian Chamber of Industry. A National Agency for the Development of Qualifications has been established in the Russian Union of Industrialists and Entrepreneurs. This agency has developed a model for the development of sectoral frameworks based on the national framework of levels and level descriptors. As mentioned earlier, there is a problem with lack of coordination with other initiatives which are also trying to improve or reform the various classification or regulatory systems and mechanisms.

In some of the countries, trade unionists supported the creation of an NQF, hoping that it would improve their members' ability to access training, get certification for existing

skills, and strengthen their bargaining power. The Tunisian case describes union involvement at certain stages of the process. In many countries unions have not really been involved, and lack capacity, although there are examples of unions being hopeful about what NQFs can achieve. In Lithuania, Malaysia, and Mauritius, private sector unions are very weak, but public sector unions are stronger and feel they could play a role. In Mauritius in most instances unions leaders interviewed had not even heard of the NQF. In Tunisia, with a stronger history of occupational qualifications and regulation, unions have shown some suspicion about the processes of developing an NQF, and some have felt that new classifications may undermine collective bargaining agreements. In some instances this has led to trade unions not participating, for example in the tourism sector. In Sri Lanka there is very little trade union involvement. This is attributed by policy makers as due to preoccupation with bread-and-butter issues, and a lack of culture of tripartism in the country. Unions interviewed had only recently become aware of the NVQF, and were still considering its potential benefits.

It appeared as if in most countries there had not been sustained attempts to conduct informed debates between stakeholders based on labour market research. It could be the case that this kind of process has taken place, but detailed information was not obtained through this research.

The role of educational providers is an area where problems are described in many of the case studies. In many of the countries education and training providers are described as 'offering resistance'. In Sri Lanka, for example, it is argued that institutional traditions and the previous culture of training delivery interfere with the introduction of new systems and measures for quality control and accountability. This is attributed to earlier independence in determining the content and non-accountability for content or quality of training, and internal and external efficiencies not being visible to external third parties. It is also reported that trainers are very concerned that sufficient funds will not be forthcoming to make implementation possible. Some trainers claim that the new curriculum is a straitjacket and is unrealistic given existing resources. The authority in charge of the Labour Competence Framework in Mexico argues that the competency-based approach has not permeated education and training in Mexico because of the rigidity of educational institutions. In Turkey the Qualifications Authority anticipates that there may be resistance from those who it describes as having a monopoly in some sectors for training provision, testing-assessment, and certification. The Lithuanian study suggests that it is higher education providers who are likely to resist working with occupational standards (as happened in New Zealand).

The case study on Botswana argues that private providers are not interested in whether or not learners get employed. They sell courses such as computer literacy courses because there is a demand for them, or because they are easy to provide, even though people who complete these courses do not get jobs. Their concern is to make a profit. The case study also argues that private providers lack resources needed to re-design courses. Adoption of the new Qualifications Framework would inevitably lead to higher costs as they would have to train trainers, buy new resources, and pay for other processes required to meet the Botswana Training Authority accreditation and registration standards. State colleges see no point in abandoning tried and tested methods, and find the unit standards difficult to work with and difficult to interpret. Botswana also attributes resistance from educators to conservatism and elitism.

In New Zealand and South Africa dissatisfaction of providers, particularly in higher education in New Zealand, was a key factor leading to the collapse of the original NQFs. The new NQF in South Africa looks as if it will be much closer to educational institutions, and reflect their concerns more directly. The countries in which providers seem to be the most supportive are Malaysia and Scotland, where the NQFs are driven by either providers or educational agencies such as awarding bodies and quality assurance agencies. These studies also emphasize that 'providers' are not a homogenous body. Some clearly have

more power than others, and they may therefore have different relationships with qualifications frameworks and authorities.

Besides resistance from providers, in many countries weaknesses of providers is seen as a major problem. Here, some of the studies cite the fact that technical vocational education and training receives a very small part of the total education and training budget, and that institutions have been neglected. Facilities are an issue, as well as the capacity of staff.

While some of the case studies describe educational institutions as 'hindrances', in general they do not consider the possibility that the concerns of these institutions may be serious or valid. This raises many questions about educational institutions: Are educational institutions just another stakeholder in education and training systems? Are they just users of systems which should be designed by others? What motivates people who work in educational institutions? What types of arrangements are likely to lead to high quality education? Should policy not be more focused on improving or supporting education and training institutions? These are questions which policy makers and development organizations may want to consider when designing interventions.

7.3 Development and use of level descriptors

How are level descriptors designed, and how are they being used? Are stakeholders involved? In Scotland, where the process has been a lengthy one driven by the key institutions involved in awarding qualifications, the official descriptors may be well understood by these partners. The building of such shared meanings is not possible in cases where descriptors are adopted or developed by less representative groups—such as, where they are designed by a technical expert, as the case study on Bangladesh suggests was the case in that country. In South Africa there was considerable debate about level descriptors, and it was initially felt that they could not be created 'in a vacuum'—independently of specific exemplars. Some felt that the outcome statements for the different specialist areas must be created first, and that the level descriptors should be created from them. Others felt that the level descriptors needed to be the starting point. Qualification design started in the absence of level descriptors, and qualifications were placed on the framework prior to the creation of level descriptors. Drafts of descriptors were argued over for some time, and it was difficult to reach agreement across different educational sectors. In Lithuania, they were designed by a group of experts, through the European Social Fund project that initiated work on the NQF. The descriptors need to be approved by the government. In Chile, they are being designed by experts comprising representatives from government agencies in the *Chile Qualifies* project, and professionals commissioned from a university.

In practice, looking at the countries with longer experience of implementing qualifications frameworks, it is not clear how much level descriptors are actually used, and how much assistance they have provided. From the experience of the older frameworks, it seems as if the allocation of qualifications to levels is likely to be based on the relative power of institutions, as well as already accepted implicit levels within the country. For example, it is unlikely that a vocational college would be able to assert the level of their qualifications against the judgment of university admission officers, unless this was supported by government.

In Scotland, what are known as 'the development partners', (the Scottish Qualifications Authority, which is responsible for secondary and vocational qualifications, as well as higher education institutions), are responsible for placing their own qualifications in the framework. Credit-rating is the name given to the process for admitting other bodies' qualifications. This is seen as involving a 'process of professional judgement ... exercised by those best qualified through experience and knowledge of the discipline, field of study, profession, trade or area of skill' (SCQF, 2007, p.13). The level descriptors, key

instruments in the credit-rating process, 'give broad, general, but meaningful indicators of the characteristics of learning at each level. They are not intended to give precise or comprehensive statements of required learning at each level.' (ibid, p.7). In Malaysia there is an equivalency committee which decides where to place qualifications. However, given that the three sectors differentiate their different qualifications that are located at the same level by the percentage of practical and applied and theoretical learning that is contained in their respective qualifications, it would be difficult to use level descriptors for an exercise such as credit rating of equivalent qualifications across two sectors.

7.4 Use of learning outcomes

As discussed earlier, in most of the frameworks outcomes are seen as a key tool and are linked to many of the goals of NQFs, such as creating transparency and 'demand-led' education and training systems, and others. In some cases, outcomes are seen as a way of describing qualifications that already are part of the education and training system. In others, outcomes and competency standards are seen as the basis for developing new qualification specifications, which, it is hoped, will lead to new learning programmes, and new awards. However, the case studies in this study raise some concerns for this latter idea.

Although developed through stakeholder-based processes, including industry involvement, in many instances none or few of the new qualifications or competence standards have been used, in the sense of having assessment and awards conducted against them, or provision delivered against them. For example, in South Africa, 787 new qualifications were developed, and only 180 have been used, and the awards made against these 180 qualifications represents a tiny fraction of the total awards made in South Africa, despite the original intention that the new qualifications would replace all existing qualifications. Many of the qualifications were seen as very narrow and over specified. In Mauritius none of the new qualifications have been used, eight years after the introduction of the NQF. In Botswana only ten courses have been developed based on the standards. The Botswana Training Authority does not have records of learner numbers in these courses, or numbers of achievements against the standards. However, ten courses from ten individual providers is a very small fraction of total provision, and it is interesting that even government colleges do not use the newly-designed unit standards.

In Mexico, 16 of the 128 standards generated 83 per cent of total certificates; 37 per cent of the total correspond to the level two qualification. Of around 630 labour competence technical standards registered up to 2008, 530 had not had any assessment and certification use. Some higher education institutions that were contracted to develop competence-based educational materials argued that standards were simplistic and there should be an analysis of the needed learning process that precedes performances. An official interviewed in Mexico suggested that the first attempt at introducing a Labour Competence Standardization System had no effect on employer motivation and even less interest from workers. This is attributed to a strong tradition of seniority in job placement and promotion.

The situation with regard to the English NVQs is similar, and Australia and New Zealand also have many qualifications with low take-up, and some which are completely unused. In both the English NVQs and the Mexican Labour Competence Framework, many of the qualifications that have been awarded have been linked to specific government-funded projects or government requirements, and not based on spontaneous or direct requests from industry.

The design of outcomes-based qualifications in some instances seems to affect the extent to which a framework is nationally accepted. The original NQFs in New Zealand and South Africa were both substantially changed, as educational institutions, researchers, and policy makers criticized this approach. New Zealand still uses this approach for some of the vocational and technical qualifications on its register of qualifications, but South Africa has

completely moved away from it. In some countries these qualifications cover the lower levels of higher education, but in most of the countries, the bulk of qualifications, both in terms of the numbers of qualifications on the framework and the numbers of qualifications awarded, are at the lowest levels. In New Zealand, higher education's rejection of the unit standards-based approach was a key factor leading to substantial changes to the framework. Even when there are higher levels within the competence-based qualifications, for example, in Mexico where the NQF has five levels with the fifth supposed to be at the level of a Bachelors degree, there were no actual qualifications or labour competences developed at this level. In Turkey most qualifications designed so far are between levels 2 and 5. This is not necessarily a problem in itself, except where qualifications frameworks are intended as comprehensive, or where policy makers or stakeholders are trying to encourage higher levels of education and training. The Australian study, for example, points out that the use of competency-based training in technical vocational education and training makes movement to higher education particularly difficult. In Tunisia there is concern from stakeholders that the proposal to place training diplomas from levels 1 to 4, and higher education qualifications from levels 5 to 7, simply reproduces the existing divisions.

7.5 Legal status of NQFs

In many of the countries, formal legislation and regulations are important tools to create, manage, and govern NQFs. The existence of legislation may also be seen to serve as a signal to key stakeholders of the value attached by government and its commitment to the NQF.

In Botswana, Mauritius, and South Africa, laws were passed to create Qualifications Authorities, with the purpose of creating an NQF. South Africa later amended this, so that the NQF itself is created through legislation, and the Qualifications Authority and other related bodies have separate legislation. NQFs in Malaysia and New Zealand have a legislative base, and the NQF in Australia is mentioned in various regulations and policies, and can thus be seen as having a legislative base. Interestingly, the NQF in Scotland, widely seen as one of the few successful examples, has been created through voluntary agreement amongst the key role players, and does not have a legal base. In Sri Lanka legislative changes do not so far seem to be seen as necessary.

The Labour Competence Framework in Chile was legalized after a very long process of contestation. The NQF in Tunisia was introduced through a vocational education and training law introduced in 2008. Its design and governance has been defined through a decree attached to this legislation. In Lithuania, it is hoped that amendments to existing legislation will give the NQF legal status. It was mentioned in the 2007 Amendment of the Law on Vocational Education and Training, through which the National Qualifications Authority was established. In so far as the NQF exists through this law, it is a vocational framework only.

Not surprisingly, NQFs regulations have in some countries overlapped or been inconsistent with other laws and regulation of education and training, labour laws, and so on. This was a clear problem in South Africa, and is an anticipated problem in Russia, where the development of the NQF is already at odds with various legal and regulatory frameworks that it is trying to engage with. For example, use of the newly developed occupational standards would be against existing labour law, and getting the necessary legal changes to coincide with each other is difficult. At the same time, the NQF and the new occupational standards contradict the actually existing state educational standards and accreditation requirements.

7.6 Pilots and sectoral approaches to implementation

In an ideal world, policy development would consist of exploratory phases, followed by conceptual discussions and design, piloting and testing, implementation, and reviewing. This is not always possible, though. For example, it is hard to see how a comprehensive NQF could be piloted *per se*. The current set of case studies show the implementation of NQFs to be a much less straightforward process, embedded in other policy processes and structures. In many instances it is not a policy which is designed, tested, implemented, and reviewed, but a policy which builds on, revises, brings together, or modifies existing policies to do with qualifications, regulation of occupations and professions, curriculum policies, and delivery and management of educational institutions. In Scotland and Malaysia, for example, although the formal introduction of an NQF can be seen as a specific moment, the NQFs are so much part of preceding educational reforms that they cannot really be separated out. New Zealand and South Africa have been characterized by reviews and ongoing changes. In Botswana there was some sense of an initial design phase, followed by a capacity building phase, followed by an implementation phase, but there were no pilots *per se*, and there has been no formal evaluation.

The case studies do not report attempts to pilot implementation of NQFs. However, there are some countries, such as Bangladesh, which are starting with sector-based implementation, which could be seen as piloting. A common trend across the case studies, as discussed in Chapter 8 below, is success stories in specific economic sectors. It seems clear even with the newer frameworks that some sectors are more likely to experience successes than others. For example, in Lithuania at the time of writing the case study, employers in the construction industry were trying to attract skilled workers, and therefore trying to improve wages and promising training and further wage increases. This sector, therefore, is seen as one in which qualifications reform may play a useful role.

In Turkey there is a strong sectoral approach to implementation, and specific sectors are described as being likely to succeed because of well-developed, committed, and powerful sectoral organizations. It is hoped that success stories will create constructive competition among other sectors (as industries that have not previously taken part in Vocational Qualification Authority activities start showing interest to the process) but also that they help create awareness and knowledge of the qualifications framework among larger groups thus indirectly contributing to the dissemination efforts.

One of the most cooperative sectors in NQF activities in Turkey is the construction sector as it has been in the process since the 1990s through earlier donor-funded projects and still takes an active part in relevant initiatives. This sector has a need for well-trained and qualified workers. The Turkish Construction Industry Employers' Union (INTES) has taken an active part in occupational standard development process for about a year and they have determined the occupations to be taken to the agenda mostly through a labour market needs analysis (a survey) rolled out to their 125 members, in addition to the medium and long-term investment plans of the government. INTES intends to expand its activities to different stages of the process including testing, assessment and certification and has a target of properly certifying one million people in the sector in the medium-term. It is preparing for the accreditation processes.

Tourism sector organizations in Turkey have also taken an active part in qualification framework-related initiatives since the early 1990's, led by the Ministry of Culture and Tourism. The Ministry is currently involved in occupational standard development in cooperation with the Touristic Hotels and Investors' Association and the Mediterranean Touristic Hotels Association. The Ministry has allocated 20 staff for qualification related activities all coming from (and having experience in) the tourism sector, participated previously to standard development activities and having a good knowledge on real implementation. A consultation process was undertaken in all regions, and reflected different sectoral segments—for example, for hotel trade occupations, information from

hotels with different star ratings have been collected and care is given to gather feedback from all regions of Turkey.

Bangladesh and Russia are also following a sectoral approach to implementation. In Bangladesh, four key industry sub-sectors are targeted and 13 occupations. Four other sectors will be covered in a later project through a different donor (Asian Development Bank). A third project through a third donor (World Bank) will support training activities at the tertiary level. In Russia, different sectors are trying to develop frameworks which fit into the nine levels, although they are also allowed sub levels. The most active sectors are those which are new (florists and ritual services), those which are developing rapidly (catering, information technologies, construction), and those experiencing shortages of qualified employees (aircraft construction, machinery, construction, information technology).

As a broader part of vocational education reform, Tunisia has created pilot projects in 15 sectors for increasing the autonomy of technical vocational education and training institutions. It is intended that the learning from these pilots will then be extended to the rest of the professional education and training system. Since 2006 professional sectoral classification has been in process, where qualification levels are expressed in terms of results of training. Initially repertories of the trades and competences were developed on the basis of analysis of employment.

7.7 Policy breadth

Policy breadth is understood as a range of policies and institutions which work towards the same objectives, or contribute to complementary objectives, or which reinforce and support each other. NQFs are much more likely to contribute to the achievement of objectives if other policies also support the broader aims. This research was interested in whether there are necessary prior conditions which must be met in order for NQFs to play a useful role—for example, the literature review suggested that the existence of strong professional communities of practice is necessary to have a shared understanding of standards. Another interest was which complementary policies seemed to be necessary.

In most of the countries in the study, there seems to be some degree of policy breadth. For example, the NQF in Lithuania is part of the implementation of a modular technical vocational education and training system and linked to the introduction of the European Credit Transfer System in higher education. In Sri Lanka, the creation of new qualifications has been supported by the establishment of the University of Vocational Technology (Univotec) in June 2009, although the Univotec has been established as an entity separate from the traditional University setup and has so far no alignment with the traditional university system. In Malaysia related policies such as a skills levy have worked well with the skills sub-framework of the NQF, despite opposition from industry and a recent reduction in the levy from 1 to .5 per cent because of the current economic crises. In general the money does seem to be spent on training. The *Chile Qualifies* programme was a broad programme involving upgrading of schools, training technical teachers, labour market studies, information systems, and so on, as well as a unit for the Standardization and Certification of Labour Competences. Its main aim was the coordination of the wide range of projects and programmes on offer, and the Labour Competences Framework was seen as a tool in this regard.

However, the case studies did not provide clear indications of necessary prior conditions, or about the appropriate broader policy environment. This could be partly because of the early stage of implementation of many of the frameworks, or because it was difficult for individuals interviewed to separate out causal relationships. The case studies show that the notion of policy breadth is not a simple one with regard to policy implementation. For example, in Botswana there is a raft of policies in relation to technical

vocational education and training reform, youth policy, policy to encourage entrepreneurship and provide loans to small start ups, but none seemed to be particularly successful in their own right. Similarly in Chile, the Labour Competence Framework was not created in a vacuum. The Mexican Labour Competence Framework was introduced as a component of broader reforms, which also aimed at modernizing training programmes to increase their flexibility and relevancy on the basis of labour competence qualifications and stimulating demand for competency-based training and certification to promote private sector initiative and participation in training design and implementation. It seems that too much complexity was created in the attempt to have policy breadth and involve all the relevant role players.

7.8 Other implementation issues

As is much discussed and reported on, the Scottish process can probably be seen as the most incremental process, building on a series of preceding reforms. The New Zealand and South African NQFs, on the other hand, as well as the English NVQs, were attempts to make a 'break with the past', and were therefore designed to be implemented as entirely new systems. In Lithuania implementation was described as initially incremental, led by academics, through what the case study described as an "open, discussion-based and incremental process of implementation". The study suggests that this approach was overtaken by state bureaucracy and a top-down, formal and legalistic approach, which has been exacerbated by hasty and impatient implementation because of a desire to articulate with the EQF by 2012. However, it does not seem as if either phase has had great stakeholder input. NQFs are clearly embedded in power relationships, and this affects implementation. For example, in Tunisia, ongoing dispute about the parity of esteem between vocational or technical training on the one hand, and schooling and higher education on the other is reflected in disagreement between different ministries.

The Sri Lankan model is interesting because it is highly centralized. Treasury is ensuring that institutions comply with NVQF requirements in order to get funding. An executive order of the Ministry of Vocational and Technical Training of 2005 makes it incumbent upon all Vocational Training Centres under the Ministry to be registered with the Tertiary and Vocational Education Council, that courses be accredited where NVQ standards exist, and that all trainees are placed for NVQ assessments. In addition, steps have been taken to ensure the development of centralized curricula and other support materials. It is believed that this highly centralized approach will ensure coherent policies and delivery mechanisms that are responsive to industries' and broader national social and economic development needs.

The Turkish model, on the other hand, is voluntary. However, it may be the case that some '*mandatory'* initiatives are introduced, such as, for example, requiring NQF certification for the award of tenders in areas where health and safety requirements are critical. The Turkish model also builds on a previous history of an Occupational Standards notion. In some cases, there are ongoing reforms that are at odds with the implementation of the NQF. For example, in Lithuania, Chamber of Industry, Commerce, and Trades, with the assistance of the European Social Fund, has been strengthening various approaches to assessment, yet, the NQF proposal is to remove its assessment monopoly.

A potential area of concern is that many countries are very dependent on donor aid and technical assistance. This is specifically mentioned in the case studies on Bangladesh, Botswana, Chile, Mexico, and to some extent in Russia and Sri Lanka. Clearly, many countries feel the need for both financial and human resources in this area, and no one interviewed argued against the value of international technical cooperation. However, some individuals interviewed raised potential concerns about longer-term sustainability, and whether sufficient funds would be available to maintain the systems which were being established. Another concern raised was that solutions sometimes seem to be decided upon

based on practices in other countries, without sufficient local knowledge, and the development of shared analysis of problems and potential solutions.

Chapter 8: Impact of NQFs

8.1 Introductory remarks

This section provides information about and analysis of some of the achievements, problems, and failures that are evident from the case studies. Each researcher looked for evidence of impact according to authorities, stakeholders, and researchers in the country they were researching, and also sought views of stakeholders and role players. Researchers were asked to look for evidence of who is using the various frameworks, and to what effect, in an attempt to gain insight into possible impacts which are not recorded by authorities. Some of the data is drawn from official evaluations, or evaluations of projects conducted by donor agencies. The possibility remains that evidence of successes exists in the countries, but was not found by our researchers.

In most of the case studies, it was too early to say whether or not the qualifications framework would achieve its goals. Nonetheless, some analysis of impact can be made in relation to the five earliest NQFs (the English NVQs, and the Australian, New Zealand, Scottish, and South African qualifications frameworks). NQFs in Botswana and Mauritius have also been implemented for some time, and there are some lessons available. While the Malaysian NQF is new as a national comprehensive framework, it builds on previous frameworks, and thus is drawn on to some extent. The Labour Competence Frameworks in Chile and Mexico have also been under development for some time, and thus analysis of impact and achievements can be made.

Of all the cases in the study, South Africa is the only one to have attempted a formal *impact* study. Various subsequent reports and research suggested limitations with the impact study (Allais, Raffe, Strathdee, Wheelahan, and Young, 2009). A new study of the use and impact of the NQF has been initiated. Scotland has commissioned evaluations of its framework, and evaluations have been conducted in Mexico. As mentioned in Chapter 6, none of the case studies found information about impact evaluation strategies, although there are some monitoring and evaluation strategies for some aspects of the NQFs. Authorities in the countries in many cases did not have clear indicators at the start, or conduct baseline studies against which evaluations could be conducted. There are few, if any, places in which successes and failures of the framework have been brought together in a clear and accessible format for practitioners and policy makers in the countries themselves, or in other countries, to learn from, even in the countries that have been implementing NQFs the longest.

Clearly, in any policy implementation, impact evaluation is complex. NQFs, as discussed above, aim to change education and training systems in a whole range of different ways, in order to achieve desired effects. It may be difficult to measure an NQF's impact on the performance of an education and training system since the concepts and categories used to measure performance may be changed by the NQF itself. What constitutes success is also contested. In some of the case studies, successes were claimed or reported which, on analysis, do not seem to be clear gains. It is also difficult to clearly argue whether or not a change in the right direction can be seen as due to the NQF or to other policy or institutional reforms. For example, the case study on Scotland points out that much of what is perceived as the achievements of the Scottish NQF can be attributed not to the framework *per se*, but to the series of reforms which preceded it, and the sub-frameworks. The case study also argues that there has also been value added by bringing them together in a single framework. Thus, the lessons of the sequence of reforms that preceded the SCQF are part of the lessons to be drawn from the Scottish experience. To add to these difficulties, the aims of some of the frameworks are very high level and ambitious, whereas the frameworks themselves are rather narrowly defined and technical.

Nonetheless, strong claims continue to be made about what NQFs should be able to do. If policy makers in other countries are to learn from the experience of the earlier qualifications frameworks, it is necessary to have some sense of whether they have in fact achieved their objectives, and how. As discussed in Chapter 3 on methodology, this research did not start with one single set of indicators which could be used as evidence of impact. This study does not make any categorical claims or judgements about successes and failures. Nonetheless, where there is little publicly available demonstrated evidence of success, and where authorities were unable to produce evidence of success, this is likely to indicate that there may not be many successes in a particular area. In some cases, evidence of problems is clear—such as where qualifications were not used, or governments instigated policy reviews because they were dissatisfied with policies or policy implementation. In other cases, there is evidence of considerable criticism from researchers and stakeholders. What follows below is a discussion of **achievements and problems** in relation to the aims discussed in Chapter 5.

8.2 Improving the communication of qualification systems

As discussed in Chapter 5, the most general goal of the introduction of a qualifications framework is the creation of a nationally accepted single framework of qualifications, which makes qualifications in the country (or educational sub-sector) easier to understand, and avoids duplication and overlap of qualifications while making sure all learning needs are covered. Most countries in the study seem to have made some headway in this regard, although in all countries, the development of a single nationally accepted framework of qualifications is a work in progress—constantly under change and redevelopment.

The Scottish framework can be described as the most successful in terms of a framework which improves how the qualification system is understood. The framework is described in the case study as having broad acceptance within the educational community, and as having contributed to the development of a ‘common language’. How this support is measured is not clear, but there has been no serious contestation, as has been the case in other countries. Although many of its successes are at least partially attributable to prior reforms, the case study argues that it was only when the different frameworks were brought together within a single comprehensive framework that the range of current *uses* of the framework become available. In Mauritius, there seem to be some gains in terms of clarification of nomenclature of qualifications, and relationships between qualifications do seem to be more explicit. The Australian Qualifications Framework is seen as having played some role in controlling the proliferation of new qualifications. The Australian study suggests that bringing different education systems together in a single framework can improve pathways between systems, and highlight where the problems with pathways are. The Australian Qualifications Framework has had the most impact on vocational education and training where it has contributed to the creation of a national vocational education and training system and national vocational education and training qualifications to supersede the pre-existing separate and disparate systems of the eight state and territory governments. There is more contestation over the qualifications themselves, as discussed in the following section.

In some countries, substantial problems have also been experienced in the attempt to create a single national accepted framework of qualifications; the degree of problems seems to be proportional to the ‘tightness’ of the framework, as well as the ways in which the outcomes-based model are conceptualized. Frameworks in New Zealand and South Africa failed to become nationally accepted, and had to be substantially changed. In South Africa, the framework was entirely changed, and all the associated mechanisms for determining standards and monitoring and maintaining quality have also been changed. The New Zealand framework was also substantially changed, but the original model survived as part of a broader register of qualifications, which is a list of all nationally recognized

qualifications in the country. Both countries have moved from a single model for the whole education and training system to a model with differences for different education and training sectors. The framework in Botswana also has apparently failed to achieve national acceptance. Although it is a government policy, government training colleges do not use it, let alone other providers. The same situation prevails in Mauritius with regard to the new outcomes-based qualifications that were designed for the technical vocational education and training sector.

8.3 Improving the transparency of individual qualifications through learning outcomes

As discussed in Chapter 6, the main mechanism to create transparency in most of the countries is the specification of learning outcomes or competency statements, as well as level descriptors. Official sets of levels have been created in all the countries, and level descriptors in most of them, and there are considerable expectations about what level descriptors can achieve. Little specific evidence was found that level descriptors are useful in making decisions about the location of qualifications on the framework, or about credit transfer, although in the Scottish case they do play a role in course planning and redesign, for credit rating, and for cross referencing. In South Africa, on the other hand, some of the educational authorities are quoted as saying that level descriptors were of no use to them. It seems likely that if there was clear evidence about successful uses of level descriptors, researchers would have discovered it, or had it drawn to their attention, given that level descriptors are described as such an important feature of the design of most of the frameworks in the study, and given that qualifications authorities were interviewed and their reports and evaluations were scrutinized by researchers.

The case study on Australia suggests that while training packages are strongly supported by employer and union industry peak bodies, teachers and some providers express more disquiet. A 2004 national review of training packages called for a ‘new settlement’ as a way of trying to build consensus around technical vocational education and training qualifications. In Malaysia, industry is reported to be relatively happy with the outcomes-based skills qualifications, although the qualifications do not allow much possibility of movement up the education and training ladder, because of their low level and lack of theoretical knowledge. Interestingly, the case study points out that the skills qualifications mainly use the ILO Regional Model of Competency Standards rather than the Malaysian Qualifications Framework, which is seen as offering little to the skills sector.

Although learning outcomes and competency standards are specifically introduced as the key mechanism through which qualifications are to be made more transparent, there are indications in some countries that the reverse effect is the case. In many of the countries, the implementation of outcomes or competency-based approaches seems to necessitate very elaborate and detailed rules and specifications. In South Africa, attempts to create transparency led to so much specification that standards became very narrow and very long—and inherently untransparent. It would be difficult to argue that the registers of qualifications created in New Zealand and South Africa have created transparency, as they are both lists of incredibly large numbers of qualifications—for example, there are 7,960 registered qualifications in South Africa, as well as 10,582 unit standards, or part qualifications. Similarly, in the English NVQs attempts to ensure transparency led to over specified and narrow qualifications. In Botswana, unit standards were seen as difficult to understand. Sri Lanka intends to provide a series of additional documents in addition to the competency standards, including curricula which contain specified learning outcomes.

What follows are more specific discussions on focused issues in relation to the aims which are associated with the desire for increased transparency.

8.4 Reducing the 'mismatch' between education and the labour market

In general case studies were not able to find evidence demonstrating that employers found qualifications easier to use than they were prior to the introduction of an NQF. Qualifications authorities, government agencies, and industry bodies interviewed did not have concrete evidence, evaluations, research, or even strongly articulated opinions that there had been achievements in this regard.

As discussed above, the intention in many of the countries is that once industry is involved in developing qualifications, the standards or outcomes will be more appropriate, more learners will get better jobs, and industry will get the skills that they require. In most countries there is *some* evidence of increased involvement of employers in *defining* qualifications and *identifying* valuable knowledge and skills. In all countries, participation of employers in the processes of identifying skills needs and defining outcomes and qualifications is mixed, with more success in some areas than others. Chapter 7 also discusses the finding that in some of the countries qualifications and unit standards/competency standards have been developed with industry involvement and have not been used—in the sense that no institutions have developed learning programmes against them, no one has been assessed against them, and no one has been awarded them. They are merely qualification specifications on an official framework.

While in some countries the development of new qualifications was claimed as an achievement by the qualification authorities, it is difficult to see how the development of unused qualifications can be an achievement. The studies on the English NVQs as well as the South African NQF suggest that employers seem to prefer the old qualifications, even when industry was involved in the design of the new ones. It seems that even where there is dissatisfaction with existing qualifications, they may be preferred over qualifications from newly-created authorities with no track record. In Mexico it is argued, based on employment patterns, that the new certificates up until 2008 had mainly not been recognized by the labour market, so certificates did not attain the intended "value" in the labour market. Both the productive and social sectors were said to trust certificates from the Secretariat of Public Education rather than those from the new CONOCER, despite the fact that industry was involved in the creation of the latter. New rules have been introduced so that the Secretariat of Public Education can back the competence certificates, in an attempt to promote a large-scale worker assessment and certification process. Sri Lanka also claims the development of new qualifications as an achievement—there are now 90 occupational standards, versus the previous 25. So far nearly 10,000 awards have been made against these qualifications, and it is too early to tell whether or not the problem of unused qualifications will occur, although the authorities are confident that it will not.

There are few specific data in any of the countries that show that qualifications frameworks have improved the match of supply and demand between educational institutions and the labour market, or that qualifications frameworks have raised the qualifications levels of the workforce, or led to more appropriate skills and knowledge being obtained by learners. The Australian study argues that the 'fit' between qualifications and occupations is very loose with the exception of regulated occupations (such as the electrical trades or nursing) where the fit is much tighter. Some limited (small scale) achievements in certification of prior or experiential learning could be seen as contributing to the latter. An officer from the Botswana Confederation of Commerce, Industry and Manpower (BOCCIM) argued that they find it difficult to sell the idea of unit standards to industry because few employers find it easy to translate them into practice. In Mexico,

despite many changes and re-specifications to the design of standards, they were seen as not transparent, and were interpreted in very different ways.[14]

This does not mean that there are no successes or no progress at all. The Scottish framework is used in some occupational and professional areas such as health service and banking, for example to give exemption from qualification requirements. The case study on Scotland suggests that Careers Scotland has to some extent used the qualifications framework to support its work, and that employers and professional bodies have used the framework for recruitment as well as planning and organizing training provision, but so far total activity has been small, and tended to arise out of specific needs. Similar use has been made of it in adult education and in niche areas of provision. In Botswana one employer is cited as having worked with the Botswana Training Authority to develop a specific qualification for their workplace, and being happy with the results in terms of what learners knew and could do after having been through the training programme and awarded the qualification. In Sri Lanka a few employers are reported to have conducted assessment against the new standards, and to have linked these to salary scales.

In the case of the English NVQs as well as the competence framework in Mexico, the new qualifications were used in specific sectors. These 'successes' have been based on strong human resource development policies in the workplace, or, in one of the English cases, strong professional bodies which influence qualification design and maintain examinations based assessment. However, these developments have not been quantified. As discussed above, one company in Botswana felt that qualifications acquired were useful, and a few employers are cited in Sri Lanka as having found the assessment against competency-standards useful. However, it is a negative sign that BOCCIM continues to offer courses to its member industries without accreditation from the Botswana Training Authority. Furthermore, most of the few unit standards which have been awarded in Botswana are generic ones (using computers and knowing about HIV/AIDs) with no direct workplace application. Employer representatives interviewed thought they were not useful, and representatives from the Ministry of Labour in Botswana argued that there is no evidence to suggest that investment in 'core skills' (e.g. computer literacy) assists individuals to find jobs, or reduce their levels of poverty. Similarly, in Mexico, a competence standard for computing is the most awarded, followed by *advising on housing credit, child care in child care centres, training provision face-to-face*, and *training course design and implementation*. What the role of such 'generic' or 'core' skills are or could be in relation to employment is not an issue which this research could explore. It is mentioned here because individuals in Botswana felt that the unit standards awarded against the Botswana NQF did not have value in the labour market, and because if NQFs and competence frameworks are to improve relationships between education and training

[14] Information provided to the ILO by CONOCER in May 2010 updated the findings in the Mexico case study which relates information from 2003 through 2007, and explained three main components of the reform for "A New CONOCER for Mexico" that was launched in 2008: empowerment of sector competence committees to define the Mexican human capital agenda for competitiveness; construction of new mechanisms and instruments to improve education and link education and training more clearly to the world of work; and the redesign of the assessment and certification structure. The new tripartite board of CONOCER includes line ministries in education, labour and economy, representatives of three major employers' confederations, and the general secretaries of three major trade union confederations, thus strengthening social dialogue in the area of training and qualifications. The restructuring is credited with increasing the number of competence certifications issued by CONOCER from 12,000 in 2007 to 60,000 in 2008, and to 80,000 in 2009 in spite of the impact of the economic and financial crisis in Mexico.

provision and labour markets, it seems worrying that the competencies or unit standards directly relating to workplace requirements are not used, and the more generic ones are.

In many countries, policy makers argue that industry will come on board once they realize the value of the competency-based approach. But it seems from these studies as if employers do not behave as policy makers desire/assume they will. For example, by 2002 in New Zealand, 45 per cent of employees were not covered by an Industry Training Organization, the structures designed to ensure training happens in different sectors of the economy. This was either because many employers did not believe that the Industry Training Organization met their needs, or because they relied on the university system to regulate qualifications (i.e. employers had faith in the formal education system, and not the new qualifications, despite them being so-called industry-led). In many instances industry was reluctant to be involved in training that could lead to demands for higher wages. The New Zealand study points out that many firms do not seem to see improving the skill of their lower level workers as part of their competitive strategy and that many areas of the labour market do not require such workers to have high levels of skills; this is probably an issue which applies elsewhere as well. In Malaysia many companies, particularly smaller ones, prefer to employ trained workers or outsource rather than organize training, and individual and worker demand is also seen to be weak—the provision of publicly-funded training places, including those for redundant workers, has been met with weak take-up.

There is some evidence that even where industry does play a strong role, industry-led systems have mixed reactions from employers themselves (who are of course, very heterogeneous in all countries). For example, the case study on Australia cites research suggesting that while those employers who use the technical vocational education and training system report that they are satisfied with the results, some employers, particularly in small and medium enterprises, find the system too complex. The Australian study quotes research showing that employers do not value qualifications in the same way that the technical vocational education and training sector does, and indicating that developers are "not in touch with the need of industry".

The problem of over-specified and narrow qualifications was mentioned above as a problem of lack of transparency. However, it is also a problem for quality, as in Botswana, the English NVQs, and in South Africa, the newly developed qualifications were seen as very atomized, and focused on very narrow skills. The Australian case study suggests that some researchers also find this to be the case in Australia. Both Mexico and South Africa report finding the recurrence of courses of dramatically varied quality and standards being based on the same outcomes. Of course varied quality is not a new problem, or one that is simple to solve; however, this issue is mentioned given that many countries hope that the specification of clear outcomes or competencies will solve this problem.

8.5 Credit accumulation and transfer

With regards to articulation amongst educational providers there is greater evidence of success, although there are also suggestions that qualifications frameworks have in fact reduced learner mobility in some countries. In countries where there have been successes, qualifications frameworks can be seen as playing some facilitating role in improving pathways, although they do not replace institution-to-institution partnerships and multi-institutional arrangements. Again, the Scottish case study claims some successes. The NQF is described as having introduced a common national 'language' to support access, transfer, and progression, possibly strengthening existing arrangements or making them easier to use. The NQF is described as *associated with* (although not necessarily the main causal mechanism in) positive developments in access, progression, and transfer. The framework has provided a tool for creating new pathways between the three main sub-frameworks, although there is no clear evidence on how widely used this is.

The Australian framework has, to a limited extent, provided the basis for dialogue between sectors and been used to underpin credit transfer agreements and pathways. However, the case study on Australia suggests that the Australian Qualifications Framework can be seen as entrenching sectoral divides, because vocational education and training qualifications are output-driven, based on competency-based training, whereas higher education qualifications are based on academic requirements established through shared understandings of syllabuses, processes of learning, assessment, and outcomes. The government is concerned with the limited success of pathways and credit-transfer, and it looks set to introduce changes to the Australian Qualifications Framework. In Botswana, the existence of a framework only for technical vocational education and training is seen as making technical vocational education and training even more isolated, as there are no clear pathways for articulation. Similarly in Russia, although the NQF is only just being developed, there is concern that there will be a growing gulf between those qualifications operating within the NQF (mainly technical vocational education and training) and those outside of it (secondary and higher education).

The Malaysian Qualifications Framework does not assist in allowing or facilitating qualifications to 'talk to each other'. The framework only allows 30 per cent credit transfer between qualifications, and the sub-framework for skills does not allow for any credit transfer within the skills qualifications. Provider representatives interviewed argued that the epistemological and learning practices are too different for credit transfer to be possible, and that this is exacerbated by the educational backgrounds of the learners. Credit transfer is ultimately decided by institutions, and there is very little credit transfer between skills and the other two sectors.

The studies (particularly on Scotland and Australia) show that relationships and arrangements between institutions, as well as trust which is established over time, are crucial to ensure movement of students between educational institutions, whether within a single educational sector (for example from one higher education institution to another) or from one sector to another (for example from technical vocational education and training to higher education). While qualifications frameworks *may* play some role in providing a common language and formalizing these relationships, they cannot replace relationships of trust.

8.6 Recognition of prior learning

Evidence of recognition of existing skills, knowledge, and abilities of workers and potential workers is small scale in most of the countries in the study. The Scottish case study suggests that the Scottish NQF has been used to some extent in the recognition of prior learning, but that this is not quantified, and the Australian and South African studies also provide information about certificates which have been issued for prior learning. Sri Lanka has made 1,950 awards of certificates in this way, and in Chile and Mexico some awards were made to workers and potential workers based on recognizing prior learning. In Chile worker organizations involved in pilots have positive views about the experience, and suggest that workers feel proud of certifications obtained. The assessments were conducted through workplace experts, with no role for training institutions. Technical problems with the legal status of the Labour Competence Framework have meant that the certificates are not always recognized by educational institutions. In Mexico, the cost of assessment was seen as a barrier to the recognition of prior learning, as generally the most disadvantaged people constitute the potential demand of this service. In Chile, while workers were assessed as competent, there are legal complexities around the acceptance of the certificates.

In Botswana, standards were developed for traditional dancers; a group of traditional dancers was assessed, found competent, and given certificates. However, it is hard to see what advantage this gave the dancers, who were already working as traditional dancers, and

were not given access to any other training or educational programmes based on the acquisition of these certificates. Further, this project was government-driven and funded, and very small scale.

In Malaysia the focus is on the recognition of prior learning for access to education and training, and not for certification for other purposes. While there is emphasis given to the recognition of prior learning at the level of rhetoric and policy, there are few concrete policies or institutional arrangements in place. In Tunisia, an approach to validating prior experience has been developed, and a group of trainers, specialists, and professionals has been created to put mechanisms in place. In Russia, while there is a strong emphasis on the recognition of prior learning routes to qualifications in theory, so far the sectoral qualifications frameworks which have been developed insist on formal education qualifications, and the proposed NQF also emphasizes formal education and training routes: there is a table maintaining links between qualification levels and educational levels. The existence of the document can be explained by the fact that the formal education plays a significant role for the Russian population. According to the Russian Law on education a learner can get the state certificate or diploma recognizing his/her qualification only through the formal education.

In Lithuania there is concern that there are no appropriate competent professional organizations and stakeholders who can evaluate and award certificates for specific competences as well as evaluating and awarding qualifications for knowledge and skills acquired informally and non-formally.

8.7 Access

The case study on Scotland suggested that the SCQF is associated with gains with regard to access. Other than that, the studies provide some indirect evidence that NQFs may have led to increased access, in so far as there is evidence of awards based on the recognition of prior learning, as discussed above. The Lithuanian study suggests that the NQF may not solve what is described as one of the current problems of access—that graduates of vocational higher education are required to undertake ‘compensatory’ studies before they can access Masters programmes.

The one area in which qualifications frameworks could play a clear role is where there are legal regulations with regard to qualifications which are demonstrably irrational—in other words, where certain qualifications do not allow access to further learning, even though it can be demonstrated that the individuals have the necessary skills and knowledge. Many of the case studies cited the fact that learners from technical and vocational programmes are often unable to move to higher education. However, the studies were unable to discover whether the problem was an arbitrary qualification requirement, which could be removed through a framework, or a problem with regard to the nature and quality of the curricula of the vocational programmes, which would be far more difficult to solve; neither did researchers manage to find specific evidence that such problems had been solved. In Sri Lanka, an attempted solution to this problem is the creation of a new university specifically for technical education.

Given that most studies suggest fees, and lack of basic education, are key problems with regard to access, it is not clear that qualifications can play a major role in this area. With regard to the fees, in Chile, for example, until very recently, students in technical training got very little assistance from the state, and even today they receive less in loans than those in higher education. This in turn leads to underfunded institutions, and makes it harder for poorer youth to access training and enter the labour market, and creates disincentives for people wanting to follow technical careers. Besides fees, the opportunity cost of not working may be insurmountable; this is specifically mentioned in Mauritius. With regard to the lack of basic education, case studies cited two problems: either learners

lack basic literacy and numeracy, and therefore struggle to access training programmes, or, graduates from training programmes lack the knowledge base that they would need in order to access further education and training. In Bangladesh, the designers of the NQF have offered a solution by creating qualifications at lower levels—called 'pre-vocational' qualifications. However, it is not yet clear who will offer learning programmes that will lead to these qualifications, and who will award the qualifications.

8.8 Quality assurance systems and new regulatory, assessment, and certification mechanisms

Australia and New Zealand succeeded in their aim of creating highly-marketized, competition-based technical vocational education and training systems, and in New Zealand, the accreditation system created through the outcomes-based qualification model was seen as successful in terms of leading to the emergence of new providers. It is important to note that both these countries are wealthy, developed countries, with high levels of expertise and professional provision of training. Also, in Australia, with its strongly marketized model, around 75 per cent of all students and 84 per cent of provision is still through state colleges. It is not clear from the case studies whether the achievement of a marketized competition-oriented system necessarily achieved technical vocational education and training delivery which is higher quality, more efficient, or more equitable, and there is some contestation on this area in the countries. Problems are evident in Australia at the moment, particularly in relation to its international student market, and the government is seeking to tighten regulatory and quality assurance arrangements. Malaysia, on the other hand, seems to be achieving its aim of introducing more regulation for its already highly-marketized system.

Other countries have had more difficult experiences. Experiences in Botswana, Mauritius, and South Africa suggest that the decentralization which countries tried to achieve through the development of outcomes-based qualifications is a risky road, and relying on an accreditation model in the context of weak and uneven institutions is difficult. The South African case study argues that while registration and accreditation processes are important, they proved costly, time consuming, and ultimately ineffective, in the absence of strong educational institutions and more traditional ways of attempting to ensure quality, such as prescribed syllabuses and centrally-set assessments (outside of the university system). A more serious problem experienced in South Africa is a simple lack of provision in many key areas. While the hope was that once qualifications had been specified, provision would emerge, in many cases this did not happen, and provision remains primarily based on those institutions which already existed. In Mauritius, the accreditation system is seen as stifling responsiveness without adding value, as all short course providers have to get their courses accredited—in other words, any provider wanting to develop a short, customized, focused course for a specific short-term process has to go through quality assurance processes which could take some time, even though in nearly all cases courses do end up obtaining the necessary approval.

In Turkey, although there is confidence in the new proposed systems, there are some concerns that there are currently no institutions which have been accredited for any of the key functions, while the new system depends heavily on accreditation. In addition, there is some concern about the capacity of the accreditation institutions, and concern that once institutions and organizations start applying, bottlenecks might occur. There is also a concern that institutions may not want to be accredited to conduct assessment and certification, where revenues from these activities may not compensate costs.

In Chile and South Africa complex governance arrangements emerged from attempts to create quality assurance and accreditation systems, sometimes in contradiction with existing systems. This has been flagged as a possible concern in Russia. Another difficulty of this type of approach, as experienced in Mexico and South Africa, is that institutions and

individuals needed to be certified as competent assessors in order to award qualifications, but their competences had to be evaluated by institutions or individuals which had not yet been found competent, or accredited to perform these functions. Both countries also found that their accreditation systems tended towards bureaucracy, without real impact on educational quality. The case studies of the older frameworks suggest that it is difficult to expect new institutions to assess and certify.

8.9 Reforming delivery of education and training

In Scotland the NQF is associated with more flexibility in delivery, as the development of the NQF was based on previous reforms which focused on increasing flexibility through modularization. The case study reports some tension, though, between the flexibility provided by modularization and the rigidity created by the greater standardization and control involved. The countries which attempted to use unit-standards or competency-standards to create flexibility have a mixed picture. The system in Australia is described as having some successes, but many difficulties and much contestation. The unit standards in Botswana and South Africa were not seen as contributing to flexibility. An employer interviewed in Botswana argued that processes in the workplace change more often than formal standards can accommodate. In South Africa, unit standards became rigid requirements which made educational provision difficult.

8.10 Improving parity of esteem for TVET and workplace-based qualifications

None of the case studies was able to find any specific evidence demonstrating that the status of technical vocational education and training qualifications had improved since the introduction of the NQFs. It is possible that status has improved but evidence of it has not been recorded or researched in the countries; being a matter of perception, status is obviously not an easy thing to research. However, it is likely that changes like greater influx of learners into programmes previously seen as less desirable would have been observed, if they had in fact occurred.

8.11 Increasing private sector financial contributions to TVET

The idea in most of the countries is that through the creation of an NQF, industry can be encouraged to share the cost of technical vocational education and training. In the countries with older NQFs, there is little evidence that this has happened. In nearly all countries, the problems and weaknesses of technical and vocational education and training are attributed to systematic under-funding. This looks set to continue in some of the countries—in Malaysia, for example, the focus is clearly on higher education and professional training, despite the fact that 80 per cent of the workforce is low skilled. The focus seems to be on changed modalities of funding and accountability (and in many instances, doing more with less), rather than injecting new funds into the system, although donors are providing funds for reform at a systemic level. There are indications that new government money may be injected into technical and vocational education and training in Bangladesh, Chile, Sri Lanka, and Tunisia.

8.12 International recognition and labour mobility

The case studies did not provide clear evidence of improved international recognition or mobility because of the existence of a qualifications framework. This does not mean that no evidence exists in these countries, but that officials interviewed, and official and

research documentation which was included in this study did not provide such evidence. Critical readers of earlier drafts of this report were surprised by this and suggested that favourable evidence in this regard should be available in Australia and New Zealand, but researchers in these countries were unable to locate such evidence, despite additional requests and attempts in this regard. The Scottish framework is being aligned to the European Qualifications Framework, and the other European countries are directly basing their frameworks on the European one. Whether this improves mobility and recognition remain to be seen. In Lithuania some experts interviewed were concerned that if the NQF did improve mobility, this could be negative for the country, as it could endanger the national and ethnic identity of Lithuania, and endanger its economic development because more mobile skilled workers will move, thus undermining Lithuania's workforce further. However, a trade unionist representative interviewed had a very different opinion, arguing that increased mobility (via the NQF or the EQF) will help employees improve their socioeconomic status and increase their bargaining power in the field of industrial relations.

For a consideration of recent research on qualifications and international recognition, see Johnson and Wolf, 2009a, Special edition of *Assessment in Education: Principles, Policy & Practice*, volume 16, issue 1.

Chapter 9: Reflections and discussion

9.1 Reflecting on the difficulties

The case studies in this study, comprising many of the countries which are most advanced in terms of qualifications framework internationally, clearly reflect considerable difficulties. In many cases, these difficulties are related to very specific contextual factors, as well as institutional arrangements and traditions in the countries, which this research could not investigate in great depth. What follows is an attempt to reflect on where there seem to be patterns in the problems, and draws also on other research related to NQFs.

Contexts, tensions, and the roles of stakeholders

Raffe (2009b) suggests that NQFs are more likely to be successful if, while attempting to implement the intrinsic logic of the new reforms, they recognize the institutional logics that exist in the countries. The Malaysian case study argues that NQFs are inherently dependent on established institutions, and by drawing on the strengths of institutions, NQFs can be stronger. Other commentators have discussed 'path dependency', and how new policies seldom succeed in breaking a particular country out of a particular path, as education, training, and labour market relations are deeply embedded in institutional, social, and economic relationships and realities. These contradictions are evident in some of the case studies.

For example, the case study on Russia argues that there is a strong culture of valuing formal education, and even regulatory frameworks which specify that qualifications must be linked to formal education and training. This conflicts with the desire to recognize prior learning (although it is obviously important to value education strongly). Similarly, in Lithuania, educational awards are very strongly linked to time spent studying. There is no experience in developing or offering modular-based programmes. While the study on Lithuania suggests that this is a challenge that needs to be overcome, there is much contestation in research literature on the value and possibility of modularization. In addition, in Lithuania there is a history of centralized systems, a command economy, and little social dialogue. The case study suggests that even industry at times argues that government should regulate human resource development with state planning, based on the old central planning models. There are difficulties for employers to be involved in training or supporting technical vocational education and training (TVET) schools unless all employers buy-in to it, as poaching is a concern, and working with TVET schools is an investment in time. (However, poaching is even more likely to be a problem in more free market systems). Similarly, Sri Lanka has a history of a large public sector run economy with centralized systems.

There is a 'chicken-and-egg' kind of problem with regard to stakeholders in many of the countries: the NQF depends on the effective participation of social partners and stakeholders. But the lack of participation of social partners and stakeholders is the problem that the NQF is trying to solve. Furthermore, the definition of 'stakeholders' may be contested. For example, the case studies of New Zealand and South Africa show how bodies set up to administer and develop a qualifications framework, or sub-framework, become stakeholders in their own right—with the accompanying vested interests. This could explain at least partially why qualifications frameworks survive in the context of reviews and dissatisfaction from other 'stakeholders' and 'role players'.

In many of the countries in the study the economy is dominated by the informal economy. The need for qualifications in this context is arguable. The case is sometimes made that recognizing workers' skills, and giving them qualifications will help them move

to the formal economy, but this presupposes that there are jobs in the formal economy to which they can move. Many other policy interventions would be required in order to build the formal economies of countries. On the other hand the OECD (2009) argues that better qualified individuals are more mobile and have more likelihood of succeeding in the informal sector than less skilled individuals.

Some of the case studies suggest that the various aims of qualifications frameworks can be in tension with each other. In Malaysia, for example, industry is largely happy with the skills qualifications, but policy makers feel that learners need pathways to higher levels of skills, and that the current qualifications set-up does not allow this. But improving pathways between TVET and higher education may be in conflict with improving pathways between education and training systems and the labour market. In Scotland, as Higher National Diplomas became more accepted as a route to a degree, they started to lose their character as an exit qualification leading into employment. This is a tension that many countries have to face. Improving the possibilities for progression from TVET to higher education is a major way of improving the esteem with which the former is held in society, and the likelihood that learners will enrol for TVET programmes in countries where it is not well regarded. This is a feature of all countries, even those with highly respected systems of TVET; however, it is likely to be particularly true for developing countries as in the case of South Africa. However, equally important, or perhaps more important, may be changing the conditions, remuneration, and career paths in the working world.

Chapter 5 mentions that some countries see NQFs as ways of getting employers to contribute to the financing of training, assessment, and certification. The difficulties with employer involvement as well as lack of take up of qualifications and competency standards is cause for concern about the likelihood of this being achieved. It is also in contradiction with the fact that employers see NQFs as ways of getting governments to publicly fund assessment systems for the workforce. Another contradiction with regards to financing is that while NQFs are argued to be necessary to increase access to education and training, they are often associated with the introduction of user fees, both for training, and assessment and certification.

There is an inherent tension between the desire to classify and describe all competences and all qualifications versus the desire for simplicity and transparency. Some frameworks end up with thousands of qualifications, and detailed stipulations of occupations and qualifications at all levels leads to very long and cumbersome documentation.

The desire for short courses and responsiveness may be in tension with the desire for more regulation, standardization, and quality in the context of many different providers. While unit standards or competency standards are supposed to lead to flexibility, in some cases they are seen as rigid. The desire for making educational programmes shorter in order to meet short-term requirements of the labour market (described as cost-effective quick start/accelerated short-term employment-oriented training activities for priority jobs) may conflict with the idea of improving quality, and may make it less likely that completing learners will acquire sufficient basis to move up the education and training system. Some countries are mainly using NQFs as a part of developing lower level artisans. This could be part of broader efforts to expand training opportunities, but in some ways appears to contradict the notion of the ‘knowledge economy’.

Learning outcomes

Claims about the role of learning outcomes in reforming qualifications and thereby education and training systems are at the heart of the development of NQFs. It is useful, therefore, to reflect on what light the studies shed on this matter, as well as how other research can explain the relative successes and failures of the frameworks in question. The

study suggests that the problems experienced in some of the countries is linked at least in part to a particular use of learning outcomes.

All qualifications are in some sense concerned with outcomes—because they represent a statement about what the holder knows and can do, and are an outcome of *learning*. Educational 'outcomes'—such as, how many people have qualified to become engineers in a particular year in a particular country, or what the graduation or throughput rate of a particular institution is, or what levels of mathematical ability are obtained by school students—are obviously of concern to all governments. And all NQFs seem to work with the notion of learning outcomes, albeit in different ways. But, as described above, in many instances NQFs attempt to use outcomes in a very specific way, as providing an exact and transparent description of occupational competences, and at the same time, providing an exact and transparent basis for the development of learning programmes, for the conducting of assessment, and for evaluating educational quality.

Many of the current studies (as well as other studies on NQFs and competence-based assessment)[15] show that when outcomes are used in this tight manner, and when very many expectations are placed on outcomes or competence statements, they tend to proliferate over-specified, detailed, unwieldy, narrow documents which are supposed to be the basis for assessment. The very length and complexity of the standards makes them unintelligible to anyone other than those involved in standards design. This is often the reason for qualifications not being used at all. Where they are used, it leads to narrow forms of assessment and fragmented learning experiences. In theory the problem of over-specification could occur in any area or practice which is regulated by performance statements. But the specific problem within education and training is the structure of educational knowledge. Researchers have also demonstrated how a rigid separation of outcomes and competences from syllabuses or learning programmes leads to the marginalization of educational knowledge.[16] Forcing curricula to be 'designed down' from outcome statements trivializes knowledge, and reduces it to pieces of unrelated information. This may explain the low take-up of such qualifications in general and particularly at higher levels. It is also in direct contradiction to policy goals related to 'knowledge economies' as well as broader notions of raising educational levels of the workforce, as it leads to narrow qualifications without theoretical components.

The case study on the English NVQs points out another critique made in the United Kingdom: that assessment is always about making inferences on the basis of performance. Even assessment in workplaces does not show how a given candidate will perform when the assessor is not present, or in a slightly different situation, or even, simply in a repeat of the same task. In an outcomes-based framework assessors have to draw inferences about the underlying competence of the candidate, based on their performance. It is never a straightforward matter setting an assessment task, or judging a candidate on one. There may be situations in which assessment which concentrates on knowledge and understanding may provide better grounds for inferring competence than a specific number of observable performances, and implies that this is more likely to be the case the higher up the qualification ladder one proceeds. The case study also argues, in direct contradiction to the claims often made by advocates of outcomes-based qualifications, that knowledge of the learning process which leads to an outcome may in many instances be essential in order to make a reliable judgement about an observed performance.

[15] See for example, Wolf (1993, 1995, 2002), Allais (2007a, 2007c), Young (2005), Lugg (2007), Wheelahan (2008b, 2008c)

[16] For example, Allais (2007b, 2007c), Wolf (2002, 1995).

There seems to be some acceptance that the competency-based training model or a strong outcomes-based model will not work across all areas of schooling and higher education. In New Zealand and South Africa where it was attempted, ministries/departments of education have reverted to syllabus/curriculum-type models. However, the NVQ experience, as well as the problems experienced in Botswana and Mauritius, suggest even when this approach was confined to TVET it has experienced difficulties. With regard to the Competency-Based Training System in Australia, reviews have argued that the training packages are too detailed and lengthy, and are not user friendly to educators, and that they have outlived their usefulness. The Labour Competence Framework experience in Chile and Mexico also suggests that this approach has experienced difficulties even for the much more limited aim of enabling recognition of existing skills in the workforce. And the Australian and Botswana studies suggest that if this approach is used in TVET and not the rest of the system, this introduces a new division between schooling and TVET and between TVET and higher education, and that this could further accentuate the low status of vocational qualifications.

These difficulties raise questions about the possibilities for NQFs. Can NQFs be designed without learning outcomes? Can broader notions of learning outcomes be used? Can NQFs be developed through broad statements of outcomes or competencies that avoid the problems of the over-specified models? A few tentative suggestions can be made. It may be the case that NQFs are inherently linked to outcomes (or some other generic form of description which leads to similar problems). It does seem as if broader notions of outcomes or competence, either, say, in the form described in the Scottish case study, or in the traditions in countries such as Germany, seem to be better. 'Better' here is used in the sense that they have broad acceptance, and seem to be used. The Scottish case suggests that outcomes can inform and aid professional judgement, although they cannot replace it. This broad understanding of outcomes cannot, and usually does not claim to, achieve the specific claims about transparency of qualifications claimed by some NQF advocates (as discussed in Chapter 2). This implies limitations to what NQFs can achieve. In the development of NQFs the only alternative to outcomes or generic descriptors of levels is for levels of qualifications to be determined primarily by accepted qualifications, and accepted relationships among them. Of course this is a circular solution, and does not provide a mechanism for resolving disputes. On the other hand, in practice, this approach is used to some extent even in outcomes-based NQFs; in practice, level descriptors and outcomes do not replace implicit and generally accepted judgements, although they may make it possible to challenge these judgements. Decisions in the end revert to professional judgement as well as power relations, and perhaps emphasis needs to be placed on trying to ensure that the former dominates the latter.

Accreditation systems in the context of weak provision of education and training

The case studies on the English NVQs, Australia, Botswana, New Zealand, Russia, South Africa, Sri Lanka, and Turkey, suggest that governments tried or are trying to use outcomes-based qualifications frameworks to shift what was/is seen as 'provider culture' or a 'provider captured' system, to a 'user-led' or competition-based, marketized system. This can be located within broader trends in public sector reform, such as new public management.[17] In some of the countries, this is based on commitments to neo-liberal market policies and principles. In others this is less evident or less explicit. In South Africa, for example, there was a strong focus on redress, equality, and democratization. With

[17] For example, Strathdee (2009), Allais (2007a), Phillips (1998).

regard to the English NVQs, the broader neo-liberal programme of the government was more explicit, as government was directly trying to reduce the influence of trade unions and increase provision, competitiveness, and efficiency, through a marketization strategy. In Australia, unions were a key part of the process that led to the establishment of the qualifications framework, but even here policy aimed to explicitly develop a market in education, and 'industry-led' competency-based qualifications that were independent of educational providers in TVET. Here Scotland is an outlier—although it has not been free from neo-liberal influence, it has a stronger tradition of free public provision of education, and its more consensual political culture may have allowed educational providers and professionals to retain more influence. Sri Lanka has a strong government-based delivery system, but is trying to move it to a greater regulatory role for government, and sees the NQF as part of an accountability mechanism.

What is common in many cases is an emphasis on treating state and private institutions in the same way through contractualization and the introduction of accountability measures in the belief that this will increase efficiency and effectiveness. However, research also points out that managing contracts, and evaluating the performance of contracted institutions, whether public or private, demands enormous regulatory capacity from the state. It may lead to many additional expenses for the various players in the education and training system. For example in Lithuania, each school would have to contract assessing institutions to conduct assessment for each training programme. In addition, it could lead to inefficiencies and perverse consequences, such as lack of coordination among the different systems. For example, in Mexico because the criteria to become an assessing or awarding centre are stringent, there are few bodies, and these bodies charge high prices for assessment. CONOCER would like to relax the criteria, to widen the assessing and certification possibilities, but there are concerns about relaxing standards. Industry representatives interviewed in Lithuania argue that competition between providers may be unhealthy, and that the introduction of a market-based competition-based system for its own sake can compromise on experience and know-how of established bodies, implying a big waste of financial and human resources. For example, with regard to assessment, the Chamber of Industry feels that it has exceptional experience in assessment of competences and has a regional structure which covers the country.

One of the difficulties with this approach is that setting up a viable accreditation system is a costly endeavour, and is based on the assumption that bureaucracies which are putatively incompetent at delivering good training are likely to be good or at least better at contracting it out and managing quality, or, that new institutions created for this purpose will be able to do so with no track record or institutional history. Conducting meaningful institutional quality assurance is very costly and time-consuming, and demands high levels of professional capacity amongst staff. In the context of TVET systems which are underfunded, countries need to make serious choices about the contribution that quality assurance can make to improving quality, and the extent to which their focus should be on improving institutional capacity.

Assessment and certification are important factors in education and training systems, and NQFs need to be developed bearing this in mind. The model (as in the South African NQF and NVQs) of individual assessors and verifiers turned out to be complicated and unwieldy, and was not successful in guaranteeing reliability and quality. In many instances, there has been a return to national examinations. In New Zealand various problems were raised with standards based assessment, as parents were worried that it would lower standards by reducing student motivation to achieve, and examinations were reintroduced.

A possible problem with a focus on outcomes, quality assurance, and accreditation, is that they could shift attention away from learning processes, and the need to build and support educational institutions. Quality assurance systems do not *build* quality; they build procedures that claim to measure quality. But they can end up being a substitute for building quality. Poorer countries, and countries with weak institutions, may find

themselves in trouble if they rely on these types of mechanisms. This issue may be most stark in TVET, where considerable infrastructure is required in order to ensure quality. Models which narrowly link funding to learner enrollments and outcomes-based qualifications may run into difficulties, as they may not enable institutions to take a long-term perspective, or provide the necessary emphasis on building and developing institutions. NQFs are often introduced with the language of 'autonomy' and 'empowerment' of TVET institutions. But 'autonomy' without increased capacity, without increased financial support, and with a series of new 'accountability' requirements may turn out to be rather less empowering for institutions than is claimed, and governments may not get the desired results.

This critique implies that it may be more useful for poorer countries, or countries with weaker education and training systems, to concentrate on building or supporting institutions that can provide education and training. Similarly, poorer or weaker states should be cautious when assuming that adopting regulatory models which rely on contracts and accountability mechanisms will solve the problems that they have had in delivering education and training.

Policy borrowing and internationalization

Internationalization of qualifications and education systems is clearly an important issue raised by this research, and one which the current report cannot do justice to. As Stephen Ball (1998, p. 126) suggests:

> … national policy making is inevitably a process of bricolage: a matter of borrowing and copying bits and pieces of ideas from elsewhere, drawing on and amending locally tried and tested approaches, cannibalizing theories, research, trends and fashions and not infrequently flailing around for anything at all that looks as though it might work.

Benjamin Levin (1998, p. 139) points out that:

> New agents of disease tend to spread rapidly as they find the hosts that are least resistant. So it is with policy change in education – new ideas move around quite quickly, but their adoption may depend on the need any given government sees itself as having. Although many people may be infected with a given disease, the severity can vary greatly.

As is clear from this report, as well as from available literature on qualifications frameworks, policy borrowing (and perhaps sometimes, policy learning) is a major factor in their spread. This applies both to the decision to adopt an NQF as well as the design of frameworks. Models, titles and formats of qualifications, level descriptors, statements of competence or unit standards, structures, processes, and sometimes entire NQFs are 'borrowed'. The borrowing country tries to replicate what it saw in the original country, sometimes adapting it, usually because official documents in the origin country make strong claims about what policy makers hope will be achieved. But, in most instances, what is not available from the official documents, or even easily found out, by the policy borrower, is whether or not any of the aims of the NQF in the origin country were achieved. If some of the goals have been achieved, what is not apparent from official documents is what led to success—what were the conditions, contexts, other policies in place, processes, and so on, in the origin country.

The English NVQs are widely seen as a problematic model within the United Kingdom, and have been changed many times since their introduction. One of the consequences of the English NVQ model was to perpetuate and even accentuate a view of vocational qualifications as inherently inferior to those obtained at school or university. One of the striking findings of this research, therefore, is how much this model has influenced other countries, and how it continues to be used in some of the most recently developed NQFs. It may be significant to note the obvious: that the first five NQFs, and the

models of NQFs which have spread to many other countries, emanate from five English-speaking Commonwealth countries all of which have liberal market economies, which influenced each other and which have education systems with a partly shared history. But the spread has not been limited to the Anglophone world, as the Labour Competence Frameworks in Chile and Mexico both were very influenced by the English NVQs. It also seems possible that, paradoxically, countries with more regulations of occupations may be seduced by the 'anglo' model, which claims to provide a neat fit between education and training and labour markets.

What is equally striking is how the same problems seem to have occurred in many of the countries which have adopted this model. The NQFs in Botswana, New Zealand, and South Africa, the vocational component of the NQF in Mauritius, and the Labour Competence Frameworks in Chile and Mexico have all encountered considerable difficulties, and all of them have very few concrete achievements to show. Like in England, Wales, and Northern Ireland, in all these countries, qualifications were created, but very few used. Providers in the main continued offering existing qualifications. However, policy makers and technical experts elsewhere, such as in Bangladesh and Sri Lanka seem to be confident that their use of this model will overcome the problems that other countries have experienced. There are, of course, differences in how these countries are adopting NQFs, as will be discussed in the following section. For example, centrally-developed curricula and assessment instruments are an important feature of the Sri Lankan system, as opposed to the decentralized assessment attempted through the English NVQs and South African NQF.

Often, as the case study on the English NVQs points out, a policy is designed to overcome or alleviate particular problems that have arisen in a particular historical and political context. But, when aspects of the policy are adopted elsewhere, these contextual factors are easily forgotten or remain unknown. The Botswana study argues that Botswana borrowed models from countries like New Zealand or South Africa, without taking time to learn what happened in those countries. In Lithuania and Russia, stakeholders are described as tired of reforms which are perceived as borrowed, and tend to be passive and indifferent to them, or see them as leading to more administrative work and bureaucracy.

The case study on Scotland suggests that the Scottish framework has gained "an almost moral authority among NQFs". Aspects of the Scottish framework are used (sometimes in an adapted form) around the world. But what appears in an official policy document will inevitably play itself out in different ways in different contexts. For example, in addition to the fact that the Scottish qualifications framework was developed incrementally, over a very long period of time, it was developed in a ***context*** with strong institutions, a relatively strong economy, and relatively high employment, especially compared to many of the developing countries which are now attempting to develop NQFs. Scotland also has a small population (about 5 million) and a relatively small and homogenous policy community. The development of the qualifications framework was strongly driven by educational institutions. Level descriptors developed by the people who might actually use them are more likely to be trusted, and are likely to mean something to the users, not because of how well they are articulated on paper, but because of the shared process engaged in arriving at them. Taking official documents on their own is unlikely to replicate the Scottish successes. In countries with larger populations and greater diversity and contestation among stakeholders and policy makers, the consensus which was the basis on which agreement on the framework was achieved in Scotland may be very hard to replicate. The problem is that statements such as level descriptors are so open to interpretation that they can become meaningless. Their impact therefore depends on the context in which they are generated and in which they are interpreted and used.

In addition, countries which 'borrow' or adapt the Scottish level descriptors, without directing energy and resources at improving the quality of their institutions, or without providing financial support for students to access education, may find that they do not play

the role in improving educational standards or levels of qualifying learners that they had hoped.

It is understandable that official documents do not capture for the outside world the debates, conflicts, and problems experienced in their country. But, from the point of view of policy borrowing, the consequence is that the policy borrower often does not see the problems. An important lesson from this research is that things are 'never as they seem'. Often what is borrowed is a snapshot of a moving target. NQFs are complex, dynamic, and evolving policy instruments. All of the older NQFs have been subject to debate and criticism—even the relatively successful Scottish framework has been criticized for slow implementation and a lack of 'teeth'. Criticisms have led to successive policy reviews and evaluations which relate to the qualifications frameworks in various ways. All the older NQFs have seen changes and developments and in some cases very substantial changes. This is important because often what is 'borrowed' or 'learnt from' another country is the model as it is described on paper at a particular time and the desirable goals associated with it, and not the model as it was implemented in practice with all the problems, experiences, and changes made to the model along the way. Official documents and accounts often do not reflect that there have been real changes in the model since it was first launched. This is understandable—such documents are aimed at practitioners and users within a country, and need to provide up-to-date information about how the qualifications framework is supposed to work. But they may inadvertently create misleading impressions for those borrowing from the policies, particularly as the language used (such terms as learning outcomes) may remain similar through substantial shifts, as can be seen in New Zealand and South Africa.

Policy borrowing can be dangerous, especially without the full picture in the country that is being borrowed from, and careful consideration of differences in contexts. While official policy documents from all countries use the language of learning outcomes, they do not all mean the same thing and they do not reflect the different views held about outcomes within the country. These differences are then not understood by those looking to borrow or learn from the official documents and put them into practice. This is compounded by the fact that qualifications frameworks clearly touch on important power relations in each country, whereas official reports tend to be political documents, designed to present a consensus.

The current study includes countries described as rich, 'developed', having many strong education and training institutions, and having robust economies with relatively low unemployment, as well as countries which are described as poor, 'underdeveloped', having weak or uneven education and training provision, and high unemployment. Yet, all these countries have developed or are trying to develop NQFs, and, as described in Chapter 5, have similar goals for these frameworks. In the light of these differences, the trend of policy borrowing observed in this study is somewhat concerning. Equally concerning is technical assistance which appears to provide answers without careful consideration of specific problems. For example, writing down 'standards' in the context of strong professional communities, who have shared understandings of what the required 'standard' is, may be very different to writing down 'standards' in the absence of strong professional bodies, strong education and training institutions, and strong social networks. Decentralizing educational provision where education and training institutions are strong and the regulatory capacity of the state is strong may have a very different effect to a similar policy mechanism in a state with weak regulatory capacity and weak or uneven educational provision. Decentralization and accreditation-based systems may be particularly seductive to poorer states, as they *seem* to reduce strain on the national fiscus. However, governments and policy makers firstly need to consider what the loss may be in terms of quality and quantity of educational provision, and secondly, the additional costs which may accompany the need for increased regulatory capacity.

Chakroun (2010) contrasts policy borrowing with policy *learning*. The latter, he suggests, encourages problem solving and reflection, facilitates the involvement of

stakeholders, and retains an emphasis on the national context. Raffe and Spours (2007) focus on policy learning as a process of *learning* lessons about policy. It is hoped that this research will contribute to policy makers being able to *learn* from policy in other countries, and not just borrow from them.

9.2 Different ways of seeing an NQF

This study aimed to investigate the impact and implementation of NQFs, and yet, as is very clear from the short descriptions of different countries' ventures into the world of qualifications frameworks, there is no single 'thing' that is represented by the term 'national qualifications framework'. This creates difficulties in terms of linking the claims made about qualifications frameworks with evidence of success. Where there are successes (or problems), they cannot be linked simply to 'a national qualifications framework', but need to be linked to specific types of NQFs and approaches to implementation, as well as to concurrent policy initiatives and institutions.

Part of the challenge of the present study was to investigate the various types of policy reform that go by the name of qualifications framework, to understand what is meant by this term, and how the different frameworks work, or how they are intended to work. Researchers have developed typologies of frameworks, based on what each sees as key differences, drawing mainly on the early NQFs as exemplars. Differences emphasized by various researchers include how prescriptive the framework is, what its aims are (as well as how ambitious it is), how comprehensive it is in its application, what its epistemological stance is, and what the process of implementing it has involved (Raffe, 2003, 2009a; Tuck, Hart, and Keevy, 2004; Young, 2005; Allais, 2007c). One of the ILO Working Papers published as an interim product of this research (Allais, Raffe, and Young, 2009) specifically explores typologies of NQFs, and one of the products of this research may be a further elaboration of these typologies.

For the purpose of this discussion, three key objectives of qualifications frameworks are differentiated, leading to a suggested three *types* of frameworks. *Types* here is used for analytic purposes, focusing on the key intended nature of changes involved in the implementation of the qualifications framework; these are not definitive descriptive or prescriptive categories, and may well need considerable revision based on further study. The three types of frameworks are offered as a way of trying to analyze what is the essence of the role that NQFs are envisaged to play. In all three cases, the notion of learning outcomes is used, although in specific cases this may involve terms like competencies, units, or modules. In all three, level descriptors may be seen as a mechanism which can improve the transparency of qualifications for employers, educational institutions, and the general public. But there are substantial differences in terms of expectations of the nature and degree of change that it is hoped will be introduced by these different types of frameworks. The actual frameworks in the study may not all fit neatly into these types, and some of them straddle the types—for example, where vocational sub-frameworks seem to be similar to one type, and the overarching comprehensive framework to another. Nonetheless, it is hoped that the categories contribute to sharpening analysis of qualifications frameworks.

The first way of understanding NQFs is as an attempt to make the relationships between existing qualifications more explicit. The focus here is on qualifications systems rather than individual qualifications. An example may be, clarifying which types of college-based qualifications can lead to which types of higher education institutions, and in which circumstances. This type of NQF may be introduced to attempt to create changes such as improved credit transfer between educational institutions or even between educational institutions in a particular sector of the education and training system. Or, the intention may be to make the qualifications system as a whole easier for students, teachers, and employers to understand. This could involve getting the institutions involved in developing, providing,

and/or certifying qualifications to agree amongst themselves on how their respective qualifications relate to each other. Here, the most likely main actors are educational institutions such as universities and colleges; awarding or examination bodies for qualifications in secondary, vocational, or further education; and government organizations.

A focus on qualifications based in educational institutions may be likely in countries where, with the exception of the professions, there are few specific qualifications which fit with specific occupations or levels within occupations. The introduction of an NQF may involve introducing a set of level descriptors as an attempt to make explicit and clarify these relationships, as well as to provide a basis for discussion and debate amongst stakeholders about the level at which particular qualifications should be placed.

It is suggested that the Scottish Credit and Qualifications Framework (SCQF) can be understood as exemplifying this approach. The SCQF was developed by universities, university quality assurance bodies, and the body involved in awarding pre-university qualifications. The Scottish framework is the result of a long series of educational reforms which built sub-frameworks in different sectors, as well as building relationships between key role players. The Malaysian NQF as a whole could also be seen as focused on broadly improving relationships between educational qualifications (but excluding the framework of skills qualifications, which exemplify a very different approach, as discussed below). The Mauritian and Australian NQFs, in so far as they are comprehensive frameworks, can also be seen as this type of framework. In both countries, however, the technical vocational education and training sub-frameworks adopt a very different approach, as discussed further below.

NQFs with this objective are likely to be based on incremental reform, as the inherent rationale means starting from existing qualifications and institutions. For example, although a new organization, the Malaysian Qualifications Authority, was created in Malaysia, the organization itself was built on existing institutions and processes, and was not completely new. The NQF in Malaysia can be considered as a limited innovation, given that it is comprised of two qualification and accreditation systems that already existed.

It is with regard to this objective of NQFs that there is the most evidence of success recorded in the current study.

A second way of understanding the introduction of an NQF is as an attempt to make the relationships between occupational entry regulations (such as those of the state or professional bodies, which define who can and cannot enter specific occupations and professions) ***and qualifications more explicit***. Existing occupational-based and professional frameworks, which regulate, for example, the requirements for recognized nurses or electricians in the workplace, tend to be complex. In many countries, professions have been more directly linked to education and training systems than other occupations. The idea in introducing an NQF can be seen as an attempt to develop one uniform set of levels which bring together the regulation of occupations and professions on the one hand, and educational qualifications on the other, in order to improve how these qualifications are understood and used.

This approach to the function of a qualifications framework implies more changes and more role players than the previous one, as attempts are made to bring together systems which may be complex in their own right, and which were originally designed for different purposes. The reform may be government-driven, or driven by national employer organizations or quasi-government organizations with employer involvement. It is more likely to be developed in countries which have occupational classifications which govern entrance to occupations and may have linkages to salary systems. (Most countries or regions have some kind of occupational classification and entry into at least some occupations is regulated in most). In countries which historically have extensive use of occupational standards, in many instances there have not been direct relationships with the

development of curricula. It may be the case that countries with such a tradition are attracted to the idea of NQFs precisely because the model (as it has been developed, primarily in the Anglophone world) claims to achieve very precise relationships between occupational standards and education and training.

Developing such a framework is likely to involve negotiations with trade unions and professional bodies, as well as with educational institutions. The relative strengths and weaknesses of trade unions, professional bodies, and employer associations, as well as educational institutions, could affect decisions about where qualifications are placed, as this may have salary implications for employees.

In the current study, the NQFs in Lithuania, Russia, and Tunisia can be seen as focused largely on bringing educational qualifications and occupational regulations together. Tunisia can be seen within this category, and it may be significant here that the NQF is in fact called a National Classification of Qualifications, instead of a National Qualifications Framework. In all three countries, there are high hopes for the role of level descriptors and learning outcomes in bringing education and training and occupational classifications together. The idea seems to be to move toward describing both in terms of competence.

These countries have all started developing frameworks rather recently, and it is too early to assess their success. However, the problems experienced by other countries with regard to the development and use of learning outcomes, and the lack of evidence of the use of level descriptors, indicate potential problems. The study of Russia also reveals other potential difficulties of this type of approach: the various systems which are being brought together are all very complex in their own right, are currently in use, and have legal and other implications.

A third way of understanding the introduction of NQFs is as an attempt to use independently specified outcomes or competency statements to drive a range of different educational reforms. Although all NQFs use the terms like 'learning outcomes' or 'competencies', here the development of learning outcomes is seen as the focus, and the mechanism through which all the goals of NQFs will be achieved. The specified outcomes are seen as the key driving mechanism: it is assumed that they can be the basis for curricula to be developed, assessment and quality assurance to be conducted, certificates awarded. Learning outcomes are seen as a mechanism to achieve the alignment of qualifications (as for the first NQF focus), but here the emphasis is not so much on the processes and institutions as in the actual specified outcomes, which are believed to create transparency. Similarly, it is believed or hoped that the specification of outcomes or competencies will enable a simple and transparent relationship between occupations and educational qualifications. It is further hoped that all of this will lead to more and better training.

The process of developing these qualifications is seen as stakeholder-driven, in many instances but not necessarily, with a focus on industry. Qualifications are composed of these learning outcomes, and are thus not linked to specific educational institutions. Competency-based training models are conceptually the same as this notion of an NQF. In many instances introducing an outcomes-based framework is part of introducing or reintroducing a competency-based training approach.

This emphasis on qualifications based on learning outcomes or competencies is where NQFs can be seen as attempting to make the biggest and most fundamental changes to education and training systems. Outcomes-based qualifications are seen as a way of driving curriculum reform, changing the management and delivery of education and training systems, and changing the processes and bases for awarding qualifications, thereby improving relationships between education and the labour market, as well as achieving broader socio-economic goals. In theory, decisions about which level to place a qualification at are based entirely on an analysis of the competencies or learning outcomes

comprising a particular qualification, particularly as these are in fact supposed to be designed based on the level descriptors.

The NVQs in England were the first clear example of an attempt to use an NQF in this manner. Many countries have subsequently attempted to use qualifications frameworks in this way in technical vocational education and training. In the current study, the frameworks in Bangladesh, Botswana, and Sri Lanka could be seen as largely fitting within this approach in terms of how they have been designed, as can the vocational sub-framework in Australia, the skills sub-framework in Malaysia, and the vocational sub-framework in Mauritius. The New Zealand and South African NQFs initially attempted to use this type of approach for all qualifications at all levels. The Chilean, Mexican and Turkish frameworks also fit within this type, although initially focused on assessment of workplace learning (and training in Turkey), with only indirect attempts to change the education and training systems. What these countries have in common is an attempt to use outcomes-based qualifications to drive reform. For example, in Bangladesh, the Technical and Vocational National Qualifications Framework includes a specification of pre-vocational qualifications. The hope is that once qualifications have been specified, provision be developed against them, as institutions take them up and start offering them, thereby increasing access to education and training.

There may be considerable variation between frameworks that have this objective, depending on the transformational ambition of the framework. This type of qualifications frameworks seems to have encountered difficulties in many countries.

9.3 Positive possibilities

As discussed above, the research found little evidence that NQFs have substantially improved relationships between education and training systems and labour markets. The scope of this research did not include exploring alternatives to NQFs—there are clearly many policy alternatives that are used and have been used in many countries to attempt to achieve some or all of the goals that NQFs are intended to address (although NQFs probably claim to solve more problems than most policies do). What the study does suggest, though, is that there may be an unhealthy dichotomy created between the role of industry versus role of educational institutions. There seems to be a general idea in many of the countries that educators are not in a position to develop curricula, as they do not understand what workplaces require. This leads to the idea that industry must provide the specifications for the 'product' that educational institutions should produce.

But all the case studies show that involvement of industry has been problematic. An interviewee from one of the qualifications authorities commented that "*the process means that industry has developed the qualification. If the training provider offers it, they know that these people will get a job because it was done by industry people*". Practices, though, seem to be different. Students, parents, employers, and governments value university qualifications, and therefore by extension qualifications which can potentially lead to university, and employers do not always seem to value the qualifications which emanate from industry-led qualifications processes. NQFs in many cases (particularly where there is a strong outcomes or competency-based focus) are claimed to be *industry-led* policies. This may be a problematic expectation, as industry appears reluctant to lead. Where industry does participate, it is often not at the desired level (e.g. human resource personnel instead of technical experts), and in many instances, the process of developing the standards is subcontracted out to consultants. For example, in Lithuania, where workplace-based assessment is officially conducted by the Chamber of Industry, the technical vocational education and training schools argue that in fact much of the work is delegated to them anyway. The Chamber mainly plays a role in organizing and coordinating. The technical vocational education and training schools argued that the Chamber does not have the

expertise to design the actual assessments, because of lack of expertise and knowledge in the specific fields.

Besides the practical problem of getting employers to be involved, researchers have also suggested that employers may not always be able to articulate what it is that they require, and certainly are in most instances not able to predict what skills and knowledge will be required in the future.[18] Representatives of educational institutions interviewed in Lithuania argued that the problem is not so much lack of input from employers as lack of research into present and future skills needs. In addition, educational research suggests that education and training are much more complicated than producing 'products' to specification. What all this suggests is that a simple, one-size-fits-all approach to education/labour market relations may be permanently elusive. Instead, more success may be achieved through more flexibility.

Buchanan, Yu, et al (2009) use the notion of 'skills eco-systems' as a way of exploring both the problems and possibilities for improving education and workplace interaction. This fits well within the idea of a sectoral approach, where the focus is on not just developing qualifications, but ensuring coordinated skills, labour market and socioeconomic policies in particular sectors. Working with the needs and possibilities, as well as institutional strengths in particular sectors, probably has the best chance of success. Buchanan, Yu, et al, emphasize that trying to address training issues without addressing the nature of education and labour market structures is unlikely to be successful. This fits well within the ILO's belief in the need for coordinated policies, and the ETF's emphasis on policy learning. It arguably opens a lot of productive possibilities for further research and policy development.

In some instances, the specification of occupational standards may help qualifications to fit better with labour market requirements. In other instances, research-based curricula may be more successful, as industry itself may not know what it will require in years to come. In other instances, professional bodies may play crucial roles. Seeing such processes as ongoing and developmental, rather than fixed quickly through standards specification, may yield better results. The case studies show that NQFs have had some success in specific sectors. The English NVQ model is described as having had some successes in some 'niche' areas and a similar situation can be seen in Mexico. In both cases, specific human resource development policies and practices in the relevant industries seem to have made a big difference in achieving success. This seems encouraging for those countries that are implementing NQFs starting with specific sectors.

However, it does not address the concern that governments have about investing in education and training systems which do not seem to be working, and it is this broader concern that makes policies like qualifications frameworks appealing, as they appear to provide more systemic solutions. This research, though, suggests that as desirable as this may be, it is questionable whether NQFs can actually play the roles claimed for them. Whether or not there are other 'systemic' policies which can achieve these roles is a subject for other research. For now, it is merely pointed out that qualifications will be more likely to be of appropriate quality if the needs and conditions of specific sectors and industries are considered, if funding for education and training is ensured, if education and training institutions are built and sustained over time and not only forced into short-term responsiveness, and if broader conditions in labour markets are addressed. They are also more likely to succeed in the presence of strong professional bodies, strong labour market research, and strong trade unions, and countries could consider policies to support all of

[18] See Wolf (2002) for a useful elaboration of this problem.

these. An issue for future research is the role of awarding or certification bodies, which the current case studies were not able to find much information on.

Financing is a key issue that NQFs bring to the surface in most of the countries. Except for Australia, New Zealand, and the UK, the NQFs in this study have been developed with donor financing and support (this will presumably not apply to many of the European countries which are now in the process of developing NQFs). Improving technical vocational education and training in most of the countries will clearly require clear investments in institutions—not just policies which expect them to do more with less, or believe that simple competition will drive up quality. Working with institutions to strengthen them is clearly important. Ensuring that learners can afford to access education and training, not just in terms of fees, but in terms of lost income in the case of poorer people, may be something else that countries could focus more attention on. What may be a useful focus, then, for future research, is finding viable mechanisms and systems to evaluate quality of provision, ensure that access is equitable, and so on.

This report has presented some insights into what countries have experienced in their attempts to introduce qualifications frameworks. It is by no means definitive, and raises a good many more questions for further empirical research and innovative policies. Nonetheless, the information and analysis will hopefully be of use to governments, employer organizations, trade unions, and educational institutions involved in education and training reform. And other researchers may be able to pursue further some of the many questions which are raised by this research, or shed new and different light on the issues raised by it. The research suggests that what is key, in particular for developing countries, is the need for serious consideration of policy priorities as well as the sequencing of policies. Clearly, NQFs are not 'magic bullets' as instruments for reform. Countries that have been most successful in implementing them have been those which have treated the development of frameworks as complementary to improving institutional capability rather than as a substitute for it or as a way of re-shaping institutions. In other words, it seems that NQFs are more likely to be successful if training outcomes and inputs are seen as related to each other, and policy attention is focused on both.

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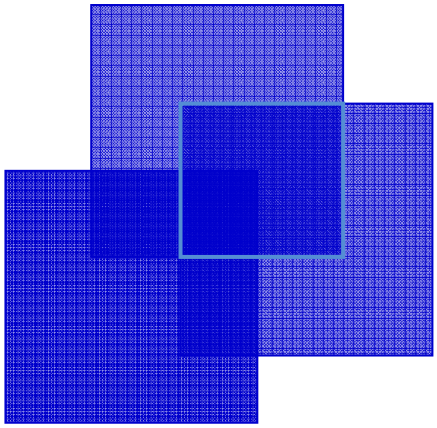
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The Skills and Employability Department's e-versions of country studies on NQFs are designed to disseminate its main findings of research initiatives, which are intended to encourage exchange of ideas and to stimulate debate. The views expressed are the responsibility of the author(s) and do not necessarily represent those of the ILO.

Foreword

According to an ILO survey, some 70 countries are in the process of developing or implementing some kind of a qualifications framework. A framework is intended to improve understanding of qualifications (degrees, certificates, or recognition of experiential-based learning) in terms of the information they convey to an employer about prospective workers' competencies. Frameworks are also intended to explain how qualifications relate to each other and thus can be combined to build pathways within and across occupations and education and training sectors. Many countries are trying to improve the relevance, quality and flexibility of their education and training systems, and many of them are looking to qualification frameworks as a tool for bringing about this reform. Development of national qualification frameworks (NQFs) are also motivated by the emergence of regional frameworks, such as in Europe or in the Caribbean, which aim to help employers and institutions of higher education recognize the equivalency of qualifications earned in different countries. With these goals in mind, the development of NQFs has been widely supported by multilateral and bilateral agencies.

However, very little has been documented about the effectiveness of NQFs in bringing about change in skills development systems or about their actual use by employers, workers, and training providers. In 2009, the ILO's Skills and Employability Department launched its Qualifications Framework Research Project to study the impact and implementation of NQFs in developing countries to help fill this knowledge gap and to be able to provide more evidence-based advice to member States.

The research programme, comprising some 16 country case studies and a review of academic literature on the NQFs, provides an international comparison of the design and purpose of NQFs in developing countries and an empirical analysis of their use and impact based on the experience of those involved in their design and use. The study aims to understand to what extent establishing an NQF is the best strategy for achieving a country's desired policy objectives, what approaches to qualifications frameworks and their implementation are most appropriate in which contexts and for which purposes, what level of resources (human and other) and what complimentary policies might be required to achieve the policy objectives associated with them, and what might be a realistic assessment of the likely outcomes.

This paper is one of five case studies conducted as part of the research and appears as a chapter in Employment Working Paper No. 45 done in 2009, *Learning from the first qualifications frameworks*, which consisted of: Chapter 1 on the National Vocational Qualifications in England, Northern Ireland and Wales, written by Professor Michael Young (Emeritus Professor at the Institute of Education, University of London); Chapter 2 on the NQF in Scotland, written by David Raffe (Professor of Sociology of Education, University of Edinburgh); Chapter 3 on the NQF in New Zealand, written by Dr. Rob Strathdee (Head of School of Education Policy and Implementation at the University of Wellington); Chapter 4, written by Leesa Wheelahan (Senior Lecturer in Adult and Vocational Education, Griffith University); and Chapter 5, written by Stephanie Allais (now postdoctoral fellow at the University of Edinburgh). A companion Working Paper (No. 44) (Allais et al. 2009), *Researching NQFs: Some conceptual issues*, addresses some of the fundamental conceptual issues involved in research on NQFs in order to broaden the debate about their role in skills systems. A full analysis of the new case studies and the policy lessons derived from them was published in 2010 as *The implementation and impact of National Qualifications Frameworks: Report of a study in 16 countries*, which, along with other background reports and publications, can be found on the Skills and Employability Department website's theme of ILO research programme on

implementation and impact of NQFs at: http://www.ilo.org/skills/what/projects/lang--en/WCMS_126588/index.htm.

As a Research Associate in the Skills and Employability Department in 2009, Dr. Stephanie Allais has led the development of the research and overseen the country studies. Professor Michael Young has served as senior research advisor, and Professor David Raffe gave advice and support to the project. The research programme has been carried out in cooperation with the European Training Foundation. I would also like to thank Jo-Ann Bakker for preparing the manuscript for publication.

Christine Evans-Klock
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Acronyms and abbreviations

GIF	Growth and Innovation Framework
ITF	Industry Training Federation
ITOs	Industry Training Organisations
NCEA	National Certificate of Educational Achievement
NQFs	national qualifications frameworks
NZQA	New Zealand Qualifications Authority
PCET	Post Compulsory Education and Training
QCA	Qualifications and Curriculum Authority
TEAC	Tertiary Education Advisory Commission
TEC	Tertiary Education Commission

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The implementation and impact of the New Zealand NQF

1. Introduction

This paper outlines some of the major factors leading to the introduction of the New Zealand NQF. It also describes the NQF's design, outlines changes that were introduced following its introduction in 1991, and explores its impact to date.

The New Zealand case is potentially interesting, as the agency responsible for the implementation of the NQF, the New Zealand Qualifications Authority (NZQA), attempted to introduce a unified qualifications framework. The idea was that *all* forms of education and training that were funded by the State (and those that were not) would adopt a common system of measuring and recording learning. It was argued that this would create a seamless system of education and training. Accordingly, learners would be able to move with ease between different providers of education and training as they built their human capital. However, as described more fully throughout this paper, a number of factors conspired against the NZQA as it attempted to implement its original vision, including resistance from universities and from other groups and individuals. It is also reasonable to assert that the NQF gained political traction for its more ambitious proposal during a period when New Zealand was undertaking widespread and rapid reform of many different aspects of public policy. Subsequent administrations, which had different objectives, were less supportive of the NZQA's original vision.

Assessing the impact of the NQF with precision is not always easy. In terms of the academic literature, much of what exists can be described as critical policy studies. This literature is primarily concerned with raising critical *questions* about the NQF, rather than providing firm empirical answers to important questions (e.g. Black 2001; Irwin et al. 1995; Jordan and Strathdee 2001; QCA 2005; Roberts 1997; Robson 1994; Sako 1999; Strathdee 2003, 2004, 2005a, 2006). However, as described in more detail below, there exist a growing number of empirical research papers that have been published on the impact of the NQF.

Structure of the paper

Section 2 describes the New Zealand context. Section 3 devotes attention to describing the NZQA's vision for the reform. Section 4 then describes the implementation of the NQF, highlighting changes that have been introduced over time. Although it may have started out as a relatively simple reform, accommodations and modifications mean that the current NQF is very different to that envisaged in the 1980s.

2. New Zealand's social, political and economic context

New Zealand is a small country in the South Pacific. Its population is slightly over four million (the third lowest in the OECD) and it has the fourth smallest economy of the 30 OECD countries (larger only than Iceland, Luxembourg and the Slovak Republic). New Zealand's population is projected to grow from 4.06 million in 2004 to 4.73 million in 2026 and 5.05 million in 2051 (Statistics New Zealand 2005). The majority of New Zealanders are of European descent. However, a significant proportion of the population is Māori (New Zealand's indigenous people) and Pasifika (immigrants from the Pacific Islands). The proportion of the population that is of Māori and Pasifika descent is likely to increase, leading to even greater ethnic diversity in New Zealand; the European sector of the population is therefore predicted to fall from 79 per cent in 2001 to 70 per cent in 2021.

The dominant language in New Zealand is English, but in recent years there has been a concerted effort to increase the number of speakers of *te reo Māori*. There is a vibrant network of schools where the main language of instruction is *te reo Māori*, and a bilingual television station has been launched.

Perhaps unsurprisingly, given its small size, New Zealand operates under a unicameral political system and this has meant that the Government has been able to make changes with ease. However, the introduction of a system of proportional representation has served to limit the ability of governments to act without consultation with other political parties.

The political landscape is dominated by two main parties: the National Party and the Labour Party. The National Party can be compared to the Conservative Party in England. Like the Conservative Party, the National Party has continued to support neo-liberal and neo-conservative values (that is, committed to creating a small strong State that supports free markets). However, the recently-elected National Government shows signs of adopting a more centrist position. By contrast, the Labour Party, which apart from a period when it was captured by the New Right (see below for further detail), has remained social democratic in orientation. As noted above, the introduction of proportional representation has increased the power of minor parties to influence decision making through forming coalition governments. The following table is designed to aid readers' understanding of the position of different governments towards the NQF. (Note: This table needs to be read in conjunction with the material that follows.)

Table 1. Governments of New Zealand and the NQF

Period	Name	Orientation	Contribution to the NQF
1984 - 1990	Labour Governments	Neo-liberal/Neo-Conservative	Enacted legislation to establish original vision of NQF. Created markets in education and training by allowing private providers of training greater access to State funds.
1990 - 1999	National Governments	Neo-liberal/Neo-Conservative	Pushed ahead with the creation markets in education and training. Would not force all providers to adopt original vision of NQF. Believed that traditional examination system should be preserved. As a result: ▪ old examination systems remained and operated along NQF (e.g., the School Certificate and University Entrance examinations) ▪ universities remained separate from NQF
1999 - 2008	Labour-led Governments	Modern Social Democratic	Introduced 'broadened' NQF. As a result: ▪ new qualification for senior school students introduced (National Certificate of Educational Achievement, which is offered at levels 1 to 3 of the NQF) ▪ introduced Scholarship qualification for brightest secondary school students (offered at level 4) ▪ achievement standards introduced in 'academic areas' of school ▪ created register of quality assured qualifications – ALL qualifications that receive State funding must be registered. However, registration falls well short of the vision of the NQF. Argued market-led training system had failed, but supportive of NQF. Moved to 'investment approach' in which Government purchased training outcomes rather than allowed 'market forces' to determine outcomes.
2008	National-led Administration	Pragmatic, but supportive of free enterprise	Unclear, but unlikely to change NQF. Most change will be to curb costs by reducing provision of sub-degree training (for example, this which occurs at sub-degree level in Adult and Community Education). Signaled a move away from the previous administration's 'investment approach'.

Because New Zealand is a small, isolated country with a low population density, it is heavily dependent for its economic progress on exports. During the 1960s and early 1970s, high export prices for agricultural produce delivered to New Zealanders a relatively high standard of living. At the time, it was generally possible for young people to leave school at the earliest possible moment and gain relatively good jobs. However, from the mid-1970s, returns from agriculture declined (though the recent boom in dairy prices is a notable exception to this trend). As a result, from the late 1970s New Zealand's unemployment rate, or the number of unemployed

persons expressed as a percentage of the labour force, increased peaking at 11 per cent in 1992. As is usually the case, unemployment was particularly high amongst those most vulnerable, i.e., youth and ethnic minorities. In the early 1980s, New Zealand had an unemployment rate of about 17 per cent for young people aged between 15 and 19 years. More recently, high economic growth (and other changes in social welfare) led to full employment and skill shortages (though unemployment is currently on the rise once more).[1]

Over time, the areas of the labour market in which New Zealanders work have changed. Perhaps the most important change is the increase in the size of the service sector. In the past, the majority of New Zealanders worked in industries related to agriculture. While, agriculture remains important, new sectors have assumed increased importance (for example, finance, tourism, health services, and other service sector occupations).

In an attempt to help individuals meet the demands for new forms of skill, successive governments have invested in skill development and learning (of which the NQF is an important component). However, while successive governments have each been committed to skill development, they differ in how they believe the NQF can contribute to this. For neo-liberal interests, the value of the NQF is that it created a market in education and training in which the voice of employers was increased. For example, through various mechanisms, the skills required by employers are, in theory, better identified (Strathdee 2003).

The bulk of accredited learning occurs in New Zealand's compulsory schooling sector (schooling is compulsory and free between the ages of 5 and 16 years, although the Minister of Education has the power to allow students to leave school earlier than this), and in New Zealand's major providers of tertiary education. In 2007, about 5 per cent (2,834) of students left the compulsory school sector with few or no qualifications (New Zealand Ministry of Education 2007a), and 1,930 students left with early exemptions (ibid. 2007b). Exemptions are usually only granted where there is evidence that the young person is moving on to other accredited training, for example, an apprenticeship.

The performance of New Zealanders academically remains high compared to other OECD nations. However, there continues to be concern about the achievement of some groups in society. For example, like many other western nations, the Government of New Zealand is concerned about the low levels of literacy skills held by individuals in school and in the workforce. Also, at a post-school level, New Zealand performed poorly compared to other OECD nations. For example, results of the 1997 International Adult Literacy Survey (ibid. 1999) showed that only about 20 per cent of New Zealanders were operating at a highly-effective level of literacy and able to manage abstract concepts and employ specialized knowledge in interpreting information. However, as international experience has shown, lower levels of literacy were found to be concentrated with ethnic minority

[1] All figures produced by Statistics New Zealand http://www.stats.govt.nz/products-and-services/table-builder/table-builder-labour-market.htm [10 June 2009].

groups and the unemployed. To help reverse this, the Government introduced the Adult Literacy and Numeracy Strategy.[2]

When considering these comments, it is important to remember that New Zealand has produced some of the highest literacy rates for OECD nations. For example, New Zealand 15 year-old students performed very strongly in reading literacy in the PISA (Programme for International Student Assessment) 2000 assessment (Sturrock and May 2002).

3. The original vision for the NQF

As was the case in many other nations, the NQF has its immediate origins in the political and economic crisis that was manifest in the rise of neo-liberalism as an approach to political and economic management in the 1980s. In the 1980s and 1990s in New Zealand (and earlier in other nations), there was significant economic restructuring and moves towards a less-regulated economy. These moves were designed to improve efficiency and promote enterprise.

Although it is not widely understood, the introduction of the NQF was an important part of a broader neo-liberal policy response to New Zealand's economic problems of the 1980s. This response found expression in a series of reports that identified a need to improve competitiveness in global markets; a need to reduce educational inequality; a need to create a modern education system that would encourage lifelong learning; and a need to increase skill levels in the labour force. As part of the overall strategy, it was argued that all forms of knowledge were of equal value and that distinctions between academic and vocational knowledge reflected outdated class-based prejudices. Indeed, it was argued that markets are best placed to determine the value of knowledge. If the nature of the labour market has changed, then, according to social democrats, what is taught in New Zealand's educational institutions and how this learning is assessed should also change (Strathdee 2005b).

The NQF was designed to achieve this change. Thus, the NQF was deemed necessary to increase participation, create a lifelong learning culture, increase overall levels of achievement, and align the status of vocational and academic learning (NZQA 1991). In effect, where previously educational policy intervention was designed to push learners out of education and training and into work as quickly as possible, proponents of the NQF claimed that obtaining and retaining a place in the post-Fordist economy (or high wage/high skill economy) required that learners remain in education and training for longer periods to learn different skills.

However, improving the integrative function of education also required that assessment practices change from merely ranking learners against one another to telling employers what students can actually do. As former Director-General of Education, Bill Renwick stated in relation to secondary school education in New Zealand:

[2] See http://www.tki.org.nz/r/literacy_numeracy/litnum_stra_e.php [10 June 2009].

> The function of education of sorting and grading is much less central to the educational responsibilities of teachers than it was a generation ago. Public education is now looked upon less as a scarce commodity to be rationed and more as a service which all members of the public will need to make use of in various ways at different points in their lives and for many reasons. ... If the renewed interest in education for working life has done one thing it has directed attention to the inadequacies of School Certificate and University Entrance result cards as providers of useful information about potential employees. Employers now want to know more about a prospective employee than the examination result card can tell them. (Renwick 1981, p. 10)

Poor information flows are also believed to have contributed to credential inflation, particularly during periods of high unemployment. This has occurred because credentials have tended to serve as simple selection devices rather than indicating exactly what skills potential recruits have obtained. In addition, the NZQA argued that the lack of useful information reduced the level of trust employers had in educational qualifications. One result is that employers demanded credentials far beyond those that were necessary for particular jobs in the hope that recruits would have the actual skills they want (Strathdee, 2005b). To improve the provision of information, the NZQA proposed providing all learners with an individual record of their learning, which would show clearly what learners had achieved and could do.

Finally, as the argument of the day went, students who did not perform well in one-off, norm-referenced examinations were seen to be locked into assessment systems which promoted their failure. This contributed to educational inequality of opportunity:

> ... when secondary education became the right of all children in New Zealand the present system was seen as a means of ensuring equality of opportunity, irrespective of background. The system was meant to be fair to all. It was argued that any child born with ability would succeed. Unfortunately, experience has shown children do not have equal opportunity. Race, class, and income are more likely to determine success than innate ability. The emphasis on written examinations has ... meant that ability has been recognised only within a narrow range of intellectual skills. Practical and creative skills, for example, go unrecognised in such a system. (Hood 1986)

The unstated assumption with the then assessment system – norm-referenced assessment – according to NZQA's former Policy and Development Manager, Alan Barker (Barker 1995), is that only some people can learn. In order to adequately prepare all learners for the demands of the post-industrial economy, and maintain economic competitiveness in the face of increased globalization of the world economy, it is thought to be vital that all learners, regardless of their social-class, race or gender, learn new skills and develop a love for lifelong learning.

However, it is not only new forms of assessing and recording learning which were required to meet the challenges posed by the ‘new’ economy; new forms of curriculum were also required. Here the claim was that the curriculum had not kept pace with changing demands in the labour market. One reason for the mismatch between the skills demanded by employers and those provided by schools was that traditional approaches to curriculum development evolved from social democratic models which involved a wide range of groups – employers, teachers, state officials and others who all had an interest in such matters – collectively deciding what constituted valuable knowledge (Jesson 1995). However, rapid and recent technological change had rendered this method

impotent as it limited the ability of educational systems to respond quickly to technological change.

According to David Hood (1986), who went on to head the New Zealand Qualifications Authority, the answer to these and other goals lay in State intervention designed to extend internal assessment and increase the involvement of employers in curriculum development. At the time there existed the political will in New Zealand to work towards these ends, and in 1987, a Board of Studies was established by the then Labour Government and relevant legislation was enacted to enable the Board to extend internal assessment to other areas of the schooling system. This allowed policy-makers to begin consultation with interested parties and to begin formulating the required changes.

However, the political circumstances were changing. Although Labour was re-elected in 1987 (having been elected to office in the 1984 election), by this stage the administration of education was dramatically different and consultation came to be seen as a way of deferring important decisions. Indeed, interested groups such as teachers were increasingly considered to have "captured" policy-making. As a result, the Board was seen to serve the interests of those on it. Similarly, the view that the debate over assessment should be expanded to include the tertiary sector emerged and this required a broader focus. The Board of Studies was abolished soon after it was established (Selwood 1991).

It is important to note at this juncture that unsurprisingly, given its small size, New Zealand operates under a unicameral political system. Up until 1996, election to office was determined using a ‘first past the post’ system. This increased political stability because political parties were able to establish with ease majorities in the House of Representatives. This helps explain why New Zealand governments have been able to advance reforms that are radical. For example, it is widely acknowledged that New Zealand’s version of neo-liberalism went much further than such movements elsewhere. Although it remains a question for further empirical investigation, arguably the same factor lies behind the attempt to introduce a unitary framework. In the absence of effective systems of political opposition, governments in New Zealand were able to make decisions without compromise (Palmer 1979). In response to the perceived misuse of power (particularly that which led to the introduction of the New Zealand experiment (or New Zealand’s radical application of neo-liberalism) (Kelsey 1997), in 1996, a system of proportional representation was introduced. As a result, most governments now rule in coalition with minor parties and it is more difficult for administrations to act with impunity.

The NQF was set up by the Labour Government under Section 253 of the July 1990 Education Amendment Act, and, as noted, its origins are in a series of educational reviews and reports which date well back into the 1970s. The most influential of these was the *Report of the Working Group on Post Compulsory Education and Training* (Hawke 1988). In his report to the Cabinet Social Equity Committee, the convenor, Gary Hawke, stated that, “New Zealand’s post compulsory education and training system, like other parts of our society, could contribute more to both economic efficiency and social equity”. (ibid., p. 6)

This paper recommended the establishment of a centralized educational authority designed to bring together a range of distinct educational bodies. The report also suggested the creation of a seamless education system. The key recommendations in relation to the NQF were:

- that PCET (Post Compulsory Education and Training) should be reformed in line with improvements in the public sector finance management such as greater provider accountability and greater user pays.
- that a system of national qualifications be established with an across the portfolio approach to qualifications which would help to reduce barriers to access and movement between institutions (idem).

The *Report of the Working Group on Post Compulsory Education and Training* (1988) provided the basis for the publication of *Learning for life* (New Zealand Office of the Minister of Education 1989). *Learning for life* was a statement of the Government's intent in the area of post-compulsory education. After a number of working groups had discussed and responded to *Learning for life*, the Government released some of its policy decisions regarding reform of post-compulsory education. These were reported in *Learning for life: Two* (ibid. 1990). Essentially, the education system was seen to be too fragmented and inefficient. Reflecting the language of neo-liberalism, which dominated policy directives at the time, one reason offered is that the system was seen to be governed by rules and regulations that confused and frustrated consumers. According to official accounts, this meant that the system was vulnerable to pressure group politics and created few incentives for educational institutions to manage their resources efficiently. It was also seen to lead to institutions being slow to respond to changing demand within the labour market for workers with particular skills.

To improve participation and achievement, the Government wanted to make education more accessible. This, it suggested, could be achieved by reducing the selective function of education. At the same time, the Government signalled that there were important reasons why it should continue to fund post-school education, but that there was also a need to develop a broader base of funding. In other words, learners were required to make a greater contribution to the cost of their education.

The desire to achieve these aims provided the context for the development of the NZQA. It was assigned the function of interpreting and implementing the original legislation. One of its principal functions was to develop a framework for national qualifications in secondary schools and in post-school education and training in which:

> All qualifications (including pre-vocational courses provided under the Access Training Scheme) have a purpose and a relationship to each other that students and the public can understand; and there is a flexible system for the gaining of qualifications with recognition of competency already achieved. (Government of New Zealand 1995, p. 242)

As noted, in contrast to the approach adopted by other nations, in the original vision the NQF was designed to replace *all* existing qualifications with a series of new certificates, diplomas, and degrees, registered at various levels on a unified qualifications framework. In order to meet these goals, the NZQA decided to overhaul assessment practices by developing standards-based assessment as a replacement for all other forms of assessment. A major feature of standards-based assessment is that responsibility for assessing learning outcomes is devolved away from central bodies over to teachers and others who must assess whether or not learners have met predetermined levels of achievement. In the past, norm-referenced national examinations were established and administered by central bodies such as the Ministry of Education and the Vice

Chancellors' Committee. However, under the NQF, as initially conceived and developed, the NZQA was to oversee all assessment practices. This included accrediting providers, registering all qualifications on one framework and ensuring that systems of moderation (to ensure consistency in assessor judgements) were in place and were effective.

The NQF was designed to promote the development of a modular curriculum based on units of learning (unit standards). To create these units, the NQZA established a number of bodies to set standards in all areas of learning. These were known as National Standard Bodies (NSBs) (and included Industry Training Organisations (ITOs)).

Unit standards are perceived as a collection of predetermined, clearly-defined learning outcomes. They are established at a particular level of the NQF and are published by the NZQA. They are a measure of learning that allow combinations to assist in the creation of diverse qualifications.

Closely related to the NQF was the Industry Training Strategy, introduced in 1992. It aimed to lift the quantity and quality of workplace learning. The Strategy provided the process for industry to control the development, implementation and management of industry training programmes, including the setting of skill standards (which are registered on the NQF and set by ITOs).

Most of the training overseen by ITOs is at levels 1 to 4 of the NQF. ITOs do not necessarily provide training themselves, but make arrangements for workplace assessment and off-job delivery of training, such as purchase of training at an institute of technology or polytechnic or private training establishment (and they set the standards of achievement required to gain unit standards and, ultimately, whole qualifications).

It was intended that ITOs would represent directly the needs and wishes of the employers for whom they act. Thus, the aim was that the development of learning outcomes (and the related standards of achievement) would be driven by those who use the skills produced by the New Zealand industry training system – namely, employers. Once learning outcomes are registered, any provider who has been quality assured, can offer training in the area. Thus, through specifying standards, ITOs have the ability to help drive the development of national curricula.

ITOs and other National Standards Bodies (NSBs) were also given responsibility for developing complete qualifications, while the providers of qualifications – the schools, polytechnics and other educational institutions (and tutors working in workplaces) – had ownership of the delivery or teaching methods. Unit standards were designed so that they varied in size depending on the amount of work needed to complete them and they were subsequently placed on the NQF at varying levels depending on their difficulty. There were eight levels of learning on the original NQF:

- National Certificates are awarded at levels 1 to 4;
- National Diplomas are awarded at levels 5 and 6;
- Undergraduate degrees are awarded at level 7;
- Other degrees and higher certificates are awarded at level 8.

While theoretically there is no minimum standard for level 1 unit standards, these are thought to equate to an average ability Year 11 student (about 15 years old).

The original vision promoted the view of a seamless education system with students gaining qualifications from a variety of providers. For secondary school students, enacting this vision to its fullest implied that schools would lose their custodial function. In addition to the national certificates designed by industry, it was envisaged that school students would study towards national certificates of educational achievement (although the precise details were not provided).

As will be outlined in more detail and critically evaluated below, the official view of New Zealand's NQF was that it *would* achieve the following aims:

- to create a single, coordinated framework of qualifications;
- to provide a consistent basis for the recognition of educational achievement wherever that achievement occurs;
- to extend recognition to a wide range of achievements;
- to encourage the integration of 'academic skills' with applied skills, and to bring together theory and practice;
- to enable and encourage diversity among providers of education and training, and to recognize academic freedom;
- to reform assessment practices in education and training;
- to raise progressively the standards of educational achievement;
- to shift the practice of teaching to student-centred learning;
- to provide quality assurance for qualifications;
- to enable qualifications to evolve and develop;
- to recognize the principles of the Treaty of Waitangi;
- to provide a rational system of nomenclature for qualifications;
- to provide a system of credit accumulation and transfer;
- to enable qualifications that are flexible;
- to encourage a wider range of educational settings; and
- to provide incentives to increase individual and collective investment in education and training. (NZQA 1996)

Even accounting for the fact that this is the official view, it is an impressive list of promises. At the time, the NZQA had adopted an activist approach in which it was trying to revolutionize New Zealand's education and training sector. And, as noted, it was introduced during a period when the dominant view in Government was that policy changes in all areas needed to be made swiftly – something that was possible under New Zealand's system of government of the day.

One of the difficulties was that many of these aims remained visions, which were primarily used to 'sell' the NQF to the community. Many were not buttressed by concrete strategies, or funding needed to realize them. Also the election of a National administration (i.e., conservative) in 1990 indicated that the

political terrain was changing. As detailed in the next section, this led to a number of problems for the NZQA.

Implementing the NQF

The NQF was launched in 1991. However, it did not take long before it ran into difficulty. Looking first at vocational areas – progress was made in some areas (but not all) in developing unit standards and creating new qualifications. In *some* areas NQF qualifications were taking hold; however, in many others they struggled to win the hearts and minds of users. Based on NQF figures, the Industry Training Federation (ITF) (2006) reported this growth in the numbers of registered trainees (from 81,343 in 2001 to 161,676 in 2005) as confirmation of industry training achievements. In other evidence, the Tertiary Education Commission (TEC) records that industry training had grown substantially from 16,711 trainees in 1992 to 176,064 in 2006 (TEC 2006). In part, this increase reflected the impact of new interventions such as the Modern Apprenticeship Scheme. This was introduced in 2002 by a Labour Government, which had reinvented itself as a modern social democratic administration, partly in response to concerns that the Industry Training Strategy itself was not having the desired impact. It is also possible that it took longer than expected for the market-led industry training system to yield its full effect. However, as was the case in the United Kingdom, despite being 'employer-led' there was little solid evidence early on that employers as a group were embracing the new training arrangements (and, hence, the need for the new Investment Approach, which is described below). For example, one report argued that employers appeared to be 'ambivalent' about the NQF in general, and ITOs in particular (Long et al. 2000). At the time, less than 10 per cent of young people aged 15 to 19 years received training linked to the NQF (hence, the introduction of the modern apprenticeship scheme). In contrast, 35 per cent of those aged 50 years and over received training. The amount of training varied markedly across different industries in New Zealand. Although the figures are dated, approximately 30 per cent of trainees were in the Building Services and Contractors ITOs whilst other industries were not represented at all (New Zealand Office of the Prime Minister 2002). In addition, despite being employer-led, 45 per cent of all employees in New Zealand were not covered by an ITO. Explanations for reluctance of employers to adopt the Industry Training Strategy include a belief that the ITO model did not meet the employer/occupational group needs. In addition, it was argued that the qualifications and necessary entry requirements had already been established through other means – for example via the university system. Finally, there continues to be a reluctance on the part of industry to be involved in training that may lead employees to demand increased remuneration (Strathdee 2005b).

Although the numbers of trainees engaged in training linked to the NQF continues to increase, the patterns set early have remained with coverage uneven. This means that some qualifications remain underutilized. Indeed, some Industry Training Organizations have relatively large numbers of trainees (for example, Competenz, New Zealand Engineering, Food and Manufacturing ITOs), while others have relatively few (for example, New Zealand Enquine ITOs), and others (for example, the ITO that supported the banking sector), have fallen over for want of support.

The poor uptake of the NQF in some areas raises questions about the validity of the post-Fordist thesis. Briefly, the post-Fordist posits work as

becoming increasingly skilled and hence individuals need more training. However, it is far from clear that this theory holds for all areas of the labour market. For example, as argued in more detail elsewhere (Strathdee 2003), many areas of the labour market do not require workers to have high levels of skill and expertise, and in a few areas skill is only a small part of a firm's competitive strategy. Initially at least, the NZQA tended to argue that although post-Fordism has yet to make an impact on some areas, competing in global economic ways that created high wage/high skill employment means that New Zealand will eventually need to modernize its labour force or it will face ever-declining incomes. More recently, the NZQA has had less to say about the possibilities for the NQF in these terms and has set about servicing the scheme that currently exists. The point is important because it goes to the heart of employers' motivations to invest in upskilling. If their competitive strategies do not encompass a need to increase skill levels, it is unlikely that they will embrace the opportunities created by the NQF. Indeed, as described more fully below, in many areas of the labour market employers do not see a need to embrace the opportunities and, despite making just such a promise at one point, the Government did not force them to.

While questions remain about the impact of the NQF on employers, it is clear that, by increasing the number of providers that can offer accredited learning, the NQF has had an impact on New Zealand's education and training sector. The NQF has helped create markets in education and training, particularly through providing a means by which competing providers can offer accredited training.

First, the NZQA accreditation processes have allowed numerous new providers to offer accredited (and State subsidized) training. As a result, a training market emerged with new training providers competing with traditional providers for students (however, as described below, recent developments in policy have curtailed this). The main driver here was the availability of significant State funding to private providers of education. Prior to the reforms, New Zealand had a good number of private training providers. These went from offering second chance training under contract to the State, to becoming fully-fledged training providers that recruited their own students and offered courses they thought would be of interest to students just like any other provider of training.

Second, the NQF aimed to increase the involvement of the employers in deciding what constitutes valuable knowledge and, as is the case wherever NQFs have been introduced (Young and Allais 2009), to provide them with information that they can trust. As part of this process, NQFs aspire to reduce 'reputational effects' in education which see employers (and other groups) favouring graduates from elite institutions because they are perceived to have good reputations (Strathdee 2009b). While attempting to create open competitions for advancement is clearly a worthwhile ambition, unfortunately, there is little evidence that employers as a group trust NQF qualifications more than previous qualifications, or if 'traditional' recruitment methods (for example, through social networks) provide a more reliable and trustworthy source of information about new recruits. If this reasoning is accurate, then it suggests a nuanced approach to understanding the connection between trust and the implementation of outcomes-based systems of assessment is required (Young and Allais 2009).

Third, increasing the involvement of employers in decisions about what constitutes valuable knowledge was designed to address concerns about the

relevancy of knowledge produced and taught by New Zealand's training system. The attempt to increase employer voice (Hirschman 1970) is most apparent in the system of ITOs. The creation of ITOs has helped to ease concerns expressed by neo-liberal interests about the inefficiencies in the provision of economically-relevant qualifications. Nevertheless, it remains unclear whether or not users of qualifications (for example, employers, other providers and students) use NQF qualifications in the manner desired by policy-makers.

Recent work suggests that the relationship between employment, qualifications, and the labour market is likely to be mitigated by field effects (Strathdee 2009b). In some fields, NQF qualifications are likely to signal capacities employers are interested in and to provide trustworthy information. In such instances, employers are likely to value NQF qualifications. In other fields, the rules are likely to differ. For their part, universities have used the National Certificate of Educational Achievement (NCEA) as a basis for selection into tertiary education. This has meant that the qualification has status with schools. However, changes in government policy (described below) mean that the NCEA is now less useful and new ways of limiting participation are being sought, for example, by converting NCEA results to grade point averages (Strathdee 2009a).

Fourth, the Framework has contributed to the creation of an educational market by providing a common qualification currency in those sectors that have adopted the unit standard format. This common currency, like money in an economy, facilitates greater competition between the providers of educational qualifications because many institutions are recognizing and rewarding learning in the same way. This enhances the creation of markets in education and training through promoting exit (Strathdee 2003). Thus, the creation of a common educational currency increases consumer choice and, as the official argument proceeds, creates new pathways in education and training, and on to the labour market. In theory, this meant that students could choose between different providers offering the same programme, and therefore choose those they saw as the best.

However, resistance from a range of groups continued to limit the impact of the NQF in other areas. Critically, the NZQA could not convince the universities to adopt the unit standard model and the then Government would not force them to. Specifically, in 1994, following the release of a report critical of the NQF (New Zealand Vice Chancellors' Committee 1994), the New Zealand Vice-Chancellors' Committee withdrew the university sector from the NQF. The universities were concerned that standards-based assessment would be demotivating for students; that they could not adequately identify 'excellence' (which is the essence of university education); and that they did not adequately reflect that kind of teaching and learning that occurred in universities. Fears were also expressed at the time of their development that their introduction would lead to a fragmentation of knowledge and learning, and that advanced university qualifications could not simply be broken down into small unit standards.

However, it was not just the universities that had problems with the adoption of New Zealand's radical new framework. At the time of the NQF's launch, the political terrain had shifted once more, and the then national administration was in favour of selective assessment (that is, norm-referenced assessment) and was elected, in part, on a standards agenda in education. The irony here is of course that the NQF was also legitimated on the basis that it would increase standards in education (indicating the flexibility of the term in political discourses). The NQF was controversial and was seen as reducing

standards in education. For example, concern was expressed by conservative schools (which were keen to preserve their status and which threatened to use international examinations instead of the NQF); aspirational parents (who were probably worried about the advancement of their own children), and other groups. Like the universities, these individuals and groups were fearful that the proposed changes would reduce student motivation to achieve and would close off opportunities for social mobility. In addition, although there is a paucity of empirical evidence, it is reasonable to assert that despite the efforts of the NZQA, in general parents and their children did not really understand the measure (Strathdee and Hughes 2001). At the time a system of dual assessment had emerged with students in some subjects having their learning assessed through norm-referenced assessment and others through standards-based assessment. And, in some instances, students were being graded by both norm-referenced assessment and standards-based assessment. As a result, teacher workloads increased dramatically as they tried to implement a new system as well as maintain the existing one (idem). In addition, there was little movement of learners between schools and other providers, e.g. polytechnics. In part, this possibly reflects difficulties in splitting the funding between different providers. Whatever the reason, in practice, most students remained in school at least until they reached the then minimum leaving age of 15 years and there was little, if any, movement between different providers.

Problems also existed within Government, which further hampered the introduction of the NQF. Critically, the Ministry of Education had concerns about the applicability of unit standards to some school subjects. The specific concern was that assessment against unit standards was inappropriate for traditional school subjects. This was problematic for the NZQA because the Ministry had responsibility for developing school-level curriculum. Without its support, the NZQA could not progress its reform in 'conventional school subjects' in the compulsory school sector. Unit standards were implemented in some areas of the school curriculum.

The policy context that developed following the withdrawal of the universities from the NQF is complex (and requires further research). Nevertheless, it is clear that by the mid-1990s, a stalemate had developed between various agencies involved in the implementation of the NQF. As a result, progress implementing the NQF was limited, as the National Government failed to act. In 1999, the Government changed back to Labour. To its credit, Labour confronted the problem facing the NQF. Its solution to the stalemate was to release a White Paper in 1999, which signalled the development of a broadened NQF. The details of this shift are complex. However, as described in more detail below, arguably the changes reflected a victory for conservative interests because they effectively ensured that traditional pathways were maintained and the universities could continue to operate as they had traditionally done. As a result of the White Paper, the NZQA was forced to develop an NQF that was 'inclusive', but which did not force the universities to adopt the unit standard model. The actual strategy adopted to broaden the NQF was to create a register of quality assured qualifications ('the Register'). The Register, launched in 2001, provides the structure which brings together all approved qualifications available in New Zealand tertiary institutions (universities, institutes of technology and polytechnics, *wānanga* and private training establishments) and secondary schools. In other words, although university qualifications are on the Register of quality-assured qualifications, the universities were able to continue to set their own curricula and to assess learning outcomes in traditional ways. In turn, this helped preserve their status as

the elite, even though other providers were able to gain accreditation to offer degrees.

All approved qualifications must be described in terms of course objectives and learning profiles and they are registered on the Framework. However, they are not necessarily defined by NQF standards (see below). In addition, the NZQA has delegated the universities (and other providers) responsibility to assure the quality of their own qualifications; this task being undertaken by a sub-committee of the New Zealand Vice-Chancellors' Committee, the Committee on University Academic Programmes.[3]

It is worth pausing at this juncture to reiterate the following points.

1. All qualifications on the Register have been approved by a recognized body (for example, an Industry Training Organization (ITO), or the New Zealand Vice Chancellors' Committee) and are delivered by an accredited education or training organization (for example, a university).

2. Qualifications that recognize learning through achievement standards and unit standards are a subset of the qualifications registered.

3. All qualifications must be described in terms of course objectives and learning profiles.

4. Responsibility to quality assure qualifications has been vested in other agencies such as the New Zealand Vice Chancellors' Committee.

Returning to the reform process, at a school-level, the White Paper signalled the advancement of the long-awaited National Certificate of Educational Achievement (NCEA), to replace existing school qualifications. An important aspect of the change is that, under the NCEA, the way in which learning can be assessed against standards in conventional school subject areas has been broadened. In the case of approved curriculum-related school subjects, learning is assessed against predetermined standards in one of three ways.

1. First, a new measure known as achievement standards has been developed by panels of subject experts (that is, Standards Setting Bodies, which in the case of conventional school subjects appear to be appointed by the Ministry of Education). Achievement standards are similar to unit standards in that they clearly specify the standards students are required to obtain in each subject area in order to receive credit towards the NCEA. However, unlike unit standards, they have been designed so that satisfactory work, good work, and excellent work can be recognized with 'credit', 'merit', and 'excellence' grades. The inclusion of graded assessments has gone some way to appease the concerns of those who felt that the original pass/fail system of assessment would be demotivating for students.

School students typically aim to achieve NCEA level 1 in Year 11 (when they are aged about 14), NCEA level 2 in Year 12 (when they are aged about

[3] http://www.nzvcc.ac.nz/aboutus/sc/cuap [10 June 2009].

15), and NCEA level 3 in Year 13 (when they are aged about 16). Another new qualification, the national diploma, was placed at levels 5 to 7; initial degrees at level 7; and advanced degrees at level 8. The eighth level originally covered all postgraduate qualifications, including those developed by universities. In response to concerns that the top levels of the NQF did not recognize advanced post-graduate levels of learning, an additional two levels were added to the NQF. In addition, a new award, known as Scholarship (at level 4 of the NQF) has been introduced at the senior secondary school level to recognize the achievement of the very brightest.

2. Second, assessment against unit standards continues, where appropriate, and credit will continue to be awarded on a 'has reached standard/has yet to reach standard' basis.
3. Third, other examinations or qualifications can be used to obtain credits. In an attempt to ensure the new qualifications have rigour, the Government has insisted that external examinations be used to determine at least 60 per cent of the final grade in most conventional subject areas.

It remains a 'credit' model, but made up of a complex mix of achievement standards and unit standards.

National Certificate of Educational Achievement (NCEA) levels

Level 1

- Required: 80 or more credits at level 1 or higher, you have gained NCEA level 1. Eight of these credits must be from numeracy standards and eight credits from literacy standards. Literacy can be assessed in English or in *te reo Māori*.

Level 2

- Required: 60 or more credits at level 2 or above and 20 credits at any other level. Credits can be used for more than one qualification; so some of your NCEA level 1 credits can count towards NCEA level 2. At level 2 there are no specific literacy or numeracy requirements.

Level 3

- Required: 80 credits or more, of which 60 must be at level 3 or above and 20 at level 2 or above.

Rewarding achievement

- Students can now gain NCEA certificates with merit or excellence. To gain excellence, 50 or more of the required 80 credits must be awarded at excellence level. If 50 or more credits are gained at merit level (or a mix of merit and excellence), an NCEA with merit will be awarded.

As noted, there were concerns about the impact that modularization of the curriculum would have on the quality of education senior secondary students would receive. However, recent studies have shown that the predictive validity of the NCEA on subsequent performance in higher education is high in mathematics (James et al. 2008) and overall (Shulruf et al. 2008). However, as Shulruf et al. (2008) noted, recent research had shown that students have emphasized the accumulation of credits (Mayer et al. 2006). As they point out, if NCEA candidates aspire to succeed at university, it may be appropriate to shift this emphasis from minimum passes in more credits to higher achievement in fewer credits.

Overall, there is little evidence that assessment against standards is any more motivating for students than the old system, or that students who have performed poorly in traditional forms of assessment are doing better under the new. Of course, to have their full effect, it is necessary for the new qualifications both to be more motivating and for employers to trust them as signals of competency. Unfortunately, for proponents of the NQF, there is little evidence that either have occurred. Similarly, proponents of the NQF hoped to create parity of esteem between vocational and academic qualifications. Small-scale research has shown that students value most university qualifications (and those qualifications they need to gain entrance to university) (Strathdee and Hughes 2001), but it remains unclear how they have been received by employers. However, credential inflation and the tendency for larger cohorts of students to progress to higher levels of education and training means that this issue is of declining importance.

There is also evidence that completion rates in some areas of New Zealand's tertiary education system remain lower than desirable, suggesting that the NQF has yet to achieve one of its key objectives. For example, a recent Ministry of Education report[4] showed that New Zealand has one of the lowest higher education qualification completion rates in the OECD – just 58 per cent, compared to Australia's 72 per cent.

Although the NCEA is widely accepted as the terminal school qualification (as it provides access to university), it continues to create controversy. For example, the award of scholarship in some subjects has varied from year to year. In mathematics, for example, in 2002, more than 5,000 candidates were graded 'excellent' in a mathematics standard, but in 2003, only 70 (following a controversy). Each year when the results are released there are usually concerns expressed about standards of achievement. This year proved to be no different.[5] Such controversies have forced changes in the NZQA (which itself has been subject to three external reviews, and there have been several changes of CEO).

However, there are other problems. As noted above, the Ministry of Education has responsibility for developing curriculum, and according to the NZQA, the Ministry of Education also has (if NZQA's documentation is to be believed) ultimate responsibility for developing achievement standards (via its Standards Setting Bodies). Unfortunately, the process of curriculum development and standards setting has not always gone hand in hand and it seems that the NZQA still has some responsibility to set the achievement standards. In the case of senior secondary school history, for example, achievement standards were produced by the Standards Setting Body in time for the introduction of the NCEA in 2002. It is unclear how this was achieved and how much consultation with stakeholders took place. However, since then, the Ministry has introduced a new history curriculum across the schooling sector and this must be aligned with

[4] http://www.educationcounts.govt.nz/publications/tertiary_education/42059 [10 June 2009].

[5] For example, see http://www.stuff.co.nz/sunday-star-times/news/2417397/National Certificate of Educational Achievement-credits-for-reading-Wikipedia-sending-emails [10 June 2009].

achievement standards (at Years 11-13). The new curriculum document has been released, but the achievement standards (which will be used to assess student learning) have yet to be developed. The issue is complicated and confusing. For example, information from the Ministry of Education suggests that it has joint responsibility with the NZQA to develop the standards, yet the curriculum seems to have been released without any consideration of how learning in the area might be assessed in terms of achievement standards. To make matters worse, in the interim, a National-led Government has been elected and developments in senior secondary history, at least, seem to have come to a standstill.

However, of relevance to this paper is the Labour Government's response to other failings of the NQF. In 1999, when it was first elected, the Labour Government maintained that the NQF (and particularly, the market-led education system of which it was a central component) had failed to deliver the promised social and economic objectives. Controversies in the funding of some providers sharpened the Government's thinking in the area (Strathdee 2009a). The administration maintained that the tertiary education system did not reflect the needs of employers; incomes had not be increased as promised; and that many of the courses on offer were of low quality. In its view, it would be better if the Government invested in areas of strategic priority. It took almost six years to bring about change. By 2005, a new funding and planning system was in place cutting across the key aims of the original NQF, which was to create markets in education and training in the hope that this would make skill development employer-led. This is considered more fully in the following section.

New investment approach

As noted above, the market-led post-compulsory education system was based on a number of key principles. These are well understood and are only noted here.

- First, State funding should reflect student choice.
- Second, the same level of State funding should be awarded to different types of providers that offer the same kind of training on the grounds that favouring one kind of institution ahead of another would distort the market.
- Third, students should pay for the cost of their tuition.
- Fourth, providers had no monopoly on provision. This meant that there was no reason, for example, that universities would be the only institutions to offer degrees.

Policies enacted to support the first two of these principles had the effect of dramatically increasing participation in tertiary education. Much of this expansion was in private training establishments, which had emerged to take advantage of increased access to funding that had been enabled by the introduction of the NQF and which had to only be available to public sector providers and in *wānanga*, these institutions focusing upon increasing their rolls as a way to gain increased funding.

Expansion was encouraged further by an unwillingness on the part of successive administrations to support fully principle three above. In no small measure, this reflects the continuing influence of social democracy in State intervention. Over time, fees were gradually increased to 25 per cent of course costs. However, the State continued to pay the lion's share of the costs.

Moreover, to prevent those from poorer backgrounds missing out on the opportunity to participate, loans to students to cover the cost of their tuition and some of their living expenses were provided on easy terms. Progress was made towards achieving principle four, with universities losing their monopoly on the provision of degree-level training. In addition, one former polytechnic gained university status.

The upshot of these policies was the creation of a tertiary sector that was shaped by a mixture of policies and which suited no group. Social democrats could take heart from the introduction of policies that increased access, such as broadening the range of providers that could confer degrees, and those that limited the impact of neo-liberalism on students, such as the provision of student loans and the limitation placed on the level at which the users could be charged for their use of tertiary education. Neo-liberal interests could take some heart from moves to increase consumer choice. However, the absence of strong price mechanisms meant that student choices need not reflect demand for skill in the labour market. Thus, a 'market' of the sort originally envisioned by creators of the NQF did not exist. There was little for conservatives to celebrate in the reforms. Access to higher education had become open to virtually all who completed secondary school, and universities and other providers of NQF-registered qualifications were offering new programmes designed to attract students rather than to preserve elite forms of knowledge. In addition, working-class groups were not disadvantaged in gaining access to any greater extent than they were under previous regimes as most gained the qualifications needed to enter university in New Zealand (Hughes and Pearce 2003; Strathdee and Hughes 2007).

The Labour-led Coalition was not happy either. Although these measures increased enrolments dramatically, the outcomes from this were seen by them as unsatisfactory in terms of the quality of training delivered and the appropriateness of the skills produced. Again the irony here is that the NQF was originally enacted by a Labour Government for just these reasons. Thus, despite the systems of ITOs, which were supposed to represent employers' interests in skill, two key problems persisted. First, there was no strong evidence that employers as a group were embracing the NQF. Second, there was evidence that learners were making decisions about training at some distance from the labour market. For their part, providers of training linked to the NQF were offering training that was attractive to students irrespective of the value in the labour market of the qualifications on offer. For example, some providers offered inducements for courses that had little relevance to the labour market, for example, 'twilight golf' (Strathdee 2009a). To make things worse, there was little evidence that the students who were enrolled in the courses actually made use of the opportunities by attending class. These and other problems had contributed to falling incomes (New Zealand Office of the Prime Minister 2002). Indeed, the Labour Government argued that the previous administration's voluntary, or 'neo-liberal', approach to training (which Labour had actually introduced) had put the country at economic and social risk because employers were not investing sufficiently in education and training (Strathdee 2005a)

Upon election, the Labour-led Government embarked on a major tertiary education system. At a strategic level, it began by establishing the Tertiary Education Advisory Commission (TEAC). This Commission was charged with the task of developing, amongst other things, a more cooperative and collaborative tertiary education sector and a sector where there was a greater sense of partnership. The Government's overall stated aim was to end market-

based provision and to direct its investment in tertiary-level training into areas of strategic relevance.

It is important to note that, in theory, the changes do not impact directy upon the NQF, as it remains primarily a method of recognizing and rewarding achievement. However, the changes will have an important impact upon the uptake of various kinds of learning recognized by the NQF.

Although the Labour-led Coalition identified the problems in the provision of tertiary education and training in 1999, and was taking steps to reform the system, change was slow and the state was poorly placed to meet the challenges presented. By mid-2002, the Tertiary Education Strategy had been established, and in 2003 the Tertiary Education Commission (TEC) was created to execute it. Under the rules that were created when the NQF was enacted, institutions were allowed to grow their enrolments as they desired, with market forces determining supply and demand of training. However, as cost escalated, the Government capped enrolments.

While the TEC enacted some measures to curb costs, in general, it struggled to manage the changes and in its first two years was subjected to three significant reviews, covering structure, governance and its role in the broader education sector. Other problems also emerged, which limited the State's ability to manage the provision of education and training. For example, the Government found that the legislation meant it could not refuse to fund providers once students had enrolled, nor could it recover funds when courses were not actually offered or completed. Another issue was that administrative control of the sector was split between the TEC (which approved courses for payment) and the NZQA (which was responsible for approving courses for quality). Neither organization was in complete control. Indeed, the NZQA had delegated quality assurance to some providers (for example, the *wānanga* and the New Zealand Vice-Chancellors' Committee). In one case, a provider of mainly second chance education gained more revenue from the Government than the University of Auckland, New Zealand's largest university (Strathdee 2009a).

As part of its solution to this problem, the Labour-led Government developed a growth strategy expressed in its Growth and Innovation Framework (GIF). The GIF identified three areas of activity as critical to national economic growth – biotechnology, information and communications technology, and design – and created a number of strategies aimed at improving economic performance. In contrast to the market-led system of provision that characterized the earlier period, in the contemporary period a new Centre-Left Government (1999-2008) adopted a new approach to tertiary education. This is referred to as the "investment approach". The overarching principle was that investment in education would reflect regional and national priorities. As part of establishing the new funding model, by 2006 all providers of tertiary education and training were subjected to tests of relevance. In contrast to the earlier approach, where providers could offer any qualifications registered on the NQF, the Government now only funds programmes deemed relevant to the strategic direction it had set itself. To establish relevance, each Tertiary Education Organization must have an approved Charter and Profile in which training is linked to the NQF. Although there are important differences between the two documents, Charters and Profiles are negotiated between the TEC (which oversees the funding of tertiary education) and individual providers of tertiary education, and are intended to provide the State with a way to monitor the quality and direction of the tertiary sector.

In general, the TEC assesses the activities of providers against four areas of strategic priority: excellence (raising the quality of teaching, learning and research to equip learners with the skill and competencies they require); relevance (ensuring a Tertiary Education Organization's activities contribute to the key national economic and social goals as set out in the Tertiary Education Strategy and the Government Tertiary Education Priorities); access (ensuring equity of access and opportunity for students, particularly for Māori and Pacific people); and capability (raising organization and system capability). As part of the process of determining funding priorities and encouraging providers to deliver on these, the Tertiary Education Commission employed agents in the regions to develop linkages between providers and employers.

Through funding providers according to their profile and limited growth, the then Government hoped to direct more effectively its investment in tertiary education and training. The idea was to create a network of provision in which providers of tertiary education did not compete with each other and work closely with employers in their regions to increase the relevance of the training linked to the NQF they provide. Indeed, in the place of competition, cooperation was stressed.

Essentially, New Zealand now operates under a system where all qualifications must be described in terms of course objectives and learning profiles and they must be registered on the Framework. However, institutions do not have to adopt assessment against standards in the way these were first envisioned, and the NZQA delegates the responsibilities for accrediting programmes to different agencies such as the New Zealand Vice-Chancellors' Committee. The introduction of the investment approach means that providers must gain additional approval before they can offer training, and this must be consistent with their charters and profiles. Also, providers are not funded on the basis of the number of students that turn up. Rather, funding levels are predetermined by the Government. This latter development has created difficulties because National Certificate of Educational Achievement results do not provide an easy method for selecting students. (Vlaardingerbroek 2006)

Finally, at the point of writing this paper, the new National Government, which was elected at the end of 2008, has signalled that it does not want to continue with the former Government's investment approach. Quite what this will mean in policy remains to be seen. In relation to the NQF, one idea that has been raised is that the terminology of unit standards and achievement standards will be abandoned in favour of the term 'standards'. However, this is likely to be problematic, as the achievement standards and unit standards are constructed in different ways.

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Education and Culture DG

Lifelong Learning Programme



KEY COMPETENCES FOR LIFELONG LEARNING

European Reference Framework

Education and Training

The *Key Competences for Lifelong Learning – A European Framework* is an annex of a Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning that was published in the *Official Journal of the European Union* on 30 December 2006/L394. (http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_394/l_39420061230en00100018.pdf)

The Recommendation is one of the outcomes of the joint work of the European Commission and the Member States within the Education and Training 2010 Work Programme. The Work Programme is the over-arching framework for policy cooperation in the area of education and training, and is based on commonly agreed objectives, indicators and benchmarks, peer-learning and dissemination of best practice. For more information, please see: http://ec.europa.eu/education/index_en.html.

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KEY COMPETENCES FOR LIFELONG LEARNING

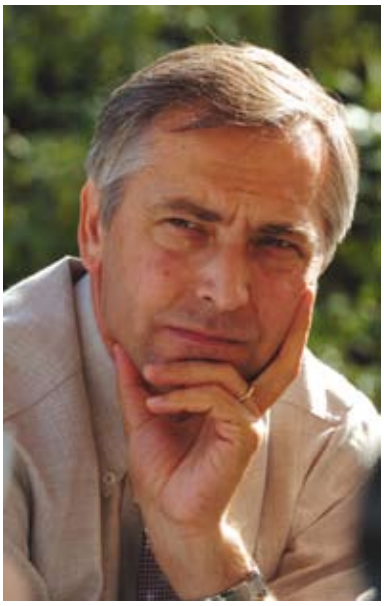
Lifelong learning has become a necessity for all citizens. We need to develop our skills and competences throughout our lives, not only for our personal fulfilment and our ability to actively engage with the society in which we live, but for our ability to be successful in a constantly changing world of work.

The knowledge, skills and aptitudes of the European workforce are a major factor in the EU's innovation, productivity and competitiveness. Growing internationalisation, the rapid pace of change, and the continuous roll-out of new technologies mean that Europeans must not only keep their specific job-related skills up-to-date, but also possess the generic competences that will enable them to adapt to change. People's competences also contribute to their motivation and job satisfaction in the workplace, thereby affecting the quality of their work.

The ways in which we access information and services continue to change. We need new competences to master a whole new digital world, not only by acquiring technical skills, but also by gaining a deeper understanding of the opportunities, challenges and even ethical questions posed by new technologies.

In this climate of rapid change, there is increasing concern about our social cohesion. There is a risk that many Europeans feel left behind and marginalised by globalisation and the digital revolution. The resulting threat of alienation implies a need to nurture democratic citizenship; it requires people to be informed and concerned about their society and active in it. The knowledge, skills and aptitudes that everyone needs must change as a result.

It is against this back-drop that the Council and the European Parliament adopted, at the end of 2006, a European Framework for Key Competences for Lifelong Learning[1]. The Framework identifies and defines, for the first time at the European level, the key competences that citizens require for their personal fulfilment, social inclusion, active citizenship and employability in our knowledge-based society. The Member States' initial education and training systems should support the development of these competences for all young people, and their adult education and training provision should give real opportunities to all adults to learn and maintain these skills and competences.

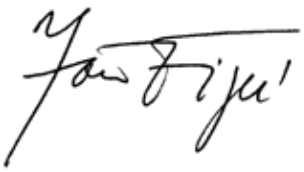


Ján Figel'

Member of the European Commission
responsible for Education, Training,
Culture and Youth

I am sure that the European Framework for Key Competences will prove to be a useful tool for policy-makers, and for education and training providers and learners, in order to make lifelong learning a reality for all. I encourage everyone involved to make the best use of this reference tool, and, alongside the European Commission, to support its dissemination and take-up.

Ján Figel'



[1] **Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning. Official Journal of the European Union L394.**
http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_394/l_39420061230en00100018.pdf

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Background and aims

As globalisation continues to confront the European Union with new challenges, each citizen will need a wide range of key competences to adapt flexibly to a rapidly changing and highly interconnected world. Education in its dual role, both social and economic, has a key role to play in ensuring that Europe's citizens acquire the key competences needed to enable them to adapt flexibly to such changes.

In particular, building on diverse individual competences, the differing needs of learners should be met by ensuring equality and access for those groups who, due to educational disadvantages caused by personal, social, cultural or economic circumstances, need particular support to fulfil their educational potential. Examples of such groups include people with low basic skills, in particular with low literacy, early school-leavers, the long-term unemployed and those returning to work after a period of extended leave, older people, migrants, and people with disabilities.

In this context, the main aims of the Reference Framework are to:

1) identify and define the key competences necessary for personal fulfilment, active citizenship, social cohesion and employability in a knowledge society;

2) support Member States' work in ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life and which forms a basis for further learning and working life, and that adults are able to develop and update their key competences throughout their lives;

3) provide a European-level reference tool for policy-makers, education providers, employers, and learners themselves to facilitate national- and European-level efforts towards commonly agreed objectives;

4) provide a framework for further action at Community level both within the Education and Training 2010 work programme and within the Community Education and Training Programmes.

Key competences

Competences are defined here as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment.

The Reference Framework sets out eight key competences:

1) Communication in the mother tongue;
2) Communication in foreign languages;
3) Mathematical competence and basic competences in science and technology;
4) Digital competence;
5) Learning to learn;
6) Social and civic competences;
7) Sense of initiative and entrepreneurship;
8) Cultural awareness and expression.

The key competences are all considered equally important, because each of them can contribute to a successful life in a knowledge society. Many of the competences overlap and interlock: aspects essential to one domain will support competence in another. Competence in the fundamental basic skills of language, literacy, numeracy and in information and communication technologies (ICT) is an essential foundation for learning, and learning to learn supports all learning activities. There are a number of themes that are applied throughout the Reference Framework: critical thinking, creativity, initiative, problem-solving, risk assessment, decision-taking, and constructive management of feelings play a role in all eight key competences.

1. Communication in the mother tongue (1)

Definition:

Communication in the mother tongue is the ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing), and to interact linguistically in an appropriate and creative way in a full range of societal and cultural contexts; in education and training, work, home and leisure.



Essential knowledge, skills and attitudes related to this competence:

Communicative competence results from the acquisition of the mother tongue, which is intrinsically linked to the development of an individual's cognitive ability to interpret the world and relate to others. Communication in the mother tongue requires an individual to have **knowledge** of vocabulary, functional grammar and the functions of language. It includes an awareness of the main types of verbal interaction, a range of literary and non-literary texts, the main features of different styles and registers of language, and the variability of language and communication in different contexts.

Individuals should have the **skills** to communicate both orally and in writing in a variety of communicative situations and to monitor and adapt their own communication to the requirements of the situation. This competence also includes the abilities to distinguish and use different types of texts, to search for, collect and process information, to use aids, and to formulate and express one's oral and written arguments in a convincing way appropriate to the context.

A positive **attitude** towards communication in the mother tongue involves a disposition to critical and constructive dialogue, an appreciation of aesthetic qualities and a willingness to strive for them, and an interest in interaction with others. This implies an awareness of the impact of language on others and a need to understand and use language in a positive and socially responsible manner.

(1) In the context of Europe's multicultural and multilingual societies, it is recognised that the mother tongue may not in all cases be an official language of the Member State, and that ability to communicate in an official language is a pre-condition for ensuring full participation of the individual in society. In some Member States the mother tongue may be one of several official languages. Measures to address such cases, and apply the definition accordingly, are a matter for individual Member States in accordance with their specific needs and circumstances.

2. Communication in foreign languages (2)

Definition:

Communication in foreign languages broadly shares the main skill dimensions of communication in the mother tongue: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts (in education and training, work, home and leisure) according to one's wants or needs. Communication in foreign languages also calls for skills such as mediation and intercultural understanding. An individual's level of proficiency will vary between the four dimensions (listening, speaking, reading and writing) and between the different languages, and according to that individual's social and cultural background, environment, needs and/or interests.

Essential knowledge, skills and attitudes related to this competence:

Competence in foreign languages requires knowledge of vocabulary and functional grammar and an awareness of the main types of verbal interaction and registers of language. **Knowledge** of societal conventions, and the cultural aspect and variability of languages is important.

Essential **skills** for communication in foreign languages consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read, understand and produce texts appropriate to the individual's needs. Individuals should also be able to use aids appropriately, and learn languages also informally as part of lifelong learning.

A positive **attitude** involves the appreciation of cultural diversity, and an interest and curiosity in languages and intercultural communication.

(2) It is important to recognise that many Europeans live in bilingual or multilingual families and communities, and that the official language of the country in which they live may not be their mother tongue. For these groups, this competence may refer to an official language, rather than to a foreign language. Their need, motivation, and social and/or economic reasons for developing this competence in support of their integration will differ, for instance, from those learning a foreign language for travel or work. Measures to address such cases, and apply the definition accordingly, are a matter for individual Member States in accordance with their specific needs and circumstances.

3. Mathematical competence and basic competences in science and technology

A

Definition:

Mathematical competence is the ability to develop and apply mathematical thinking in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought (logical and spatial thinking) and presentation (formulas, models, constructs, graphs, charts).

Essential knowledge, skills and attitudes related to this competence:



Necessary **knowledge** in mathematics includes a sound knowledge of numbers, measures and structures, basic operations and basic mathematical presentations, an understanding of mathematical terms and concepts, and an awareness of the questions to which mathematics can offer answers.



An individual should have the **skills** to apply basic mathematical principles and processes in everyday contexts at home and work, and to follow and assess chains of arguments. An individual should be able to reason mathematically, understand mathematical proof and communicate in mathematical language, and to use appropriate aids.



A positive **attitude** in mathematics is based on the respect of truth and willingness to look for reasons and to assess their validity.

B

Definition:

Competence in science refers to the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions. Competence in technology is viewed as the application of that knowledge and methodology in response to perceived human wants or needs. Competence in science and technology involves an understanding of the changes caused by human activity and responsibility as an individual citizen.

Essential knowledge, skills and attitudes related to this competence:



For science and technology, essential **knowledge** comprises the basic principles of the natural world, fundamental scientific concepts, principles and methods, technology and technological products and processes, as well as an understanding of the impact of science and technology on the natural world. These competences should enable individuals to better understand the advances, limitations and risks of scientific theories, applications and technology in societies at large (in relation to decision-making, values, moral questions, culture, etc.).



Skills include the ability to use and handle technological tools and machines as well as scientific data to achieve a goal or to reach an evidence-based decision or conclusion. Individuals should also be able to recognise the essential features of scientific inquiry and have the ability to communicate the conclusions and reasoning that led to them.

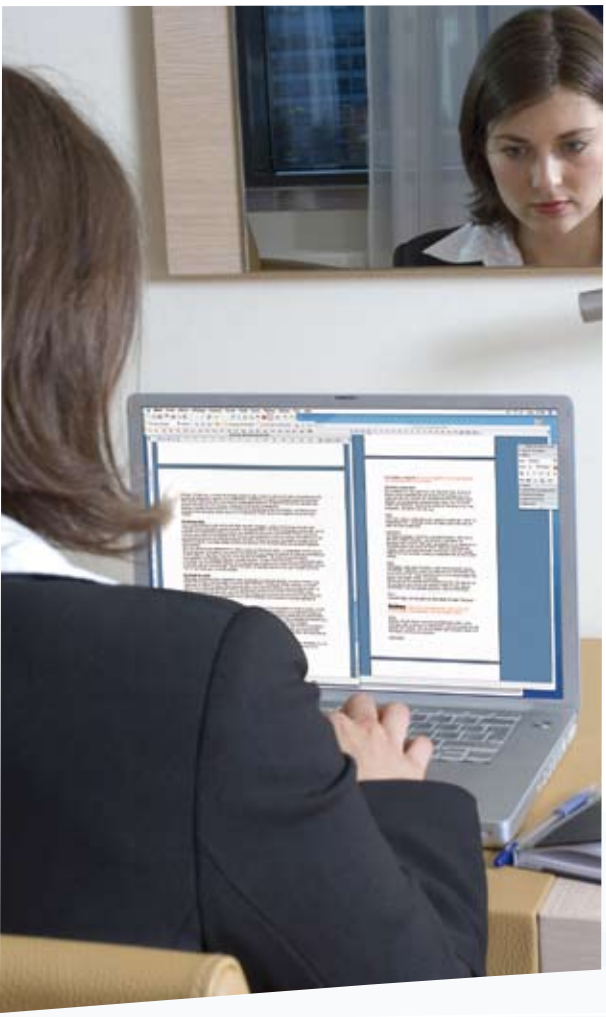


Competence includes an **attitude** of critical appreciation and curiosity, an interest in ethical issues and respect for both safety and sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community and global issues.

4. Digital competence

Definition:

Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet.



Essential knowledge, skills and attitudes related to this competence:

Digital competence requires a sound understanding and **knowledge** of the nature, role and opportunities of IST in everyday contexts: in personal and social life as well as at work. This includes main computer applications such as word processing, spreadsheets, databases, information storage and management, and an understanding of the opportunities and potential risks of the Internet and communication via electronic media (e-mail, network tools) for work, leisure, information sharing and collaborative networking, learning and research. Individuals should also understand how IST can support creativity and innovation, and be aware of issues around the validity and reliability of information available and of the legal and ethical principles involved in the interactive use of IST.

Skills needed include the ability to search, collect and process information and use it in a critical and systematic way, assessing relevance and distinguishing the real from the virtual while recognising the links. Individuals should have skills to use tools to produce, present and understand complex information and the ability to access, search and use Internet-based services. Individuals should also be able use IST to support critical thinking, creativity, and innovation.

Use of IST requires a critical and reflective **attitude** towards available information and a responsible use of the interactive media. An interest in engaging in communities and networks for cultural, social and/or professional purposes also supports this competence.

5. Learning to learn

8 |

Definition:

Learning to learn is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.

Essential knowledge, skills and attitudes related to this competence:



Where learning is directed towards particular work or career goals, an individual should have **knowledge** of the competences, knowledge, skills and qualifications required. In all cases, learning to learn requires an individual to know and understand his/her preferred learning strategies, the strengths and weaknesses of his/her skills and qualifications, and to be able to search for the education and training opportunities and guidance and/or support available.



Learning to learn skills require firstly the acquisition of the fundamental basic **skills** such as literacy, numeracy and ICT skills that are necessary for further learning. Building on these skills, an individual should be able to access, gain, process and assimilate new knowledge and skills. This requires effective management of one's learning, career and work patterns, and, in particular, the ability to persevere with learning, to concentrate for extended periods and to reflect critically on the purposes and aims of learning. Individuals should be able to dedicate time to learning autonomously and with self-discipline, but also to work collaboratively as part of the learning process, draw the benefits from a heterogeneous group, and to share what they have learnt. Individuals should be able to organise their own learning, evaluate their own work, and to seek advice, information and support when appropriate.



A positive **attitude** includes the motivation and confidence to pursue and succeed at learning throughout one's life. A problem-solving attitude supports both the learning process itself and an individual's ability to handle obstacles and change. The desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and apply learning in a variety of life contexts are essential elements of a positive attitude.

A 6. Social and civic competences

Definition:

These include personal, interpersonal and intercultural competence and cover all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life, and particularly in increasingly diverse societies, and to resolve conflict where necessary. Civic competence equips individuals to fully participate in civic life, based on knowledge of social and political concepts and structures and a commitment to active and democratic participation.

Essential knowledge, skills and attitudes related to this competence:

Social competence is linked to personal and social well-being which requires an understanding of how individuals can ensure optimum physical and mental health, including as a resource for oneself and one's family and one's immediate social environment, and **knowledge** of how a healthy lifestyle can contribute to this. For successful interpersonal and social participation it is essential to understand the codes of conduct and manners generally accepted in different societies and environments (e.g. at work). It is equally important to be aware of basic concepts relating to individuals, groups, work organisations, gender equality and non-discrimination, society and culture. Understanding the multi-cultural and socio-economic dimensions of European societies and how national cultural identity interacts with the European identity is essential.

The core **skills** of this competence include the ability to communicate constructively in different environments, to show tolerance, express and understand different viewpoints, to negotiate with the ability to create confidence, and to feel empathy. Individuals should be capable of coping with stress and frustration and expressing them in a constructive way and should also distinguish between the personal and professional spheres.

The competence is based on an **attitude** of collaboration, assertiveness and integrity. Individuals should have an interest in socio-economic developments and intercultural communication and should value diversity and respect others, and be prepared both to overcome prejudices and to compromise.



B 6. Social and civic competences

Essential knowledge, skills and attitudes related to this competence:



Civic competence is based on **knowledge** of the concepts of democracy, justice, equality, citizenship, and civil rights, including how they are expressed in the Charter of Fundamental Rights of the European Union and international declarations and how they are applied by various institutions at the local, regional, national, European and international levels. It includes knowledge of contemporary events, as well as the main events and trends in national, European and world history. In addition, an awareness of the aims, values and policies of social and political movements should be developed. Knowledge of European integration and of the EU's structures, main objectives and values is also essential, as well as an awareness of diversity and cultural identities in Europe.



Skills for civic competence relate to the ability to engage effectively with others in the public domain, and to display solidarity and interest in solving problems affecting the local and wider community. This involves critical and creative reflection and constructive participation in community or neighbourhood activities as well as decision-making at all levels, from local to national and European level, in particular through voting.



Full respect for human rights including equality as a basis for democracy, appreciation and understanding of differences between value systems of different religious or ethnic groups lay the foundations for a positive **attitude**. This means displaying both a sense of belonging to one's locality, country, the EU and Europe in general and to the world, and a willingness to participate in democratic decision-making at all levels. It also includes demonstrating a sense of responsibility, as well as showing understanding of and respect for the shared values that are necessary to ensure community cohesion, such as respect for democratic principles. Constructive participation also involves civic activities, support for social diversity and cohesion and sustainable development, and a readiness to respect the values and privacy of others.

7. Sense of initiative and entrepreneurship

Definition:

Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance.

Essential knowledge, skills and attitudes related to this competence:

Necessary **knowledge** includes the ability to identify available opportunities for personal, professional and/or business activities, including 'bigger picture' issues that provide the context in which people live and work, such as a broad understanding of the workings of the economy, and the opportunities and challenges facing an employer or organisation. Individuals should also be aware of the ethical position of enterprises, and how they can be a force for good, for example through fair trade or through social enterprise.

Skills relate to proactive project management (involving, for example the ability to plan, organise, manage, lead and delegate, analyse, communicate, debrief, evaluate and record), effective representation and negotiation, and the ability to work both as an individual and collaboratively in teams. The ability to judge and identify one's strengths and weaknesses, and to assess and take risks as and when warranted, is essential.

An entrepreneurial **attitude** is characterised by initiative, pro-activity, independence and innovation in personal and social life, as much as at work. It also includes motivation and determination to meet objectives, whether personal goals, or aims held in common with others, including at work.



8. Cultural awareness and expression

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Definition:

Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media, including music, performing arts, literature, and the visual arts.



Essential knowledge, skills and attitudes related to this competence:

Cultural **knowledge** includes an awareness of local, national and European cultural heritage and their place in the world. It covers a basic knowledge of major cultural works, including popular contemporary culture. It is essential to understand the cultural and linguistic diversity in Europe and other regions of the world, the need to preserve it and the importance of aesthetic factors in daily life.

Skills relate to both appreciation and expression: the appreciation and enjoyment of works of art and performances as well as self-expression through a variety of media using one's innate capacities. Skills include also the ability to relate one's own creative and expressive points of view to the opinions of others and to identify and realise social and economic opportunities in cultural activity. Cultural expression is essential to the development of creative skills, which can be transferred to a variety of professional contexts.

A solid understanding of one's own culture and a sense of identity can be the basis for an open **attitude** towards and respect for diversity of cultural expression. A positive attitude also covers creativity, and the willingness to cultivate aesthetic capacity through artistic self-expression and participation in cultural life.

European Commission

KEY COMPETENCES FOR LIFELONG LEARNING
European Reference Framework

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RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 18 December 2006

on key competences for lifelong learning

(2006/962/EC)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 149(4), and Article 150(4) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee [1],

Having regard to the opinion of the Committee of the Regions [2],

Acting in accordance with the procedure laid down in Article 251 of the Treaty [3],

Whereas:

(1) The Lisbon European Council (23-24 March 2000) concluded that a European framework should define the new basic skills to be provided through lifelong learning as a key measure in Europe's response to globalisation and the shift to knowledge-based economies, and emphasised that people are Europe's main asset. Since then, those conclusions have been regularly restated including by the Brussels European Councils (20-21 March 2003 and 22-23 March 2005), and in the re-launched Lisbon Strategy which was approved in 2005.

(2) The European Councils of Stockholm (23-24 March 2001) and Barcelona (15-16 March 2002) endorsed the concrete future objectives of European education and training systems and a work-programme (the Education and Training 2010 work programme) to achieve them by 2010. These objectives include developing skills for the knowledge society and specific objectives for promoting language learning, developing entrepreneurship and the overall need to enhance the European dimension in education.

(3) The Commission Communication "Making a European Area of Lifelong Learning a Reality" and the subsequent Council Resolution of 27 June 2002 on lifelong learning [4] identified the provision of 'the new basic skills' as a priority, and stressed that lifelong learning must cover learning from pre-school age to post-retirement age.

(4) In the context of improving the Community's employment performance, the European Councils of Brussels (March 2003 and December 2003) stressed the need to develop lifelong learning, with a particular focus on active and preventive measures for the unemployed and inactive persons. This built on the report of the Employment Taskforce, which emphasised the need for people to be able to adapt to change, the importance of integrating people into the labour market, and the key role of lifelong learning.

(5) In May 2003 the Council adopted the European reference levels ('benchmarks'), demonstrating a commitment to a measurable improvement in European average performance. These reference levels include reading literacy, early school leaving, completion of upper secondary education and participation of adults in lifelong learning, and are closely linked to the development of key competences.

(6) The report of the Council on the broader role of education adopted in November 2004 stressed that education contributes to preserving and renewing the common cultural background in society and to learning essential social and civic values such as citizenship, equality, tolerance and respect, and is particularly important at a time when all Member States are challenged by the question of how to deal with increasing social and cultural diversity. Moreover, enabling people to enter and stay in working life is an important part of the role of education in the strengthening of social cohesion.

(7) The report adopted by the Commission in 2005 on progress towards the Lisbon objectives in education and training showed that there had been no progress in reducing the percentage of low achievers in reading literacy at age 15 or in raising the completion rate for upper-secondary education. Some progress was visible in reducing early school leaving, but at current rates the 2010 European reference levels adopted by the May 2003 Council will not be achieved. Participation of adults in learning is not growing fast enough to reach the 2010 reference level, and data shows that low-skilled people are less likely to participate in further training.

(8) The Framework of Actions for the Lifelong Development of Competences and Qualifications, adopted by the European social partners in March 2002, stresses the need for businesses to adapt their structures more and more quickly in order to remain competitive. Increased team-work, flattening of hierarchies, devolved responsibilities and a

[1] OJ C 195, 18.8.2006, p. 109.
[2] OJ C 229, 22.9.2006, p. 21.
[3] Opinion of the European Parliament of 26 September 2006 (not yet published in the Official Journal) and Council Decision of 18 December 2006.
[4] OJ C 163, 9.7.2002, p. 1.

greater need for multi-tasking are leading to the development of learning organisations. In this context, the ability of organisations to identify competences, to mobilise and recognise them and to encourage their development for all employees represent the basis for new competitive strategies.

(9) The Maastricht Study on Vocational Education and Training of 2004 indicates a significant gap between the levels of education required by new jobs, and the levels of education achieved by the European workforce. This study shows that more than one third of the European workforce (80 million persons) is low-skilled whilst it has been estimated that by 2010 almost 50 % of new jobs will require tertiary level qualifications, just under 40 % will require upper secondary schooling, and only about 15 % will be suitable for those with basic schooling.

(10) The Joint Council/Commission Report on the Education and Training 2010 work programme, adopted in 2004, reinforced the need to ensure that all citizens are equipped with the competences they need as part of Member States' lifelong learning strategies. To encourage and facilitate reform, the report suggests the development of common European references and principles and gives priority to the Key Competences Framework.

(11) The European Youth Pact which is annexed to the conclusions of the Brussels European Council (22-23 March 2005) stressed the need to encourage the development of a common set of core skills.

(12) The need to equip young people with necessary key competences and to improve educational attainment levels is an integral part of the Integrated Guidelines for Growth and Jobs 2005-2008, approved by the June 2005 European Council. In particular, the Employment Guidelines call for education and training systems to be adapted in response to new competence requirements through better identification of occupational needs and key competences as part of Member States' reform programmes. Furthermore, the Employment Guidelines call for ensuring gender mainstreaming and gender equality in all actions and for achieving an average employment rate for the European Union of 70 % overall and of at least 60 % for women.

(13) This Recommendation should contribute to the development of quality, future-oriented education and training tailored to the needs of European society, by supporting and supplementing Member States' actions in ensuring that their initial education and training systems offer all young people the means to develop key competences to a level that equips them for adult life, and which forms a basis for further learning and working life and that adults are able to develop and update their key competences through the provision of coherent and comprehensive lifelong learning. This Recommendation should also provide a common European reference framework on key competences for policy makers, education and training providers, the social partners and learners themselves in order to facilitate national reforms and exchange of information between the Member States and the Commission within the Education and Training 2010 work programme, with the aim of achieving the agreed European reference levels. Furthermore, this Recommendation should support other related policies such as employment and social policies and other policies affecting youth.

(14) Since the objectives of this Recommendation, namely to support and supplement Member States' action by establishing a common reference point that encourages and facilitates national reforms and further cooperation between Member States, cannot be sufficiently achieved by the Member States acting alone and can therefore be better achieved at Community level, the Community may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Recommendation does not go beyond what is necessary in order to achieve those objectives insofar as it leaves the implementation of this Recommendation to Member States,

HEREBY RECOMMEND:

That Member States develop the provision of key competences for all as part of their lifelong learning strategies, including their strategies for achieving universal literacy, and use the 'Key Competences for Lifelong Learning — A European Reference Framework' (hereinafter referred to as 'the Reference Framework') in the Annex hereto as a reference tool, with a view to ensuring that:

1. initial education and training offers all young people the means to develop the key competences to a level that equips them for adult life, and which forms a basis for further learning and working life;

2. appropriate provision is made for those young people who, due to educational disadvantages caused by personal, social, cultural or economic circumstances, need particular support to fulfil their educational potential;

3. adults are able to develop and update their key competences throughout their lives, and that there is a particular focus on target groups identified as priorities in the national, regional and/or local contexts, such as individuals needing to update their skills;

4. appropriate infrastructure for continuing education and training of adults including teachers and trainers, validation and evaluation procedures, measures aimed at ensuring equal access to both lifelong learning and the labour market, and support for learners that recognises the differing needs and competences of adults, is in place;

5. coherence of adult education and training provision for individual citizens is achieved through close links with employment policy and social policy, cultural policy,

innovation policy and other policies affecting young people and through collaboration with social partners and other stakeholders;

HEREBY TAKE NOTE OF THE COMMISSION'S INTENTION TO:

1. contribute to Member States' efforts to develop their education and training systems and to implement and disseminate this Recommendation, including by using the Reference Framework as a reference to facilitate peer learning and the exchange of good practices and to follow up developments and report on progress through the biennial progress reports on the Education and Training 2010 work programme;

2. use the Reference Framework as a reference in the implementation of the Community Education and Training programmes and to ensure that these programmes promote the acquisition of key competences;

3. promote the wider use of the Reference Framework in related Community policies, and particularly in the implementation of employment, youth, and cultural and social policy, and to develop further links with social partners and other organisations working in those fields;

4. review the impact of the Reference Framework within the context of the Education and Training 2010 work programme and report, by 18 December 2010, to the European Parliament and to the Council on the experience gained and the implications for the future.

Done at Brussels, 18 December 2006.

For the European Parliament	*For the Council*
The President	*The President*
J. BORRELL FONTELLES	J.-E. ENESTAM

ANNEX

KEY COMPETENCES FOR LIFELONG LEARNING — A EUROPEAN REFERENCE FRAMEWORK

Background and aims

As globalisation continues to confront the European Union with new challenges, each citizen will need a wide range of key competences to adapt flexibly to a rapidly changing and highly interconnected world.

Education in its dual role, both social and economic, has a key role to play in ensuring that Europe's citizens acquire the key competences needed to enable them to adapt flexibly to such changes.

In particular, building on diverse individual competences, the differing needs of learners should be met by ensuring equality and access for those groups who, due to educational disadvantages caused by personal, social, cultural or economic circumstances, need particular support to fulfil their educational potential. Examples of such groups include people with low basic skills, in particular with low literacy, early school leavers, the long-term unemployed and those returning to work after a period of extended leave, older people, migrants, and people with disabilities.

In this context, the main aims of the Reference Framework are to:

1) identify and define the key competences necessary for personal fulfilment, active citizenship, social cohesion and employability in a knowledge society;

2) support Member States' work in ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life and which forms a basis for further learning and working life, and that adults are able to develop and update their key competences throughout their lives;

3) provide a European level reference tool for policy makers, education providers, employers, and learners themselves to facilitate national and European level efforts towards commonly agreed objectives;

4) provide a framework for further action at Community level both within the Education and Training 2010 work programme and within the Community Education and Training Programmes.

Key Competences

Competences are defined here as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment.

The Reference Framework sets out eight key competences:

1) Communication in the mother tongue;

2) Communication in foreign languages;

3) Mathematical competence and basic competences in science and technology;

4) Digital competence;

5) Learning to learn;

6) Social and civic competences;

7) Sense of initiative and entrepreneurship; and

8) Cultural awareness and expression.

The key competences are all considered equally important, because each of them can contribute to a successful life in a knowledge society. Many of the competences overlap and interlock: aspects essential to one domain will support

competence in another. Competence in the fundamental basic skills of language, literacy, numeracy and in information and communication technologies (ICT) is an essential foundation for learning, and learning to learn supports all learning activities. There are a number of themes that are applied throughout the Reference Framework: critical thinking, creativity, initiative, problem solving, risk assessment, decision taking, and constructive management of feelings play a role in all eight key competences.

1. **Communication in the mother tongue** [1]

Definition:

Communication in the mother tongue is the ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing), and to interact linguistically in an appropriate and creative way in a full range of societal and cultural contexts; in education and training, work, home and leisure.

Essential knowledge, skills and attitudes related to this competence:

Communicative competence results from the acquisition of the mother tongue, which is intrinsically linked to the development of an individual's cognitive ability to interpret the world and relate to others. Communication in the mother tongue requires an individual to have knowledge of vocabulary, functional grammar and the functions of language. It includes an awareness of the main types of verbal interaction, a range of literary and non-literary texts, the main features of different styles and registers of language, and the variability of language and communication in different contexts.

Individuals should have the skills to communicate both orally and in writing in a variety of communicative situations and to monitor and adapt their own communication to the requirements of the situation. This competence also includes the abilities to distinguish and use different types of texts, to search for, collect and process information, to use aids, and to formulate and express one's oral and written arguments in a convincing way appropriate to the context.

A positive attitude towards communication in the mother tongue involves a disposition to critical and constructive dialogue, an appreciation of aesthetic qualities and a willingness to strive for them, and an interest in interaction with others. This implies an awareness of the impact of language on others and a need to understand and use language in a positive and socially responsible manner.

2. **Communication in foreign languages** [2]

Definition:

Communication in foreign languages broadly shares the main skill dimensions of communication in the mother tongue: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts (in education and training, work, home and leisure) according to one's wants or needs. Communication in foreign languages also calls for skills such as mediation and intercultural understanding. An individual's level of proficiency will vary between the four dimensions (listening, speaking, reading and writing) and between the different languages, and according to that individual's social and cultural background, environment, needs and/or interests.

Essential knowledge, skills and attitudes related to this competence:

Competence in foreign languages requires knowledge of vocabulary and functional grammar and an awareness of the main types of verbal interaction and registers of language. Knowledge of societal conventions, and the cultural aspect and variability of languages is important.

[1] In the context of Europe's multicultural and multilingual societies, it is recognised that the mother tongue may not in all cases be an official language of the Member State, and that ability to communicate in an official language is a pre-condition for ensuring full participation of the individual in society. In some Member States the mother tongue may be one of several official languages. Measures to address such cases, and apply the definition accordingly, are a matter for individual Member States in accordance with their specific needs and circumstances.

[2] It is important to recognise that many Europeans live in bilingual or multilingual families and communities, and that the official language of the country in which they live may not be their mother tongue. For these groups, this competence may refer to an official language, rather than to a foreign language. Their need, motivation, and social and/or economic reasons for developing this competence in support of their integration will differ, for instance, from those learning a foreign language for travel or work. Measures to address such cases, and apply the definition accordingly, are a matter for individual Member States in accordance with their specific needs and circumstances.

Essential skills for communication in foreign languages consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read, understand and produce texts appropriate to the individual's needs. Individuals should also be able to use aids appropriately, and learn languages also informally as part of lifelong learning.

A positive attitude involves the appreciation of cultural diversity, and an interest and curiosity in languages and intercultural communication.

3. **Mathematical competence and basic competences in science and technology**

Definition:

A. Mathematical competence is the ability to develop and apply mathematical thinking in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought (logical and spatial thinking) and presentation (formulas, models, constructs, graphs, charts).

B. Competence in science refers to the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions. Competence in technology is viewed as the application of that knowledge and methodology in response to perceived human wants or needs. Competence in science and technology involves an understanding of the changes caused by human activity and responsibility as an individual citizen.

Essential knowledge, skills and attitudes related to this competence:

A. Necessary knowledge in mathematics includes a sound knowledge of numbers, measures and structures, basic operations and basic mathematical presentations, an understanding of mathematical terms and concepts, and an awareness of the questions to which mathematics can offer answers.

An individual should have the skills to apply basic mathematical principles and processes in everyday contexts at home and work, and to follow and assess chains of arguments. An individual should be able to reason mathematically, understand mathematical proof and communicate in mathematical language, and to use appropriate aids.

A positive attitude in mathematics is based on the respect of truth and willingness to look for reasons and to assess their validity.

B. For science and technology, essential knowledge comprises the basic principles of the natural world, fundamental scientific concepts, principles and methods, technology and technological products and processes, as well as an understanding of the impact of science and technology on the natural world. These competences should enable individuals to better understand the advances, limitations and risks of scientific theories, applications and technology in societies at large (in relation to decision-making, values, moral questions, culture, etc).

Skills include the ability to use and handle technological tools and machines as well as scientific data to achieve a goal or to reach an evidence-based decision or conclusion. Individuals should also be able to recognise the essential features of scientific inquiry and have the ability to communicate the conclusions and reasoning that led to them.

Competence includes an attitude of critical appreciation and curiosity, an interest in ethical issues and respect for both safety and sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community and global issues.

4. **Digital competence**

Definition:

Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet.

Essential knowledge, skills and attitudes related to this competence:

Digital competence requires a sound understanding and knowledge of the nature, role and opportunities of IST in everyday contexts: in personal and social life as well as at work. This includes main computer applications such as word processing, spreadsheets, databases, information storage and management, and an understanding of the opportunities and potential risks of the Internet and communication via electronic media (e-mail, network tools) for work, leisure, information sharing and collaborative networking, learning and research. Individuals should also understand how IST can support creativity and innovation, and be aware of issues around the validity and reliability of information available and of the legal and ethical principles involved in the interactive use of IST.

Skills needed include the ability to search, collect and process information and use it in a critical and systematic way, assessing relevance and distinguishing the real from the virtual while recognising the links. Individuals should have skills to use tools to produce, present and understand complex information and the ability to access, search and use internet-based services. Individuals should also be able use IST to support critical thinking, creativity, and innovation.

Use of IST requires a critical and reflective attitude towards available information and a responsible use of the interactive media. An interest in engaging in communities and networks for cultural, social and/or professional purposes also supports this competence.

5. **Learning to learn**

Definition:

'Learning to learn' is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.

Essential knowledge, skills and attitudes related to this competence:

Where learning is directed towards particular work or career goals, an individual should have knowledge of the competences, knowledge, skills and qualifications required. In all cases, learning to learn requires an individual to know and understand his/her preferred learning strategies, the strengths and weaknesses of his/her skills and qualifications, and to be able to search for the education and training opportunities and guidance and/or support available.

Learning to learn skills require firstly the acquisition of the fundamental basic skills such as literacy, numeracy and ICT skills that are necessary for further learning. Building on these skills, an individual should be able to access, gain, process and assimilate new knowledge and skills. This requires effective management of one's learning, career and work patterns, and, in particular, the ability to persevere with learning, to concentrate for extended periods and to reflect critically on the purposes and aims of learning. Individuals should be able to dedicate time to learning autonomously and with self-discipline, but also to work collaboratively as part of the learning process, draw the benefits from a heterogeneous group, and to share what they have learnt. Individuals should be able to organise their own learning, evaluate their own work, and to seek advice, information and support when appropriate.

A positive attitude includes the motivation and confidence to pursue and succeed at learning throughout one's life. A problem-solving attitude supports both the learning process itself and an individual's ability to handle obstacles and change. The desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and apply learning in a variety of life contexts are essential elements of a positive attitude.

6. **Social and civic competences**

Definition:

These include personal, interpersonal and intercultural competence and cover all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life, and particularly in increasingly diverse societies, and to resolve conflict where necessary. Civic competence equips individuals to fully participate in civic life, based on knowledge of social and political concepts and structures and a commitment to active and democratic participation.

Essential knowledge, skills and attitudes related to this competence:

A. Social competence is linked to personal and social well-being which requires an understanding of how individuals can ensure optimum physical and mental health, including as a resource for oneself and one's family and one's immediate social environment, and knowledge of how a healthy lifestyle can contribute to this. For successful interpersonal and social participation it is essential to understand the codes of conduct and manners generally accepted in different societies and environments (e.g. at work). It is equally important to be aware of basic concepts relating to individuals, groups, work organisations, gender equality and non-discrimination, society and culture. Understanding the multi-cultural and socio-economic dimensions of European societies and how national cultural identity interacts with the European identity is essential.

The core skills of this competence include the ability to communicate constructively in different environments, to show tolerance, express and understand different viewpoints, to negotiate with the ability to create confidence, and to feel empathy. Individuals should be capable of coping with stress and frustration and expressing them in a constructive way and should also distinguish between the personal and professional spheres.

The competence is based on an attitude of collaboration, assertiveness and integrity. Individuals should have an interest in socio-economic developments and intercultural communication and should value diversity and respect others, and be prepared both to overcome prejudices and to compromise.

B. Civic competence is based on knowledge of the concepts of democracy, justice, equality, citizenship, and civil rights, including how they are expressed in the Charter of Fundamental Rights of the European Union and international declarations and how they are applied by various institutions at the local, regional, national, European and international levels. It includes knowledge of contemporary events, as well as the main events and trends in national, European and world history. In addition, an awareness of the aims, values and policies of social and political movements should be developed. Knowledge of European integration and of the EU's structures, main objectives and values is also essential, as well as an awareness of diversity and cultural identities in Europe.

Skills for civic competence relate to the ability to engage effectively with others in the public domain, and to display solidarity and interest in solving problems affecting the local and wider community. This involves critical and creative reflection and constructive participation in community or neighbourhood activities as well as decision-making at all levels, from local to national and European level, in particular through voting.

Full respect for human rights including equality as a basis for democracy, appreciation and understanding of differences between value systems of different religious or ethnic groups lay the foundations for a positive attitude. This means displaying both a sense of belonging to one's locality, country, the EU and Europe in general and to the world, and a willingness to participate in democratic decision-making at all levels. It also includes demonstrating a sense of responsibility, as well as showing understanding of and respect for the shared values that are necessary to ensure community cohesion, such as respect for democratic principles. Constructive participation also involves civic activities, support for social diversity and cohesion and sustainable development, and a readiness to respect the values and privacy of others.

7. **Sense of initiative and entrepreneurship**

Definition:

Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance.

Essential knowledge, skills and attitudes related to this competence:

Necessary knowledge includes the ability to identify available opportunities for personal, professional and/or business activities, including 'bigger picture' issues that provide the context in which people live and work, such as a broad understanding of the workings of the economy, and the opportunities and challenges facing an employer or organisation. Individuals should also be aware of the ethical position of enterprises, and how they can be a force for good, for example through fair trade or through social enterprise.

Skills relate to proactive project management (involving, for example the ability to plan, organise, manage, lead and delegate, analyse, communicate, de-brief, evaluate and record), effective representation and negotiation, and the ability to work both as an individual and collaboratively in teams. The ability to judge and identify one's strengths and weaknesses, and to assess and take risks as and when warranted, is essential.

An entrepreneurial attitude is characterised by initiative, pro-activity, independence and innovation in personal and social life, as much as at work. It also includes motivation and determination to meet objectives, whether personal goals, or aims held in common with others, including at work.

8. **Cultural awareness and expression**

Definition:

Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media, including music, performing arts, literature, and the visual arts.

Essential knowledge, skills and attitudes related to this competence:

Cultural knowledge includes an awareness of local, national and European cultural heritage and their place in the world. It covers a basic knowledge of major cultural works, including popular contemporary culture. It is essential to understand the cultural and linguistic diversity in Europe and other regions of the world, the need to preserve it and the importance of aesthetic factors in daily life.

Skills relate to both appreciation and expression: the appreciation and enjoyment of works of art and performances as well as self-expression through a variety of media using one' s innate capacities. Skills include also the ability to relate one's own creative and expressive points of view to the opinions of others and to identify and realise social and economic opportunities in cultural activity. Cultural expression is essential to the development of creative skills, which can be transferred to a variety of professional contexts.

A solid understanding of one's own culture and a sense of identity can be the basis for an open attitude towards and respect for diversity of cultural expression. A positive attitude also covers creativity, and the willingness to cultivate aesthetic capacity through artistic self-expression and participation in cultural life.

OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes

WHY IS EVALUATION AND ASSESSMENT A POLICY PRIORITY?

Schools are at the core of the education system and lay the foundation for many other social, economic and education outcomes. Societies typically expect schools to enable each and every child to reach their full educational potential, delivering a high average performance while taking into account the needs of all students whatever their ability. This puts governments under pressure to improve the effectiveness, efficiency and accountability of the school system.

Schools are increasingly judged on the basis of learning outcomes, including the capacity of students to apply knowledge and skills in key subject areas and to analyse, reason and communicate effectively as they pose, solve and interpret problems in a variety of situations. Societies also often expect schools to deliver other "softer" outcomes such as working co-operatively, and instil values such as respect and good citizenship.

Information is critical to knowing whether the school system is delivering good performance and to providing feedback for improvement. Countries use a range of techniques for the evaluation and assessment of students, teachers, schools and education systems. Many countries test samples and/or all students at key points, and sometimes follow students over time. International assessments such as PISA provide additional information and useful external comparators. Some also use inspection services to evaluate teachers and/or schools and teacher evaluation is becoming more widely used. Each approach involves a range of stakeholders: students, parents, teachers, school authorities, employers and policy makers.

But among stakeholders, tensions can arise over how evaluation and assessment techniques can, and should, be used. Some see them primarily as tools to encourage teachers and schools to improve. For others, their main purpose is to support accountability or steer the allocation of resources.

THE OECD CAN PROVIDE POLICY ADVICE ON EVALUATION AND ASSESSMENT FRAMEWORKS

Many countries already use a range of evaluation and assessment approaches. However, they often face a challenge in bringing these different elements together into a coherent and comprehensive strategy, within which each element is fit for the purpose it is used and contributes effectively to improving learning outcomes. Countries can also face difficulties during implementation: building support among stakeholders, designing instruments, putting them in place efficiently, adapting them on the basis of experience, and so forth.

The OECD provides a setting where governments can compare policy experiences, seek answers to common problems, and identify and share good practices in this area. This project is designed to help countries assess:

- How to ensure that the different evaluation and assessment techniques fit together effectively in a coherent strategy for improving school outcomes and for securing accountability
- How to ensure that procedures and instruments are "fit for purpose": that they adapt to the level assessed, adjust to actors involved and are coherent with policy objectives
- How to strengthen the use of evaluation and assessment results to improve learning outcomes

To improve school outcomes, the framework needs to be not only well-designed but also successfully implemented. This can only be done if stakeholders are fully engaged and if an investment is made in building the capacity and competencies necessary to use evaluation and assessment results effectively.

PROJECT METHODOLOGY

This project is carried out by the Directorate for Education, overseen by the Group of National Experts on Evaluation and Assessment, and combines international comparative analysis and country reviews. Both dimensions are complementary: comparative analysis is used for the country reviews and the findings of the country reviews will feed back into the comparative analysis. In both dimensions, the project draws on other OECD work in education, including the regular work of INES, PISA and TALIS, previous work on evaluation and assessment policies and relevant country-specific projects.

COMPARATIVE ANALYSIS

The analytic phase will review the current state of knowledge and evidence on evaluation and assessment approaches and collect additional information from countries on current policies and practices. It will also bring countries together to share their expertise and experience in developing the analytical approach and to probe the policy dimensions in depth. A set of policy analysis tools will be developed to guide country reviews.

After the completion of country reviews, a synthesis phase will draw out the key lessons for policy makers and policy options available to countries to improve the effectiveness of evaluation and assessment frameworks.

This comparative analysis is designed to engage and provide value for all countries, whether or not they decide to undertake a country review.

COUNTRY REVIEWS

This dimension is designed to support countries in analysing their evaluation and assessment frameworks and identifying areas for improvement. For each country review, the OECD will analyse the strengths and weaknesses of current policies and practices and identify any significant gaps, drawing on the policy analysis tools developed during the comparative analysis phase. Each country review will include a country visit to examine the system and meet with stakeholders. The OECD will prepare a short report proposing priority actions for improving the evaluation and assessment framework.

OUTPUTS

The project will produce a set of outputs designed to assist policy making, including:

- A summary of knowledge and evidence on evaluation and assessment approaches, a stock-take of current policies and practices and policy analysis tools for analysing individual country practices
- Short country reports presenting the results of the country reviews and proposing priority actions for improving the country's evaluation and assessment framework
- A comparative report that will draw out the key lessons for policy makers and policy options available to countries to improve the effectiveness of evaluation and assessment frameworks
- Spotlight reports – a customised summary of the comparative report that puts the country in the spotlight (for a number of countries)

FURTHER READING AND WHO TO CONTACT

Further details are available from the website dedicated to the Review: www.oecd.org/edu/evaluationpolicy.

For further information, contact the project leader, Paulo Santiago, paulo.santiago@oecd.org.

The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training

for the period **2011-2020**

Communiqué of the European Ministers for Vocational Education and Training, the European Social Partners and the European Commission, meeting in Bruges on 7 December 2010 to review the strategic approach and priorities of the Copenhagen process for 2011-2020

FOREWORD

The Copenhagen Declaration of 29-30 November 2002 launched the European strategy for enhanced cooperation in Vocational Education and Training (VET), commonly referred to as the "Copenhagen process". Today in 2010 on the basis of our 8 years of European cooperation, we have defined the long-term strategic objectives for the next decade (2011-2020). We have taken into account our past achievements, current and future challenges, and the underlying principles and ideas of the Copenhagen process. An overall review of the process by the European Centre for the Development of Vocational Training (Cedefop), based on a survey in the 27 Member States and Iceland, Norway and Liechtenstein, facilitated our work, as did a similar report on Croatia, Turkey and the Former Yugoslav Republic of Macedonia by the European Training Foundation.

I. NEW IMPETUS FOR VOCATIONAL EDUCATION AND TRAINING IN EUROPE

CURRENT AND FUTURE CHALLENGES

Education and training for tomorrow's Europe

Europe is trying to recover from a severe economic and financial crisis. Unemployment rates are high – in particular amongst young people[1]. The crisis has emphasised the need to reform our economies and societies. Europe wants to become smarter, more sustainable and more inclusive. To achieve this we need flexible, high quality education and training systems which respond to the needs of today and tomorrow[2].

Labour market evolution

Today, in Europe some 76 million 25-64 year olds - roughly equivalent to the combined total populations of Italy, Hungary and Austria - have either low qualifications or no qualifications at all. Too many 18-24 year olds continue to leave education and training unqualified. Measures to prevent or remedy early school leaving are urgently required. Cedefop's projections of skills needs for the next decade show that technological change will increase the demand for those with high and medium qualifications at the

[1] The figures of September 2010 for the EU 27 Member States indicated a general unemployment rate of 9,6 % and a youth unemployment rate of 20,3 % (source: Eurostat).

[2] The European Commission adopted on 9 June 2010 a communication "A New Impetus for European cooperation in Vocational Education and Training to support the Europe 2020 strategy", which proposed in broad terms a future agenda for the European VET policy.

expense of low-qualified people. Even those occupations that used to require mostly low-level skills are increasingly requiring medium or even high-level qualifications. This means that people with low (or no) formal qualifications will find it more difficult to find a job in the future. There is also increasing evidence suggesting the polarization of employment with rising wages for highly skilled workers and falling wages for low- and unskilled workers.

The right skills

Today's pupils and students will still be in the beginning of their career in 2020 with at least 30 years to go in their professional live, and some of them in occupations that do not exist today and others perhaps in occupations that are disappearing.

We need to improve the capacity of VET to respond to the changing requirements of the labour market. Integrating changing labour market needs into VET provision in the long term requires a better understanding of emerging sectors and skills, and of changes to existing occupations. In cooperation with the relevant stakeholders we must regularly review occupational and education/training standards which define what is to be expected from the holder of a certificate or diploma. This means closer collaboration between stakeholders active in skills anticipation including representatives of professional sectors, social partners, relevant civil society organisations, and education and training providers. We need to adapt VET content, infrastructure and methods regularly in order to keep pace with shifts to new production technologies and work organisation.

The transition to a green economy is a mega trend which affects skill needs across many different jobs and sectors. Many of the skills needed, can be found in existing occupations. Concretely, the labour market requires a balance between developing generic green skills (e.g. reducing waste, improving energy efficiency) and specific skills. Just as information and communications technology skills are essential for everybody today green skills will be important to almost every job in the future.

Ageing society

The future European labour market will be simultaneously confronted with an ageing population and shrinking cohorts of young people. As a result, adults - and in particular, older workers - will increasingly be called upon to update and broaden their skills and competences through continuing VET. This increased need for lifelong learning means we should have more flexible modes of delivery, tailored training offers and well-established systems of validation of non-formal and informal learning. The potential of information and communications technology (ICT) can be used to boost adult education and training through distance learning.

The dual objective of VET

Initial and continuing VET share the dual objective of contributing to employability and economic growth, and responding to broader societal challenges, in particular promoting social cohesion. Both should offer young people, as well as adults, attractive and challenging career opportunities, and should appeal equally to women and men, to people with high potential and to those who, for whatever reason, face the risk of exclusion from the labour market.

Quality and excellence

Given the role of VET in European societies and economies, it is crucial to ensure the sustainability and excellence of vocational education and training. If Europe is to maintain its position as the strongest exporter of industrial products in the world, it must have world class VET. In the knowledge society vocational skills and competences are just as important as academic skills and competences.

The diversity of European VET systems is an asset for mutual learning. But transparency and a common approach to quality assurance are necessary to build up mutual trust which will facilitate mobility and recognition of skills and competences between those systems. In the decade ahead we must give high priority to quality assurance in our European cooperation in VET.

Empowering people

Not only labour markets but also societies as a whole are changing rapidly. We must empower people to adapt to new developments and manage change. This means enabling people to acquire knowledge, skills and competences that are not purely occupational. These broader competences – key competences – are important to succeed in life, and it should be possible to acquire them as well in VET as in any other form of education. Also VET has to give learners a chance to catch up, complement and build on key competences without neglecting occupational skills. ICT skills and competences and foreign language skills, in particular, will become more and more critical in terms of getting and keeping a job and in managing everyday life.

Work-based learning is a way for people to develop their potential. The work-based component contributes substantially to developing a professional identity and can boost the self-esteem of those who might otherwise see themselves as failures. Learning on the job enables those in employment to develop their potential while maintaining their earnings. A well performing VET, which enables learning on and off-the-job on a part-time or full-time basis, can thereby also strongly contribute to social cohesion in our societies.

Internationalising VET

As players on the global education market, national VET systems need to be connected to the wider world in order to remain up-to-date and competitive. They have to be more capable of attracting learners from other European and third countries, providing them with education and training as well as making it easier to recognise their skills. Demographic change and international migration make these issues even more relevant. Although a European area of education and training is emerging, we have still not achieved our original objective of removing obstacles to mobility and we see that the mobility of learners in VET remains low. Better and targeted information provision and guidance are needed to attract more foreign learners to our VET systems.

Substantially increasing transnational mobility of VET learners and teachers, and recognising the knowledge, skills and competences they have acquired abroad, will be an important challenge for the future.

Investing in VET – a shared responsibility

Shaping VET is the shared responsibility of national governments, social partners, VET providers, teachers, trainers, and learners: all have a mutual interest in closer cooperation.

An increased emphasis on adult learning in recent years also requires additional resources. The economic downturn should not lead to reduced investment in VET. Budgetary constraints will force us to come up with innovative solutions to secure sustainable funding for VET and to ensure that resources are efficiently allocated and equitably distributed.

IMPORTANT ACHIEVEMENTS OF THE COPENHAGEN PROCESS

The Copenhagen process has played a crucial role in raising awareness of the importance of VET at both national and European level. Progress is most evident in the common European tools[3], principles and guidelines which have been developed to make qualifications more transparent, comparable and transferable, as well as to improve flexibility and quality of learning. They establish a basis to move towards a real European education and training area.

The impact of the Copenhagen process on countries' VET policies has been both quick and strong: it has triggered profound reforms, amongst others the development of national qualifications frameworks

[3] The following tools have been developed since 2002: Europass, the European Qualifications Framework (EQF), the European Credit System for VET (ECVET) and the European Quality Assurance Reference Framework for VET (EQAVET).

with a view to implementing the European Qualifications Framework (EQF) and the shift to a learning outcomes approach. By changing the perspective from an input-oriented learning process to learning outcomes, comprehensive frameworks which include general education, VET and higher education, can help create transparent, permeable and flexible national qualifications systems.
Peer learning activities and the exchange of good practices have helped to create a sense of ownership of the process and stimulated further activities. But more and better communication is needed to involve the stakeholders: social partners, VET providers, civil society and learners.

VET policies alone do not suffice to address socio-economic challenges and make mobility and lifelong learning a reality. Comprehensive approaches are required which link VET to other policies, in particular employment and social policies.

THE COPENHAGEN PROCESS IN THE WIDER EU POLICY CONTEXT

Given the evolving political context over the coming decade 2011-2020, particularly in the light of the *Europe 2020* Strategy, the Copenhagen Declaration of 2002 should be given fresh impetus. As the Copenhagen process is an integral part of the "Education and Training 2020" strategic framework, the objectives in the VET field should remain consistent with the overall objectives laid down in the framework.
VET should play its part in achieving the two *Europe 2020* headline targets set in the education field, namely - by 2020 - to reduce the rate of early leavers from education to less than 10% and to increase the share of 30-34 years old having completed tertiary or equivalent education to at least 40%.
A list of short-term deliverables has been drawn up to indicate the concrete actions which are required in order to advance towards the strategic objectives. The list of short tem deliverables will also facilitate the future periodic reviews.

Taking into account the priorities and overall objectives of the above-mentioned European Strategy and framework, and respecting the principle of subsidiarity, the following is adopted:

- a global vision for VET in 2020
- 11 strategic objectives for the period 2011-2020 based on that vision
- 22 short-term deliverables at national level for the first 4 years (2011-2014), with indication of the support at EU level
- general principles underlying the governance and ownership of the Copenhagen Process.

II. A GLOBAL VISION FOR VOCATIONAL EDUCATION AND TRAINING IN 2020

By 2020, European VET systems should be more attractive, relevant, career-oriented, innovative, accessible and flexible than in 2010, and should contribute to excellence and equity in lifelong learning by providing:

- **Attractive and inclusive VET** with highly qualified teachers and trainers, innovative learning methods, high-quality infrastructure and facilities, a high labour market relevance, and pathways to further education and training;
- **High quality initial VET** (I-VET) which learners, parents and society at large may regard as an appealing option, of the same value as general education. I-VET should equip learners with both key competences and specific vocational skills;
- **Easily accessible and career-oriented continuing VET** (C-VET) for employees, employers, independent entrepreneurs and unemployed people, which facilitates both competence development and career changes;
- **Flexible systems of VET, based on a learning outcomes approach**, which support flexible learning pathways, which allow permeability between the different education and training subsystems (school education, VET, higher education, adult education) and **which cater for the validation of non-formal and informal learning**, including competences acquired in the work place;
- **A European education and training area**, with transparent qualifications systems which enable the transfer and accumulation of learning outcomes, as well as the recognition of qualifications and competences, and which facilitate transnational mobility;
- **Substantially increased opportunities for transnational mobility** of VET students and VET professionals;
- **Easily accessible and high-quality lifelong information, guidance and counselling services**, which form a coherent network and which enable European citizens to take sound decisions and to manage their learning and professional careers beyond traditional gender profiles.

III. STRATEGIC OBJECTIVES FOR THE PERIOD 2011-2020, FOLLOWED BY SHORT-TERM DELIVERABLES 2011-2014

IMPROVING THE QUALITY AND EFFICIENCY OF VET AND ENHANCING ITS ATTRACTIVENESS AND RELEVANCE

VET should have high relevance for the labour market and people's careers. In order to increase the attractiveness of VET, participating countries should pursue the following objectives and actions:

1. Making I-VET an attractive learning option

(a) Raise the quality of I-VET (see also point 2 below), by improving the quality and competences of teachers**,** trainers and school leaders**,** introducing flexible pathways between all education levels and increasing public awareness of the possibilities which VET offers. This is of particular importance in participating countries where VET tends to be undervalued;

(b) Encourage practical activities and the provision of high-quality information and guidance which enable young pupils in compulsory education, and their parents, to become acquainted with different vocational trades and career possibilities;

(c) Ensure that key competences are integrated into I-VET curricula and develop appropriate means of assessment;

(d) Organise teaching and learning activities which foster the development of career management skills in I-VET;

(e) Give learners in I-VET access to appropriate up-to-date technical equipment, teaching materials and infrastructures. VET providers should consider sharing costs and equipment amongst themselves and in cooperation with businesses. Work-based learning in enterprises which have the relevant infrastructure should also be promoted;

(f) Monitor the transition of VET graduates to the labour market or to further education and training, using national monitoring systems.

2. Fostering the excellence, quality and relevance of both I-VET and C-VET

Quality assurance

(a) High quality of VET provision is a prerequisite for its attractiveness. In order to guarantee improved quality, increased transparency, mutual trust, the mobility of workers and learners, and lifelong learning, participating countries should establish quality assurance

frameworks in accordance with the EQAVET Recommendation;

(b) Participating countries should - by the end of 2015 - establish at national level a common quality assurance framework for VET providers, which also applies to associated workplace learning and which is compatible with the EQAVET framework**.**

Quality of teachers, trainers and other VET professionals

(a) Participating countries should improve initial and continuing training for teachers, trainers, mentors and counsellors by offering flexible training provision and investment. The ageing European teacher and trainer population, changing labour markets and working environments, together with the need to attract those best suited to teaching, make this objective even more critical. Traineeships for teachers and trainers in enterprises should be encouraged;

(b) Participating countries should work together in identifying best practices and guiding principles with respect to changing competences and the profiles of VET teachers and trainers. This could be done with the support of the European Commission and Cedefop, in collaboration with its network of VET teachers and trainers.

Labour market relevance

The labour market relevance of VET (both I-VET and C-VET), and the employability of VET graduates, should be enhanced through various measures:

(a) Authorities in the participating countries - at national, regional, or local level - should create opportunities for enhanced cooperation between schools and enterprises in order to improve teachers' knowledge of work practices on the one hand and trainers' general pedagogical skills and competences on the other;

(b) Participating countries should promote partnerships between social partners, enterprises, education and training providers, employment services, public authorities, research organisations and other relevant stakeholders**,** in order to ensure a better transfer of information on labour market needs and to provide a better match between those needs and the development of knowledge, skills and competences. Employers and social partners should endeavour to clearly define which competences and qualifications they need in both the short and the long term, and within as well as across sectors. The

development of a common language[4] aimed at bridging the world of education and training on the one hand, and the world of work on the other hand, should be continued and should be consistent with other EU instruments, such as the EQF;

(c) VET curricula should be outcome-oriented and more responsive to labour market needs. Cooperation models with companies or professional branch organisations should address this issue and provide VET institutions with feedback on both the employability and employment rates of VET graduates;

(d) To improve the quality and relevance of VET, participating countries, and particularly VET-providers, should make use of feedback from guidance services on the transition of VET graduates to work or to further learning;

(e) Work-based learning carried out in partnership with businesses and non-profit organisations should become a feature of all initial VET courses;

(f) Participating countries should support the development of apprenticeship-type training and raise awareness of this.

SHORT-TERM DELIVERABLES FOR 2011 – 2014

CONCERNING STRATEGIC OBJECTIVES 1 AND 2

Actions at national level:

1. Organise activities aimed at promoting VET attractiveness and excellence, which may include campaigns and skills competitions;
2. Support activities, which enable young pupils in compulsory education to become acquainted with vocational trades and career possibilities;
3. Take adequate measures to implement the EQAVET Recommendation and make progress towards national quality assurance frameworks for VET;
4. As appropriate, ensure that key competences and career management skills are adequately integrated in I-VET curricula and that they can be acquired through training opportunities in C-VET;
5. Governments, social partners and VET providers should make the necessary arrangements to:
   - maximise work-based learning, including apprenticeships, in order to contribute to increasing the number of apprentices in Europe by 2012;
   - create opportunities for enhanced cooperation between VET institutions and enterprises (profit and non-profit), for example through traineeships for teachers in enterprises;
   - provide VET institutions with feedback on the employability of VET graduates;
6. Pursue work on setting-up monitoring systems on transitions from learning to work.

[4] In 2010 this bridging language is the objective of the project "Taxonomy of European Skills, Competencies and Occupations (ESCO)".

Support at EU level:

- Policy document on the role of vocational excellence for smart and sustainable growth;
- Consider European support for VET promotion campaigns, including Eurobarometer on VET attractiveness;
- Encourage skills competitions at European and/or global levels;
- Guidance and technical support for EQAVET implementation;
- Review the implementation of EQAVET at national level in 2013;
- Thematic networking of Quality Assurance projects within the Leonardo da Vinci Programme;
- Vademecum/study on successful work-based learning models (with input from Cedefop);
- Strengthen the anticipation of skills and competences development, notably through skills forecasts (Cedefop) and by setting up European Skills Councils;
- Develop a common language aimed at bridging the world of education & training and the world of work (ESCO), consistent with other EU instruments, such as the EQF;
- Consider the adoption of an EU benchmark for employability on the basis of a Commission proposal;
- Work on best practices and guiding principles with respect to the changing profiles of VET teachers and trainers (together with Cedefop).

MAKING LIFELONG LEARNING AND MOBILITY A REALITY

3. Enabling flexible access to training and qualifications

With regard to Continuing VET (C-VET)

To enhance the contribution of VET towards reaching the benchmark of 15% of adults participating in education and training by 2020, participating countries should:

(a) Actively encourage individuals to participate, and VET-providers to increase their involvement in C-VET, with a particular focus on people facing transitions within the labour market (such as workers at risk and the unemployed) and on disadvantaged groups;

(b) Establish an appropriate framework aimed at encouraging companies to continue to invest in human resources development and in C-VET. The decision on the right mix of incentives, rights and obligations, lies with the participating countries;

(c) Encourage flexible training arrangements (e-learning, evening courses, training during working hours, etc.) in order to promote access to training in different life situations and to adapt to different needs. Continuing training should embrace all types of learning, also including in-company training and work-based learning, and should be equally accessible to both women and men;

(d) Encourage training institutions and employers to collaborate, particularly in the training of the high numbers of low-skilled workers who have at most lower-secondary education and

who will benefit from approaches where basic skills are embedded in VET;

(e) Start to develop, no later than 2015, national procedures for the recognition and validation of non-formal and informal learning, supported as appropriate by national qualifications frameworks. These procedures should focus on knowledge, skills and competences, irrespective of the context in which they have been acquired, for example broad adult learning, VET, work-experience and voluntary activities. Greater account should also be taken of knowledge, skills and competences that do not necessarily lead to full formal qualifications. Close cooperation with other policy areas, such as youth, sport, culture, social affairs, employment, is important in this respect;

(f) Take specific measures to enhance the participation rate in C-VET of people facing transitions within the labour market and of groups with low participation in training, such as women, the low-skilled and older workers. In particular, participating countries should seek through investment to bring the number of low-skilled people aged 25-64 years who participate in lifelong learning more into line with average participation rates for that age group.

With regard to both I-VET and C-VET

(a) Facilitate transitions from education and training to work, and between jobs, by providing integrated guidance services (employment services and counselling services), as well as career management skills, for both young people and adults. It is crucial that the service providers involved are able easily and objectively to exchange information and to develop the quality of guidance services;

(b) Develop or maintain post-secondary or higher VET at EQF level 5 or higher, as appropriate, and contribute to achieving the EU headline target of 40 % with tertiary or equivalent education;

(c) Promote flexible pathways between VET, general education and higher education, and enhance permeability by strengthening the links between them. To achieve this aim, as well as greater participation in lifelong learning, participating countries should accelerate the establishment and implementation of comprehensive national qualifications frameworks based on learning outcomes;

(d) The Commission and the participating countries should work towards increasing coherence between the two European credit systems - ECVET and ECTS.

4. Developing a strategic approach to the internationalisation of I-VET and C-VET and promoting international mobility

(a) Economic globalisation encourages employers, employees and independent entrepreneurs to extend their scope beyond the borders of their own countries. VET providers should support them in this process by giving an international dimension to the learning content and establishing international networks with partner institutions;

(b) Participating countries should encourage local and regional authorities and VET providers – through incentives, funding schemes (including use of the European Structural Funds) and the dissemination of best practices – to develop strategies for cross border cooperation in VET, with the aim of fostering greater mobility of learners, teachers and trainers and other VET professionals. Participating countries should promote VET that allows, encourages and **-** preferably **-** integrates mobility periods, including work placements, abroad;

(c) Participating countries should systematically use and promote European transparency tools such as EQF, ECVET and Europass to promote transnational mobility;

(d) Participating countries should promote opportunities for language learning for both learners and teachers in VET, and the provision of language training adapted to the specific needs of VET, with a special emphasis on the importance of foreign languages for cross-border cooperation in VET and international mobility.

SHORT-TERM DELIVERABLES FOR 2011 – 2014

CONCERNING STRATEGIC OBJECTIVES 3 AND 4

Actions at national level:

7. In order to maximise the contribution of VET to the "ET2020" 15% benchmark on the participation of adults in lifelong learning, review the use of incentives, rights and obligations for all stakeholders involved, and take appropriate action to encourage participation in C-VET;
8. Implement the EQF Recommendation:
   - development of comprehensive NQFs based on the learning outcomes approach. Use the NQF as a catalyst for creating more permeability between VET and higher education, for developing or maintaining VET at post-secondary or higher EQF levels, and for realising flexible learning pathways;
   - referencing NQF levels to EQF levels by 2012;
9. Develop and promote the use of procedures for the validation of non-formal and informal learning supported by EQF/NQFs and guidance;
10. Provide integrated (education, training, employment) guidance services closely related with labour market needs;
11. Progress towards ECVET implementation in line with the Recommendation, and participate in testing ECVET for mobility;

12. Take appropriate measures to boost mobility in VET, including:
    - Encourage a greater number of I-VET students and VET professionals to participate in transnational mobility;
    - Encourage local and regional authorities, as well as VET providers, to develop an internationalisation culture and internationalisation strategies, including cross-border mobility;
    - Address legal and administrative obstacles related to the transnational mobility of apprentices and trainees;
    - Encourage professional chambers, business organisations and other relevant organisations to support the host and sending enterprises in providing appropriate conditions for apprentices and trainees in transnational mobility;
    - Ensure the provision of language learning and intercultural competences in VET curricula;
    - Make optimal use of other EU tools (e.g. EQF, EQAVET, Europass) for enhancing the mutual recognition of qualifications and competences.

Support at EU level:

- Policy handbook on access to and participation in C-VET;
- Guidance and technical support for EQF implementation, notably with view to applying a learning outcomes approach;
- Mapping of developments of NQF by CEDEFOP and ETF;
- Council Recommendation on the validation of non-formal and informal learning (2011);
- Progress report on the development of lifelong guidance policies, systems and practices - 2011 (CEDEFOP, ETF and ELGPN);
- Guidance and technical support for ECVET implementation;
- Periodic review of ECVET implementation (together with Cedefop);
- Thematic networking of ECVET projects within the Leonardo da Vinci programme;
- Recommendation on learning mobility (2011);
- Consider the adoption of an EU benchmark for VET mobility on the basis of a Commission proposal (2011);
- Proposal for a quality framework for traineeships;
- Promote mobility for apprentices, including by means of a support portal, within the framework of the Lifelong Learning Programme/ Leonardo da Vinci Programme;
- Develop a European skills passport as part of Europass by 2012.

ENHANCING CREATIVITY, INNOVATION AND ENTREPRENEURSHIP

5. Fostering innovation, creativity and entrepreneurship, as well as the use of ICT (in both I-VET and C-VET)

Creativity and innovation in VET, as well as the use of innovative learning methods, can encourage learners to stay in VET until they are qualified.

(a) Participating countries should actively encourage VET providers to collaborate with innovative enterprises, design centres, the cultural sector and higher education institutions in forming "knowledge partnerships". This should help them gain valuable insight into new developments

and competence needs and to develop professional excellence and innovation. Such partnerships could also be helpful in introducing experience-based learning methods, encouraging experimentation and adapting curricula;

(b) ICT should be used to maximise access to training and to promote active learning, as well as to develop new methods in both work- and school-based VET;

(c) Participating countries should support initiatives aimed at promoting entrepreneurship in both I-VET and C-VET in close cooperation with employers, VET providers and national business support services. To achieve this, they should encourage the provision of appropriate funding - e.g. for teaching materials, support tools and the establishment of mini-companies by learners - and should seek to enhance cooperation at regional level;

(d) Participating countries should support newly established and future entrepreneurs by encouraging start-ups for VET graduates and by promoting learning mobility for young entrepreneurs.

SHORT-TERM DELIVERABLES FOR 2011 – 2014

CONCERNING STRATEGIC OBJECTIVE 5

Actions at national level:

13. Encourage partnerships for creativity and innovation (VET providers, higher education institutions, and design, art, research and innovation centres);
14. Encourage effective and innovative, quality-assured use of technology by all VET providers (including public-private networking and partnerships) supported by the necessary equipment, infrastructure and networks, with continuing improvements that reflect developments in technology and pedagogical understanding;
15. Take measures to promote entrepreneurship, e.g. by promoting the acquisition of relevant key competences, enabling practical experiences in enterprises, and involving experts from businesses.

Support at EU level:

- Set up an EU-level VET / Business Forum with a focus on the following themes:
  - role of VET in the knowledge triangle;
  - transitions from VET to business: how to support VET graduates in starting up enterprises.

PROMOTING EQUITY, SOCIAL COHESION AND ACTIVE CITIZENSHIP

6. Realising inclusive I-VET and C-VET

Participating countries should offer VET which increases people's employability (in both the short and long term), which allows them to develop quality careers, satisfactory work experience, self-confidence, professional pride and integrity and which opens up opportunities for growth in their professional and personal lives. To achieve this objective, participating countries should:

(a) Guarantee that initial VET provides learners with both specific vocational competences and broader key competences, including transversal competences**,** that enable them to follow further education and training (within VET or in higher education) and to support career choices, participation in and transitions within the labour market. The knowledge, skills and competences which people acquire in VET should enable them to manage their careers and to play an active role in society;

(b) Make sure that adult learning systems foster the acquisition and further development of key competences. This can be carried out in cooperation with VET providers, local communities, civil society organisations, etc;

(c) Maximise the contribution of VET to reducing the percentage of early leavers from education to below 10% through a combination of both preventive and remedial measures. This can be achieved, for example, through labour market relevant VET, increased work-based learning and apprenticeships, flexible learning pathways, effective guidance and counselling, and by learning content and methods that acknowledge young people's lifestyles and interests, while maintaining high-level quality standards for VET;

(d) Take appropriate measures to ensure access on an equal basis, especially for individuals and groups at risk of being excluded, in particular the low-skilled and unskilled, people with special needs or from disadvantaged backgrounds, and older workers. The participation of such groups in VET should be facilitated and encouraged through financial or other means and through the validation of non-formal and informal learning, as well as the provision of flexible pathways;

(e) Promote active citizenship in VET, for example by encouraging partnerships between VET providers and civil society organisations or, in accordance with national legislation and practice, by promoting learner representation in VET institutions. Promotion of this kind can contribute to the validation of skills and competences acquired through voluntary activities.

SHORT-TERM DELIVERABLES FOR 2011 – 2014

CONCERNING STRATEGIC OBJECTIVE 6

Actions at national level:

16. Take preventive and remedial measures to maximise the contribution of VET in combating early leaving from education;
17. Consider specific measures aimed at raising the participation of low-skilled and other "at risk" groups in education and training, including by developing flexible pathways in C-VET and using appropriate guidance and support services;
18. Use ICT to maximise access to training and to promote active learning, as well as to develop new methods in both work- and school-based VET, in order to facilitate the participation of "at risk" groups;
19. Use existing monitoring systems to support the participation of "at risk" groups in VET: see short-term deliverable 6.

Support at EU level:

- Vademecum of best practices on inclusion of "at risk" groups through a combination of work-based learning and key competences;
- Council Recommendation on reducing early school leaving (2011).

TRANSVERSAL OBJECTIVES

7. Greater involvement of VET stakeholders and greater visibility for the achievements of European cooperation in VET

Greater involvement of VET stakeholders implies greater visibility for the achievements of European cooperation in VET. The European Commission and the participating countries should therefore consider investing in clear and targeted communication to different groups of stakeholders at national and European level. In order to facilitate the use of the available EU instruments, learners and all parties involved should receive extensive and tailored information.

8. Coordinated governance of European and national instruments in the areas of transparency, recognition, quality assurance and mobility

In line with the above mentioned strategic objectives, coherent and complementary use of the various European and national instruments in the areas of transparency, recognition, quality assurance and mobility should be a high priority for the participating countries in the coming years. Coordinated governance of these instruments under the Copenhagen process and stronger synergy with the instruments and principles of the Bologna process are required.

9. Intensifying cooperation between VET policy and other relevant policy areas

Participating countries and the European Commission should intensify cooperation between VET policy and other relevant policy areas, such as employment, economic affairs, research and innovation, social affairs, youth, sport and culture in order to adhere to the Integrated Guidelines of *Europe 2020* and to enhance the recognition of competences and qualifications.

10. Improving the quality and comparability of data for EU policymaking in VET

EU level policy-making in VET should be based on existing comparable data. To this end, and using the Lifelong Learning programme, Member States should collect relevant and reliable data on VET – including VET mobility – and make these available for Eurostat. Member States and the Commission should jointly agree on which data should be made available first.

11. Making good use of EU support

The European Structural Funds and the Lifelong Learning Programme should be used to support the agreed priorities for VET, including international mobility and reforms implemented by the participating countries.

SHORT-TERM DELIVERABLES FOR 2011 – 2014

CONCERNING THE TRANSVERSAL OBJECTIVES 7 TO 11

Actions at national level:

20. Establish communication strategies for different stakeholder groups, focused on implementation and the added value of tools (ECVET, ECTS, referencing of NQFs to EQF, quality assurance systems in line with EQAVET);
21. Set up structured cooperation mechanisms between VET sector and employment services at all levels (policy and implementation), including the social partners;
22. Contribute to improving EU level data on I-VET students, including mobility and employability.

Support at EU level:

- Support the achievement of the above objectives through the Lifelong Learning Programme and, where appropriate, the European Structural Funds;
- Support peer-learning between participating countries and innovative projects;
- Setting up an enhanced coordination procedure for the implementation of common European tools in the field of education and training;
- European communication strategy on European transparency tools;
- Develop structured cooperation with VET provider associations at EU level;
- Strengthen structured cooperation between the education and training and the employment policy fields;
- Improve EU level data on I-VET students, including mobility and employability;

- Social partners at all levels should continue to play an active role in the Copenhagen process (governance and ownership) and contribute to the realisation of the above mentioned short-term deliverables;
- Report on VET developments in Member States and partner countries;
- Reinforce exchanges with enlargement and neighbourhood countries.

IV. PRINCIPLES UNDERLYING THE GOVERNANCE AND OWNERSHIP OF THE COPENHAGEN PROCESS

- Member States should make a strong commitment to implementing the priorities of the Copenhagen process within the *Europe 2020* national reform programmes;
- Reporting under the Copenhagen process should be incorporated into that of the "ET 2020" strategic framework. This would provide the most efficient way of contributing to reporting on the *Europe 2020* Strategy, and would increase the visibility of VET in lifelong learning;
- Cooperation in the area of VET should be intensified. The open method of coordination should continue to serve as the main mechanism for such cooperation. Peer learning and innovative projects should provide means of supporting national policy developments;
- The Directors-General for Vocational Training (DGVT), the European Social Partners and the Advisory Committee for Vocational Training (ACVT) should continue to play an active role in the governance of the Copenhagen process;
- Cedefop and the ETF should continue, according to their specific mandates, to support policy development and implementation, to report on progress towards the strategic objectives and the short-term deliverables, and to provide evidence for policy-making in VET;
- VET provider organisations should be encouraged to cooperate at European level with a view to promoting the above objectives;
- Policy dialogues and exchanges of experience with our global partners can contribute to meeting present and future challenges. Exchanges and cooperation with potential candidate countries, with neighbourhood countries assisted by the ETF and with international organisations, particularly the OECD, the Council of Europe, the International Labour Organisation and UNESCO, should be strengthened. The right of participation in these activities should be ensured for all participating countries;
- A new list of short-term deliverables should be drawn up by 2014 based on the above mentioned strategic objectives.

This text has been agreed by the Ministers responsible for Vocational Education and Training of the EU Member States (Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain, Sweden, the United Kingdom), of the EU candidate countries (Croatia, the Former Yugoslav Republic of Macedonia, Iceland, Turkey), and of the EFTA/EEA countries (Liechtenstein, Norway). These countries are called "participating countries" in the text.

It was also agreed by the European Commission and by the following European Social Partners: ETUC, BUSINESSEUROPE, UEAPME, CEEP.

Bridging knowledge with skills and competences in school curricula: evidence from policies and practices in nine European countries

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Introduction

The international economic crisis has speeded up the pace of change in our economies and societies with important implications on the labour market. Some types of jobs are vanishing, other new jobs are emerging in the same time that the skills needed for the existing jobs are changing. Specialised technical knowledge is still (and will always be) essential, but equally important are the cross-cutting competences that enable people to cope with and pursue more flexible career pathways.

The issue of employability becomes crucial for the young generations today. The economic crisis has driven youth unemployment even higher than before –standing at an average of around 21%. Large numbers of young people – one in seven – are leaving school with only basic qualifications at best: for the most part, condemned to unemployment or dead-end jobs (Eurostat, 2010). Many graduates are leaving university without the employable skills that can gain them entry to the labour market. In the same time, skills forecasts for the next ten years show that low skilled and unqualified people will have scarce opportunities for employability in comparison to highly qualified people (Cedefop, 2010a).

To ensure a better match between skill needs and supply, policy makers need a better understanding of the knowledge, skills and competence that people have and those that are and will be acquired. To this end, the potential benefits of an approach to vocational education and training (VET) based on learning outcomes – valuing not just what students know, but what they can do with their knowledge and skills at the end of a learning process - have been widely acknowledged by all European countries (Cedefop, 2009a). Increasingly, VET qualifications are shaped around acquired knowledge, skills and competences and members states develop overarching national qualification frameworks defining level descriptors based on learning outcomes.

However, if qualifications are to be awarded on the basis of achieved learning outcomes, this raises the question how curricula and learning programmes must be designed to lead learners to the intended learning outcomes. Policy makers involved in curriculum development come across key policy dilemmas: How to find a way to balance the skill needs of employers and the skill needs of individuals recognising that people have different needs, backgrounds and goals? How to ensure that VET curricula are responsive not only to the existing qualifications but also to new emerging jobs?

Little is known to date in a European comparative perspective on curriculum changes addressing the above mentioned issues. The present paper aims to shed some light on the rational behind recent curriculum reforms and the role of learning outcomes in VET curricula. It does so by comparing curriculum policies in nine European countries and analysing learning programmes in the occupational field of Logistics.

The first chapter presents the scope of the study, the research design and tools. The second chapter analyses the different backgrounds and motivations for launching outcome-oriented curriculum reforms based on literature review. The third chapter presents national initiatives bridging knowledge with skills and competences in VET curricula. The fourth chapter illustrates these initiatives with examples from Logistics curricula in nine countries. The fifth and last chapter summarises the main conclusions drawn, addressing new lines for research needs.

1 Research design: questions and tools

Findings presented in this paper draw from the latest Cedefop publication on "Learning outcomes approaches in VET curricula: a comparative analysis of nine European countries" (Cedefop, 2010b). It is part of an extensive comparative research work that Cedefop is conducting over the last three years exploring the role of learning outcomes approaches in vocational education and training provision.

The present study is based on the initial hypothesis that given the increasing emphasis attributed to learning outcomes at European level, national curricula traditionally knowledge-based are now changing towards a more outcome-oriented approach. These approaches are characterised by defining the expected knowledge, skills and competence individuals acquire at the end of a learning process. To explore this hypothesis, the paper aims to analyse:

- To what extent curriculum reforms have been launched in VET introducing learning outcomes and what are the rationales behind these reforms?
- What is the role of learning outcomes in VET curricula in relation to the teaching and learning process?
- How has the introduction of learning outcomes affected the content and organisation of VET curricula contributing or hindering learner-centeredness?

To address these research questions, overall trends in curriculum reforms in relation to outcome-oriented approaches were analysed and compared in nine selected countries. The choice of countries was based on geographical and geopolitical criteria; the characteristics of educational systems (e.g. decentralised versus centralised system); and the degree of experience/tradition in using learning outcomes. With respect to these criteria, nine countries were selected for in-depth study: France, Germany, Ireland, Netherlands, Poland, Romania, Slovenia, Spain and the UK - Scotland. The analysis focuses on initial VET, especially on the training paths taken by most students.

For deeper insights into the effects of learning outcomes on curriculum development, one vocational programme was analysed in each country in the field of logistics. Logistics was chosen given it is a growing sector in Europe, with jobs (excluding transport and support) representing approximately 2-2.5 % of overall employment[2]. The branch is subject to a high degree of international mobility and professional challenges due to changing technologies. As a consequence, curricula in logistics are often newly created or up-dated, offering a good example for analysing current reforms.

Both primary (interviews and surveys) as well as secondary research (literature review) were carried out to provide empirical materials for a comparative analysis of curricula and learning programmes. The desk research, among other sources, included national country reports, legislation and policy strategies on curriculum, assessment, textbooks and teachers training, as well as guidelines and support materials published by national curriculum authorities. In addition, written and oral semi-structured interviews were conducted with national experts to complement the desk research.

[2] Logistic training database: http://www.novalog-project.org/english/database/ [cited 30.04.2010]

2 Rationale using learning outcomes in VET curricula

Shifting the focus from inputs to outputs in education and training provision has its routes in different factors among which to the rise of competence-based approaches in education and to changes in the way people are recruited nowadays; employers attach far more importance to the competences and transferable skills of job seekers than to their formal qualifications. The following subchapters present these different factors based on analysis of curricular reforms over the last twenty to thirty years.

2.1 Learning theories focusing on competences and learning outcomes

One of the reasons explaining this increasing emphasis on learning outcomes when designing VET curricula, are the new theoretical insights and research findings we now have on the aspects influencing learning processes.

In the past twenty-five years, cognitive research has provided important findings about the brain, with scientists being able to examine its internal organization and processes. This allows researchers to observe how and where information is manipulated in the learning process. One finding is that the brain makes sense of the world by constructing meaning from the information around it. It connects held information to the new concept that it is trying to understand. The metaphor of the brain as a computer with connected networks is often used to describe the functioning of the brain cells and transmitting procedures.

But recent research suggests that the brain is more like a “regulated jungle”. However, important to educators is the whole-brain approach replacing the older partition models in which certain functions were assumed to be isolated in specific parts of the brain. Understanding how the brain learns – by acquiring, sorting, and conserving information – allows educators to devise the appropriate kinds of instruction and environments that activate the brain’s natural abilities and promote student learning (Gregory and Parry, 2006). According to these findings, connections between different concepts must be made explicit and learners must have the opportunity to make their own connections by engaging in discussions and activities that promote the concepts of formation and comprehension.

“Schools, therefore, need to provide a rich variety of experiences that activate students’ brains. This is compatible with the brain’s genetic disposition to thrive on complexity and to use a multisensory or parallel processing approach to derive meaning from complex situations. Therefore, the most favourable learning activities to activate neural networks are those that are complex, engage a variety of the senses, and are perceived by the learner as being novel, emotionally engaging, relevant and useful” (Gregory and Parry, 2006, p. 32).

As early as 1991, Caine and Caine formulated features of brain-based learning; students should have many choices for activities and projects and foster patterning by drawing relationships through the use of metaphor and demonstrations. Therefore teaching methods should be complex, lifelike and integrated, using different media

and materials. Brain-based learning should encourage the brain's ability to integrate information and "involve the entire learning in a challenging learning process that simultaneously engages the intellect, creativity, emotions and physiology" (Caine and Caine, 1991, p. 8).

Behaviourist, cognitivist and constructivist learning theories all acknowledge the benefits of linking learning processes to typical daily and work situations. Curricula based on learning outcomes focus on the results of learning processes. A difference must be made, however, between objectivist approaches, which lead to the definition of detailed outcomes for assessment purposes, and the subjectivist (constructivist) approach, in which, learning is an open-ended process through which outcomes are constructed in the learner's mind according to his/her individuality. The latter approach calls especially for active learning methods and a learner-centred approach to teaching based on formulating broad outcomes to guide the learning process.

The use of learning outcomes in curricula can therefore have different theoretical backgrounds from which constructivist approaches are associated with more holistic understandings of learning outcomes.

2.2 Linking education and labour market

As we have referred in the introduction of this paper, one of the major reasons for using learning outcomes in curricula is the expectation that this will strengthen the link between VET systems and the labour market; a need which became even more prominent in the current economic crisis Europe is facing.

Other economic crises during recent decades, especially in the 1980s and 1990s, also led to extensive reforms in the various systems of vocational education and training. The shortage of work places and the need for qualified staff in the new branches and for certain qualifications, both raised questions about the match between vocational education and training programmes and the requirements of the labour market. These new requirements arose from the shift to a service-oriented economy and diverse technological developments, both followed by changes in company organisation and processes.

Other factors were social and demographic challenges like migration and decline of the birth rate. Young people were the most affected by these changes. Their transition into the labour market was hindered by the shortage of workplaces and by new requirements which the students were assumed not to meet adequately. Mostly the VET-systems were considered as too 'academic' and not 'realistic' (e.g. Spain and Netherlands), being traditionally school-based and very much similar to the general/academic system (e.g. France). Traditional qualifications and the classical ways of instruction did not cope with the needs emerging in the modern economy and with the new forms of labour organisation.

To cope with these challenges, curricular reforms (in all the countries analysed) largely aimed at strengthening the match between the educational offer and employment requirements by carrying out phases of workplace learning in companies (e.g. France, Spain, Scotland, the Netherlands, Poland and Slovenia). In this context,

learning outcomes played a crucial role in curricula in aiding coordination between school-based and work-based learning.

2.3 Steering VET-systems through outcome-based curricula

The curriculum is an essential instrument for steering the education system. In this context, learning outcomes used in curricula can be considered as standards (i.e. norms and specifications) or "adjustment factors of action" (North, 1990) influencing the behaviour of actors in training and education system, insofar as they fulfil a normative function. The introduction of learning outcomes in VET curricula must, therefore, be examined also in the context of new trends in public management and VET governance.

Educational processes are traditionally regulated through "inputs" which means via the regulation of the contexts of societal actions. Curricula defining subject-related knowledge to be transmitted are classic instruments of the input regulation of education and training. With this type of regulation, VET providers (including teachers) are responsible, but not accountable for the learner's achievement: "Not the fulfilment of a plan but the conformity of a plan has to be controlled and accounted for" (Künzli, 1999, p. 24). In this, the input curriculum opens up a relatively wide leeway for the organisation, execution and control of the lessons which at the same time have to be fulfilled in a more individual responsibility.

Attempts to define outputs and outcomes can be traced back to the definition of "learning objectives" in the 1960s and 1970s, for instance in Unites States and Great-Britain. The product orientation, without disqualifying steering through inputs, represents a shift in control and accountability concerning learning results. In this context, the use of learning outcomes represents a regulative and didactic change of perspective (Sloane, 2007). The difference between "learning outcomes" and "learning objectives" is usually defined with regard to implied design constraints in the learning process. Learning outcomes are seen as much broader and formulated in a more open way than learning objectives giving the training providers and teachers more room for meeting learners' needs than learning objectives.

This trend towards output-based steering in education and training systems is becoming evident in many European countries by defining educational and/or occupational standards and curricula based on learning outcomes, and by introducing performance-based funding mechanisms (Cedefop 2009b, p.18).

Finally, the use of learning outcomes in curricula is also seen in the context of quality assurance debates in many countries (Cedefop, 2009c). A commonly agreed thesis is that steering only through input factors is not sufficient to ensure better quality and relevance in education and training, and that more importance must be granted to the "output" of educational systems, specifically the "outcome" of learning processes (Blömeke, Herzig and Tulodziecki, 2007).

2.4 EU-Policy on transparency and international mobility

Two important European policy developments endorsed with the Recommendations of the European Parliament and of the Council on key competences for lifelong learning (2006) and the European qualifications framework for lifelong learning (2008) have influenced significantly the adoption of national education and training policies emphasizing outcome-oriented approaches. While the former recommendation defines eight key competences that all young people should develop at the end of their initial education to a level that equips them for further learning and working throughout their life, the latter, establishes eight qualifications levels defined in learning outcomes and describing the knowledge, skills and competences acquired at the end of a learning process.

Since then, numerous European policy documents underlined that curriculum reform and renewal is an important means for promoting outcome-oriented approaches and key competences in lifelong learning making education and training systems more relevant to the knowledge-based Europe of the future (e.g. Council conclusions on Improving the quality for teacher education, 2007 and Commission Communication on Improving competences for the 21st century: an agenda for European cooperation on schools, 2008).

The Council conclusions (2009) on a strategic framework for European cooperation in education and training in the period up to 2020 ("ET 2020"), establish as a strategic objective “to take greater account of transversal key competences in curricula, assessment and qualifications” in accordance with the 2006 recommendation of key competences for lifelong learning. Later, the Council conclusions of 26 November 2009 on developing the role of education in a fully-functioning knowledge triangle (education, research, innovation), encourages education and training institutions to accelerate pedagogical reforms ensuring that curricula, as well as teaching and examination methods at all levels of education, incorporate and foster transversal key competences.

More recently, the Draft Council conclusions (March 2010) on competences supporting lifelong learning and the "new skills for new jobs" initiative stress the need for further developing the key competences approach beyond the schools sector, into adult learning and into vocational education and training (VET) linked to the Copenhagen process. “Curriculum design, teaching, assessment and learning environments should be consistently based on learning outcomes and particular emphasis should be placed on those transversal competences that require cross-curricular and innovative methods. To achieve the transition to a competence-based approach, efforts should also be made to ensure that teachers and trainers are equipped with the appropriate pedagogical and other necessary skills”.

These European policy recommendations demonstrate an existing consensus at European level on the fact that curriculum is as a dynamic framework guiding teaching and learning processes and an important steering mechanism for quality. This has become interestingly obvious over the last years, when curriculum from being a static document defining the content to be taught (almost identical to syllabus) is being increasingly enriched to define plethora of other elements including those

assessment and teaching methods that should be applied (see in Annex 1 example of elements defined in curricula of logistics in the nine countries under examination).

These policy developments supported also by EU funds (e.g. European Social Funds) granted to innovative programmes, constitute a favourable background for reforming curricula adopting a learning outcomes approach.

3 Balancing inputs with outcomes in VET curricula

Reporting activities measuring progress made at national level towards the Lisbon objectives show that important developments have been made towards outcome-oriented approaches in education and training.

The 2010 joint progress report of the Council and the Commission on the implementation of the "Education & Training 2010" work programme recognizes a clear trend across the EU towards competence-based teaching and learning, and a learning outcomes approach. Many European countries are reforming curricula based explicitly on the key competences framework; conclusions though point out that more should be done to support the acquisition, updating and further development of the full range of key competences in the areas of vocational education and training and of adult learning and to ensure that higher education outcomes are more relevant to the needs of the labour market.

Cedefop policy report measuring progress on Copenhagen process (Cedefop, 2009d) and the mapping of National qualification frameworks in Europe (Cedefop, 2009e) bring also evidence on the increasing use of learning outcomes in defining qualifications, job profiles and curricula and raise the pressing need to explore further the implications for delivering and assessing reformed curricula in VET.

Referring to the nine countries examined in this study, all of them are or have been recently engaged in curriculum reforms introducing to some extent learning outcomes and a competence-based approach in VET curricula. The scope and the timing of these reforms vary depending on the country and so do the names and concepts attributed to learning outcomes.

In *France* the concept of '*compétence*' has been introduced since1960s although in a behaviouristic context that has evolved overtime to integrate increasingly the results of constructivist theories. In the *United Kingdom*, the term learning outcomes has long been accepted in relation with the development of National/Scottish vocational qualifications (N/SVQs), which were introduced in 1986. In *Ireland*, learning outcomes have first been introduced in the apprenticeship system in 1991. But it is only in relation with the National framework of qualifications launched in 2003, that the definition and use of the term 'learning outcome' was systematically reflected in the policy process. In the *Netherlands*, competence-based education was introduced on the basis of the new Act on vocational and adult education in 1996 under the aim to fully implement this approach in all parts of the VET system by 2010. In *Spain*, the introduction of learning outcomes (competences and capacities) for the definition of qualifications was based on the Law on general organisation of the education system of 1990 (*Ley Orgánica de Ordenación General del Sistema Educativo*, LOGSE),

which was adopted with the primary aim of reinforcing the link between the education system and the labour market.

In *Slovenia*, *Poland* and *Romania* outcome-based approaches have been introduced more recently in curricula, mainly in relation with EU policy instruments and projects. In *Slovenia*, curricula in VET started to be shaped towards an outcome-oriented approach in 1996, following two distinct phases: a first phase until 2001 which was carried out in a PHARE Programme partially financed by the European Union, and a second phase in 2001-07 based on new guidelines for 'The Development of Education' by the Ministry of Education, Science and Sport. In *Poland*, taking further the first steps to introduce learning outcomes in the VET system in 2002, curriculum reforms are underway and will be fully implemented in 2012.

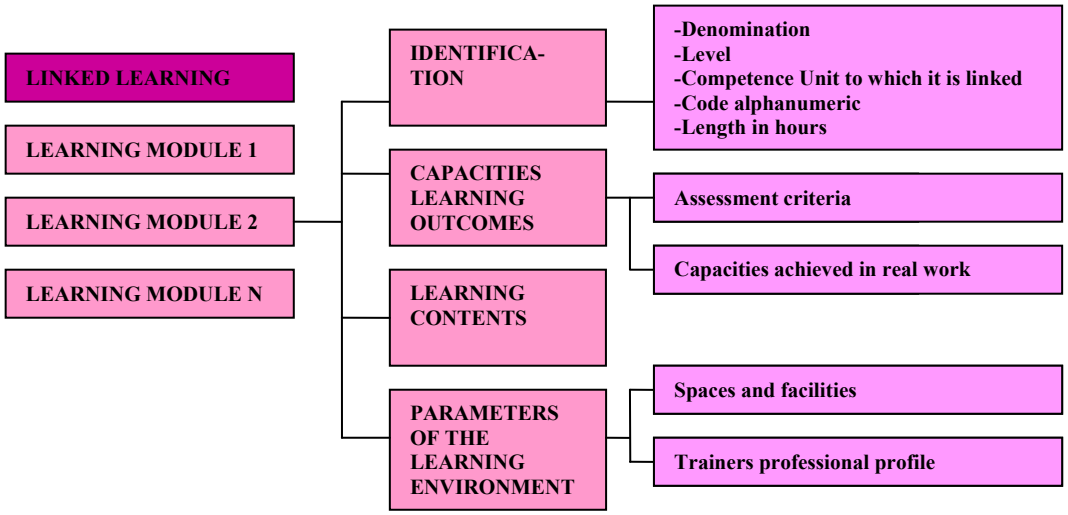
Despite this converging trend, it could be too simplistic to characterize these reforms only as a shift from input- to outcome-focused curricula. First, there is no pure type of input- or outcome-curriculum defined in theory and it is possible to say, on the basis of the empirical researches conducted in nine countries, that curricula are always mixed and that the kinds of "outcomes" they define varies hugely among the countries, so that even two outcome-oriented curricula look very different. The analysis of initial VET curricula in Logistics shows that learning outcomes do not replace learning inputs (contents, teaching and learning methods, timetables, etc.) but in most cases may have a more or less prominent role for defining these inputs.

On one hand, in some countries such as France, learning outcomes are tightly linked to content specifications, and curricula contain a large amount of binding rules concerning learning arrangements. This can be traced back to the main motivation for introducing learning outcomes (*compétences*) in curricula: to bring the mainly school-based VET system closer to employment requirements by illustrating the relationship between professional activities and the knowledge and skills developed in classroom. On the other hand, curricula in the further education sector in Ireland and in the Netherlands are based solely on learning outcomes. In this case, learning outcomes are used as main reference point and maximal autonomy is allocated to training providers to define contents and methods of the teaching and learning process in the learning programme.

In most countries having defined learning outcomes at different levels of the curriculum (see chapter 4), a system of "matryoshka dolls" describing outcomes from the most general to the most detailed is used (e.g. in Spain, Slovenia, Poland and France). Content specifications are explicitly linked to the learning outcomes, for instance through a correspondence table. In the German dual system, the outcome-orientation is seen primarily as a means for linking work-based and school-based learning and such a correspondence table is used in the process of curriculum development to ensure consistency between the school-based curriculum and the work-based curriculum.

The logistics curriculum in Spain can be taken as an example for illustrating the link between the different input and outcome elements of the curriculum (see table 1).

Table 1: Learning module structure in Spain



Source: INCUAL 2009, p. 8.

Curricula in Spain are based on competence units describing professional performance at the work-place. Learning modules are designed related to each competence unit and take a standardized form. Intended learning outcomes are expressed as capacities in a work context and as their related assessment criteria. The learning content leading to the achievement of those capacities is also indicated. In addition, some specifications regarding the 'parameters of the learning context' are made, such as space in workshops and facilities, profile of instructors and others. Training providers are allowed to define the length of the learning module according to the nature of the learners' needs, the learning modality, the number of students and other objective criteria.

We have seen that learning outcomes can specify expected knowledge, skills and competences to be acquired by the learners as well as the means under which these will be achieved. In the following chapter, we will analyse the different functions ascribed to learning outcomes in curricula of the examined countries.

4 The role and function of learning outcomes in VET curricula

Cedefop's recent study (Cedefop, 2010b) points out that learning outcomes may have different functions in VET. This was also found to be true at the level of the initial VET curricula examined in the case study on logistics programmes. Three categories of learning outcomes were identified depending on the function they are ascribed in curricula: defining the overarching goals of education and training, the learning outcomes of a study programme, or the learning outcomes of specific units of training.

4.1 Learning outcomes at the level of VET goals

In some countries, learning outcomes express the overarching goals of education and training. In this case, they are formulated in broad terms, neither occupation- nor subject-specific. A prominent example of such learning outcomes in VET is offered by Germany, with the concept of vocational competence ('*Handlungsfähigkeit*' and '*Handlungskompetenz*'). A similar function is fulfilled by the learning outcomes associated to the 'four capacities' (as successful learners, responsible citizens, confident individuals and effective contributors) included in the "Curriculum for excellence" in UK-Scotland

Contrary to the concept of vocational competence in Germany, which has been developed for VET curricula only, the 'four capacities' in the "Curriculum for excellence" are directed at all segments of education for the age-group from three to 18 years old, including general and prevocational education as well as further education. They are described through attitudes and competences ('...able to:...') general enough to apply to all age groups. These attitudes and competences, which are a kind of very broad and holistic learning outcomes, are further refined and embedded in the curriculum guidelines for each age group.

In other countries, key competences can also be considered in terms of learning outcomes fulfilling the function of overarching goals of education and training with a transversal character, orienting learning processes regardless of the segment of education or occupational sector. Among the countries studied, five have explicitly adopted a set of key competences: UK-Scotland, Ireland, France, Poland and Slovenia. Although they are primarily developed for compulsory education, key competences are also relevant to IVET (France, Slovenia), or even to CVET in UK-Scotland and Ireland. The question raised by these kinds of overarching learning outcomes is how to integrate transversal competences into learning programmes, which are most often divided into either subjects or occupation-based training units. Two approaches can be distinguished, which do not necessarily exclude each other:

A first approach is adopted in the German dual system and in the Scottish "Curriculum for excellence". The overarching goals formulated in terms of competence or outcomes function as guiding principles to develop and assess the other elements of the curriculum and the learning programmes in all subjects and areas. This is expressed in the "Curriculum for excellence" and the experiences and outcomes in the range of curriculum areas built in the attributes and capabilities which support the development of the four capacities. This means that, taken together across curriculum areas, the experiences and outcomes contribute to the attributes and capabilities leading to the four capacities. The expanded statements of the four capacities can also form a very useful focus for planning choices and next steps in learning.

The attributes and capabilities can be used by establishments as a guide to assess whether the learning programme for any individual child or young person sufficiently reflects the purposes of the curriculum[3]. In Germany, the concept of vocational

[3] http://www.ltscotland.org.uk/curriculumforexcellence/curriculumoverview/aims/fourcapacities.asp [cited 30.04.2010]

competence is translated into didactical principles which guide the work of curriculum development groups and which are explained in the introductory part of the curriculum for the school-based part of VET.

A second approach is using key competences, which are sometimes broken down to a list of knowledge, skills and attitudes providing a direct basis for assessment. In France, references to each of the seven key competences are included in the syllabi and recommendations are issued by the education authorities to explain to teachers how to link key competences with subject- or occupation-based learning programmes. A booklet aiming to document the development of key competences in primary and secondary education, is being tested. In UK-Scotland, the "Curriculum for excellence" includes the five core skills developed in 1995. Curriculum guidelines for compulsory education make clear references to the core skills in order to aid implementation in the learning programmes. National qualifications also include suggestions to teachers for developing core skills in the course of vocational training, whereas SVQs do not. Specific courses are also offered at each level of the Scottish credit and qualifications framework for training in one of the core skills, with the potential to obtain a certificate after assessment. Attainments in the core skills are registered in a core skills profile.

4.2 Learning outcomes at the level of study programmes

A second function of learning outcomes in curricula is to define the specific competences, skills and knowledge to be reached at the end of a study programme. This function is typically fulfilled by learning outcomes expressed in qualification standards. The standards provide the basis for final assessment and for the planning and implementation of teaching and training actions, and are an integral part of the curriculum.

In Ireland, such learning outcomes are included in general standards (level descriptors) and award-specific standards. In UK-Scotland, qualification standards based on learning outcomes determine the learning programmes which are developed autonomously by training providers in post-compulsory education.

In Germany, the skills and knowledge which should have been developed at the end of the two or three and a half years of dual apprenticeship are defined in the training ordinance. They provide an orientation for the planning of training and education actions as well as for assessment, but they are not formulated as performance standards as in Ireland and UK-Scotland.

Finally, learning outcomes in core curricula in Poland, which are named '*kwalifikacja*' and integrate skills, knowledge and attitudes, have a similar function and character as in Germany, mainly providing the basis for developing school curricula.

4.3 Learning outcomes at the level of units

Learning outcomes are also found in some curricula at the level of units, where they express the specific outcomes/objectives of single teaching units and precisely determine the contents of training and education programmes. At this level, the case studies in logistics demonstrate that all countries under scrutiny have introduced some kinds of outcome-oriented statements (i.e. 'what learner should know, understand and be able to do'), although these may differ significantly (see annex 2).

At first sight, the variety of names used to designate intended learning outcomes at training unit level in curricula is striking: some are named learning outcomes, some are named aims, objectives, capacities, assessment standards or competences. However, the names are not a reliable indicator for a classification into different types of learning outcomes. From the examples taken from logistics (see annex 2), certain differences exist between the countries[4]:

- In some countries, outcomes statements on the level of training units refer directly to the professional context (e.g. in Germany, France, Ireland, UK-Scotland in the SVQ, Spain, the Netherlands), whereas in others they rather refer to a body of knowledge to be assimilated by the learner (e.g. in Slovenia, Poland, UK-Scotland in the National progression award).

- Some countries define assessment criteria/performance criteria (e.g. in Spain and Scotland in the National progression award), whereas in other countries outcome statements are too vague to be used directly for assessment.

- Differentiations within the category of outcome statements are operated in some countries along the divide between competence and associated knowledge. In the Scottish Vocational Qualifications (SVQs), a difference is drawn between what students should be able to do, and what they should know and understand. In other countries, associated knowledge is not formulated in terms of learning outcomes but as a list of items to be addressed in classroom. In France and the Netherlands, a distinction is made between levels of generality (general versus final competences in France, competence and its components in the Netherlands). Slovenia goes a step further in detail provision, by introducing differentiation between the informative and formative operational aims of each professional competence. The formative aims are very detailed to provide a basis for assessment, whereas the informative aims represent overarching goals of the unit, like contextual knowledge and awareness of the learned topics.

- Learning outcomes are clustered in units reflecting either work-process or traditional disciplines. In France, curriculum delivery is organised in disciplines (e.g. economics and law, applied mathematics, logistics), although learning outcomes within the vocational discipline reflect core functions and tasks of the occupation and so highlight the link between curriculum content and professional practice. In Germany, the reform of 1996 introducing the concept of action

[4] It must be noted that these differences are only verified in the case of IVET curricula in logistics. The situation might be different in other sectors and in other parts of the VET system.

competence ("*Handlungskompetenz"*) in the school-based curricula of the dual system has also introduced a new structure of curricula for the school-based part of apprenticeships. Instead of disciplines, training units are now organised in 'learning areas' ("*Lernfelder"*) reflecting the work process (see table 2). The aim of this approach is primarily to foster the integration of practical and theoretical skills and knowledge by aiding the cooperation between vocational schools and training companies[5]. In Spain and Poland, the introduction of outcome-oriented approaches has also led to a shift from subject-based to work-process-oriented training organisation. However, the example of France, where the curriculum remains structured by subjects, shows that this is not a trend in all countries (see table 3).

Table 2: Comparison of the old and the new curriculum in logistics in Germany

Germany: former curriculum 'Fachkraft für Lagerwirtschaft' (1991)	**Germany: new curriculum Fachkraft für Lagerlogistik (2004)**
Basics of work and social law (70 h)	Receive and check goods (80 h)
Basics of business administration (20 h)	Store goods (100 h)
Basics of business law (50 h)	Handle goods (60 h)
Basics of transactions (20 h)	Transport goods within the company (40 h)
Procurement and reception of goods (60 h)	Make a production order of goods (80 h)
Storing (100 h)	Pack up goods (80 h)
Commissioning (40 h)	Plan tours (40 h)
Packing (60 h)	Load goods (80 h)
Sending (80 h)	Send goods (80 h)
Transport geography (20 h)	Optimise logistic processes (80 h)
Applied mathematics (160 h)	Supply goods (40 h)
Basics of bookkeeping (80 h)	Calculate and analyse operating figures (80 h)
Data processing (80 h)	

Source: Cedefop, 2010b.

[5] In some federal states, learning areas have been clustered again into broader units, for instance in Bavaria (Procurement Logistics, Warehousing Logistics, Transport and Distribution, and Operational processes). The learning objectives and contents of each learning area remain the same as in the national curriculum.

Table 3: Examples of training units in logistics curricula

France: Baccalauréat professionnel logistique	Poland: Technik logistyk (school curriculum developed on the basis oft he national core curriculum)	Spain: Organización del Transporte y la distribución
Organisation and management of logistic activities: - logistics (416 h) - business management (156 h) - mechanic handling of goods (52 h) - economy and law (104 h) Applied mathematics (104 h) Foreign language (English) (156 h) French (208 h) History and geography (104 h) Applied arts (104 h) Sports (156 h)	Basics of logistics Stock and inventory management Economy of logistics Transport and forwarding agency Logistics planning Logistic systems Electronic economy Training workshop for Logistics and freight forwarding Training workshop for inventory management English for logistics Foreign language for Logistics Practical training	Distributor capillary (90 h) Transportation long distance (120 h) Optimising the logistics chain (120 h) English training for international transport and logistics (90 h)

Source: Cedefop, 2010b.

Summarising the findings on the function and operationalisation of the different categories of learning outcomes in logistics curricula in initial VET, it seems that two approaches to using learning outcomes in curricula can be distinguished. A first approach (regulative approach) uses learning outcomes to define assessment standards which determine precisely the content of learning programmes. A second uses learning outcomes to define the didactical-pedagogical principles orienting teaching and training practices (didactic approach). As in UK-Scotland these approaches are not mutually exclusive.

5 Concluding remarks

The present study allows better understanding of theoretical and conceptual issues behind outcome-oriented policies and practices in the nine examined countries. It highlights the key role learning outcomes play in curriculum reforms and brings evidence of important changes in national curricula.

This study demonstrates that opting for outcome-oriented approaches in curricula is perceived in many countries as a powerful means to make VET systems more learner-centred. There are however some conditions to a successful design of outcome-oriented curricula (Cedefop, 2010c).

First, too narrowly defined learning outcomes can hinder rather than encourage a learner-centred approach. This is highlighted by constructivist learning theories, according to which the learner must play an active role in the construction of meaningful relationships between cognitive, functional, emotional and social skills to be competent in a particular situation. Too detailed and narrowly defined learning outcomes, oriented solely on functional performance, risk imposing constraints on the learning process and producing such effects as 'teaching to the test'.

In practice, a shift can be observed in many countries from behaviouristic approaches to learning outcomes to more holistic understanding of competence. Ireland, UK-Scotland and Germany provide good examples of how to formulate and use holistic outcomes in curricula to encourage changes in teaching and learning practices. At the same time, to fulfil their role as standards for ensuring identical achievement across the country, learning outcomes for each training unit must be clear and precise. Otherwise, curricula are not perceived as relevant in practice for the definition of learning programmes. A balance between the didactic and the regulative role of learning outcomes must be found. This could be based on a careful combination of the two approaches and the distinction in curricula between a holistic concept of competence, or a vision of the broad outcomes aimed at, and more detailed sets of knowledge, skills and attitudes to be achieved and demonstrated through assessment.

Second, learner-centred approaches require a real autonomy for teachers and training providers in defining learning programmes. This means that empowerment and accountability, as in quality assurance, are two essential aspects of learner-centred systems.

To conclude, holistic, broadly defined learning outcomes may have significant potential for making systems more learner-centred, however, there is obviously a need for accompanying measures at all levels of the VET system.

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Annex 1: Elements defined in logistics curricula in initial VET

Elements of a curriculum	DE	FR	IE ([6])	NL	PL	SI	SP	UK ([7])
'Vision' of the learner/overarching goals of VET	x					x	x	x
Key competences		x	x			x		x
Occupational standards or professional profile	x	x	x	x		x	x	x
Qualification standards (competences expected at the end of the program)	x	x	x	x	x	x	x	x
Outcomes/objectives at the level of training units	x	x	x	x	x	x	x	x
Assessment criteria		x	x	x		x	x	x
Content specifications	x	x		x	x	x	x	
Textbooks					x	x		
Learning arrangements (*prescribed or **proposed)		x*						x**
Learning place	x	x		x	x	x	x	
Guiding principles on teaching and learning methods	x		x					x
Assessment methods	x	x	x			x		
Timetable (duration for each subject/module)	x	x			x	x	x	
Progression (distribution of subjects/units over time)	x	x				x	x	
Distinction between compulsory and optional Modules/Units			x			x	x	x
School curriculum or learning programme to be approved/accredited by public authorities			x		x			x
Percentage of the curriculum to be defined locally				20 %	5 %	20 %	35-45 % regionally, up to 10 % at school level	

Source: Cedefop, 2010b.

6 FETAC award (further education sector). Curricula in pre-vocational training are very different in various aspects from those in further education.

7 Scotland, National Progression Award and A Curriculum for Excellence. Curricula for Scottish Vocational Qualifications (SVQs) and curricula in other regions of the UK are different.

Annex 2: Excerpts of curricula in logistics: learning outcomes at teaching unit level

France	Ireland	Netherlands	Spain
Baccalauréat professionnel logistique	**FETAC minor award 'Warehouse Skills' N12728 at level 4**	**Logistiek teamleader**	**Organización del Transporte y la distribución COM_317**
Unit: Implementing the logistic function	Unit: Inventory Planning and Stock Control Techniques	Core task 1: Coordinates and participates in the reception and storage of goods Working activity 1.1: Coordinate the reception and storage of goods	Learning module 'Optimizing the supply chain'
Students should be able to… • receive goods • plan the reception • find the number of incoming vehicles • identify the regulated timeframe for unloading • calculate the time for unloading the vehicles • plan receptions and allocation of terminals • … • receive the carriers • … • participate in unloading activities • store • … • manage and track stocks • …	*Learners should be able to:* • critically evaluate and implement stock control systems • describe the classification of stock using the ABC Analysis • describe the classification of stock according to purpose • define and illustrate SMART Goals for stock planning • design an effective stores system that keeps track of stock …	*Competence:* • Plan and organise *Components:* - Plan activities - Organise time - Assess progress *Performance indicator:* 'The logistics team leader plans, regulates and monitors logistics activities for the receipt and storage of goods, and ensures that goods are stored properly and according to work priorities. He does this based on realistic time estimations and the effective and efficient use of available capacities.' *Competence:* • Decide to initiate an activity: *Components:* - To take decision ... *Performance indicator:* 'The Logistics team leader takes on logistics bottlenecks identified in the receipt and storage. He timely informs about decisions regarding adjustments in the schedule or workload to ensure continuity of work' *Competence:* • Think and work together with others - Consult and involve others ...	*Capabilities:* • C1: Define stages and to conduct operations within the logistics chain in accordance with the levels of service and quality established to track the goods. • C2: Calculate logistics costs in terms of the variables involved in the execution of the distribution service, to develop a budget of logistic service. • C3: To analyze and control the most common occurrences in the chain and logistics procedures to resolve them. *Assessment criteria:* • CE3.1 Explain the concept of unforeseen incidents and in providing a distribution service. • CE3.2 List the factors that could cause an impact in the logistics chain: loading and unloading, transportation and delivery of goods among others. • CE3.3 describe the most common incidents that may occur in the logistics chain and the ratios and indicators of quality of the process KPI (Key Indicators of the process) • ...

UK-Scotland	Slovenia	Poland	Germany
Example 1: National progression award in supply chain operations	**Vocational matura Logsticni Tehnik**	**Podstawa programowa technik logistyk And Świekatowski, Ryszard; Arciszewski, Włodzimierz; Program nauczania – technik logistyk 342**	**Kaufmann für Spedition und Logistikdienstleistungen**
Unit: Transportation of goods	Module: logistics freight flows	Unit in the core curriculum: Basics of transport and forwarding agency	Position in general training plan (work-based learning): Sending goods and transport
• Explain the key factors affecting the transportation of goods. *Performance Criteria:* (a) Describe the needs of internal and external customers in relation to transportation requirements. (b) Describe the role of the logistics company in meeting specified customer needs. (c) Explain the legal and regulatory requirements to provide a valid contract between appropriate organisations. ... • Explain the options available to an organisation for the transportation of goods. • **…**	Overarching aims: • identify the basic characteristics of the natural geographical and socio-geographical factors for the development of transport infrastructure, • use and orientate with the help of maps, • identify the importance of transport in Slovenia and the traffic flows, • … Professional competences: • knowledge of the maintenance elements of roads, railways and other infrastructure facilities of transport: • knowledge of planning and management of traffic flows, • legal sources on freight, • …	Aims: • classification of transport service • to plan work order for transport • to install and use computer programs to support transport processes • … Contents: • air transport • elements or rules of road traffic • to mark cargo • …	• Compare performance of transport modes (road, rail, air, water) • Assess adequacy of transport modes for specific goods, taking into account norms and regulations • Make use of the possibility to combine different modes of transport • Chose a transport route following economic and geographic criteria …
Example 2: SVQ 'Logistics pperations management' at level 3, Unit LOM1 Identify the logistics requirements of a supply chain	**Operational aims of the professional competence 'knowledge of the basic nature of geographical and socio-geographical characteristics'**	**Unit in the school curriculum: Basics of logistics**	**Unit in school-based training: 'process import orders'**
You will be able to: • Select suitable sources of information on the supply chain that are relevant to the organisation and its customers. • Identify the features and characteristics of the supplies flowing through the supply chain. • … *You will know and understand:* *Supply chains* • sources of information on the supply chain • how the supply chain operates • how supplies are moved through the supply chain • …	Informative aims: *The student:* • is aware of the different forms of the earth surface, • knows the role and importance of water transport, • knows the difference between weather and climate, Formative aims: • explains the importance of terrain in the development of transport network, • determines the importance of river and canal traffic, with a focus on the central European countries, • explains the importance of maritime transport in the world,	Special aims of education *(what the learner should be able to do after completion of the training program)* • the learner should indicate, explain cost of logistics, system of logistics, the role of information in logistics • … Teaching/Content *(what the graduate should know after completion of the training program)* • definition and terms of logistics, general aim and history of logistics • …	Objectives: The students advise clients on procedures for the import of goods. They execute the tasks for importing goods, taking into account the tax and customs regulations. They apply for custom authorisations on behalf of the client and provide all the documents requested. They charge the order and they ascertain that it has been executed accordingly. When working on documents and in corresponding, students make use of the English language.

Source: Cedefop, 2010b.

Empowering teachers to focus on the learner: The role of learning outcomes in curricula

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1. Introduction

Recent research findings show how a shift from knowledge overloaded curricula to outcome-oriented approaches - bridging knowledge with those skills and competence learners should acquire at the end of a learning process - is currently emphasised in the curriculum policy agendas of many European countries (Psifidou, 2010). The motivations behind these curriculum reforms emphasising learning outcomes are diverse from country to country arising from different understandings, learning theories and educational traditions (Cedefop, 2010a).

Despite this diversity of approaches across the countries and between different subsystems of education and training, outcome-oriented curricula may have some common distinctive features:

- they give focus on integrative learning combining functional and cognitive knowledge as well as socio-cultural skills and competences (Winterton and all, 2006);
- they are orientated towards the labour market and employment requirements, whereas traditional curricula would stick to the educational context and a body of knowledge to be transmitted (Sloane and Dilger, 2005);
- they move away from rigid disciplinary and decontextualised content and go towards multiplicity of contextualized, inter-disciplinary and significant resources for the learner (Moreno, 2006);
- they encourage learning in a wide range of locations and by different methods (Cedefop, 2009a).

These characteristics show how designing outcome-oriented curricula (e.g. defining key competences, learning outcomes, etc.) has implications in the way the content is taught, the teaching methods are applied, the material is used and the teachers' training is arranged. Therefore, the new structure and organisation of curricula lead to considerable debates about teaching practices and learning arrangements.

Research shows that while outcome-oriented approaches in curriculum development may be a powerful means for making VET systems more learner-centred and more inclusive in the sense that they respect and address learners' diverse needs (Cedefop, 2010a), their benefits depend on many factors, among which on the way teachers and trainers interpret and deliver them. So while an outcome-based curriculum is potentially a more learner-friendly curriculum allowing learners to know the expected learning outcomes they should acquire at the end of their learning process and giving them the opportunity to build their individual learning paths; it is also more challenging for teachers in terms of designing appropriate learning programmes and applying innovative pedagogies and assessment procedures (Cedefop, 2010b).

The implications of outcome-oriented curriculum reforms to teaching and learning processes are discussed in the present paper drawing from the cases of six European countries and providing evidence on the way new curricula of logistics are being delivered in Germany and in the Netherlands.

2. Research questions and tools

The ultimate goal of the present paper is to examine the relationship between outcome-oriented curricula and learner-centre approaches to teaching and learning - defined in contrast to "teacher-dominated" or "traditional" approaches.

Two main questions are addressed:

- Up to what extend outcome-oriented curricula in VET create a favourable framework for teachers and trainers to apply learner-centred teaching approaches and innovative pedagogies?
- Up to what extent the way in which actually outcome-oriented curricula are being delivered in different learning environments within VET promote or hinder learner-centeredness?

Both primary (interviews and surveys) as well as secondary research (literature review) were carried out to provide empirical materials for a comparative analysis of curricula and accompanying documents from official sources (Ministries and support agencies) in six countries: France, UK-Scotland, Ireland, Spain, Germany and the Netherlands. The choice of countries was based on geographical and geopolitical criteria; the characteristics of educational systems (e.g. decentralised vs. centralised system); and the degree of experience/tradition in using learning outcomes.

The analysis focuses on initial VET, especially on the training paths taken by most students and curricula from the vocational programme in the field of logistics[2] were selected to be analysed.

In order to illustrate the findings with empirical material on learning practices, two study visits including qualitative semi-structured interviews of logistics teachers and a quantitative survey among their students were organised in two vocational schools in Germany and in the Netherlands (see session 4). Both have introduced the competence-based approach in VET curricula back in 80s and 90s respectively. Their long tradition with outcome-oriented approaches is an important criterion for selecting these countries given curriculum reforms need time to unveil their effects in teaching and learning processes.

While these two field studies can not be considered to provide representative data on teaching and learning practices in the countries concerned, they may however help to raise new issues and questions for further studies on the relationship between formal arrangements in written curricula and actual practices in classroom.

Findings presented in this paper draw from the latest Cedefop publication on "Learning outcomes approaches in VET curricula: a comparative analysis of nine European countries" (Cedefop, 2010a). It is part of an extensive comparative research work that Cedefop is conducting over the last three years exploring the role of learning outcomes approaches in vocational education and training provision to design and describe qualifications and learning programmes, to set standards and to orient quality assurance and certification approaches.

[2] Logistics is a growing sector in Europe, with Logistics jobs (excluding transport and support jobs) representing approximately 2-2.5 % of overall employment.

3. Implications of curriculum reforms on teaching methods

The use of learning outcomes in curricula, although it is generally a means for granting more autonomy and responsibility to training providers and teachers regarding the training delivery, does not lead necessarily to less attention being paid to teaching and learning processes. On the contrary, debates about the implications of learning outcomes and competence-based approaches on teaching and learning processes seems to foster a renewed interest in pedagogy and didactic. As a result, recent curriculum reforms in the studied countries have been addressing these issues through different approaches both in written curricula and in teaching practice.

3.1. Teaching approaches in written curricula

Among the six studied countries, France, UK-Scotland (Curriculum for excellence) and Ireland (prevocational education) offer most examples of curriculum provisions concerning teaching methods and learning arrangements. In the other countries, curricula do not specify in detail teaching methods and learning arrangements, but support materials developed for teachers and trainers provide evidence about changing approaches to teaching.

In *France,* the creation of the Baccalauréat professionnel in 1985 introduced compulsory periods of work-based learning in the initial VET curriculum for specific occupations, which were progressively extended to all initial VET curricula during the 1990s. In vocational school curricula (upper secondary level), periods of training in enterprises became compulsory for a total of between five and 18 weeks in two years. This alternation between work-place and school-based learning is seen as an important means for developing competences.

Later, the introduction of learning outcomes in initial VET curricula had also the aim to reform teaching practices, especially for strengthening the link between school and work practices, and making teaching more learner-centred. A reform launched in 2000 promoted project-based learning through the introduction of the PPCP (*projet pluridisciplinaire à caractère professionnel*) in initial VET curricula at upper-secondary level. The objective of the PPCP - a multidisciplinary project with a professional character - is to provide a framework for the development of competences in a situation as close as possible to 'real work life'. Between 100 and 200 hours can be dedicated to the PPCP depending on the study programme. Teachers from various disciplines are called to organise the PPCP together and in partnership with external actors (e.g. companies).

Beyond these learning arrangements, the curriculum in France does not contain other specifications concerning the choice of pedagogic methods. However, accompanying materials and publications from the inspectorate encourage the use of active learning methods and individualized approaches.

In *UK-Scotland,* the Curriculum for excellence sets a series of principles which should guide teachers and trainers while implementing the curriculum. These main principles address[3]:

- Cooperative learning;
- Active learning;
- Student-centred approaches; and
- Recognition of achievement rather than narrow attainment.

Support materials for teachers and trainers made available by the governmental agency learning and teaching Scotland, and especially a new website with an intranet accessible to all schools in the country[4], reflect these principles. In a section 'learning about learning', teachers are invited to reflect on theories about learning and their implications for teaching practices. Guidebooks present ideas and examples on how to implement new approaches and learning arrangements.

In *Ireland*, the introduction in 1995 of the Leaving certificates applied programme was marked by the efforts to develop a learner-centred curriculum reform. The curriculum, which is modularised and based on learning outcomes, was influenced by new approaches to learning. The courses and modules followed offer a broad, balanced curriculum leading to personal and social development and vocational orientation of participants. Perhaps the most distinguishing feature of the Leaving certificate applied is its emphasis on participants learning by doing, applying knowledge and skills to undertaking tasks and solving problems in an integrated way in the real world. In doing so, there are significant levels of interaction with the local community, particularly employers' (Gleeson, 2003, p.102). In the 'Programme statement' for the Leaving certificate applied, the following principles are defined concerning teaching methods (NCCA, 2001):

- the use of teaching styles which actively involve the participants in locating and using relevant information, and which promote personal responsibility, initiative, independence, reflection, self-evaluation, self-confidence and cooperation;
- a variety of teaching and learning processes including group work, project work and the use of individualised learning assignments;
- the promotion of communication, literacy, numeracy and other generic skills across the curriculum using a range of media;
- the promotion of equity in all its aspects including gender equity;
- the development of teachers' skills in evaluating their own performance;
- the identification and use of teaching and learning resources in the local community and interaction with employers and enterprises;
- a teaching approach designed to address and meet the needs of the participants.

In Spain, Germany and the Netherlands, VET curricula do not provide concrete guiding pedagogic principles for specific vocational training but teachers are free to choose their own methods.

In *Spain*, the Real Decreto 1538/2006 just points out that teaching methods should integrate relevant scientific, technological and organisational aspects in order to provide students with a global overview of the productive processes of the requested professional activity (Real Decreto 1538/2006). Nevertheless, changes in teaching

[3] interview with national expert on 30.04.2009
[4] http://www.ltscotland.org.uk/glowscotland/index.asp [cited 28.04.2010]

methods implied by curriculum reforms are widely acknowledged. Martínez Usarralde (2007, p. 730) states for instance that the last curricular reforms which are based on the principles of 'comprehensiveness' and 'diversity' require '[...] a change in the teaching methods. The reform of the methodology introduces a change in the psychological approach to the curriculum (from an evolutionary approach focused on teaching to a constructivist approach more focused on learning). Furthermore, the provision of a greater amount of material and human resources facilitates attention to diversity and individualized teaching.

Thus, even if Spanish teachers are free to choose their teaching methods modern and creative teaching methods seem to be widely promoted. Besides information and manuals on the development of school curricula, the educational administrations of the Autonomous Communities publish guides on teaching methods to give assistance to the teachers and to foster new teaching practices. The Basque institute of qualifications and professional education has for instance published guidelines on the development of the school curriculum which also provide the teachers with information on teaching methods and on how to apply them. New teaching methods are especially recommended, such as project learning, problem solving, group work methods (for instance the *jigsaw* classroom[5]), student team learning, reciprocal teaching and cooperative learning (KEI-IVAC, 2008).

In the *Netherlands,* the adult and vocational education act (WEB) does not include any specifications regarding teaching methods. It is up to the training providers themselves to organise courses and teaching in such a way that students are able to obtain a diploma. There are many examples of modern, attractive programmes that link teaching closer to professional practice, for example by so-called workstation structures and by using modern equipment. Teaching subjects is restructured to be more focused on competences. According to evidence (Onstenk, 2008; Sanden, 2004), self-directed, participatory and project-based learning are supposed to dominate in vocational schools, whereas the transmission of a body of subject-based knowledge is no longer the primary concern. The focus lies on the way in which learners construct situated knowledge and learn to learn by doing so.

In *Germany,* curricula do not impose the use of particular methods, but didactical principles and the action-oriented approach based on the concept of 'vocational competence' are described in curriculum documents for vocational schools. The necessity to adapt learning programmes to the individual needs of the learners is explicitly stated. Curriculum documents stress the main implication of the competence-based approach on the link that must be established between the learning content and the professional situation. The learning process must "focus on action-oriented competence and enable young people to autonomously plan, execute and assess professional tasks in the framework of their professional activity. Learning in vocational schools happens in relation with concrete professional acts as well as in numerous cognitive operations, including understanding other's actions and behaviour. This learning is especially based on reflecting upon professional activities (the plan, the implementation and the results). It provides the basis for learning at

[5] The jigsaw classroom is a cooperative learning technique with a three-decade track record of successfully reducing racial conflict and increasing positive educational outcomes. http://www.jigsaw.org/overview.htm

work and from work"[6]. The curriculum further defines the principles for planning learning processes:

- The didactical reference are situations which are relevant for professional activities (learning for action);
- The starting point for learning are activities which are executed by the learner or on which the learner reflects (learning through action);
- As far as possible, the learner should plan, execute, check, correct and assess the activities autonomously;
- Activities should address multiple aspects of real work processes, for instance technical, safety-related, economic, legal, environmental and social aspects;
- Activities must integrate experiences of the learner and be reflected regarding their impact on society;
- Activities should also address social processes such as clarifying interests and conflict management.

Besides these basic principles defining the competence-based approach in German VET curricula, self-directed learning is also encouraged. E-learning is for instance leading to increasing flexibility regarding the place of learning and is explicitly mentioned as an important element of the national strategy for lifelong learning.

In the work-based part of the dual system in Germany, the action theory conception of autonomous and cooperative working calls for integrated learning, which has implications for the training activities and the role of the trainer. The trainer is no longer primarily the superior and demonstrator but becomes an adviser and moderator. New training materials and media are deployed between trainees and trainer offering opportunities for independent learning and at the same time tutorial assistance in working through complex tasks.

The examination of written curricula in six European countries allows us to conclude that changes concerning teaching and learning methods in relation with competence-based approaches to curricula aim at the following two aspects:

- combination of theoretical and practical learning, for instance in schools and at the work-place, as well as combination between theoretical knowledge and practical skills;
- greater involvement of learners in the learning process, implying growing importance of independent and self-regulated learning in school and work.

The theoretical background for these changes are associated with the increasing popularity of constructivist teaching and learning forms in the last years (Dubs, 1998) supported by the learning outcomes approach (Cedefop, 2010a). In this context, self-directed learning and complex learning situations are key concepts, with implications for teachers and trainers whose role is to prepare learning arrangements meeting the learner's needs and become advisors in the learning process.

However these findings are based on the analysis of written curricula and official supportive material; the question is how curricula are interpreted and used by teachers and training providers to teach students and meet their needs?

[6] Excerpt from the introduction to the school-based curriculum in Logistics (Rahmenlehrplan Fachkraft für Lagerlogistik, 2004). A similar introduction is to be found in all curricula for the dual system in VET since the reforms introduced in 1996.

3.2. Teaching approaches in taught curricula

To be able to examine how outcome-oriented curricula are being delivered in different learning environments requires a systematic *in-situ* research which falls beyond the scope of the present study. However, by analysing empirical studies on teaching methods conducted on the countries concerned and building on the findings of the study visits in Germany and in the Netherlands (see point 4), we may identify whether convergences and divergences exist between teaching methods recommended in the written curricula and these applied in practice.

Sociological researches in *France,* have observed different teaching practices in vocational schools illustrating this shift of paradigm described by Dubs (Jellab, 2005) to more individualised learning, small group works, attention paid to the needs of the individual learner – including social and psychological aspects and active involvement of learners in class, for instance through a collective, problem-based approach.

However, different empirical researches identified weaknesses of these approaches at the time of implementation. An empirical study for instance conducted on the basis of interviews with 141 teachers in vocational schools all over France by Courtas and Castellan (2006) on the pedagogical practices linked with internships and work-based training produced the following results:

- 27 % of teachers claimed that internships are not the object of collective pedagogical reflection.
- The majority of the respondents stated that cooperation between teachers from different disciplines is limited to the organisational aspects of training, without real reflection on the objectives and challenges. Accordingly, the activities conducted in school concern mainly the debriefing after the training period and the writing of an internship report. On the contrary, activities like individual accompaniment of the learner and reflection on experiences and knowledge gained on the work place are rarely conducted.

In brief, the authors identify two kinds of practices. The first one is focused on teachers: experiences made during the training period are used as a starting point for school-based teaching. The second one, which is far less common, is focused on the learner and the development of his/her competences.

Furthermore, an evaluation report on the implementation of the PPCP (*projet pluridisciplinaire à caractère professionnel*) in initial VET curricula at upper-secondary level conducted by the Inspectorate reveals that the type of projects and the selection of learning outcomes addressed by the project are highly dependent on the initiative of individual teachers and the leadership qualities of headmasters (Aublin et al., 2001). Although this instrument was conceived to introduce the 'industrial logic' in teaching, some analysts point out existing contradictions when it comes to implementation. The industrial logic, which is based on the work process, is in practice often replaced by a 'pedagogical logic'. The latter is based on the principle of progressive accumulation of knowledge and skills. Teachers tend to chose or conceive projects with regard to which competences and associated knowledge will be covered, without regard for the question whether such projects are 'realistic' in a professional context (Eckert and Veneau, 2000).

These findings unveil the effects of interpretation processes on teaching practices. Empirical research conducted in France by Lantheaume et al. (2008) shows that in the process of 'translation' of curriculum instructions into practice, actors tend for instance to refer to past reforms, to their own personal experiences, or to the advice of colleagues to understand curriculum changes; while the curriculum documents, official information and guidance were found to influence only marginally this process of interpretation.

In *UK-Scotland,* research and evaluation reports highlight the diversity of teaching practices[7] arising from the large degree of autonomy teachers and trainers have when it comes to teaching methods (Gray 2008, p. 21). In practice, according to a summary of reviews carried out by His Majesty's Inspectorate of Education in 2004-06 in further education colleges regarding 'learning and teaching processes' inspectors mention that the staff 'identified appropriate learning goals for learners and planned activities to ensure they were able to achieve their learning objectives' (HMIE, 2007, p.5).

In *Ireland,* empirical studies among students presently or formerly enrolled in Leaving certificate applied programmes revealed some difficulties to convey the cross-curricular approach to students: "obviously, the vast majority continued to think in terms of subjects". However, surveys also showed a perceived difference concerning learning in comparison to standard school experience. Respondents stressed especially such element as team work, more self-directed learning, different relationship to teachers, work-based learning leading to the development of new competences such as computer skills and job-searching skills (Granville, 2008, p.189).

In *Spain*, the National prizes for educational research and innovation has rewarded the work of many teachers with regard to modernising pedagogy. Prizes for educational innovation are attributed for innovative practices improving educational work in relation with the development of basic competences, intercultural education, new information and communication technologies, equal opportunities for men and women and value-oriented education (e.g. road safety education, health education and promotion, environmental education, living together and peace education) (SPEE-INEM, 2008).

These findings show how the paradigmatic change 'from teacher-centred to learner-centred approaches' is indeed taking place. But this shift happens quite slowly, respectively only in some or few courses, and with significant differences between the countries examined (Cedefop, 2010a). To get a better insight, the cases of Germany and the Netherlands are analysed in detail in the following session.

[7] The report by HM Inspectors for the Scottish Funding Council on Engineering in Scotland's colleges (October 2007). Available online: http://www.hmie.gov.uk/documents/publication/eisc.html [cited 09.10.2009]

4. Delivering outcome-oriented logistics curricula in Germany and the Netherlands

In Germany, the study visit was conducted in the consortium of vocational schools *Berufsbildende Schulen Oschersleben – Europaschule*, which counts 534 students in the field of Logistics. 58 students enrolled in an apprenticeship programme in logistics answered the questionnaire, and 12 logistics teachers were interviewed. In addition, a teacher interview was also conducted with two Logistics teacher from the vocational school *Staatliche Gewerbeschule Werft und Hafen* in Hamburg, where 250 students are enrolled in the programme *Fachkraft für Lagerlogistik*.

In the Netherlands, the study visit took place in the ROC (*Regionaal Opleidingen-Centrum*) Rijn Ijssel in Arnhem. The ROC Rijn Ijssel works in a consortium with four other ROCs. Together, these ROCS design and implement apprenticeship programmes accounting for 80 % of all students graduating as *Logistiek teamleider* in the Netherlands. 50 students are presently enrolled in Rijn Ijssel in this programme, 29 took part in the survey.

The study visits conducted in these vocational schools do not provide representative data on teaching practices in those two countries, however, findings illustrate whether the emphasis is given on active learning methods and a more learner-centred approach, while raising the question of what other factors, besides the curriculum, influence teaching practices in VET.

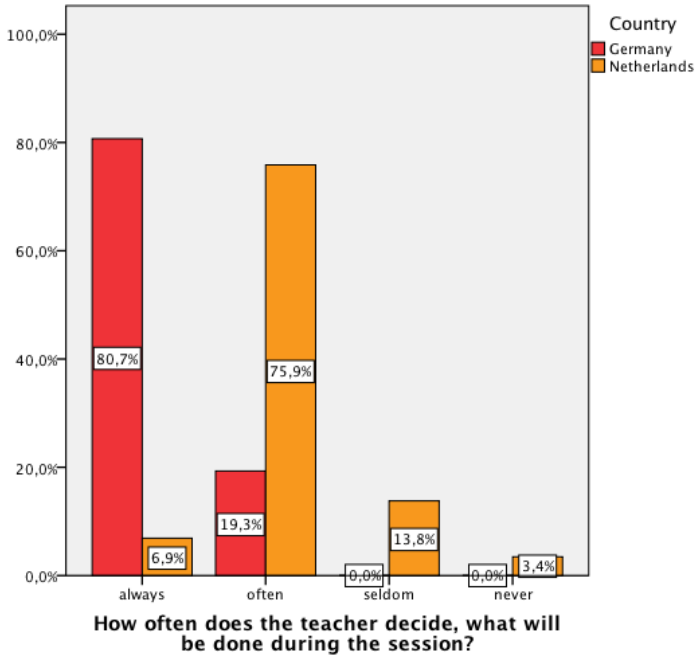
All findings present here are elaborated on the basis of Cedefop's recent publication: *"Learning outcomes approaches in VET curricula. A comparative analysis of nine European countries"* (Cedefop, 2010a).

4.1. Students' views on teaching methods

We have asked German and Dutch students from the logistics programmes to state their involvement during the planning of the learning programme and during its delivery. We have also asked to indicate the most common used teaching methods and their preferences.

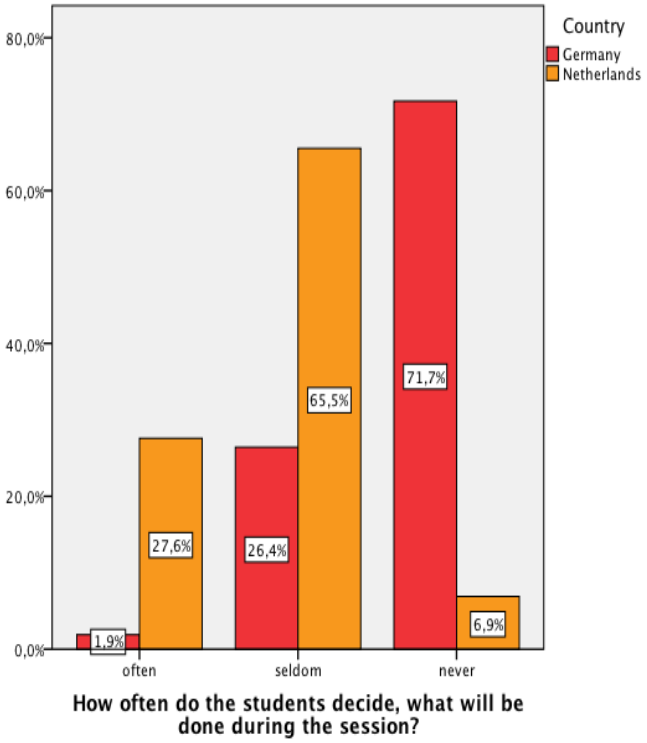
From the survey, it was found that teachers have a leading role in the planning of the learning programme. This became visible in the students' answer to the question whether they are involved in deciding about what will be done in class: 100 % of the German respondents and 82.8 % of the Dutch said that it is 'always' or 'often' the teacher who takes the decision (see figure 1). The Dutch students are, however, more often involved than the Germans: 65.5 % said that they 'seldom' decide what will be done in class, whereas most German students stated that they 'never' take this decision (see figure 2).

Figure 1: How often does the teacher decide what will be done during the session?



Source: Cedefop, 2010a.

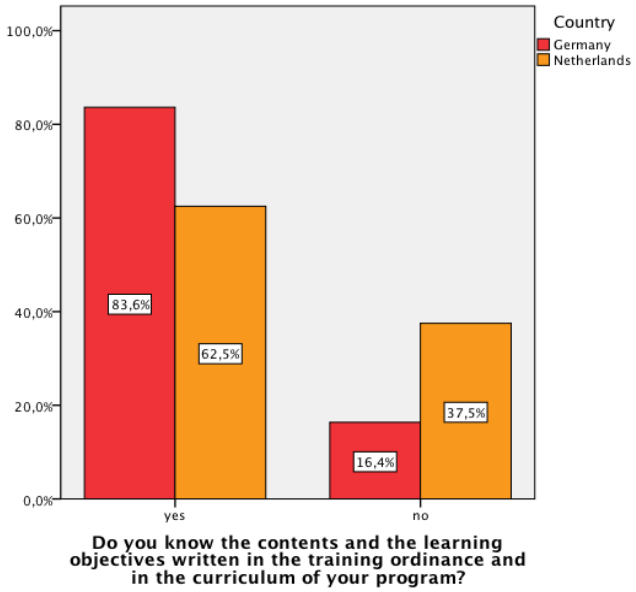
Figure 2: How often do the students decide what will be done during the session?



Source: Cedefop, 2010a.

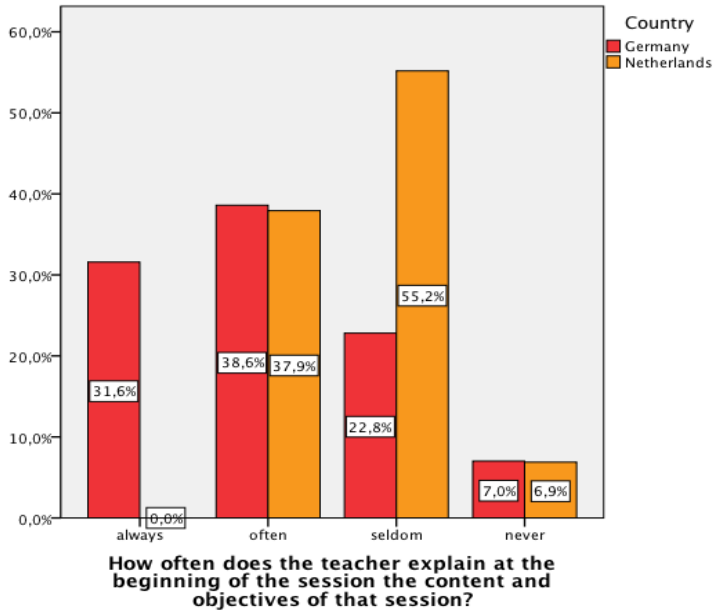
Generally, the students interviewed in both countries consider themselves to be well-informed of the content and expected learning outcomes of the training ordinance or curriculum (see figure 3). In Germany, nearly 70 % of the students reported that their teachers explain the learning objectives of each training session 'always' or 'often', compared to 37.9 % of the Dutch respondents (figure 4).

Figure 3: Do you know the contents and the learning objectives written in the training ordinance and in the curriculum program?



Source: Cedefop. 2010a.

Figure 4: How often does the teacher explain the content and objectives of a session?

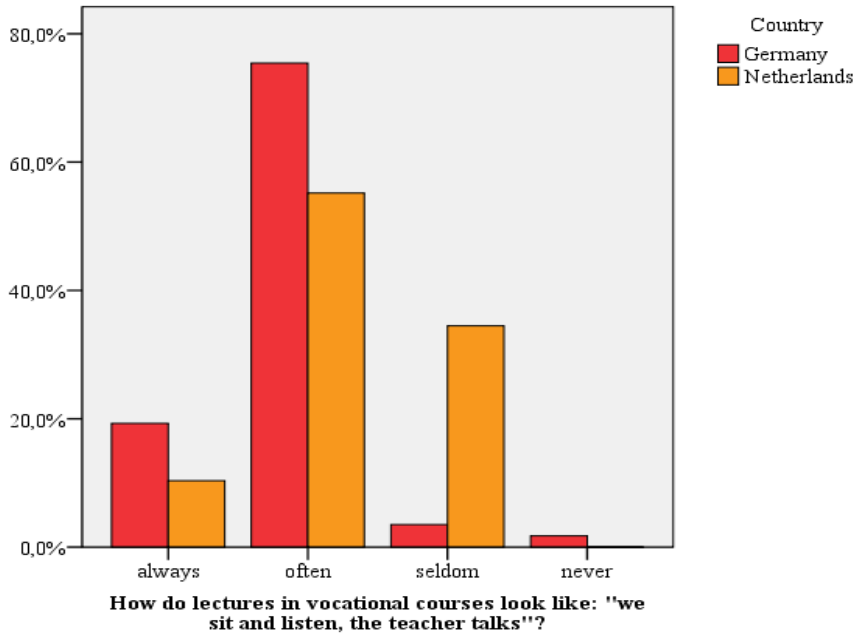


Source: Cedefop, 2010a.

A common approach between the German and the Dutch vocational school is the persistence of teaching styles typical for teacher-centred approaches. The students in both countries report that they often have only to sit and listen while the teacher talks (in Germany, 75.4 %, the Netherlands 55.2 %) (see figure 5).

Another similarity is to be found regarding the low use of computers in coursework. Only the 21.1 % and 24.1 % German and Dutch students respectively indicated that they are using a computer in many courses (or at least in some courses (Germany: 36.8 %, the Netherlands: 41.4 %).

Figure 5: How often do lectures in vocational courses look like 'we sit and listen, the teacher talks?'



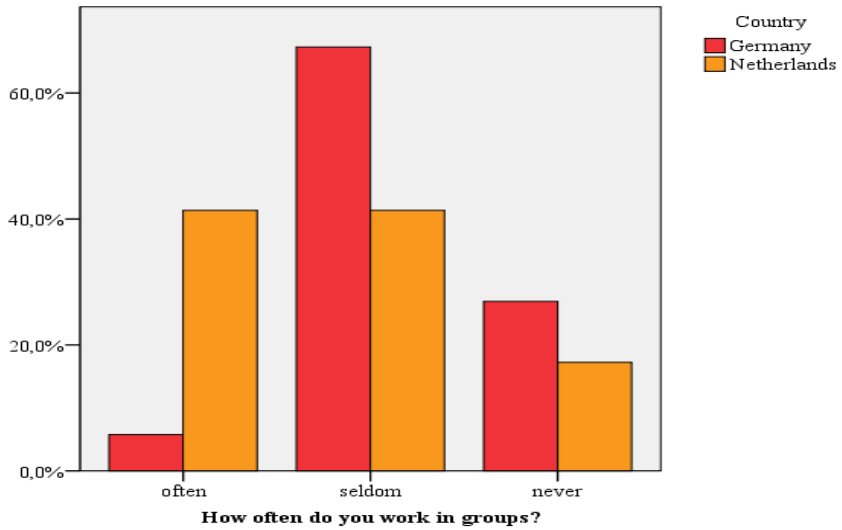
Source: Cedefop, 2010a.

Despite the often use of lectures as a main teaching method, in both countries teachers use more active learning methods. In this regards, important differences were found between the two countries. Group work is far more popular in the Dutch school than the German one. Only 5.8 % German students indicated that they often work in groups (26.9 % say it never happens), compared to 41.1 % of the Dutch students. Activating and learner-centred methods seem to be used more in the Dutch classes where project work seems to be carried out on a regular basis. Dutch pupils mainly have projects in some (31.0 %) or many courses (20.7 %), while 37.0 % of German pupils say that projects are never used.

Similar discrepancies are observed concerning the use of group discussions as a teaching method. The students were asked how often group discussions are carried out with the teacher playing only the role of a moderator or advisor. This is reported to be more frequent in the Netherlands than in Germany (see figure 6). The same tendency appears concerning the opportunity for students to answer open questions, inviting them to formulate their own ideas and opinions: 75.8 % of the

Dutch students experience this kind of questions always or often, compared to 66.6% of the German students.

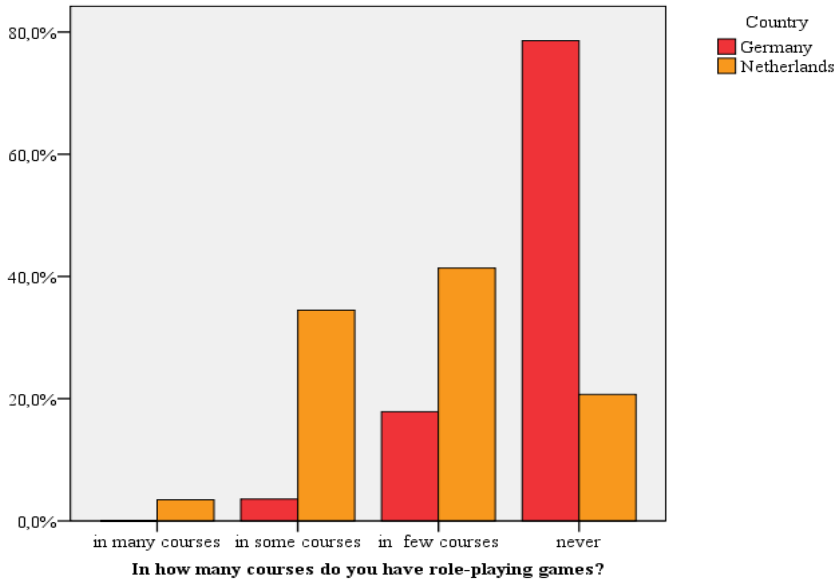
Figure 6: How often do you work in groups?



Source: Cedefop, 2010a.

Even more striking is the difference in the use of role-playing games. In the German class this method seems to be widely ignored (78.6 % never experienced such method) while in Dutch classes this method is used in some (34.5 %) or few courses (41.4 %) (see figure 7).

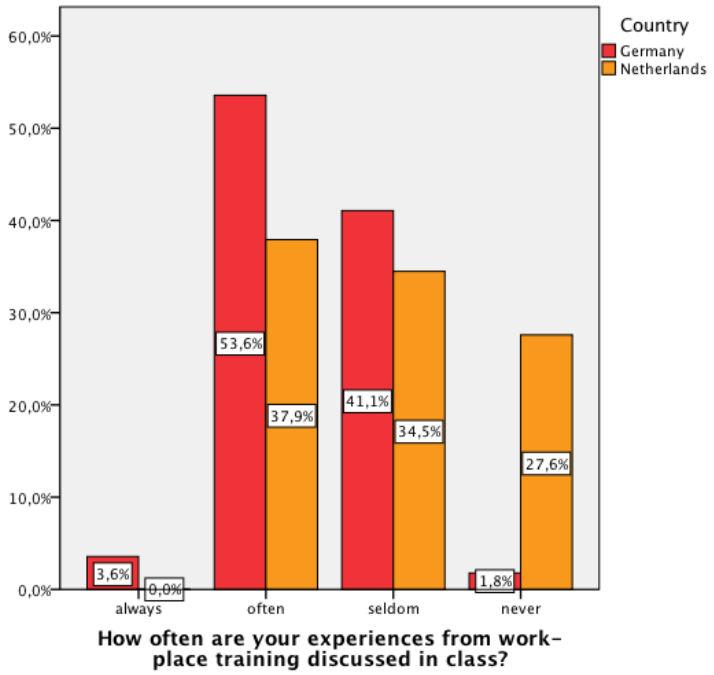
Figure 7: In how many courses do you have role-playing games?



Source: Cedefop, 2010a.

Finally, the survey indicates that the link established by teachers between work-based and school-based learning is stronger in Germany; 57.2 % report that experiences from the workplace are always or often discussed in class, compared to 37.9 % in the Netherlands. In the latter, 27.6 % of the students say that this never happens, compared to 1.8 % in Germany (see figure 8).

Figure 8: How often are your experiences from work-place training discussed in class?



Source: Cedefop, 2010a.

When asked how helpful the different teaching methods were for their learning, the students rated lectures as the second most helpful (72.9 % find that with lectures they learn very well or rather well), after computer-based learning (76.6 %). Research assignments were third (63.6 %) followed by projects (52.5 %), case studies (51.9 %) and role-playing games (46.4 %). No direct correlation could be observed between these results and the question of how much the students enjoyed each of these methods: only 36.9 % of the respondents enjoy lectures, compared to 86.7 % who enjoy computer-based learning. Role-playing games, which are considered as the least effective learning method by the students, are nevertheless considered by half of them as an activity which they enjoy (compared to 36.5 % for the case studies and 38.7 % for the projects).

The student survey shows that active learning methods are used indeed in both countries, confirming the hypothesis of a shift from teacher-centred to learner-centred teaching, but changes are not as radical in the two countries. This is also confirmed by the teacher interviews: in Germany in particular they do not adapt learning programmes to individual needs to the same extent as their counterparts in the Netherlands.

4.2. Teachers' views on teaching methods

In both countries, teachers interviewed believe that a shift to active learning methods is taking place. In the German school, methods like group work, pair work, brainstorming and mind mapping are mentioned besides the traditional frontal instruction. The Dutch teacher estimates the proportion of active learning methods at about 80 %, among which are discussions, brainstorming, group work, project work, work assignments and excursions. According to the Dutch teacher, the aim is to design lessons as interactive, varied and modern as possible: 'In former times, instruction dominated, today we are discussing individual learning achievements. The group receives learning tasks, must elect a group leader, the work-style is very much interactive, with Internet and Digiboard. We try to keep the classroom as diverse and as timely as possible. Today's students learn differently and have such different expectations' (interview with Dutch teacher).

In both countries, the national curriculum (*Rahmenlehrplan* in Germany and *kwalificatiedossier* in the Netherlands) is an essential basis for devising learning programmes. Dutch teachers also refer to the results of the entry assessment of each learner as an essential element for planning the course. At the ROC Rijn Ijssel in the Netherlands, each learner undergoes a test identifying his or her competences when beginning a course. Theory and practices are no longer taught separately, but combined. The training starts with a '*nulmeting'* (also called QuickScan), a test to determine the level of knowledge and competence of the trainee. The results of this *nulmeting* form the basis for a personal development plan (Persoonlijk *Ontwikkelingsplan; POPs*). This plan describes individual training objectives and the means to achieve them. The POP in turn forms the basis for the personal activity plan (*Persoonlijk Activiteiten*, PAP), which describes in detail the learning activities to achieve the training objective. Such a PAP may include different kinds of activities, such as work-based training periods or the implementation of practical project work (workplace learning becomes a 'learning station'). Thus, competences already acquired by the learners in past experiences are recognised and taken into account for further training. Certified professional experience can be recognized as equivalent to a training module. The certificate, a so-called *bewijsstuk* (document), is attached to a portfolio, accompanying the learners throughout their training and which is also used by teachers to plan the learning process.

The Dutch pupils are thus involved from the beginning in the planning of their training pathway. 'As teachers explained, "for the teaching practice, this means that we care as a lecturer for a group of trainees who are all busy with different things. The art of teaching is to get this all consolidated" (interview with Dutch teacher). The challenges implied by this learner-centred approach are further described by the teacher in relation to planning activities: "It is difficult to make a solid content planning for the group with training beginners for the whole year, because everything starts with the POPs and the PAPs. Also, today, when planning the contents, you have to combine many things together which were formerly taught separately. The time and effort per student has increased greatly" (interview with Dutch teacher). Nevertheless, in the view of the teachers interviewed, this emphasis on expected learning outcomes and competences acquired is a positive development.

These two different approaches, the individual approach in the Dutch school and the collective approach in the German school, are associated to different perceptions of

the teacher's role and the challenges he has to meet. Whereas German teachers consider the different starting levels of the pupils as a challenge which hinders the (collective) learning and teaching process, the Dutch teacher takes these different levels into consideration and plans individual learning pathways for each student. It is relevant that the interview partners quoted that they have to teach in classes with sizes of about 30 students and more. All consider such class sizes too big to guide and teach each learner in the best way.

Teachers' opinions also differ in the two countries concerning the overall influence of the new competence-based curricula on the learning process. The German teachers believe that the new curricula do not have a positive influence on learning processes. In their opinion, the structuring of curricula following learning areas reflecting work processes is not acknowledged by the students, who still have difficulties in relating theoretical knowledge taught at school and work practice. In addition, there are organisational problems in schedules and the division of work between teachers, as well as problems in progression between courses. All the interviewed teachers at the German school stated that they would prefer to go back to the 'old-fashioned curricula', based on subjects as they were before the last reform. According to them, feedback from the trainers in companies concerning the new school-based curriculum is negative, teaching in learning areas being felt to convey too little theoretical knowledge and understanding.

On the other side, one Dutch teacher indicated that the competence-based curriculum is more attractive to students and also more interesting for teachers due to their new role: "teachers don't only teach but also look at how a person can be developed and what he has to learn". The learner is no longer a passive listener; he has become a 'doer' in the learning process. Thus the freedom to design the learning process according to own preferences has grown on both sides, for the teacher and for the learner. The match between the individual learning needs and the curriculum is better than in the old system. And finally, we have both as a lecturer and as an apprentice much more freedom to design the teaching and learning according to own wishes" (interview with Dutch teacher).

These two contradictory opinions about the effects of outcome-oriented curricula on teaching and leaning process drawn from the study visits must be used carefully as they are far from being representative in terms of sample. Further, the pedagogic freedom granted to teachers and the level of decision-making of training providers allow for a certain degree of diversity even within one country.

5. Concluding remarks

The results of this study highlight issues requiring attention and actions from policy-makers and VET practitioners. However, they also reveal the limits of our knowledge and understanding of current developments in VET and of the effects and implications of learning outcomes approaches in vocational education and training. Building on new EU and international studies of learning and teaching processes, there are still many issues in need of further research.

First, making VET systems more learner-centred implies the need to relate different variables of the system in a coherent way, for instance curricula, guidance systems, financing systems, teacher and trainer qualifications. Although the use of learning outcomes in curricula might contribute as one of several elements to this objective, as shown by this study, it might not be sufficient. One should question what does the learner-centred paradigm imply for the different parts of the VET system?

Second, little is known about learning and teaching processes in VET in class and in companies. International comparisons are lacking. Although active learning is promoted in curricula, the study visits and interviews seem to indicate that teaching practices are not changing as fast and radically as expected to match what is written.

Third, this study was limited to analysis of teaching methods applied in order to teach the intended learning outcomes prescribed in official curricula. The question of achieved learning outcomes in VET is still open. For general education, the PISA project has shown how different achievements are, opening debate and researche on the success factors. To date, a similar empirical basis is still lacking in VET.

So while holistic, broadly defined learning outcomes may have significant potential for making systems more learner-centred, there is obviously a need for accompanying measures at all levels of the VET system. Empowerment is the key word which seems to summarise the success factors identified in the country studies. It is by taking the teacher's and trainer's perspective, that the needs for policy measures can best be assessed:

- Need for involvement, consultation and information on curriculum reforms at an early stage;
- Need for information and training in initial teacher education as well as in continuing training and education; a high degree of professionalization is requested not only from teachers, but in apprenticeship systems also from trainers in companies;
- Need for material and financial support at school level, required to develop learning environments and teaching materials adapted to the expected learning outcomes and learner's needs;
- Need for support to school managers, including training in management skills and leadership, for them to cope with the new responsibilities granted to training providers in curriculum development matters, which often entail closer cooperation within the pedagogic team and with external partners;
- Need for guiding principles and inclusion of good practice examples in national curricula, to orient the definition of learning programmes at school or classroom level and ensure a basic of coherence across the country;

- Need to develop and share guiding materials and tools for teachers and trainers on formative assessment of learners.

Accountability and quality assurance are central to avoiding potential pitfalls in decentralisation and to ensuring a high level of quality of training provision. In a learner-centred system, it is necessary to rethink the indicators to evaluate teaching practices, as compliance with pre-determined rules becomes less important than innovative and flexible responses to the learner's individual needs. This also requires evaluating assessment practices to identify possible needs for better instruments and training of juries to assess learner' achievements.

At the micro-level, the case study on logistics curricula revealed that the teaching practices differ from country to country but increasingly emphasise guided, experiential and action learning. These forms of learning aim to help students and apprentices to develop integrated competences, i.e. to acquire a combination of vocational, generic and learning competences useful both for work and life. But no comparative study of learner achievements exists in that field to determine which approaches are most successful.

So while the findings of this study illustrate the progressive shift from teacher-centred to learner-centred approaches in the examined European countries, they also call for more research in curriculum implementation by revealing how practices and understandings might differ from case to case. Evidence shows that while aiming for more learner-centeredness in VET, the implications of this shift may not be that effective - or may even be negative - if teachers and trainers are not engaged in the design and implementation of curriculum reforms and if they are not empowered with the right skills and competences to cope with new curricula and needs (Psifidou, 2007).

Therefore, the training and professional development of teachers and trainers is the key to success of the kind of curriculum reforms now sought in Europe and an area that clearly requires increased political attention and strategic action; especially in the wake of competence-based approaches in education and training which challenge and change teachers' role from the more traditional one of instruction to the more complex one of facilitating learning for learners with diverse learning needs and styles.

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Educating Secondary Education Teachers in Bulgaria: Meeting European Standards and Challenges (?)[1]

Dr. Irene Psifidou[2]

Introduction

Education and training has been recognized as a powerful policy lever to achieve the strategic goal of the Lisbon strategy: to make Europe the most competitive knowledge-based economy and a socially cohesive society by 2010 (European Council, 2000). To support this endeavour and respond to the emerging needs of the global labour market for new skills and competences, European countries are making a big effort by increasing access to education for all children and improving its quality.

Bulgaria, since the change of the regime, made a considerable effort to democratise and modernise its educational system. Education reform was designed at national level on one hand, to assure the adaptability of the education system to new challenges of a market economy and democratic society, and on the other, to establish a suitable system of schooling compatible with European standards. Since 1999, a systematic curriculum reform took place progressively in all levels of education introducing interdisciplinary curriculum areas and a school based curriculum. National Education Standards based on competences that students should acquire at the end of each educational level endorsed the new curriculum framework. Teachers for the first time were given the possibility to choose among alternative textbooks the most adequate for their students' needs (Psifidou, 2007).

These new developments brought Bulgarian's educational system closer to those of the occidental countries, generated though the very important issue of the capacity of teachers to deliver the new curriculum successfully.

Are Bulgarian teachers prepared to face the new reality in the Bulgarian schools? Which are the key competences that Bulgarian teachers in secondary schools should display to make the curriculum reform a success? And do they dispose them? The purpose of our research undertaken at the University Autónoma of Barcelona in Spain was to answer to these questions by raising the voices of different actors involved in the educational system.

Seven groups of informants were selected covering the whole spectrum of actors in the general secondary education system: ministerial staff responsible for education policy (Ministry), members of NGOs dealing with research on education (NGO), members of teachers' unions (Unions), secondary education teachers (Teachers), university students - future teachers in secondary education (Students), university professors responsible for teacher education and training (Prof), and inspectors responsible for school and teacher evaluation (Experts).

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[1] This article has been published in the eight volume in the series of conference proceedings launched by the Balkan Society for Pedagogy and Education which contains the papers presented at the Society's international conference on the subject "*European Unification and educational challenges in the Balkans. held in thessaloniki on 9-11 November 2007.* Published in 2008 by Terzis. N. (ed.). Kyriakidis Brothers s.a. Thessaloniki, Greece. p.355-364.

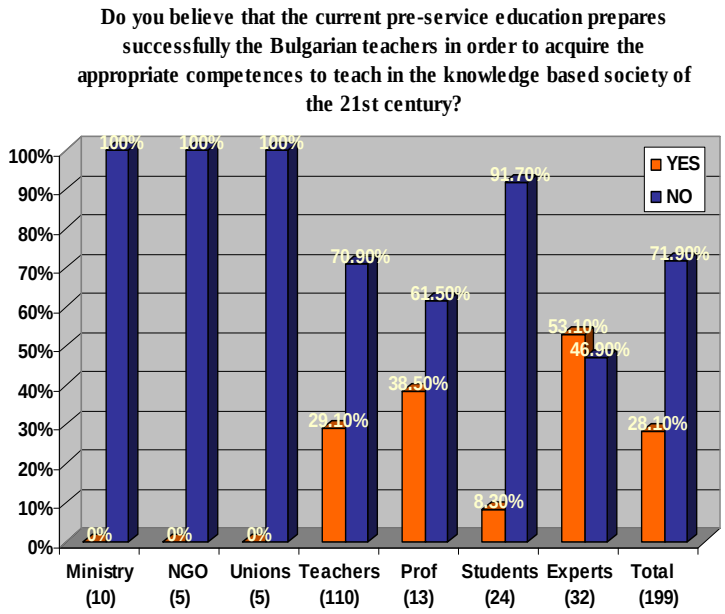
[2] Dr. Irene Psifidou has a PhD degree on Comparative Education Policy from the Universidad Autónoma de Barcelona in Spain and since 2004, she is working as education policy analyst at Cedefop, the European Centre for the Development of Vocational Education and Training, in Thesaloniki, Greece.

The data was collected through two different but complementary instruments: in-person interviews and multiple choice questionnaires. 96 interviews with stakeholders and civil society conducted in Sofia between 2003 and 2007, and 201 questionnaires administered across the country to 46 secondary education schools, 26 regional inspectorates, the University of Sofia, the Ministry of Education and Science, two NGOs and the Syndicate of Bulgarian teachers in Sofia.

The data collected suggest that the education reform was not responsive enough to the needs of the key actors involved in its process: the teachers. In particular, the replies received showed that our informants in their majority are not satisfied with the current provision of teacher education and training.

71.9% of the respondents believe that the current provision of pre-service education is inadequate for preparing successfully Bulgarian teachers to teach under the new curriculum in secondary schools and to cope with the needs of the knowledge based society of the 21st century. Among our informants, the most negative were the ministry officials, the members of NGOs and teachers' unions, i.e. those implicated in the institutional framework of the education process rather than the every day practice (see figure 1).

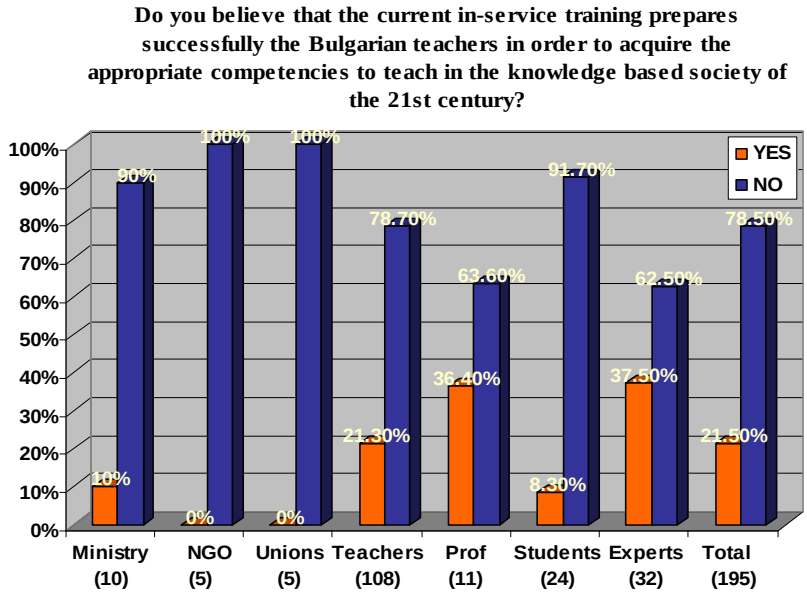
FIGURE 1. FINDINGS ON THE QUALITY OF PRE-SERVICE TEACHER TRAINING



Source: Author

As far as regards the current provision of in-service training for secondary teachers, from the 195 answers received, 78.5% of the respondents believe that it is of low quality and relevance to teachers' needs. Those who design the education (ministry officials) and those who receive it (students) are slightly more positive than members of NGOs and teachers' unions (see figure 2).

FIGURE 2. FINDINGS ON THE QUALITY OF IN-SERVICE TEACHER TRAINING



Source: Author

Based on international research (World Bank, 2005), we grouped the expected competences that secondary education teachers should have or acquire to transmit effectively useful knowledge and values and help to the development of skilled students and workers, in three main domains:

a) competences related with the **teaching** and the **classroom** work[3];

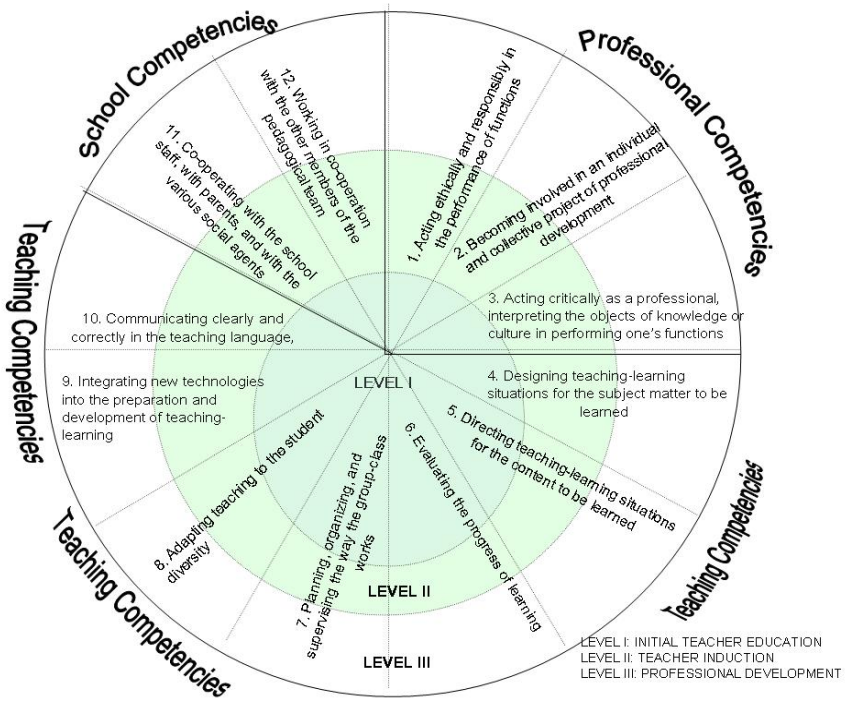
b) competences related with the **school** work[4];

c) competences related with the teacher as **professional[5].**

Within these domains, there are more specific categories of competences, which can also be further subdivided in more concrete skills (see figure 3).

[3] The capacity of teachers to mobilise a variety of cognitive resources to face and deal with a specific type of teaching situation.
[4] The capacity of teachers to build up a knowledge management system in schools functioning as learning communities.
[5] The professional knowledge of teaching and teacher lifelong professional development.

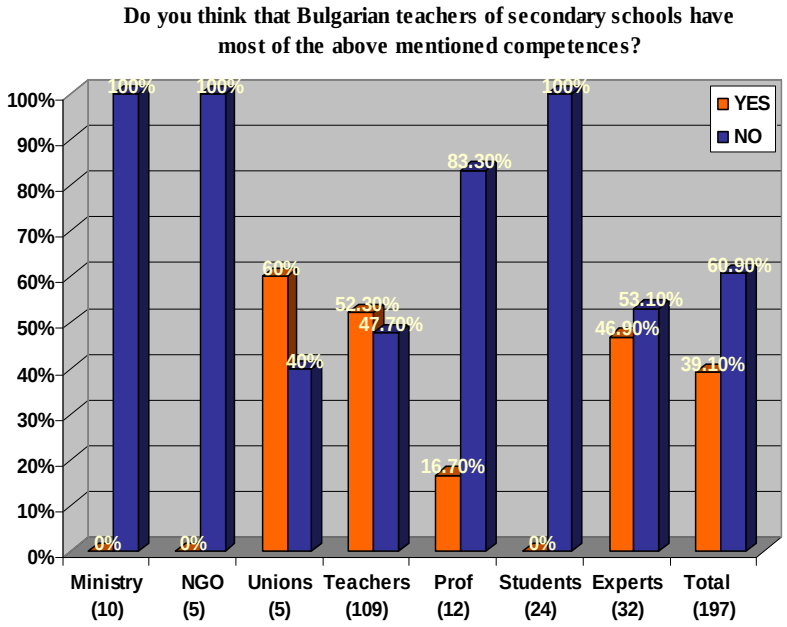
FIGURE 3. ROAD MAP OF TEACHER COMPETENCES FOR KNOWLEDGE BASED SECONDARY SCHOOL



Source: Martinet, Raymond and Gauthier, 2001 apud World Bank, 2005

In our question whether Bulgarian teachers today display most of our listed competences, the majority of the respondents (78.5%) said no (see figure 4). This is due in their opinion, to the inadequate pre-service training of teachers as well as to the few opportunities available for access to quality in-service training and professional development.

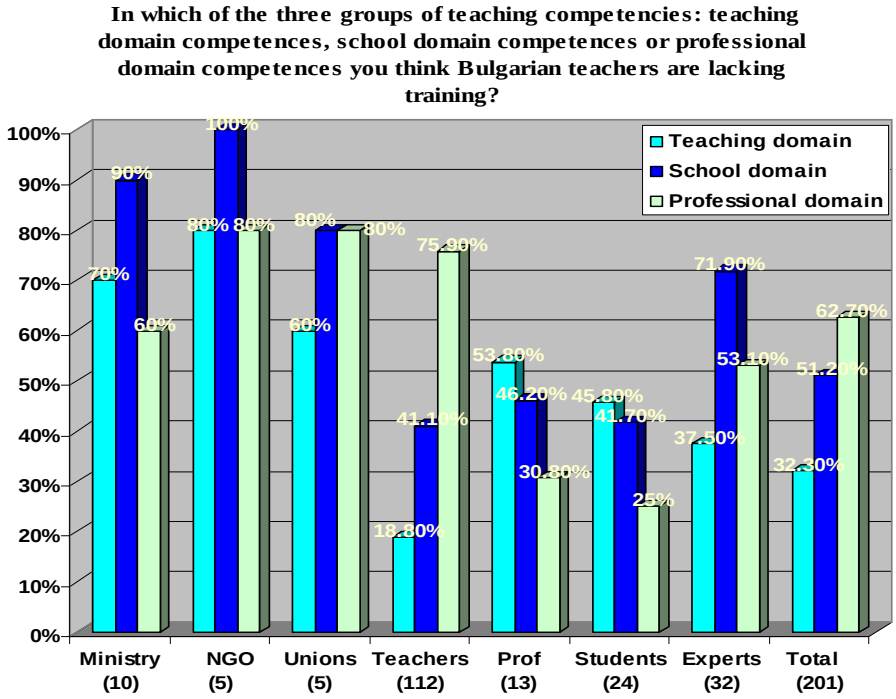
FIGURE 4. FINDINGS ON TEACHERS' QUALIFICATIONS



Source: Author

In particular, gaps in teachers' competences were identified by the responding groups in the professional and school domains of competences (see figure 5).

FIGURE 5. TEACHERS' TRAINING NEEDS BY DOMAIN OF COMPETENCES



Source: Author

NB* respondents could choose from more than one domain.

In our question which competences secondary education teachers in Bulgaria should display, different stakeholders attributed more or less importance to different competences and stressed very different areas for teacher training and professional development needs. There was convergence of opinions only on competences related to the capacity of teachers to promote a democratic attitude in the classroom and to communicate efficiently and appropriately with students, parents and other teachers. This is a strong feature of the Bulgarian education community in terms of promoting and ensuring democratic values and principles in the classroom, thus facilitating the implementation of the curriculum reform.

The evidence gathered in this study suggests though that, as in other European countries, the professional status of teachers is not broadly acknowledged in Bulgaria, as this entire domain of competences has not been particularly valued by the different actors. It is subject matter knowledge which still retains a privileged consideration in the frame of mind of all actors in the education community, as the type of knowledge teachers should master and be qualified in.

From the findings of our study, it can be claimed that there is a clear tendency to see teaching and learning as an individual activity limited to the walls of the classroom. Only two among the seven groups of respondents, the members of teachers' unions and the NGOs, clearly emphasized the value of teacher competences that belong to the school domain.

Based on the low importance given to general competences related to the socialization and collaboration, the Bulgarian society did not seem to be aware of the need for both teachers and students to acquire competences such as team work, collaboration, exchange of ideas and peaceful conflict resolution, all of them nowadays absolutely necessary for every citizen.

Within the three domains of competences mentioned above, the main weak points detected through our study in the perception of our informants were the:

- failure to acknowledge the potential benefits of new technologies in the educational process;
- limited sensitivity about the principles of personalization and solidarity in teaching and learning;
- lack of awareness of the action-research approach in the teaching profession, as a means for the development of teachers' knowledge, skills and competences.

These weaknesses may result in a bottleneck for the modernization of the Bulgarian education system and its alignment with European standards. It is well known that education reform cannot succeed when its cadre of teachers are ill-prepared for change, overly underpaid, inefficiently used, inadequately trained, and inadequately supported in terms of in-service training, access to teaching materials, and basic conditions for teaching, learning, and research. Thus, improving the quality of teacher education in Bulgaria should become a priority in the political agenda of the Ministry of Education and Science, if education reform is to have a positive impact on quality.

The professionalization of the teaching profession constitutes an objective of the Lisbon strategy (European Commission, 2007) and progressively becomes a priority area in many European countries. In the case of Bulgaria, special emphasis should be given to the lifelong personal and professional development of Bulgarian teachers, under the need to perform their role in a professional and ethical way. All actors concerned should be well informed about the benefits of the new technologies in pedagogy, while adapting teaching to students' diversity and helping the social integration of students with learning or behavioural difficulties should become an integral element of teacher education programmes. Taken into consideration the significant number of minorities, as the Roma, and other disadvantaged groups who live today in Bulgaria, it becomes vital to educate citizens on the importance of helping and living together.

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What learning outcome based curricula imply for teachers and trainers[1]?

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Introduction

As the title reveals, the present paper aims to examine the evolution of curriculum development theories and the increasing emphasis given in Europe on the learning outcomes approach. It illustrates recent policy developments in different European countries that colour this shift from an input to an outcome based provision and discusses the impact that this may have on pedagogies and teachers' training. The paper gives special focus to vocational education and training (VET) while also incorporating evidence from the general education sector.

In recent decades, the term curriculum has become increasingly used to refer to the existing contract between society, the state and educational professionals shaping the educational experiences that learners should undergo during a certain phase in their lives. Just like the societies they reflect, curricula are not static, fixed entities but reflect a continuous process of renewal. Large scale curriculum reforms have been introduced since 1950 in most educational systems across the world. The first and most notable among them were the curriculum reforms of the fifties in the USA. Other education systems followed suit later and initiated educational reforms of a similar type.

Today, it is widely recognized that curriculum development and renewal is an important component of any educational reform for quality improvement. Curriculum relevance is a condition *sine qua non* not only for improving the potential of the human capital of education and training graduates but also for retaining learners in school. The irrelevance of school curriculum is actually one of the fundamental factors that causes a widening gap between school and youth culture; to the extent that school and VET institutions are not sufficiently attractive to youths and do not effectively address their needs. The endemic irrelevance of curriculum may be one of the greatest obstacles to successfully match education and training provision to labour market needs.

Adopting a learning outcomes approach when developing curricula, seems to be an effective way to avoid these potential mismatches.

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1. Curriculum theory

Since 1949, Ralph Tyler's theory of curriculum development as a product approach has been complemented by many other theories. In the *product approach*, the assumption was that student outcomes – at least those that matter – could and should be measured. The result was that in order to measure the behaviours, tasks were broken down into smaller and smaller parts, resulting in tasks that lost their authenticity or meaningfulness. However, the four corresponding principles in the development of any curriculum introduced by Tyler: *defining goals*, *establishing corresponding learning experiences*, *organizing learning experiences to have a cumulative effect*, and *evaluating outcomes*, remained valid for more than 30 years.

In 1974, Lawrence Stenhouse advocated principles for selecting content, developing teaching strategies, sequencing learning experiences, and assessing student strengths and weaknesses with an emphasis on empiricism. This was the so called *process approach.* Later on, the *praxis approach* added the element of commitment to curriculum development. This approach advocates a shared idea of the common good and the goal of informed and committed action to the model of curriculum development. Even more recently there has been an emphasis on the *context* of curriculum and the notion of curriculum as a social process in which personal interactions within the learning environment take on considerable significance (Howard, 2007).

In more recent approaches, the *learning outcomes approach* is increasingly seen by policy makers as a very useful way of bringing learning programmes closer to "real life" and the needs of the market. However, the way learning outcomes are perceived and applied in curriculum differs not only from country to country but also between educational levels and sectors.

1.1 Understanding learning outcomes

In the recent European initiative to develop and implement a common European meta-framework for referencing national qualifications, the so called European Qualifications Framework (EQF), learning outcomes are defined as *statements of what a learner knows, understands and is able to do on completion of a learning process* (European Parliament/Council, 2008). In this definition, the form of learning is not specified – it can take place either in formal or non-formal education arrangements, or informally through experience gained in the community or at the work place.

In spite of the apparent simplicity of this definition, previous research unravelled a huge diversity of possible use and understandings of learning outcomes (Cedefop, 2009a). Learning outcomes are defined at different levels:

- at the systemic level (e.g. in qualification frameworks);
- at the level of qualifications (e.g. qualification standards);
- at the level of curricula and learning programmes.

Furthermore, according to the level on which they are defined, they may fulfil different functions: "recognition of prior learning, award of credit, quality, learning

plans, key competences for life, credibility for employers as well as modernising the governance of education and training as systems are reformed to encompass lifelong learning" (Cedefop, 2009a). Finally, learning outcomes are formulated on the basis of different concepts of competence. These concepts influence the form of learning outcome specifications and can be expected to have also an impact on the relationship between learning outcomes and curricula and learning programmes (Cedefop forthcoming).

With regard to the lack of a consensual and unified definition of learning outcomes across countries, the above-mentioned definition of the EQF will be used as the conceptual basis for this paper.

1.2 Origins of learning outcomes approach

From the brief overview of different theories for curriculum development provided earlier, one may think that a learning outcomes approach is a new way of designing and developing learning programmes. Such an assumption would be misleading, given the long and multiple origins learning outcomes reveal in varied literature.

Learning outcomes can, on one hand, be traced back to behaviouristic authors like IV Pavlof (1849-1936), and the psychologists J. B. Watson (1858-1958) and B. F. Skinner (1904-1990), who built on their experiences with dogs to develop an approach explaining human behaviour in terms of responses to external stimuli. Skinner's work on programmed instructions and underlying principles like small instruction sequences, participation of the students, reinforcement and the determination of the pace of learning through the students, led to productive research on the improvement of teaching, learning and training methods in United States.

The behaviouristic approach points out the clear identification and measurement of learning and the necessity to produce observable and measurable outcomes (Adam, 2004, p. 4). In the 1980s this concept reappeared with the competence-based approach in VET-systems in the US and the United Kingdom. The aim was the identification and use of elements of competence to define occupations, work roles, training and qualifications according to labour market needs. In all these developments, the learning process was largely ignored and the focus set on the product of learning defined as competence (ETF, 2006, p. 19).

However, referring only to behaviouristic theories does not allow us to fully understand the concept and ongoing discussions on learning outcomes. The shift from teaching to learning, which is considered as an essential element of learning outcomes approaches, refers to constructivistic theories that reject the behaviourist model of stimuli-response. Learning is considered to be a process of constructing knowledge and meanings on the basis of the student's own experience. Shared principles of different constructivist theories conclude that learning should be active, self-conducted, situated (in a context) and social. In this perspective, the function of teachers and trainers are closer to guidance and coaching than to instruction (Backes-Haase, 2001, p. 226, 230). Some examples for didactic approaches adapted from constructivist theories include situated learning, problem-based learning, experimental learning and action learning.

While the origin of learning outcomes may be traced back to previous centuries, their increasing use in vocational education and training policy to design qualifications and job profiles, to set standards and develop curricula is indeed an innovation and an increasingly universal approach.

2. Curriculum practice

The different approaches and definitions we refer to are theoretical and give us food for thought – and perhaps basis for research. What we need, in addition, are practical examples of curriculum development based on learning outcomes in the EU to illustrate how these respond to the need for lifelong and lifewide active and autonomous learning of students and apprentices.

Recent national developments in Member States confirm a growing priority in policy agendas to increase the flexibility and permeability of qualifications systems and the shift to learning outcomes is acknowledged as a prominent tool in this respect (Cedefop, 2009b). Introducing competence-based curricula and modularising VET programmes for some countries happened already in the mid-1980s. This was the case for instance in France with the systematic definition of competence-based qualification standards (*référentiels de compétence*) which shifted its whole education system to an outcome-oriented approach.

A decade later, at the end of 1990s, a shift to learning outcomes approaches in curriculum development takes place in Finland, with the introduction of large scale curriculum reforms, and in Ireland, through the adoption of the Qualifications (Education and Training) Act 1999 and the launch of the National Framework of Qualifications (NFQ) based on learning outcomes defined standards. The different institutions involved in curriculum development in VET, for their part, are dedicated to making the Irish system more learner-centred, for instance through developing and testing "flexible learning profiles"[3] at upper-secondary level.

With the reform law *Ley Orgánica de las Cualificaciones y de la Formación Profesional* (LOCFP, 2002), Spain started an ongoing modernisation of the whole VET-System demonstrating how reforms of the qualification system and changes affecting curricula and teaching practices are related to each other. Qualifications standards are defined as a group of competences (knowledge and capabilities) for a given occupation on the labour market. Competence comprises the whole range of personal, professional or academic knowledge and capabilities. Educational standards are set by learning modules (*módulos formativos*), which are coherent training blocks related to each of the competence units forming a professional qualification.

Moreover in UK, the VET system in Scotland provides paradigmatic examples of steering VET systems through learning outcomes. VET is essentially outcome-based with qualification standards expressed so as to grant a large autonomy to VET providers. In Germany, the dual system, combining apprenticeship and school-based

[3] Flexible learning profile aim at placing the students' aptitudes and interests at the centre of all planning for curriculum provision. For more information see: http://www.ncca.ie/eng/index.asp?docID=262

learning, defines tasks, activities, skills and knowledge areas as the content of training[4].

In Eastern Europe, and especially in Czech Republic, Estonia, Lithuania, Malta, Poland, Slovakia and Slovenia, comprehensive reforms have been undertaken during a short period of time to renew qualification standards and curricula, introducing learning outcomes alongside input-oriented specifications. The strong external influence from EU institutions, bilateral assistance and international organisations on these developments makes this group of countries an interesting case to study.

Within this group of countries, Slovenia is one of the most successful in modernising the VET system and delivers best practise examples in defining qualification profiles and assessment methods. With the National Vocational Qualifications Act (adopted in 2000, amended in 2006) a system for the accreditation of national vocational qualifications (*nacionalne poklicne kvalifikacije*, NVQ) was introduced. Vocational qualifications are based on learning outcomes, irrespective of how knowledge, skills and capacities were obtained. The objective is to combine training for employability and education for personal development and participation in society. In order to enable recognition of informally and non-formally acquired knowledge, competences and skills, the Act determines the procedure for developing and monitoring national occupational standards and assessment standards.

This panorama of recent developments in European countries shows that certain member states are making a lot of progress; others however are still at an early stage of implementation. A key challenge is to move from general political statements to practical reforms influencing qualifications standards, teaching methods and assessment forms (Cedefop, 2009c). Many countries and institutions still lack practical experience in use of learning outcomes for defining standards, describing curricula and organising assessments. In some cases, we also observe inherent scepticism towards the approach, fearing it will weaken attention to the quality of teaching and learning input.

Another important challenge for the near future is whether the shift to learning outcomes, increasingly promoted at European and national levels, will result in more open and active learning or not. This seems to be a new field of analytical work that gains interest. A recent Cedefop study on *"The relationship between learning outcomes and VET curricula and learning programmes"* examines the impact that curricula based on learning outcomes may have to learner centre approaches (Cedefop, forthcoming).

[4] This is shortly described in the *Berufsbild* (professional profile) and further detailed in the *Ausbildungsrahmenplan*, a corpus of skills and knowledge which are to be transmitted in the work-based part of training. The framework curriculum (*Rahmenlehrplan*) defines the learning objectives and the content of courses for the school-based part of training, providing also some information on teaching methods.

Concluding remarks

Current approaches in the way curriculum knowledge is selected, organized, and sequenced led to considerable debates about teaching practices, learning arrangements and assessment methods. This is because the learning outcomes approach to curriculum design has implications in the way the content is taught, the teaching methods are applied, the material is used and the teachers' training is arranged.

The shift from an input based to an outcome oriented education and training provision - in other words to a competence and career oriented education and training - defines new learning objectives that may be only met through new forms of learning. Among these new forms of learning, the guided learning, the experiential learning and the action learning aim to help students and apprentices to develop integrated competences, i.e. to acquire a combination of vocational, generic and learning competences useful both for work and life. Obviously, these ways of learning require dynamic learning environments where students and apprentices should be seen and treated as active learners, as well as appropriately trained teachers and trainers.

Teachers and trainers are changing roles from the more traditional one of instruction to the more complex one of facilitating learning for learners with diverse learning needs and styles. The question is whether they are supported adequately to perform their new roles. Initial education cannot provide teachers and trainers with the knowledge and skills necessary for a life-time; professional development is necessary and should be a continuous exercise. However as evident from policy review, in-service training is often left to the initiative of individual teachers and trainers, and is not always adapted to their needs, while incentives and opportunities to carry on updating their skills throughout their professional lives are usually limited (Psifidou, 2007). The training and professional development of teachers and trainers is an area that clearly requires increased political attention and strategic action. As stated in the Communication "New skills for new jobs" (2008), upgrading skills is not just a luxury for the highly qualified in high-tech jobs: it is essential for all of us.

This paper raised a question that remains open for researchers to provide evidence and policy makers to give answers. This brief overview of curriculum developments shows that changing paradigms in teaching and training are actually happening in many European countries with the shift to the learning outcomes approach. While aiming for more learner-centre approaches, the implications of this shift may be negative, increasing teachers and trainers' skill mismatches, if teachers and trainers are not kept abreast of these innovations.

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SCHOOL CURRICULUM REFORM AND MENTALITIES IN TRANSITION: LOOKING INTO THE BULGARIAN CASE[1]

Irene Psifidou[2]

Introduction

Education and training has been recognized as a powerful policy lever to achieve the strategic goal of the Lisbon strategy: to make Europe the most competitive knowledge-based economy and a socially cohesive society by 2010 (European Council, 2000).

To support this endeavour and respond to the emerging needs of the global labour market for new skills and competences, European countries are making a big effort by increasing access to education for all children and strengthen the quality of the education process. Curriculum reform is included in the political agenda of many countries as a priority area for achieving this goal.

The aim of the present study is to analyse:

1. whether the curriculum reform in Bulgaria undertaken since 1999 is leading to a greater degree of alignment and convergence with the educational systems in other occidental countries;
2. if the curriculum reform in Bulgaria not only facilitates the acquisition of knowledge, skills and competences, but also the ethical and citizenship-building education of students;
3. the attitude of key actors involved in the education process towards the reform which may constrain or preclude its success.

To draw and fundament conclusions, 96 in-person interviews were contacted and 201 questionnaires were administered across Bulgaria between 2004-07 to:

- administrative informants including: ministry officials[3], school directors, inspectors and teachers' unions.
- educators comprising: teachers in general secondary education from 46 towns representative of small, medium-sized, and large communities covering virtually the whole territory of Bulgaria and university professors from the University of Sofia, the faculties of humanities and social sciences;
- to the civic society including: members from NGOs dealing with research on education, parents and students from both comprehensive and profile schools;

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[1] "School curriculum reform and mentalities in transition: looking into the Bulgarian case". Paper published in Conference proceedings of the 6th International Conference on "Comparative Education and Teacher Training" organised by the Bulgarian Comparative Education Society, in 1-4 July 2008, in Sofia, Bulgaria. Volume 6, p. 112-117. Bureau for Educational Services, Sofia, Bulgaria.

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[3] responsible for curriculum policy, qualifications and assessment policy, textbook policy, inspection policy, in-service teachers' training policy, design and development of specific subject-curricular areas.

1.1 Global trends of curriculum policy

Bulgaria, since the change of the regime, made a considerable effort to democratize and modernize its educational system, for promoting and consolidating the radical changes occurred in terms of political democratization and economic development, as the country evolved from being a transition state into a full member of the European Union. A systematic curriculum reform took place progressively since 1999 (MES, 1999) in all levels of education bringing Bulgarian's educational system closer to those of the occidental countries (Psifidou, I. 2007).

This transition was not easy, as great resistance to innovation came both from teachers, students and their parents. There were issues and concrete interventions -such as the introduction of alternative textbooks- which led to conflicts with teachers and other stakeholders, and other cases whose implementation was significantly delayed due to resistance from parents and students; for example, the introduction of an external school-leaving examination (Matura).

Regardless of these difficulties and differences in the period of time when curricula reforms were implemented in Bulgaria and the rest of Europe[4], it is observed that the curriculum policies in transitional Balkan countries, and especially in Bulgaria, are aligned with those of the occidental countries. In both groups of countries, curriculum reforms are being implemented targeted to the:

- development of new syllabi in order to incorporate new knowledge areas, skills and competences to the curriculum, such as ICT, economics, civic education, vocational education, life skills, and guidance and counselling;
- actualization of the curriculum subjects and educational content with new concepts and values, demanded by emerging critical issues in modern society. For example, sustainable development is being studied through *Geography*, health education through *Physical education*, new social values, life skills and civic education through *History* and *Geography*;
- introduction of new objectives and educational content which go beyond national borders offering a European and international perspective and dimension. Revised *Geography* and *History* curricula aim to fight against international stereotypes and conflicts, reinforcing the need for mutual understanding and living together peacefully;
- reorganization of curriculum content to rebalance the time assigned to different subjects and knowledge areas, increasing flexibility and diversification and allowing interdisciplinarity.

Despite the incorporation of new knowledge and values in secondary curricula in both developed and transitional countries, it is still not known to what extent curricula, especially these of social studies and humanities, are designed in a way that can help to promote intercultural education and social inclusion in the daily life in secondary schools.

[4] Most of the occidental countries began addressing issues of curricula review and reform at least since early 80s, while this process has been delayed in transitional countries of the Balkan region (such as Bulgaria, Romania, Albania, Croatia, Former Yugoslavian Republic Of Macedonia, etc.) affected by radical political and social changes.

1.2 Learning and living together in school

It is well known that for developing ethical attitude and citizenship skills to students, it is indispensable not only that the school curriculum promotes ethics and citizenship rights and obligations but also that the school functions as an exemplary democratic social community.

From the data collected in Bulgaria, it was made evident that the majority of informants do not perceive school as a small social community where participants should collaborate. From all informants, only teachers' unions' members and NGOs clearly emphasized the value of teacher competences related to the school work. Only the former put a priority to the need for cooperation of parents, teachers and other social agents to accomplish the educational goals of the school.

Given the low importance attributed by the informants to general competences related to the socialization and collaboration of teachers within the school borders, the present study identifies a tendency of the actors involved to the education process to see teaching and learning as an individual activity limited to the walls of the classroom. The selected informants showed limited sensitivity about the principles of personalization and solidarity in teaching and learning as did not seem to be aware of the need for both teachers and students to acquire competences related to team work, collaboration, open exchange of ideas, peaceful conflict resolution, nowadays absolutely necessary for every citizen.

Interviewed students did not think that one of the main functions of teachers should be the supervision of their behaviour in the classroom and in the school at large. It does not come as a surprise that secondary school students resist to acknowledge teachers as controllers of discipline at schools. On the other hand, despite the unanimous agreement among the respondents on the need to motivate students to work and live together in the classroom, only teachers and inspectors recognized the need to communicate to students the norms of good behaviour in school and to ensure that they adopt an appropriate social attitude. This probably points to the lack of awareness on the part of the rest of the stakeholders with respect to the increasing difficulties to maintain discipline and prevent antisocial behaviour in today's schools.

Finally, from the group of informants, only students appeared to be particularly sensitive with regard to the social integration of students with special education needs and different ethnic backgrounds. It is remarkable that they were the only group who prioritised the need for teachers to adapt teaching practice to student diversity, to know and be able to work with diverse and heterogeneous classrooms creating an appropriate and beneficial environment for all. Taken into consideration the significant number of minorities, as the Roma, and other disadvantaged groups who live today in Bulgaria, as well as the measures for the integration and mainstreaming of such students in public comprehensive schools, such competences for teachers become vital.

While the new curriculum aims to create a more democratic environment, more flexibility and student centre teaching, the present study showed that traditional mentalities heritage from the old regime persist. For a country in transition, this is to be expected, as mentalities do not change overnight. If democratic values and

principles are to be promoted in Bulgarian schools though, it is important that schools function as learning and democratic communities.

1.3 Views and perceptions of key actors in the Bulgarian education sector

Evidence drawn from this study alerts for a low understanding towards certain preconditions to the successful implementation of the new curriculum.

There is no convergence in the different actors' opinions on basic issues, such as the roles and responsibilities of secondary education teachers. Each group of respondents perceives the responsibilities and functions of teachers in a different way based on their own interests and needs. This could result in difficulties in terms of building consensus on key areas when it comes to both decision-making and implementation, such as at the time for the conception and introduction of new approaches to teacher training.

While there was convergence of opinions on the need for teachers to promote a democratic attitude in classroom and to communicate efficiently and appropriately with students, parents and other teachers, there were also found some weak points that may impede the further modernization of the Bulgarian system. The majority of the informants:

- failed to acknowledge the potential benefits of new technologies in the educational process;
- were not seem to be aware of the action-research approach in the teaching profession, as a means for the development of teachers' knowledge, skills and competences;
- did not attribute great importance to the professional status of teachers.

The motivation to use new technologies in the teaching-learning process was found to be very low in Bulgaria, based on the findings of the present study. Ministry officials, teachers, inspectors, members of NGOs and students interviewed did not considered overly important for teachers to display competences related to the introduction of new technologies (ICTs) into the preparation and development of teaching-learning activities. Only university professors and members from teachers' unions showed certain sensibility towards ICTs, without though recognising the need for teachers to know the pedagogic potential of ICTs.

This failure to acknowledge the potential benefits of new technologies in the educational process, both on the part of those who make decisions, as well as of those who teach and of those who learn may impede the implementation of measures oriented towards the use of new technologies in schools and the modernization of the education system.

The need to inform and educate the Bulgarian society on the use of new technologies as a promising didactic instrument has been recognized by the Bulgarian government who made a considerable effort since 2005, through the National Strategy for the Introduction of Information Technologies in Bulgarian Schools (2005-2007), to equip teachers with basic skills on the use of ICT and the introduction of computers in the

teaching process. In May 2007, the Council of Ministries adopted an updated plan of action for the implementation of this strategy, and in 2007, the MES prepared a second strategy for Education and ICT (2008-2013) (MES, 2006 and World Bank, 2007).

Additionally, none of the informants considered indispensable the action-research approach in the teaching profession as a means for the development of teachers' knowledge, skills and competences. This lack of awareness may also result in a bottleneck for the modernization of the Bulgarian education system and its alignment with European standards. The European Commission in its Communication for Improving the Quality of Teacher Education, based on the Common European Principles for Teacher Competences and Qualifications (European Commission, 2007), highlights that teachers should be encouraged to review evidence of effective practice and engage with current innovation and research to keep pace with the evolving knowledge society. In a context of autonomous lifelong learning, their professional development implies that teachers undertake classroom-based research and incorporate into their teaching the results of classroom and academic research.

Furthermore, the evidence gathered in this study suggests that, as in other European countries, the professional status of teachers is not broadly acknowledged in Bulgaria. Interviewed policy-makers, students and university professors did not consider a priority for teachers to display professional competences which would allow them to act in a critical and ethically responsible way while carrying out their duties. It is the subject matter knowledge which still retains a privileged consideration in the frame of mind of all actors in the education community, as the type of knowledge teachers should master and be qualified in.

While the professionalization of the teaching profession constitutes an objective of the Lisbon strategy (European Commission, 2007) and progressively becomes a priority area in many European countries, in Bulgaria, none of the responding groups deemed as absolutely necessary the participation of teachers in professional development activities.

It is well known that education reform cannot succeed when its cadre of teachers are ill-prepared for change, overly underpaid, inefficiently used, inadequately trained, and inadequately supported in terms of in-service training, access to teaching materials, and basic conditions for teaching, learning, and research. Thus, motivating teachers to participate in lifelong personal and professional training, and raising their awareness on the benefits of research and the new technologies in pedagogy, should become a priority in the political agenda of the Ministry of Education and Science, if education reform is to have a positive impact on quality.

Concluding remarks

Based on data collected from selected informants representing key actors involved in the education process, we may conclude that while the new school curriculum introduced in Bulgaria since 1999 brought innovations in the education system inline with these implemented in other occidental countries, traditional ways of thinking and habitual modes of procedure persist.

It is well known that new challenges and aspirations arisen from the knowledge-based society call forth new energies, but it is also to be expected that tensions will exist as the old order yields place to the new. To ensure a positive outcome of the curriculum reform, special emphasis should be given to the problematic areas identified in this study.

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Innovation in school curriculum: the shift to learning outcomes

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Abstract

Evidence from comparative research suggests that most countries are now using, or considering the use of, learning outcomes in education and training policy formulation, instead of constructing provision around taught inputs (Cedefop, 2008). In some countries, learning outcomes in general education are formulated with the knowledge and skills that are needed to cope effectively with the demands of the school curriculum by phase and subject. Other countries may take a broader view of the learning outcomes needed to prepare a young person for personal well-being, social and working life. The present paper aims to examine how Bulgaria responding to new challenges emerged after the democratization of its regime is rethinking the input-based general education school curriculum around expected knowledge, skills and competences.
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Keywords: learning outcomes; curriculum reform; innovation; Bulgaria; compulosry education; Bulgarian language and literature

Introduction

Evidence from comparative research (Cedefop, 2008) suggests that most countries are now using, or considering the use of, learning outcomes in education and training policy formulation, instead of constructing provision around taught inputs. Given the way learning outcomes are perceived and used by different countries and sectors differ considerably, for the purposes of this paper we will use the definition of learning outcomes found in Cedefop's recent publication which draws on the experience of 32 European countries:

> *"Learning outcomes are statements of what a learner knows, understands and is able to do after completion of learning"* (Cedefop, 2008).

In some countries, learning outcomes in general education are formulated with the knowledge and skills that are needed to cope effectively with the demands of the school curriculum by phase and subject. Other countries may take a broader view of the learning outcomes needed to prepare a young person for personal well-being, social and working life. Bulgaria's new curriculum framework, introduced in 1999, combines both approaches (MES, 1999a).

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The increasing use of learning outcomes is expected to have profound implications for making systems more learner-centered, affecting the organization of institutions, the curriculum and the role and training of teachers. Some education systems are responding to these challenges by introducing more individualized approaches, addressing the personal development needs of students. One of the approaches is rethinking the compulsory education curriculum around key competences and/or a core curriculum (European Parliament, 2007). This entails assessing students' achievements rather than the syllabus content learned, and therefore identifying the learning outcomes (or learning objectives) which should be achieved.

The present paper aims to examine how Bulgaria, responding to new challenges emerged after the democratization of its regime, is rethinking the compulsory education curriculum around expected knowledge, skills and competences. To conduct this paper, national curricula have been translated into English and examined in depth. The analysis was complemented with 40 personal interviews with ministry official in the Ministry of Education and Science in Sofia responsible for education policy and curriculum development during 2004-2007.

1. The wind of change in Bulgaria

Bulgaria, a country often described as lying at the crossroads linking the East and West, one of the cradles of European civilization, and home to the world's oldest known writing system became a democratic country in 1989. This year marked the beginning of a radical socioeconomic and political transition in the country which affected the education system not only in terms of financing shortages and low participation rates but mainly in terms of increasing knowledge demands and skill needs. Today, the unfavorable demographic situation of the country – the constantly decreasing and ageing population - is combined with the high youth unemployment and the skill shortages becoming increasingly visible in specific sectors of the labor market including manufacturing, construction and selected areas in services.

The Bulgarian government in early 90s realizes the need for reforming the education system to address these new emerging needs. While making attempts to decentralize the governance of the education system and optimizing the school network, the most pronounced changes are made in the school curriculum. A new national curriculum framework is adopted in 1999 (MES, 1999a) accompanied by National Education Standards (MES, 1999b). From providing merely vocational training under the communist regime, the new study plans in secondary education shift the focus on enhancing general education for all and developing life competences. New values and principles are included in the revised education content and textbooks, such as European citizenship, tolerance, living together peacefully, and human rights; to mention but few among which aim to endorse the new democratic regime in Bulgaria. The ideological elements are gradually excluded from the curriculum areas of humanities and social sciences and the main aim of the education system changes to become this of preparing citizens to live and work in the knowledge-based society of the 21st century.

In the following sessions, we will illustrate this shift from the input-based school curriculum to competence oriented, providing the example of the *Bulgarian language and literature* curriculum subject in the upper secondary education (9th grade, students aged 15-16 year-old). This subject being compulsory throughout the general education is highly significant for the education of the Bulgarian youth. It is also a subject that can allow us to examine the shift in the purpose of educating the youth under the communist regime and upon the democratization of the Bulgarian society.

2. Teaching and assessing the knowledge acquired: the old curriculum

Throughout the whole existence of the modern Bulgarian State (19th-20th century), the educational content for general education in Bulgaria has been designed to reflect the traditional concept that students should acquire universal knowledge. Other European education systems, as the German and the Russian, were also structured around the same principle. Following this approach, the focus of the curriculum content was placed on the most essential and different achievements of each specific science. Teaching methods were given far less importance and there was no real attempt to establish interdisciplinary links across the curriculum. The curriculum was in fact a compendium of study programs for each subject put together rather mechanically, along with their respective class hours. The term "curriculum" was used to denote only the number and distribution of class hours, while the content was described in the so-called "study programs". In this sense, the curriculum was perceived by the teachers as a sort of a roster, rather than as a strategy for development and a framework of the overall teaching and learning process (Psifidou, 2007).

The curriculum of *Bulgarian language and literature* taught before the reform (MES, 1997) in the 9th grade (students aged 15-16 year-old) comprised the study of three main topics: Bulgarian language and Western European literature (including European Renaissance and Classicism), Bulgarian language and Russian classical literature, and Bulgarian Renaissance literature, including new Bulgarian poetry and the advent of new Bulgarian theater and drama.

This was presented in two columns (see table 1): the left column presented the compulsory content for all schools to be covered during the 3 class hours per week within the 36 school weeks of the academic year; while the right column presented the indicative content for elective classes in profile oriented schools to be covered within 1 class hour per week out of the 36 school weeks of the academic year. For both cases, the curriculum was indicating the specific authors and literature works that should be studied. The topics to be studied in elective and profile-oriented classes were chosen by the teacher. In making such choices, teachers could rely on the non-compulsory content included in the textbooks, but were also allowed to use other teaching materials they were seeing fit.

Table 1. Extract of the curriculum for Bulgarian Language and Literature for 9th grade (1997)

Compulsory content	**Indicative content for elective classes or classes in profile-oriented schools**
36 school weeks, 3 class hours per week	36 school weeks, 1 class hour per week
Bulgarian Language and Western European Literature	
Styles in written Bulgarian language. Scientific and academic writing. Genres.	Genres: bibliographical description, annotation, comment, criticism
European Renaissance	**Petrarch**
Renaissance Literature	Canzoniere
Cervantes	**Boccaccio**
Don Quixote	Decameron
	Dante Alighieri
	Inferno
Text. Elements of a text. Communication and texts. (revision of already studied content with new additions and extensions)	Communication. Speech etiquette.
Logical unity of texts	
Linguistic unity in a text.	
Scientific writing.	
Literary texts	
Literary and academic writing	
Shakespeare	**Shakespeare**
Hamlet	Sonnets, Macbeth, Midsummer night's Dream, Romeo and Julliet (one of the above, as chosen by the teacher)
Written assignment on "Hamlet"	
Discussion on the genre and composition consistency in a text (based on the students' written assignments)	
Classicism in literature	Works by the following authors, as chosen by the teacher:
Moliere, Tartuffe or Corneille, Cid (as chosen by the teacher)	Denis Diderot, Johann Goethe, Victor Hugo, Heirich Heine, P. B. Shelley, George Byron, Honore de Balzac, Guy de Maupassant, Charles Dickens

Source: Translation of official curriculum, MES, 1997.

The learning content was focusing on the great works of each period and geographical zone, including brief guidelines for the oral and written examination of pupils. For the 9th grade, the examination consisted in literary and academic writing, analysis of a given literary text and comments, and discussion of a general cultural, social, or ethical issue. The curriculum was concluding with the indication of the knowledge that pupils should acquire at the course of this grade on this specific subject, limited in denominating the concepts which students should be able to understand; concepts such as Renaissance, Classicism, Romanticism, Character in a literary work**,** Novel, etc.

3. Shifting the focus to skills and competences: the new curriculum

The curriculum of the *Bulgarian language and literature* changed significantly under the new national curriculum framework adopted in 1999 (MES, 1999a). This subject, constituting the first out of the eignt new curriculum areas, is splited into two separate subjects: the *Bulgarian language* and the *Bulgarian literature*.

The new curriculum of both subjects is presented in 6 columns which from the left to the right comprise (see table 2): the core content, the expected results in view of the overall curriculum, the expected results in each topic, the new concepts introduced, the context and activities and the possible interdisciplinary links with other subjects. The core content is presented in terms of competences including for instance for the case of Bulgarian language:

- socio-cultural competences
- language competences
- socio-cultural and language competences in oral communication
- socio-cultural and language competences in written communication

Each core content comprises one or more topics to be covered and its expected results. The expected results in view of the overall curriculum are also expressed in terms of national standards indicating the knowledge and abilities that students should acquire. More than one standard can be achieved through the core content. The 4th column indicates the new concepts introduced while the 5th columns suggests the settings and activities students should be involved. The last column identifies the links that can be created with the other school subjects. In the case of *Bulgarian language* links can be established with civic education while the communicative competences developed through this subject are relevant to the whole curriculum. As far as regards *Bulgarian literature* this can be linked with *History* and *Philosophy*.

Table 2. Extract of curriculum on Bulgarian language for 9th grade, 2003

1 **Core content**	2 **Expected results in view of the overall curriculum**	3 **Expected results in each topic** Students must master:	4 **New concepts introduced**	5 **Context and activities** Students are given the opportunity:	6 **Interdisciplinary links**
Core 1: Socio-cultural competencies	Standard 1: • The student is able to use adequately different language registers • The student is able to identify the specifics of different texts: academic, scientific, media, artistic, civic and institutional • The student has knowledge of the structural, compositional, and linguistic characteristics of texts, typical of different types of communication.	Topic 1: Text and socio-cultural context • components in a communicative situation – participants, objective, topic, subject, conditions • the function of texts in communication; intention and tasks of communication.	socio-cultural context interpersonal communication civic and institutional sphere function of texts – purpose and pragmatism	• to monitor, analyze, and participate in different communicative acts and situations of public communication	• The knowledge and skills on text specifics and communicative functions develop students' ability to understand, interpret, and produce texts in all other subjects included in the curriculum.

Source: Translation of official curriculum, MES, 2003

Concluding remarks

It becomes obvious that the new national curriculum framework in Bulgaria and the new national standards introduced for the first time in the history of the Bulgarian education system the notions of knowledge, skills and competences that students should achieve for each subject and at the end of each educational level. The principle of interdisciplinarity was also incorporated under the creation of eight curriculum areas bringing together individual subjects and helping to avoid fragmentation of knowledge and build on constructive learning. This innovative approach opens the way for more student-centered teaching and active learning. However, research (Psifidou, 2007) shows that the actual implementation of the new curriculum at school level encountered vital challenges which hinder its actual practice. The persistence of the old regime mentalities and the delays in launching complementary reforms

that should accompany the new curriculum - such as, introducing external students' assessment, provide teacher training on the new curriculum and establish sustainable mechanisms for quality monitoring – question today the positive impact of the new curriculum on the quality of general secondary education.

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The changing role of Bulgarian teachers in secondary education[1]

Irene Psifidou[2]

Abstract

The present paper presents some of the main findings of the author's Doctoral thesis: **"***International Trends and Implementation challenges of Secondary Education Curriculum Policy: the Case of Bulgaria"*, Universidad Autónoma de Barcelona, 2007. It highlights the main achievements of the curriculum reform implemented in Bulgaria progressively in all levels of education since 1999 and analyses the impact of the new curriculum on teacher's training.

It is expected that teachers will need to posses adequate teaching competences and specific subject knowledge to be able to work successfully with their students under the new educational content. By analysing the new competences required for delivering successfully the new curriculum, this study identifies those areas for which teachers require further support and training so as to cope with the new needs emerging from the curriculum reform and the demands of the 21st knowledge-based society.

The findings of this survey, based on a field study that took place from 2004-2005, allow a comprehensive understanding of the competences and skills considered important by different stakeholders and the civil society for secondary education teachers. The collected data in the current investigation and the conclusions drawn could contribute to fundament the guidelines for the national policy on teacher training and professional development in Bulgaria, thus allowing for different actors involved to have a clear and precise idea on the expected competences for secondary education teachers.

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Introduction

After four decades under a totalitarian regime, Bulgaria passing through a radical political change in 1989 becomes a democratic country. Eight years later, having suffered serious socio-economic misbalance and ambiguity during the beginning of the transition period from a centralized plan economy to a market economy, Bulgarian citizens celebrated in the 1st of January 2007 their accession in the European Union.

This historic landmark in Bulgaria's uneven transition from a communistic country to a member of the European Union, as well as the unfavourable demographic and labour characteristics of the country[3] had an important impact on its national education system. Bulgaria in the beginning of 90s, faced the urgent need to adapt its educational system for legitimizing and fostering this socio-political transformation.

Making a considerable effort to democratise and modernise its educational system, the Bulgarian government launched in 1999 a systematic curriculum reform that took place progressively in all levels of education bringing Bulgarian's educational system closer to those of the occidental countries (Psifidou, 2007).

For the first time in Bulgarian history of the education system, a curriculum framework was introduced structured into 8 curriculum areas (MES, 1999a). The new curriculum was not any more a mere list of individual subjects but it brought together similar subjects under the same curriculum area. It was also given the possibility to schools to develop their own curriculum, the so called School Based Curriculum designed according to the particular needs of the region, of the school and of the students. Moreover, National Education Standards (MES, 1999b) define for the first time the competences that students should acquire at the end of the school year.

Despite these achievements, recent research (Psifidou, 2007) shows that the implementation of the secondary curriculum reform in Bulgaria faced some very important challenges attributed, among others, to the slow implementation of complementary reforms and measures required to

[3] Bulgaria has the slowest population growth of any country in the world since 1950 and an increasing labour migration to occidental countries.

support the successful implementation of the new curriculum, such as the adequate and timely training of teachers.

It is well known that a curriculum reform can not be successful if supportive measures in all the areas affected by such reform are not addressed effectively. The lack of harmonization of the new educational content with adequate teachers' training created a mismatch among the intended, delivered and achieved curriculum. This gap between theory and practice and between legislative intentions and actual institutional capacity may have significantly decreased the potential positive impact of the curriculum reform on the quality of secondary education in Bulgaria.

Indeed, despite all the good intentions of the Bulgarian government to reform and modernize the education system, the Government's strategy in primary and secondary education approved by the Parliament in June 2006 (MES, 2006), states that the main challenges in primary and secondary education systems are the decrease in the quality and relevance of skills taught and a decline in participation rates, particularly in upper secondary level. The deteriorating quality of education is often illustrated with examples such as the increasingly poor social status of teachers and the broken link between school and family environment, institutions and society.

- It is obvious that curriculum reform first should consider teachers in secondary schools who need to adopt the most adequate teaching and learning methods to deliver the new content. Bearing this in mind, the present study analyses the impact of the new curriculum on teachers' training based on the points of view of different groups of interest involved in the educational system.

The following section discusses the methodology used for carrying out this research.

1. Investigation tools

In order to gather information on the impact of the curriculum reform on teacher's education and training, we developed a rating instrument consisting in two parts. The first part included a list of competences that should be rated according to their importance and

relevance for the Bulgarian educators to teach under the modernised curriculum. The second part of the instrument questioned the need of secondary education teachers for further training.

The development of the list of competences required a thorough examination and consultation of international literature and research conducted on the area of learning to teach.

Various competences related to this research have been defined and analysed by different authors. The categories of competences adopted for articulating this investigation are based on the concept of "competency" applied in the teaching profession, defined in the Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning[4] as following:

> *"Competence" means the proven ability to use knowledge, skills[5] and personal, social and/or methodological abilities, in work or study situations and in professional and/or personal development. In the European Qualifications Framework, 'competence' is described in terms of responsibility and autonomy* (European Commission, 2008).

A competence is always a competence for action and presents the following characteristics (Martinet, Raymond and Gauthier, 2001):

- It is developed in real, rather than simulated, professional contexts;
- It is situated on a continuum that ranges from the simple to the complex;
- It is based on a set of resources: a competent person makes use of resources

[4] The proposed Recommendation establishes the EQF as reference tool for the comparison of qualification levels in national qualifications systems as well as qualifications systems developed by international sectoral organizations. The EQF's main components are a set of European reference levels described in terms of learning outcomes, and mechanisms and principles for voluntary cooperation. It is recommended that Member States use the EQF as a reference tool to compare qualification levels used in different qualifications systems, relate their qualifications systems to the EQF by linking qualification levels to the corresponding EQF levels and, where appropriate, develop a national qualifications framework. This recommendation was adopted by the Commission and the European Parliament in April 2008.

[5] 'Skills' means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the European Qualifications Framework, skills are described as cognitive (use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments) (European Commission, 2008.

mustered in contexts of activity;

- It concerns the capacity to mobilize in a context of professional activity;
- Competence, like know-how, is intentional;
- It is effective, efficient, and immediate know-how that is demonstrated continually;
- It constitutes a project, an endless goal.

The expected competences that secondary education teachers should have or acquire in order to transmit effectively useful knowledge[6] and values and help to the development of skilled students and workers, could be grouped in three main domains:

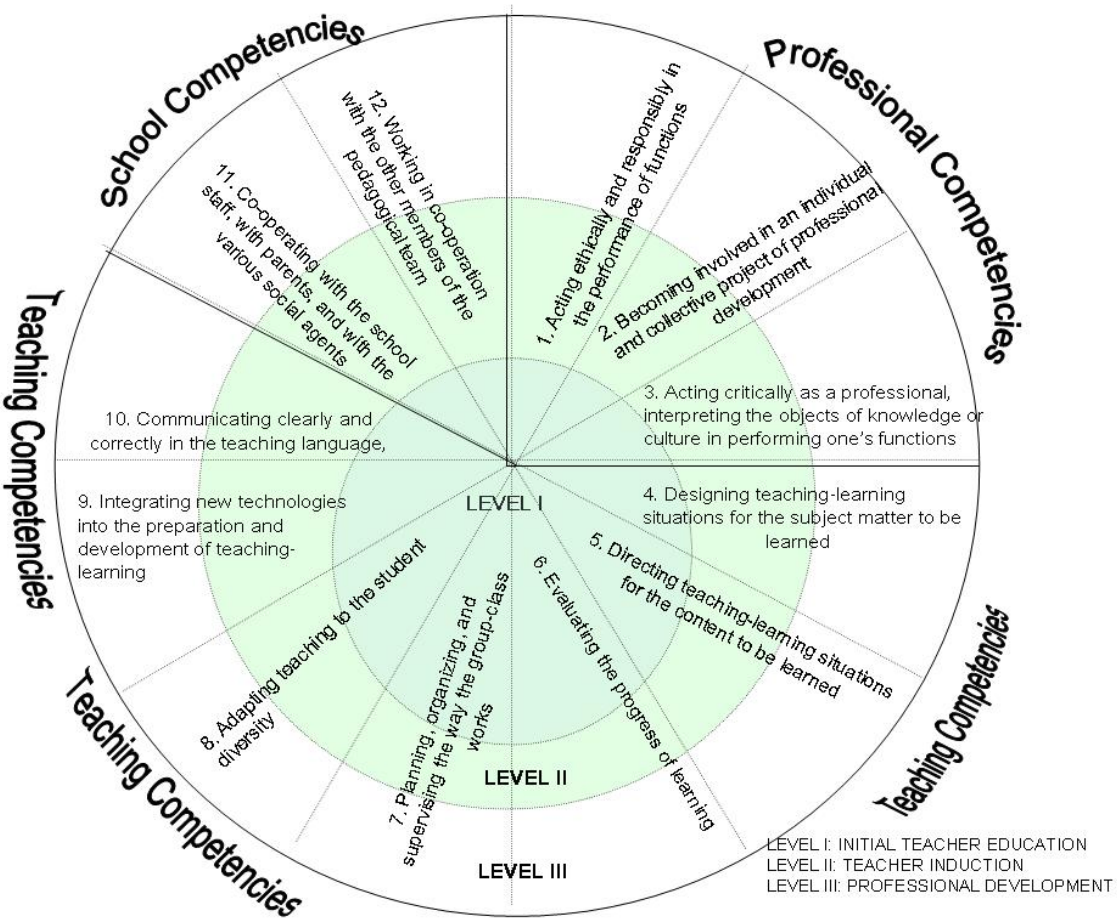
a) competences related with the **teaching** and the **classroom** work;
b) competences related with the **school** work;
c) competences related with the teacher as **professional.**

Within these domains there are more specific categories of competences, which can also be further subdivided in more concrete skills.

According to the above mentioned authors, these competences can be mapped in a synoptic way through the following graph which tries to give an answer on how should be drawn the mapping of teaching competences and skills to match and respond to the new key competences that every student needs to acquire; which are the teaching competences and skills that should be incorporated into the curriculum of teacher training institutions; and which are those that should become the preferred focus of teachers' professional development activities and policies.

[6] 'Knowledge' means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practises that is related to a field of study or work. In the European Qualifications Framework, knowledge is described as theoretical and/or factual (European Commission, 2008).

FIGURE 1. ROAD MAP OF TEACHER COMPETENCES FOR A KNOWLEDGE BASED SECONDARY SCHOOL



Source: Marcelo, 2004 found in World Bank, 2005.

This map, enriched with findings and evidence of recent research, was adapted and supplemented later on by Marcelo (2004) for its application in six case studies conducted in: Chile and Mexico (from the region of Latin America), Senegal, Ghana (from Africa), and Vietnam and Cambodia (in East Asia), for the purposes of the preparation of World Bank's secondary education policy report (World Bank, 2005).

This map could guide the development of programmes for teacher education. The three domains should be approached with different grade of intensity depending on the moment or formation level in which teachers belong. This way, we have differentiated three levels:

- Initial Teacher Education
- Beginning Teacher Induction
- Continuous Professional Development

The list of 12 basic competences could be part of any programme of teacher education, being this in initial teacher education, induction or continuous professional development, but not with the same intensity. These competences are also crucial in the specific case of Bulgaria who implemented a radical curriculum reform, introducing for the first time national education standards and specifying students' achievement in terms of competences developed during the learning process.

The competences related with the work of the teachers in the classroom are those that should be constituted in the axis of the initial teacher education, and this is why this is marked in our graphic with a wider circle. Research shows (World Bank, 2005) the importance for the beginning teachers to acquire a repertoire of abilities and basic knowledge that allow them to begin their professional itinerary.

In continuation, the three main domains of competences and their subdivisions are being presented in numerical order. For the complete list of competences included in the questionnaire, see Annex 1.

1.1 Teaching domain

This domain contains the group of teaching competences which allude to the capacity of teachers to mobilize a variety of cognitive resources to face and deal with a specific type of teaching situation. Rather than a particular content or type of knowledge, teaching competences and skills integrate and articulate cognitive resources which are relevant to a given situation, and are constructed both through training and daily practice in the classroom. Teaching competences are common to every curriculum area and school level, as they cut across subjects and disciplines in all educational levels (Moreno, 2005).

1. **Designing student-centred teaching-learning situations:** Mastering ways of representing and formulating the subject matter with the specific purpose of making it comprehensible to others and understanding of what makes the learning of specific topics easy or difficult taking into consideration students family and cultural background, abilities and prior knowledge (items 1, 2, 3, 8, 9, 13, 14, 15 and 16 in annex 1); Planning sequences of teaching and evaluation bearing in mind the logic of the content and of the learning process (items 4, 5, 6 and 7); Choosing varied and appropriate didactic approaches when developing the competencies included in the curriculum (items 10, 11 and 12).
2. **Directing student-centred teaching-learning situations:** Creating the conditions for students to become involved in situations-problems and in significant topics or projects, bearing in mind their cognitive, affective, and social characteristics and making available to them the resources necessary in the learning situations proposed (items 17 and 23); Presenting the subject matter in networks of knowledge structured around powerful ideas, guiding students in selecting, interpreting, and understanding the information provided and giving them sufficient opportunities to practice and apply what they are learning providing them with improvement-oriented feedback (items 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30 and 31).
3. **Evaluating students learning and competences acquired:** Constructing or employing different instruments to enable evaluation of progress and acquisition of competences and skills and co-operating with colleagues for the improvement of the available pedagogical and didactic options (items 35, 36, 37, 39 and 40); Communicating to students and parents, clearly and explicitly, the results achieved and the feedback concerning progress in learning and acquisition of competence (item 38).
4. **Planning, organizing, and supervising the way the group-class works:** Defining and applying an effective working system for normal class activities (items 41 and 42); Communicating clearly to students the requirements of correct school and social behaviour, ensuring that they adopt them and adopting strategies to prevent incorrect behaviour (items 43, 44, 45 and 46).

5. **Adapting teaching to the student diversity:** Participating in the preparation and implementation of a plan of adapted performance, designing learning tasks adapted to students' possibilities and characteristics (items 47, 48, 49, 50, 51 and 54); Helping the social integration of students with learning or behavioural difficulties (items 52 and 53).
6. **Integrating the technologies of information and communication**: Evaluating the pedagogical potential of ICT as medium for teaching and learning for society (items 55 and 56); Using the ICT effectively to set up networks of exchange related with the subject taught and its pedagogical practice (items 57, 58 and 59).
7. **Communicating clearly and correctly in the teaching language**: Using the appropriate oral language when addressing students, parents, or colleagues and constantly, seeking to improve oral and written experience (items 60, 61, 62, 63 and 65); Stimulate students to process and reflect critically on content and use it in problem solving, decision making, and other higher-order applications (item 64).

1.2 School domain

This domain includes the competences that teachers should display in order to build up a knowledge management system in schools functioning as learning communities which are capable of responding to the needs of students as citizens who have the right to learn.

1. **Enhancing co-operating among various agents to achieve the school's educational targets:** Co-operating with the other members of the school staff, the parents and the students in the management of the school and its activities and projects (items 66, 67 and 68).
2. **Working in co-operation with the other members of the pedagogical team:** collaborating with other members of the pedagogical team for the design and adaptation of teaching-learning situations and the evaluation of learning (items 69 and 70).

1.3 Professional domain

The debate about the professional, non-professional or semi-professional nature of school teaching has been going on for decades. This domain refers to the professional knowledge of teaching and teacher professional developments in terms of lifelong learning.

1. **Acting critically as a professional**: Reflecting about practice and acting upon the results of such reflection (items 72 and 73); Explaining adequately the degree to which students achieved desired learning targets (item 74); Making the class a place open to multiple viewpoints and adapted to various cultural backgrounds (items 75, 76 and 77); Establishing relationships among different fields of the subject matter knowledge identifying the core issues and axes (items 71 and 78).

2. **Becoming involved in an individual and collective project of professional development:** Evaluating one's own competences and adopting the means to develop them using available resources (item 79 and 81); Exchanging ideas with colleagues about the suitability of pedagogical and didactic options (items 80 and 82).

3. **Acting ethically and responsibly in the performance of functions:** Respecting the confidential aspects of the profession and acting ethically and responsibly in difficult circumstances (items 83, 84, 85, 86 and 91); Encouraging democratic conduct in class, avoiding all forms of discrimination (items 87, 88, 89, 90, 92, 93, 94).

In order to carry out the study and ensure high accuracy of the information collected, the rating instrument was translated into Bulgarian including a cover page where the framework and objectives of this study were explained.

The questionnaire was administered in 46 secondary education schools and 26 regional inspectorates across Bulgaria through the established network of the Paideia Foundation

based in Sofia, as well as in the University of Sofia, the Ministry of Education and Science two NGOs and the Syndicate of Bulgarian teachers (see section 2).

201 respondents were asked to rate the "direct" or "indirect" degree of importance (scale of 1 = not important; 2= indirectly important; 3 = directly important) that developing each competency would have for secondary level teaching, and for organizing teacher education activities accordingly (for the detailed list of competences and their rating see annex 1).

By "degree of importance", we mean the relevance that each competence has in the Bulgarian school system and specifically this of secondary schooling, as well as in the broader social and cultural national context. Thus, the degree of importance is understood by whether each of the listed competences is indispensable or not for transmitting successfully new content and values to secondary education students in Bulgaria. Therefore, as "directly important" is defined a competency absolutely necessary for teachers to perform successfully their profession. "Indirectly important" is a useful competency but not necessarily required for secondary education teachers in Bulgaria, while "not important" is an absolutely irrelevant and unnecessary competence for the teaching force in the Bulgarian education context.

We considered significant to examine the degree of importance each respondent attributes to each competency, because in a way, this reflects the actual and ideal image this respondent has on the effective action of teachers in the classroom and school. It reveals the expectations that he/she has from schoolteachers in terms of their qualifications and the way he/she perceives the responsibilities and role of secondary teachers nowadays in Bulgaria.

To be able to interpreter any statistical analysis, obviously, it is required to be adopted *ad hoc* a concrete rating scale. Taking into consideration the psychological and socio-cultural factors and variables that interfere in our particular investigation, the application of a natural statistical distribution (Curve of Gauss: Gaussian or normal distribution, see http://mathworld.wolfram.com/NormalDistribution.html) cannot reflect the reality. Therefore, in order to apply processes that have been proved significant, we have adopted the following rating scale applied in the case studies conducted by the World Bank in order

to examine and valorise teacher education and training in different developing countries (World Bank, 2005):

- competences with a mean of 2.75 or higher are considered “directly” important; and
- those competences with a mean between 2.74 and 1.75 as “indirectly” important.

The responses given to the questionnaires allowed for a quantitative analysis based on a statistical elaboration carried out with the EXCEL statistical tool.

2. Selection of informants

The rating instrument described above was administered to 201 respondents across Bulgaria through the network of *Paideia* foundation. The selection of informants was based on three main categories:

a) the *social category* comprising representatives from non-governmental organizations, parents’ associations, and students from secondary education and higher education;
b) the *category of educators* including teachers in secondary education schools, professors in higher education (universities) and trainers in in-service training for teachers; and
c) the *category of administrative staff* comprising Ministry officials responsible for educational policy development, secondary school directors, unions’ directors and inspectors from the regional inspectorates.

The aim was to address representative actors involved in the curriculum reform process covering virtually the whole territory of Bulgaria including both rural and urban areas, developed and less developed regions, and municipalities of varied size. Thus, the opinion of these groups of respondents is statistically significant since the sample of our research is representative in terms of geographical coverage and number and profiles of actors involved in the education system.

The findings are presented and discussed in the following sections.

3. New competences for secondary education teachers

It is well known that the democratization of the educational system and the modernization of the curriculum, demands the development of new competences and skills for teachers. The new National Education Standards (MES, 1999b) define the expected competences to be acquired by students at the completion of each educational level -where emphasis is made on problem-solving, teamwork, peaceful conflict resolution, dealing with complexity and living with ambiguity, be lifelong learners, and cope with constant changes. However, particularly in transitional countries, such as Bulgaria, secondary students can hardly be expected to acquire these 21st century competences, if the teachers in charge of their education simply are not qualified with them.

The issue of teaching competences beyond and across different knowledge areas and disciplines becomes critical one in the context of the consensus around the 21st century competences needed for students. At the macro level, what teachers should know and be able to do, continue to be country specific, although it appears to be increasingly shaped by world trends. Six national studies carried out by the World Bank show quite a remarkable convergence in terms of the stakeholders' views as to the teaching competences that teachers should acquire and display in classroom (World Bank, 2005).

The present section reviews the evidence gathered in respect of the importance attributed by the different informants to a reach gamma of competences internationally considered highly related to the teaching profession. The study examines the perspective of people closely associated with teacher education, as well as the opinion of secondary school teachers themselves.

In continuation, we present the findings in three different but complementary ways:

a) by the degree of importance attributed by each group of respondents to the main categories of competences that constitute each of the three domains: teaching domain, school domain and professional domain (see section 3.1);
b) by those competences rated as most and least important by each group of respondents (see section 3.2);

c) by those competences rated as most and least important across the groups of respondents (see section 3.3).

Finally, we discuss the opinion of the actors on which of the three domains -teaching, school and professional- secondary education teachers require further training in order to deliver successfully the new curriculum (see section 3.4).

3.1 Degree of importance by competence domain and responding group

The results presented below (see table 1) are organized by domain of competences and group of respondents. Each domain is subdivided between two and seven main categories of competences.

The *teaching domain* is represented in seven main categories of competences:

1. Designing teaching-learning situations for the subject-matter to be learned, and doing so in function of the students and of the development of competences included in the curriculum.
2. Steering teaching-learning situations in order for the content to be learned, and doing so in function of the students and of the development of the competences included in the curriculum.
3. Evaluating learning progress and the degree of acquisition of students' competences in the subject matter to be learned.
4. Planning, organizing, and supervising the way the group-class works, in order to help students learning and socialization processes.
5. Adopting teaching to student diversity.
6. Integrating the technologies of information and communication into the preparation and development of teaching-learning activities, classroom management, and professional development.
7. Communicating clearly and correctly, both oral and written, in the different contexts related with the teaching profession.

The *school domain* is subdivided in two main categories of competences:

1. Co-operating with the school staff, with parents, and with the various social agents to achieve the school's educational targets.
2. Working in co-operation with the other members of the teaching staff in tasks enabling the development and evaluation of the explicit competences of the training plan, and doing so in function of the students.

The *professional domain* is divided in three main categories:

1. Acting critically as a professional, interpreting the objects of knowledge or culture in performing one's functions.
2. Becoming involved in an individual and collective project of professional development.
3. Acting ethically and responsibly in the performance of functions.

In processing the results, some significant similarities and differences were found among different types of respondents in terms of the degree of importance they attribute to each group of competences (see table 1):

3.1.1 Overall conclusions by responding group

1. Only one group of respondents, the teachers' unions, identified as directly important all set of competences belonging to all the three domains: teaching, school and professional. This is to be expected as teachers' unions defend the corporate interests of teachers. As many competences require indispensable for teachers to display, more they value and demonstrate the importance and complexity of their labour.

2. All group of respondents considered as directly important the set of competences belonging to the teaching domain expecting from teachers to know the subject matter, teach effectively and communicate properly. This finding reveals the traditional perspective of the teaching responsibility that prevails in the Bulgarian community: teachers should know in depth the subject matter and be able to transmit knowledge efficiently. Other more "modern" competences that teachers should acquire are not yet consolidated in individuals' mind.

3. Only two out of the seven responding groups, the teachers' unions and members of NGOs, valued competences related to the school domain according to which schools function as social communities where teachers should cooperate with the other members of the teaching staff. It is interesting to find out that only these responding groups that from their nature constitute a group of people, a small community, such as teachers' union and Non-Governmental Organizations value the respective competences on team working, cooperation, collaboration, exchange of ideas, etc. For the remaining responding groups, the teaching profession is perceived as an individual labour.

4. Ministry officials, students and university professors do not find it necessary for teachers to display competences linked to the professional domain, such as *acting critically ethically and responsibly as a professional in the performance of their duties*. This is a weak point for implementing successfully measures targeted to the professional development of teachers mainly because policy-makers themselves and university professors responsible for teachers' formation do not see the need.

5. It is remarkable to see that from the seven different groups of respondents, there is absolute convergence only between the opinions of Ministry officials and students. These are the two extreme ends in the social scale of the teaching activity: those at the top who design the education and those at the bottom who receive it. These two groups identify as directly important for teachers only one group of competences out of the twelve belonging to the teaching domain: *the ability of teachers to communicate clearly and correctly both oral and written.*

6. It is also interesting to see that the above-mentioned group of competences referring to the communication skills of teachers is the only one for which all responding groups agreed that it is directly important for the teaching profession. This puts in evidence that beyond all competences unanimously important is the communication between and among teachers and students, teachers and parents, teachers and the other school staff. The acknowledgement of the need for communication is a strong point for the Bulgarian pedagogic society in order to secure the democratic

7. The opinions of teachers and inspectors are aligned from the point of view that both of them value competences belonging to the teaching domain and the professional, although they do not value exactly the same competences within these domains. It is a positive sign to find convergence in the viewpoints of those who lead the teaching-learning process and those who evaluate this performance. Although, these groups do not value as absolutely necessary the need for teachers to act in a school, which functions as a learning community and this contradicts with the current global trends.

3.1.2 Overall conclusions by domain of competences

In concrete, as far as it regards the **teaching domain competences**:

1. *Designing teaching-learning situations for the subject matter to be learned* was identified as directly important only by teachers' union, university professors and inspectors. Far less importance was given to this competency by secondary education teachers, Ministry officials, members of NGOs and university students. This set of competences refers mainly to the knowledge of the subject matter and its effective transmission to students. It is worth noting that those who value more this competence are university professors and inspectors who are specialized in a concrete subject. One could expect to find convergence in the opinion of teachers and teachers' unions but it seems that the latter see this set of competences more from the perspective of defending one's specialization and the status of each subject in the school curriculum.

2. *Steering teaching-learning situations in order for the content to be learned* considered very important only by the members of the Bulgarian Teachers' Syndicate in Sofia, secondary education teachers and university professors. This is to

be expected as those groups are the only actors who actually teach and are expected to display such competences.

3. *Evaluating learning progress and the degree of acquisition of students' competences* was rated as directly important only by teachers' unions and university professors. Secondary education graduate (current university) students attributed the lowest rate to this category of competences in comparison to the other groups of informants (see annex 1). We should point out that this survey was conducted at a time when the introduction or not of an external national school-leaving exam was a hot topic of an extensive and often conflictive debate among different actors in the educational system. University professors and teachers were in favour of an objective external exam, whether students and parents were opposed to its introduction. This shows that the groups who were in favour of the national Matura exam were also attributed greater emphasis in the competences of teachers to evaluate and assess students.

4. Inspectors, secondary education teachers and teachers' unions considered directly important the set of competences on *Planning, organizing, and supervising the way the group-class works, in order to help students learning and socialization processes.* One could say that responding groups value as important those competences that correspond to their main functions in the educational system.

5. Only the members of NGOs and teachers' unions considered very important the set of competences on *adopting teaching to student diversity.* It is evident that from their one nature, these two responding groups are sensitive towards issues of solidarity within the educative activity. The rest of the informants and especially inspectors (experts) did not perceive this competence as indispensable for teachers. The lack of understanding on the need to cope with students with special educational needs as well as students of different economic and cultural background may debilitate ongoing efforts of the Bulgarian government to mainstream these students in public comprehensive schools.

6. *Integrating ICT into the preparation and development of teaching-learning activities* was rated as directly important only by university professors and teachers' unions.

Ministry officials and to far less extent teachers, students and inspectors (experts) did not value competences that enable teachers to use ICT in the teaching-learning process. The lack of understanding the benefits computers can bring in the teaching-learning process is one of the weakest points of the Bulgarian actors involved in the education system. It becomes evident than only the group of teachers' unions who believe that computers can support the teaching profession and university professors who realize the need of ICT in their daily functions (conducting research, retrieving ICT-based information, etc.) value such competences. This makes obvious that there is a great need for (in)formatting the Bulgarian society on the utility of ICT as a pedagogical tool.

7. All respondents with no exception at all attributed high importance to the competence on *communicating clear and correct, both oral and written, in the different contexts*. This is something that we have concluded earlier on (see section 3.1.1) highlighting its importance for the successful implementation of the curriculum reform.

As far as it regards the **school domain competences**:

1. *Co-operating with the school staff, with parents, and with the various social agents to achieve the school's educational targets* is identified as very important only by the Teachers' Union in Sofia, while in contrary, inspectors (experts) think it is the least important (see annex 1). One may deduce that the former responding group assigns the teaching procedure on the societal level based on their proper activity, whether the latter, sees the problematic of the teaching-learning process within the boarders of the classroom.

2. *To work in co-operation with the other members of the teaching staff* is valued as an important competency only by teachers' unions, while ministry officials, NGO members, teachers, university professors, students and inspectors did not include this in the list of the necessary competences. It is obvious that all responding groups, except the members of teachers' union, have rather individual activities to perform.

Members of teachers' unions consider education matters within a broader spectrum of bilateral or multilateral co-operation.

Finally as far as it regards the **professional domain competences**:

1. *Acting critically as a professional* was considered indispensable only by the members of NGOs and teachers' unions. From what we have said up to now, one could remark that the professional status of teachers is not widely accepted in Bulgaria. This is a challenging issue for more European countries who strive to increase the attractiveness and status of the teaching profession (OECD, 2004). It is good enough to find out that merely professional institutions, such as NGOs and teachers' union, understand more easily the professional side of teachers' responsibilities. Special attention though should be given in raising awareness towards the professionalisation of teachers in Bulgaria.

2. *Becoming involved in an individual and collective project of professional development* was not among the priorities of any of the group of respondents. The lack of acknowledging the need for upgrading teachers' competences to cope with the new emerging needs, mainly in a time when a curriculum reform and a broader educational change are taken place in Bulgaria, could be a great obstacle to its success. These findings reveal the need for giving incentives and motivating Bulgarian teachers to participate in programmes of professional development and commit themselves to carry out this reform.

3. *Acting ethically and responsibly in the performance of functions* was not considered significantly important by ministry officials, university professors and students. While this can be viewed as a sever deficiency, one could think that these responding groups may not think that this is a priority, as other crucial areas mentioned above required immediate attention at the time this survey was carried out (2004-2005).

TABLE 1. DEGREE OF COMPETENCES' IMPORTANCE BY DOMAIN AND GROUP

Teaching Domain Competences	Mi	NGO	Unions	Teachers	Prof	Students	Inspectors
1. Designing teaching-learning situations for the subject-matter to be learned	×	×	√	×	√	×	√
2. Steering teaching-learning situations in order for the content to be learned	×	×	√	√	√	×	×
3. Evaluating learning progress and the degree of acquisition of students' competences	×	×	√	×	√	×	×
4. Planning, organizing, and supervising the way the group-class works	×	×	√	√	×	×	√
5. Adopting teaching to student diversity	×	√	√	×	×	×	×
6. Integrating the technologies of information and communication into teaching-learning activities	×	×	√	×	√	×	×
7. Communicating clearly and correctly, both oral and written	√	√	√	√	√	√	√
School Domain Competences							
1. Co-operating with the school staff, with parents, and with the various social agents	×	×	√	×	×	×	×
2. Working in co-operation with the other members of the teaching staff	×	√	√	×	×	×	×
Professional Domain Competences							
1. Acting critically as a professional	×	√	√	×	×	×	×
2. Becoming involved in an individual and collective project of professional development	×	×	×	×	×	×	×
3. Acting ethically and responsibly in the performance of functions	×	√	√	√	×	×	√

Source: Author

√**: directly important:** competences with a mean of 2.75 or higher

×**: indirectly important:** those with a mean between 2.74 and 1.75

NB. Only one competency from the entire list was rated as "not important" from a group of respondents and therefore we will not deal with this category (see Annex 1 for the detailed statistical analysis of the completed list of competences by domain and group of respondents).

3.2 Most important and least important competences by group of respondents

In continuation we present the set of the first highest rated competences, as **most important** and the **least important competences** for each the seven responding groups independently of the category they belong.

3.2.1 Ministry officials

The opinion Ministry officials have is very crucial since they are the ones who develop policy for reforming the educational system according to their believes and the perception they have on the strengths and weaknesses of the system. In the table below (see table 2), we present the competences they consider as *directly important* for the teaching profession. All listed competences were rated with the maximum point 3.

From the table below, it becomes obvious that most of the competences Ministry officials contacted during this survey (in 2004-2005) valorise as indispensable for secondary education teachers belong to the *teaching domain*[7] and the remaining to the *professional domain*[8]. Ministry officials do not recognize as directly important competences that belong to the school domain. For them the co-operation between the school staff, the parents and the various social agents to achieve the school's educational targets is not directly important. In other words, they consider teachers responsible to teach effectively and professionally without having a direct role to play in the transformation of the school to a learning community by sharing knowledge and collaborating with their colleagues, the parents and other agents concerned. This opinion does not comply with the increasing trend in developed school systems to establish teachers' networks, to increase collaboration and knowledge sharing among the teaching staff not only of the same schools but also of other schools (Hargeaves, 2003).

[7] Competences which allude to the capacity of teachers to mobilize a variety of cognitive resources to face and deal with a specific type of teaching situation.
[8] Competences referring to the professional knowledge of teaching and teacher professional developments in terms of lifelong learning.

As far as regards the teaching domain competences, Ministry officials put an emphasis on the knowledge of the subject matter and the way is delivered to students. They also valorise the ability of teachers to assess students' progress using formal tests, performance evaluations and informal assessments (see annex 1, items 35-37).

They recognise the importance of using adequate communication means and different learning rhythms adapted to the needs of students. Apart from valorising student-centred learning, they also acknowledge the importance for teachers to establish links with other subjects and to engage students in dialogue, i.e. they are in favour of interdisciplinary and interactive methods of learning.

Ministry officials see teachers as professionals who encourage the democratic conduct in classroom, allowing students to have and express different point of views. This was made obvious both by the findings of our survey (see table 2, items 87 and 88) as well as the personal interviews conducted with ministry officials (Psifidou, 2007).

In continuation, we present the lowest rated competences between 2.10 (item 34) and 2.30 (item 82) considered as *least important* for the teaching profession. From the findings, it becomes evident that while Ministry officials give importance to fruitful communication between teachers and students, this is limited in the context of the subject matter. They do not think it is important to involve students in the planning of the teaching process. They see teachers more as mere transmitters of learning, having a rather behaviourism approach towards their role. This may be a persistent characteristic of the authoritarian orientation of communism, which opposes to the theories of Freinet[9] and Montessori[10].

[9] The most important concepts of Célestin Freinet pedagogy are the following:
- Pedagogy of Work ("*Pédagogie du travail*") - meaning that pupils learned by making useful products or providing useful services.
- Co-operative Learning ("*Travail coopératif*") - based on co-operation in the productive process.
- Enquiry-based Learning ("*Tâtonnement experimental*") - trial and error method involving group work.
- The Natural Method ("*Methode naturelle*") - based on an inductive, global approach.
- Centers of Interest ("*Complexe d'intérêt*") - based on children's learning interests and curiosity (source: http://freinet.org/icem/history.htm).

[10] The Montessori Method is a teaching methodology developed in Italy by Dr. Maria Montessori. The method is characterized by an emphasis on self-directed activity on the part of the child and clinical observation on the part of the teacher (often called a "director", "directress", or "guide"). It stresses the importance of adapting the child's learning environment to his developmental level, and of the role of physical activity in absorbing academic concepts and practical skills (source: http://www.montessori.org/).

Ministry officials do not attribute learning mainly to factors related to the teaching-learning process and they do not find important for teachers to conduct research, which would enable them to develop and acquire further skills. This opinion is far away from the theory of investigation-action, which is highly valued and increasingly becomes a consolidated part of teachers' training programmes in other European systems (Hargeaves, 2003).

TABLE 2. MOST AND LEAST IMPORTANT COMPETENCES FOR MINISTRY OFFICIALS

Item*	Most important competences	No of answers
1	Mastering ways of representing and formulating the subject matter with the specific purpose of making it comprehensible to others	10
5	Knowing the contents of the subject matter and its relation to other subjects	10
25	Questioning to engage students in sustained discourse structured around powerful ideas	10
49	Organizing different learning rhythms adapted to students' possibilities and characteristics	9
65	Communicating ideas rigorously, using precise vocabulary and correct syntax; correcting errors made by students in their oral and written work; constantly, seeking to improve oral and written experience	10
71	Identifying the core issues in the subject in order to facilitate students' meaningful learning	10
87	Encouraging democratic conduct in class, giving students due attention and support	10
88	Allowing for differences in postures and points of view among students	10
Item	**Least important competences**	**No of answers**
15	Being able to describe the different ways of learning of their students	9
34	Explaining how teaching will be changed according to feedback received	10
42	Providing students with explicit information on how lesson time will be distributed	10
82	Encouraging colleagues to participate in research aimed at the acquisition of competences	10
84	Attributing learning mainly to factors related to the teaching-learning process	9

Source: Author

NB* The items numbered from:
01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

3.2.2 Members of Non-Governmental Organizations

The opinion of the members of Non-Governmental Organizations who work as experts and researchers in the field of educational policy development is highly significant because it is not conditioned by their institutional status. The reforms implemented in the education system do not have a direct impact on them. The fact that they do not have personal, political or economic interests of the way the education system is shaped and evolutes, allows them to observe the educational system and its function with a critical eye. Most of the time, they keep a neutral position between practitioners and policy-makers and they feel free to express their opinion which is based on scientific research and evidence. Often, they are those who consult/assist policy-makers to conceptualise or implement reforms and this makes their point of view even more significant for our study. We should also not forget that their role is increasingly acknowledged at world level, taken that the United Nations accepts them as official consulting bodies.

Based on the findings of our questionnaire, NGO members addressed in this survey give special attention to the fruitful communication between teachers and learners; the democratic conduct in class; and the effective evaluation of students. They consider indispensable for secondary education teachers to display most of the competences belonging to the teaching domain and fewer to the school and professional domains. In the table below (see table 3) they are presented only those competences rated with the highest point of 3.

As far as regards the teaching domain, they consider as directly important competences belonging to six out of the seven categories. Namely, they acknowledge the importance of designing and steering teaching-learning adequate situations for the subject-matter to be easily learned by students; enhancing their critical thinking; monitoring and evaluating students' progress in terms of content learning and acquisition of new competences; fostering group-class works in order to help students' learning and socialization processes; adopting teaching to student diversity; and communicating clearly and

correctly, both oral and written, in the different contexts related with the teaching profession.

From the school domain, they consider as directly important for teachers to collaborate with other members of the pedagogical team for achieving consensus on the design and adaptation of teaching-learning situations and the evaluation of learning. In general though, they attribute far less importance to competences belonging to this domain in comparison to the other two: the teaching and professional domains.

From the domain of professionalism, they value as directly important for teachers to display competences that enable them to act critically as professionals facilitating students' meaningful learning; to be aware of the values at stake in one's performance; and to encourage democratic conduct in class giving students due attention and support.

From the competences considered as *least important* for the teaching profession we present in the table below (see table 3) those rated by NGO members with the lowest grades: between 2.00 (items 3 and 19) and 2.40 (items 11, 15, 23, 43, 56, 57, 67, 79 and 80). These competences are related to knowing the background of students; conducting research; using ICT in teaching processes; and preventing and intervening in the incorrect behaviour of students.

The lack of valuing the family and cultural background of students shows that NGO members are not informed on recent research findings, which provide evidence that the achievement of students depends on the socioeconomic profile of their families. The results of international assessments such as PISA for example, show that students who come from rich families and have educated parents are better achievers than poorer students with uneducated parents (OECD, 2003). This finding is also controversial to previously valued competences, such as involving teachers in bearing in mind social differences (sex, ethnic origin, socio-economic, and cultural), needs and special interests of the students; taking a critical look at one's own origins and cultural practices, and at one's social role, and being aware of the values at stake in one's performance, since for teachers to display such competences, it is required to know about students' family and cultural background.

NGO members as Ministry officials do not value the research skills for teachers and do not consider important the use of computers for the preparation and development of teaching-learning activities, classroom management, and professional development. This is unforeseen as educational experts working at NGOs usually have a more international perspective of developments in the educational sector, being well informed on the added value computers bring to pedagogy.

Finally, contacted NGO members do not valorise the role of teachers as contributors and controllers of students' correct school and social behaviour.

TABLE 3. MOST AND LEAST IMPORTANT COMPETENCES FOR NGO MEMBERS

Item*	Most important competences	No of answers
1	Mastering ways of representing and formulating the subject matter	5
2	Understanding of how students of different ages and backgrounds learn more easily	5
16	Uses strategies to put into action student prior knowledge	5
21-22	Establishing a learning environment that invites students to thinks and act autonomously	5
28-29	Providing correct and timely feedback to students, and monitoring their understanding	5
30	Giving the students opportunities to practice and apply what they are learning	3
35-36	Constructing instruments to enable evaluation of students progress	5
44-45	Fostering students' participation in establishing the norms to work and live together	5
49	Organizing different learning rhythms adapted to students' possibilities and characteristics	4
54	Participating in the preparation and implementation of a plan of adapted performance	5
60-65	Communicating clearly and correctly, both oral and written, in the different contexts	5
71-73	Reflecting about practice and acting upon the results of such reflection	4
83	Being aware of the values at stake in one's performance	4
85	Interpreting student learning difficulties as a challenge to be met	5
87-88	Encouraging democratic conduct in class, giving students due attention and support	5
Item	**Least important competences**	**No of answers**
3	Analyzing students' misconceptions concerning the subject matter	5
11-15	Being able to describe the different ways of learning of their students	5
14	Knowing about family and cultural background of students	5
19	Presenting the subject matter in networks of knowledge structured around powerful ideas	2
23	Making available to students the resources necessary in the learning situations proposed	5
43	Communicating clearly to students the requirements of correct school and social behaviour	5
46	Adopting strategies to prevent incorrect behaviour and intervening effectively when it does	5
59	Helping students use the ICT in their learning activities	5
67	Promoting participation and the flow of relevant information to parents	5
79	Evaluating one's own competences and adopting the means to develop them	5

82	Encouraging colleagues to participate in research aimed at the acquisition of competences	5
80	Exchanging ideas with colleagues about the suitability of pedagogical and didactic options	5

Source: Author

3.2.3 Members of teachers' unions

The opinion of the members of the Bulgarian syndicate of teachers in Sofia is significant from the point of view that they are those who together with the teachers, better understand their needs. They are those who are in a position to raise their voice to Ministry officials, to fight for the preservation of the rights and social status of the teachers. They are those who defend the necessities and the position of teachers within the school and the broader social community.

However, it is to be expected that the members of teachers' unions have a corporate interest with teachers and often are quite critical to government policies that do not fully comply with their expectations. They see the educational problems from the point of view of corporative interests and not from the perspective of the teaching-learning process. Thus, their opinion may be conditioned by their function in the educational system, which is to defend the working interests of teachers.

In the first section of the table below (see table 4), we present those competences rated as directly important with the maximum of 3 points. The findings show that the members of teachers' unions interviewed for the purposes of this survey, value a rich number of competences belonging to all the three domains: teaching, school and professional domain. They do though attribute a special interest to competences related to the teaching domain and especially to the knowledge of the subject matter.

Furthermore, they consider indispensable for teachers in secondary schools to adapt their teaching methods to students possibilities and cognitive, affective and social characteristics. They value the ability of teachers to communicate clearly and correctly, both oral and written, in the different contexts when addressing students, parents, or colleagues. They regard teachers as responsible for the continuous monitoring of students' understanding and evaluation of their progress through different formal and informal assessment tools.

Representatives of teachers organized in unions contemplate the importance of different multimedia tools, such as computers, as means for facilitating the learning and teaching process. They also ponder the significance of the cooperation with the other school staff on defining targets and putting into practice projects for the improvement of the educational services.

While overall, it seems that members of teachers' unions have acknowledged most of the key competences for the teaching profession within the context of the knowledge society and more concrete in the case of Bulgaria, this conclusion becomes controversial when we examine the competences that they consider less important. The following paragraphs illustrate this controversial point of view.

While we saw that they value the cooperation with the other teaching staff, they limit this cooperation within concrete areas. For instance, they do not think it is important to co-operate with colleagues to determine the desirable rhythm and stages of progress in the training cycle, nor to exchange ideas on the available pedagogical and didactic options. Furthermore, encouraging colleagues to participate in research aimed at the acquisition of competences is not a priority for them.

Moreover, they do not think it is necessary to inform students and the public on the decisions taken for the organization of the teaching procedure. While they consider it indispensable for teachers in secondary schools to adapt their teaching methods to students' possibilities and cognitive, affective and social characteristics, they do not think it is important to take into consideration the social differences, needs and special interests of the students. These controversial findings do not allow us to draw clear conclusions on whether the members of teachers' unions are in favour or not of student-centred teaching and learning methods, in which students have an active role to play both in the planning as well as the implementing phase.

Finally, while they contemplate the importance of different multimedia tools, they do not think teachers should display competences in evaluating the pedagogical potential of ICT for adopting a critical attitude to its advantages and limitations as a teaching and learning tool.

We should mention though that the competences rated as least important by the members of the teachers unions have being given in average 2.6 points which is quite high in comparison to the lowest rates given by the other group of respondents. This means that even though they do not consider the above-mentioned competences as directly important, they still find them useful for teachers. This makes them the only group of respondents who valued almost all the listed competences. One could think that on one hand, being the defenders of the teaching profession, members of teachers' unions by valuing a rich gamma of competences prove the important and complex labour of being a teacher. On the other hand though, they also acknowledge the multifaceted responsibilities that teachers should assume at the time of implementing a reform.

TABLE 4. MOST AND LEAST IMPORTANT COMPETENCES FOR TEACHERS' UNIONS

Item*	Most important competences	No of answers
1	Mastering ways of representing and formulating the subject matter	5
5	Knowing the contents of the subject matter and its relation to other subjects	5
17	Creating the conditions for students to become involved in situations, bearing in mind their cognitive, affective, and social characteristics	5
28	Providing correct, substantive and timely feedback to students	5
35-37	Planning and applying adequate evaluation procedures for students' assessment	5
44	Fostering students' participation in establishing the norms to work and live together	5
47	Designing learning tasks adapted to students' possibilities and characteristics	5
57	Using a variety of multimedia tools (e.g. ICT) for communication and problem-resolving	5
60-65	Communicating clearly and correctly, both oral and written, in the different contexts	5
66	Co-operating with the other members of the school staff in defining targets, and in the preparation and putting into effect of projects on educational services	5
71	Identifying the core issues in the subject to facilitate students' meaningful learning	5
83	Being aware of the values at stake in one's performance	4
Item	**Least important competences**	**No of answers**
9	Bearing in mind representations, social differences, needs and special interests of the students	5
23	Making available to students the resources necessary in the learning situations proposed	5
39	Co-operating with the teaching staff to determine the desirable rhythm and stages of progress in the training cycle	5
40	Exchanging ideas with colleagues on the available pedagogical and didactic options	5
42	Providing students with explicit information on how lesson time will be distributed	5
43	Communicating clearly to students the requirements of correct school and social behavior	5
55	Adopting a critical attitude to the advantages and limitation of ICT as a learning tool	5
56	Evaluating the pedagogical potential of ICT	5
72	Critically distancing oneself from the subject taught	5
75	Establishing relationships between the cultural background embedded in the prescribed curriculum and that of the students	5
82	Encouraging colleagues to participate in research aimed at the acquisition of competences	5
90	Explaining to the public the decisions taken concerning students' learning and education	5

Source: Author

NB* The items numbered from:
01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

3.2.4 Teachers

The opinion of the teachers is undoubtedly the most significant, since they are the ones who do the actual work knowing at first place the skills and competences they should be equipped with in order to perform successfully their profession. The opinion teachers have on the degree of importance of each competence reflects the way they perceive their role and responsibilities within the school time, and to a certain extend determines their real action. Analysing the subjective opinion of teachers in this respect is therefore as significant as analysing objective data (days of sickness leave, unjustified absences, etc.), which could alert us to potential dissatisfactions and lack of commitment to the application of this reform.

It is to be expected that if teachers do not perceive the new key competences required to bring forward the reform, is unlikely that they have understood the changes and the ultimate goal of the curriculum reform. Thus, the degree of their understanding towards the needs for specific skills and competences determines also the degree of their implication in this reform and its potential successful or not implementation.

The first section of the table below (see table 5) presents the most important of the listed competences according to the opinion of teachers rated between 2.95 (items 20, 43, 87 and 92) and 2.99 (items 1, 5 and 64).

It is notable from the findings that teachers give a special importance on competences related to the teaching domain, and especially, on the profound knowledge of the subject matter and its effective transmission to students. They are also in favour of an interactive teaching-learning process, stimulating students to be actively involved during classroom time. They valorise the provision of feedback to students and the regular monitor and assessment of their understanding (see annex 1, items 35 and 37). They also recognise the importance of communicating clearly and appropriately with them as well as with their parents. Finally, they understand the importance of helping students to work and live

together, communicating clearly to them the requirements for an appropriate school and social behaviour.

Teachers do not regard as directly important competences belonging to the school domain, while from those belonging to the professional domain; they valorise only competences related to the democratic conduct in the classroom avoiding any kind of discrimination.

As far as regards the least important competences for teachers, we list in the table 5 those rated between 2.07 (item 58) and 2.31 (item 73). It is surprising to find out that among them there are competences related to the ICTs and their potential use as a pedagogical tool. It becomes obvious that teachers do not know the utility of computers for investigating, interpreting, and communicating information, and resolving problems. It is also interesting to see that while valuing the knowledge on the subject matter they do not think it is indispensable for teachers to be able to establish relationships among different fields of the subject matter knowledge; and this, in the time when the new curriculum is being applied in schools, structured in curriculum areas, which establish interdisciplinary links.

Furthermore, teachers do not find important the self-evaluation as a mean to identify their needs and further develop their competences, which in reality is a *sine qua non* requirement for professional development. Finally, they do not see the need to exchange ideas with colleagues about the suitability of pedagogical and didactic options, neither to encourage them to participate in research aimed at the acquisition of competences. In general lines, there is a tendency for individualism, as what they valorise most is whatever they can do alone.

Knowing about family and the cultural background of students; seeking pertinent information regarding students' needs; helping the social integration of students with learning or behavioural difficulties; and participating in the preparation and implementation of a plan of adapted performance are also among the lowest rated competences by teachers (see annex 1). It is surprising to find out that while one of the policy priorities in Bulgaria is the mainstreaming of children with special education

needs, Bulgarian teachers do not think that is within their responsibilities to know how to help these children to be integrated in the school.

TABLE 5. MOST AND LEAST IMPORTANT COMPETENCES FOR TEACHERS

Item	Competences	No of answers
1, 8	Mastering ways of making the subject matter comprehensible to others	111
5, 6	Knowing the contents and perspectives of the subject matter and its relation to other subjects	112
20	Making it obvious that learning of subject matter is essential	111
17, 21	Establishing a learning environment that invites students to think and act autonomously bearing in mind their cognitive, affective, and social characteristics	112
25	Questioning to engage students in sustained discourse structured around powerful ideas	112
28	Providing correct, substantive and timely feedback to students	110
29	Adequate monitoring of student understanding	111
43	Communicating clearly to students the requirements of correct school and social behaviour	110
44	Fostering students' participation in establishing the norms to work and live together	110
60	Using the appropriate oral language when addressing students, parents, or colleagues	111
61	Presenting clearly the purposes of each lesson	112
64	Using questions to stimulate students to reflect on content and think critically about it	111
65	Communicating ideas rigorously and seeking to improve students oral and written experience	112
87	Encouraging democratic conduct in class, giving students due attention and support	110
92	Avoiding all forms of discrimination by students, parents, and colleagues	111
Item	**Competences**	**No of answers**
23	Making available to students the resources necessary in the learning situations proposed	109
51	Organizing heterogeneous groups for students to work together	104
55	Adopting a critical attitude to the advantages and limitation of ICT as medium for learning	111
56	Evaluating the pedagogical potential of ICT	110
58	Using the ICT effectively to set up networks of exchange related with the subject taught	111
72	Critically distancing oneself from the subject taught	107
73	Reflecting about practice and acting upon the results of such reflection	111
75	Establishing relationships between the cultural background embedded in the prescribed curriculum and that of the students	110
78	Establishing relationships among different fields of the subject matter knowledge	110
79	Evaluating one's own competences and adopting the means to develop them	109
80	Exchanging ideas with colleagues about the suitability of pedagogical and didactic options	112
82	Encouraging colleagues to participate in research aimed at the acquisition of competences	110

Source: Author

NB* The items numbered from:
01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

3.2.5 University professors

Pre-service education for secondary education in Bulgaria teachers takes place at the universities. Therefore, university professors are the main responsible for the initial education of teachers. They are those who should equip teachers with the adequate knowledge, skills and competences to be able to cope with the requirements of the teaching profession. Bearing this in mind, the opinion of this group of respondents is significant since it reveals the expectations that university professors have for teachers and on which specific competences place the focus at the time of their training.

In the table below (see table 6) there are listed those competences considered by university professors as directly important to the teaching profession and have been rated with the maximum 3 points.

University professors, as Ministry officials and teachers, valorise more competences related to the teaching and professional domains rather than the school domain. They perceive teaching as an interactive activity between teachers and learners based on pedagogical methods adapted to students' possibilities and characteristics, different ages and backgrounds. They believe that teachers should be in charge to develop to their students skills related to critically thinking, problem solving, decision-making, and making other higher-order applications. This of course implicates that teachers themselves should display such skills at first place.

They also value the knowledge of the subject matter but also the ability to establish relationships with the other curriculum subjects, being in this way the only group of respondents who values interdisciplinarity (see table 6, item 5).

They give a special attention to the adequate communication skills of teachers. They believe that teachers should be able to take a position and discuss coherently, effectively,

constructively and respectfully when addressing students, parents, or colleagues, avoiding all forms of discrimination.

According to university professors, teachers should regularly evaluate and monitor students' progress using formal tests and performance evaluations as well as informal assessment tools. Moreover, teachers should be in a position to evaluate their own competences and should take care for improving their skills and competences.

Finally, university professors expect from teachers to know the pedagogical potential of ICT and its limitations and help students use computers in their learning activities (see annex 1, items 55, 56 and 59).

As far as regards the least valued competences by university professors, the findings reveal some contradictions. The second section of the table below presents the lowest rated competences: between 2.31 (items 42, 51 and 90) and 2.46 (items 54, 58, 68 and 84).

While they value the differentiating teaching according to students' characteristics and backgrounds, they do not think it is necessary to know about the family and cultural background of their students. This is surprising as the latter is a precondition for carrying out the former.

University professors, do not think it is absolutely required for teachers to exchange ideas with colleagues on the appropriateness of the available pedagogical and didactic options, neither to participate in the preparation and implementation of a plan of adapted performance. Finally, they do not see the benefit of using the ICT effectively to set up networks of exchange related with the subject taught.

From the findings, it becomes immediately obvious that from the three domains of competences under examination, the one that this group of respondents values less is the school domain. In other means, university professors do not think it is directly important nowadays for the Bulgarian context to build up a knowledge management system in schools, which should function as learning communities capable of responding to the needs of students as citizens who have the right to learn.

TABLE 12.9 MOST AND LEAST IMPORTANT COMPETENCES FOR UNIVERSITY PROFESSORS

Item	Most important competences	No of answers
2	Understanding of how students of different ages and backgrounds learn more easily	13
5	Knowing the contents of the subject matter and its relation to other subjects	13
22	Using teaching approaches that invite thinking about different possibilities	13
25	Questioning to engage students in sustained discourse structured around powerful ideas	13
33	Flexibly altering learning activities according to feedback received	13
36	Constructing instruments to enable evaluation of progress and acquisition of competences	13
47	Designing learning tasks adapted to students' possibilities and characteristics	13
63	Knowing how to take a position, and maintain one's ideas and discuss coherently, effectively, constructively and respectfully	13
64	Using questions to stimulate students to reflect on content, think critically about it and use it in problem solving, decision making, and other higher-order applications	13
79	Evaluating one's own competences and adopting the means to develop them	13
Item	**Least important competences**	**No of answers**
14	Knowing about family and cultural background of students	13
15	Being able to describe the different ways of learning of their students	13
24	Giving students opportunity to learn, dedicating most of the available time to curriculum activities	13
46	Exchanging ideas with colleagues on the appropriateness of the available pedagogical and didactic options	13
42	Providing students with explicit information on how lesson time will be distributed	13
51	Organizing heterogeneous groups for students to work together	13
54	Participating in the preparation and implementation of a plan of adapted performance	13
58	Using the ICT effectively to set up networks of exchange related with the subject taught	13
67	Promoting participation and the flow of relevant information to parents	13
68	Encouraging student participation in the management of the school and its activities	13
82	Encouraging colleagues to participate in research aimed at the acquisition of competences	13
84	Attributing learning mainly to factors related to the teaching-learning process	13
90	Explaining, in function of the public interest, the decisions taken concerning students' learning and education	13

Source: Author

NB* The items numbered from:
01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

3.2.6 University students

We have chosen to ask the opinion of university students on the necessary competences secondary education teachers should have in Bulgaria for two main reasons: firstly because those university students contacted, have been studying in secondary schools at the time the reform was taken place and the new curriculum for secondary education was being applied at schools. Therefore, they were the firsts to witness the change and identify the strengths and weaknesses of their teachers' competences to deliver the new curriculum. Secondly, some of them are thinking to become teachers and therefore have a special interest in the topic. These two points make the opinion of university students towards the role and competences of teachers significant for the present study.

In table 7, the highest rated competences based on the university students are presented: between 2.83 (items 21, 48, 52, 85 and 92) and 2.96 (item 71).

University students attribute a balanced value to competences belonging to all the three domains: teaching, school and professional. They realise that teachers should not only know the content of the subject matter but also to use the adequate pedagogical methods while teaching, to contribute to establishing a school learning community collaborating with their colleagues and to be professionals when they perform their duties.

Students expect from teachers to have a good knowledge of the subject they teach and to be able to establish links within the different fields of the subject matter knowledge. They are in favour of an interactive teaching-learning process during which a teacher always monitors the degree of students' understanding. They give focus on the communication skills of their teachers while interacting with them, their parents, or with their colleagues.

Students are the only group of respondents being particularly sensitive with the issue of the social integration of students with learning or behavioural difficulties. They understand the need for teachers to be able to cope with diversified classrooms, avoiding all forms of discrimination and converting the classroom in an appropriate and beneficial learning environment for everybody.

While they do not give the highest rates to competences belonging to the school domain, still students consider them directly important for the teaching profession and especially those referring to the cooperation with the other members of the school staff in defining targets, and in the preparation and putting into effect of projects on educational service. They also expect from their teachers to encourage students' participation in the management of the school and its activities and projects (see annex 1, item 68).

From the competences perceived by students as indirectly important for teachers, we selected to present on the table below those rated with the lowest grades between 2.00 (item 34) and 2.30 (item 54).

Students while valuing the capacity of teachers to help for the social integration of students with different abilities and backgrounds, they do not think it is necessary for teachers to know the family and cultural background of them and their social differences, or to seek pertinent information regarding students' special interests and needs. This is contradictory as one is a precondition of the other.

Students see the benefit for teachers to collaborate among them but within certain limits. For instance, they do not think this is absolutely necessary for performing tasks such as determining the rhythm and stages of progress, or exchanging ideas regarding the appropriateness of the available pedagogical and didactic options.

It is interesting to find out that also for students as for other groups, competences related to the integration of ICT into the preparation and development of teaching-learning activities, classroom management and professional development are not directly important.

Finally, students do not see why teachers should need to know how to make judicious use of the legal and authorized framework governing the profession, or to be informed about national educational policies related to the curriculum, their contractual obligations and quality management.

TABLE 7. MOST AND LEAST IMPORTANT COMPETENCES FOR UNIVERSITY STUDENTS

Item	Most important competences	No of answers
20	Making it obvious that learning of subject matter is essential	24
21	Establishing a learning environment that invites students to think and act autonomously	24
29	Adequate monitoring of student understanding	24
48	Foreseeing learning situations that allow for an integration of competences in different contexts	24
52	Helping the social integration of students with learning or behavioural difficulties	24
60	Using the appropriate oral language when addressing students, parents, or colleagues	24
63	Knowing how to take a position and discuss coherently, effectively, constructively and respectfully	23
71	Identifying the core issues in the subject to facilitate students' meaningful learning	24
75	Establishing relationships among different fields of the subject matter knowledge	24
85	Interpreting student learning difficulties as a challenge to be met	24
92	Avoiding all forms of discrimination by students, parents, and colleagues	24
Item	**Least important competences**	**No of answers**
9	Bearing in mind representations, students' social differences, needs and special interests	24
14	Knowing about family and cultural background of students	24
15	Being able to describe the different ways of learning of their students	24
34	Explaining how teaching will be changed according to feedback received	24
39	Co-operating with the teaching staff to determine the rhythm and stages of progress	24
40	Exchanging ideas with colleagues regarding the appropriateness of the available pedagogical and didactic options	24
53	Seeking pertinent information regarding students' needs	24
54	Participating in the preparation and implementation of a plan of adapted performance	23
55-59	Integrating ICT into the preparation and development of teaching-learning activities, classroom management and professional development	24
69	Knowing which are the situations requiring collaboration with other members of the pedagogical team for the design, adaptation and evaluation of teaching-learning situations	24
93	Making judicious use of the legal and authorized framework governing the profession	24
94	Knowing about national educational policies related to the curriculum, contractual obligations of teachers and quality management	24

Source: Author

NB* The items numbered from:
01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

3.2.7 Inspectors

Inspectors in Bulgaria are subject experts who among other tasks, they are called to evaluate the work of teachers. They are those who should identify good and bad practices, recommend which teachers need additional training, reward those who are doing a good job and guide those who need assistance. Thus, the opinion of the inspectors on the required competences for teachers is very important, since based on this opinion, they assess and evaluate the work of the teaching force.

In the table below (see table 8), the highest rated competences between: 2.97 (such as items 5, 8 and 17) and 3.00 (such as items 20, 33 and 83) and the lowest competences rated between 0.28 (item 82) and 2.03 (items 57, 75, 78 and 80) are presented.

The findings do not allow us to get a clear idea of how inspectors perceive an ideal teacher, neither an appropriate teaching-learning situation. What we can say for sure is that based on the findings, inspectors expect from teachers to have a plethora of competences concerning the teaching domain, while to school domain competences and those competences that define the degree of professionalism of teachers, they attribute much less weight. One could assume that inspectors are still focusing on the more traditional competences which require a teacher to know well the subject to be taught.

Examining those competences considered directly important for inspectors, one would say that they value the knowledge of teachers on the individual as well as the interdisciplinary dimension of the subjects they teach, based on interactive and student-centred teaching methods. Explicitly, inspectors believe that the most important competences for Bulgarian teachers today are to know the contents of the subject matter and its relation to other subjects; to create the conditions for students to become involved in situations, bearing in mind their cognitive, affective, and social characteristics; and to invite student to think and act autonomously.

However, the degree to which inspectors endorse the teaching-learning procedure with interactive and democratic principles that respond to the special needs of students is being questioned as they rate very low competences involving students in the teaching-learning

process, such as allowing to practice and apply what they are learning and to receive improvement-oriented feedback; to establish relationships among different fields of the subject matter knowledge, aligning the cultural background embedded in the prescribed curriculum and that of the students; and to make the class a place open to multiple viewpoints.

Within the teaching domain competences, inspectors, together with ministry officials, members of NGOs and teachers' unions who have been contacted, as well as university professors give special attention to the evaluation and assessment procedures used by teachers. This is understandable due to the role they have in the education system and also because the assessment results can be a useful basis for them to be able to assess further students and teachers. We should not forget however that the function of inspectors is ambiguous: on one hand they contribute to the further development of teachers' competences and on the other, they have the power to attribute punishments to the low performers.

Finally, while inspectors value the communicative abilities of the teachers entrusted in an appropriate oral language when addressing students, parents, or colleagues (see table 8, item 60), they do not see as necessary the co-operation between the school staff, parents and various social agents for achieving the school's educational targets (see annex 1, items 66-70).

Inspectors, as Ministry officials, NGO members, students and teachers, do not think is directly important for teachers to know how to apply information and communication technologies in pedagogy. In consequence, competences that enable teachers to integrate ICT into the preparation and development of teaching-learning activities, classroom management and professional development are not viewed as necessary.

Inspectors expect from teachers to act ethically and responsibly in the performance of their functions displaying certain competences belonging to the professional domain, such as, avoiding all forms of discrimination by students, parents, and colleagues; making judicious use of the legal and authorised framework governing the profession; and dealing pedagogically with student negative comments. They don't see though the urgent need for teachers to become involved in an individual and collective project of professional

development, neither to be able to evaluate one's own competences and adopt the means to develop them using available resources. This is quite surprising as inspectors should normally motivate teachers to develop further their skills and care for their professional development.

Moreover, exchanging ideas with colleagues about the suitability of pedagogical and didactic options; and encouraging colleagues to participate in research aimed at the acquisition of competences set out in the training plan and educational targets of the school are not absolutely necessary competences for teachers based on the opinion of those inspectors contacted for this study (see annex 1, items 80 and 82).

TABLE 8. MOST AND LEAST IMPORTANT COMPETENCES FOR INSPECTORS

Item	Most important competences	No of answers
4	Planning sequences of teaching and evaluation bearing in mind the logic of the content and of the learning process	31
5	Knowing the contents of the subject matter and its relation to other subjects	32
8	Identifying key elements of the subject matter to facilitate meaningful learning for students	32
17	Creating the conditions for students to become involved in situations, bearing in mind their cognitive, affective, and social characteristics	32
20	Making it obvious that learning of subject matter is essential	32
21	Establishing a learning environment that invites students to think and act autonomously	32
25	Questioning to engage students in sustained discourse structured around powerful ideas	32
29	Adequate monitoring of student understanding	32
33	Flexibly altering learning activities according to feedback received	32
37	Planning learning sequences and assessment procedures taking into account both subject matter and learning processes	32
41	Defining and applying an effective working system for normal class activities	31
44	Fostering students' participation by having everyone participate in the generation of behavioural norms, or at least insuring they are known by all	32
60	Using the appropriate oral language when addressing students, parents, or colleagues	31
61	Presenting clearly the purposes of each lesson	32
64	Using questions to stimulate students to reflect on content, think critically about it and use it in problem solving, decision making, and other higher-order applications	32
83	Being aware of the values at stake in one's performance	3
Item	**Least important competences**	**No of answers**
19	Presenting the subject matter in networks of knowledge structured around powerful ideas	32
27	Shaping students' learning by means of frequent and pertinent strategies, steps, questions, and feedback, so as to help the integration and transfer of learning	32

30	Giving the students sufficient opportunities to practice and apply what they are learning and to receive improvement-oriented feedback	32
39	Co-operating with the teaching staff to determine the rhythm and stages of progress in the training cycle	32
51	Organizing heterogeneous groups for students to work together	32
55-58	Integrating ICT into the preparation and development of teaching-learning activities, classroom management and professional development	32
72-73	Reflecting about practice and acting upon the results of such reflection	32
75	Establishing relationships between the cultural background embedded in the prescribed curriculum and that of the students	32
76	Making the class a place open to multiple viewpoints	32
78	Establishing relationships among different fields of the subject matter knowledge	32
79-82	Becoming involved in an individual and collective project of professional development	32

Source: Author

NB* The items numbered from:

01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

3.3 Most and least important competences across responding groups

We present in continuation (see table 9) the most and least important competences considered across the different groups of respondents.

The most important competences were rated between 2.90 (items 8, 61, 62 and 87) and 2.96 (item 29) and belong to the domain of teaching and professional competences. It is clear that overall special attention is given to the subject matter knowledge but also to its relation to the other subjects of the school curriculum. This is a new requirement for teachers since for the first time in 1999, the Bulgarian school curriculum was presented as a consortium of curriculum areas rather that a list of individual subjects, and thus, teachers are called to be able to establish links within and among different curriculum areas.

All informants (Ministry officials, inspectors, teachers, university professors, students, members of teachers' unions and NGOs) independently of the group they belong to, their profession and function within the school system recognise those general competences that nobody can question nowadays their utility. These competences refer to the need for

interactive teaching where students have an active role to play; the ability of teachers to establish a learning environment that invites students to think and act autonomously, engaging them in sustained discourse structured around powerful ideas.

All respondents see the necessity for adequate monitoring of students' progress using formal tests and performance evaluations, as well as informal assessments of students' contributions to lessons and work on assignments. Realising the need for the effective assessment of students is very positive especially at a time when the Bulgarian government is designing and piloting national tests based on external evaluations for increasing their objectivity.

Finally, all informants value the set of competences referring to the adequate communication between teachers, parents and students. They expect from teachers to be able to communicate clearly and correctly, both oral and written, in the different contexts, encouraging a democratic conduct in class, and avoiding all forms of discrimination. The fact that 201 respondents coming from different professions and geographical zones in Bulgaria recognized the need for effective communication within the pedagogical process is very positive since this constitutes a solid basis for enhancing dialogue and resolving potential problems.

On the other extreme, those competences considered by all group of respondents as the least important for the teaching profession belong to all three domains: the teaching, the school and the professional domains. It is characteristic that none of the school domain competences was considered as directly important. In the table below, we selected to present the lowest rated competences between 2.26 (item 19) and 2.45 (items 40 and 56). Apart from the competences presented in table 9, other competences valued as indirectly important to the teaching profession can be found in annex 1.

Based on the findings, all groups agreed that knowing about students' family and cultural background is not a prerequisite for secondary education teachers. This is quite surprising, as there is evidence at international level about the benefit of knowing the background of students, considering this highly interconnected with their behaviour and performance at school (European Commission, 2007). Research suggests that there is a

rather strong relationship between a pupil's socio-economic background and his or her achievements in reading and writing skills: pupils with higher socio-economic status achieve better results. Furthermore, a direct relation between the mother's education and the pupil's results and achievements is established: the higher the mother's education, the higher the pupil's chances of achieving better results (Jariene and Razmantiene, 2006).

Another very important issue not considered as prerequisite for being a good secondary education teacher is helping the social integration of students with learning or behavioural difficulties and organizing heterogeneous groups for students to work together. The lack of realising the necessity of this may causes difficulties in the implementation of measures already adopted in Bulgaria for mainstreaming students with special educational needs to general comprehensive schools.

According to all informants, competences also involving cooperation with the teaching staff for either determining the desirable rhythm and stages of progress in the training cycle or exchanging ideas about the suitability of pedagogical and didactic options are not significantly important in the Bulgarian context. Furthermore, communicating information relevant to teaching and learning process to students and parents, as well as co-operating with the school staff, with parents, and with the various social agents to achieve the school's educational targets are not determinant for being a good teacher in Bulgaria.

It is worth mentioning that overall the pedagogical dimension of the information and communication technologies was not valued across the groups of respondents. Teachers at secondary schools are not expected to know how to evaluate the pedagogical potential of ICT in order to use it effectively into the preparation and development of teaching-learning activities, classroom management, and professional development. It is obvious that not having basic knowledge and sensibility towards the benefits arising from computers may result problematic for the success of the curriculum reform.

It is remarkable that none of the groups expects teachers to evaluate its own competences and participate in research aimed at the acquisition of further competences by using available resources. In general, neither administrators, nor educators or the social group

realizes the need for the continuous development of teachers' competences and skills by participating in an individual and collective project of professional development.

Finally, it is noteworthy that unanimously all respondents did not consider significant for teachers to know about the national educational policies related to the curriculum, their contractual obligations and the quality management of the teaching-learning process. This is quite interesting given that the same groups of respondents often complain about not being informed well in advanced about the curriculum reform and the new measures adopted, something that has impeded their commitment with this reform (Psifidou, 2007).

TABLE 9. MOST AND LEAST IMPORTANT COMPETENCES FOR ALL GROUPS

Item	Most important competences	No of answers
5	Knowing the contents of the subject matter and its relation to other subjects	201
8	Identifying key elements of the subject matter to facilitate meaningful learning for students	199
20	Making it obvious that learning of subject matter is essential	200
21	Establishing a learning environment that invites students to think and act autonomously	201
25	Questioning to engage students in sustained discourse structured around powerful ideas	201
29	Adequate monitoring of student understanding	200
60-65	Communicating clearly and correctly, both oral and written, in the different contexts	198
85	Interpreting student learning difficulties as a challenge to be met	200
87	Encouraging democratic conduct in class, giving students due attention and support	199
92	Avoiding all forms of discrimination by students, parents, and colleagues	200
Item	**Least important competences**	**No of answers**
14	Knowing about family and cultural background of students	200
19	Presenting the subject matter in networks of knowledge structured around powerful ideas	132
39	Co-operating with the teaching staff to determine the desirable rhythm and stages of progress in the training cycle	194
58	Using the ICT effectively to set up networks of exchange related with the subject taught and its pedagogical practice	200
56	Evaluating the pedagogical potential of ICT	199
80	Exchanging ideas with colleagues about the suitability of pedagogical and didactic options	201
82	Encouraging colleagues to participate in research aimed at the acquisition of competences set out in the training plan and educational targets of the school	199

Source: Author

NB* The items numbered from:
01 - 65 belong to teaching domain competences
66 - 70 belong to school domain competences
71 - 94 belong to professional domain competences

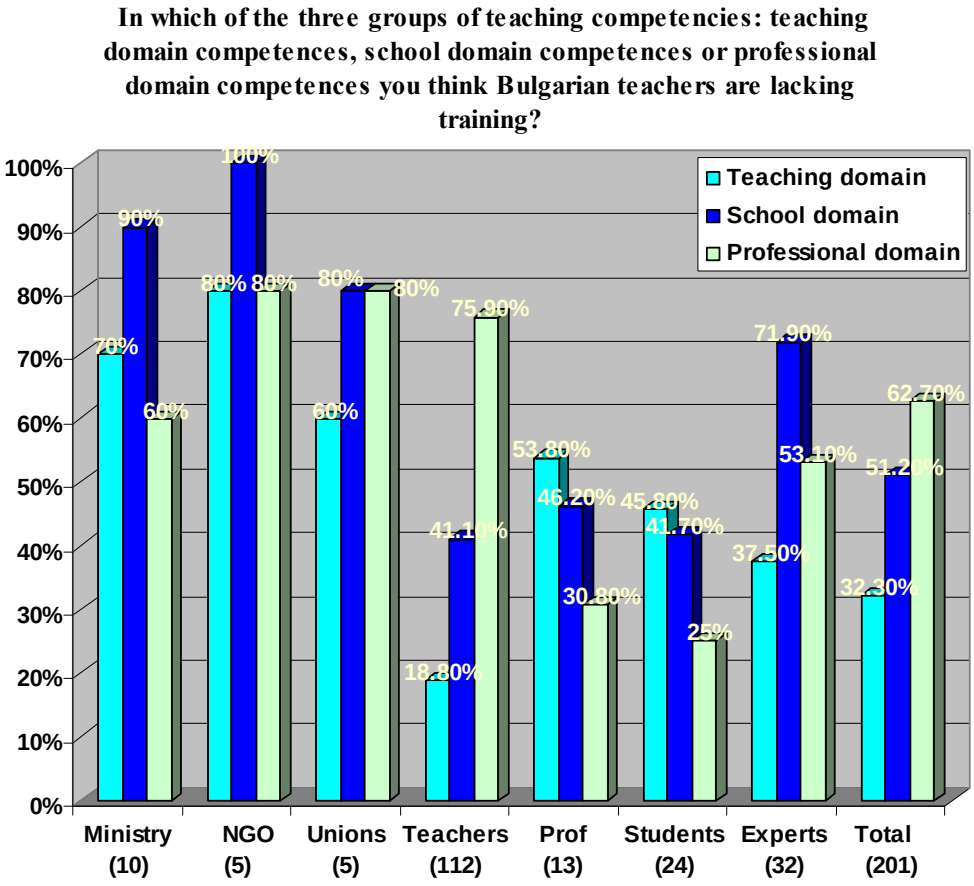
3.4 Teachers' qualifications and training needs: responding groups opinions

To increase the significance and utility of our findings and to enable us to identify those areas that require immediate intervention if curriculum reform is to be successful, we have asked the different informants to specify in which domain(s) of competences (teaching, school and/or professional domains) they think teachers require further training. We gave the possibility to respondents to choose more than one of the three domain competences.

We received 201 answers based on which, the 62.7% of the respondents believe that Bulgarian teachers are lacking training on *professional domain competences* at first place and at second and third places on *school domain* and *teaching domain competences* (51.2% and 32.3 respectively, see figure 2).

The ministry officials (90%), members of NGOs (100%) and the inspectors (experts 71.9% believe that the main weaknesses of teachers are related to competences belonging to the *school domain*. From all informants, only the majority of the university professors (53.8%) and students (45.8%) think that secondary education teachers are lacking training mainly on *teaching domain competences*. Teachers unions identify equally most of the knowledge and skill gaps for teachers in *school* and *professional domains* competences (80%).

FIGURE 2. TEACHERS' TRAINING NEEDS BY DOMAIN OF COMPETENCES



Source: Author

NB* respondents could choose from more than one domain.

If we compare these results with the importance the informants attributed to the listed competences, we would find a divergence in their opinion. While we have seen that almost all responding groups gave great importance on competences related to the knowledge of teachers to the subject matter and their ability to transmit such knowledge effectively, the majority of them moreover suggested that teachers should acquire further competences in school and professional domains. This shows that the role of Bulgarian teachers is still in transition between the traditional function of teachers who are mere transmitters of knowledge related to their specialization, and their new role arisen from the modernization of the society and its education system, demanding a multidisciplinary

and multifaceted role of teachers acting professionally in a dynamic learning environment.

These findings are to be expected in a transitional society such as Bulgaria, which within a short time of period witnessed radical changes in its political and economic aspects. From a communist to a democratic society and from a developing country to new member country of the European Union, the Bulgarian society needs time to assume the changes occurred in all aspects of life. It is very positive though to find out from our survey that the civil society perceives and realises these changes and the resulted requirements at teacher and student qualifications to bring forward such progressive changes.

Conclusions

The findings of the present study alerts for certain problematic areas that may impede the successful delivery of the new curriculum in classroom.

Analysing the responses of different informants, we have seen that there is no convergence in the different actors' opinions on basic issues, such as the roles and responsibilities of secondary education teachers. Each group of respondents perceives the responsibilities and functions of teachers in a different way based on their own interests and needs. This could result in difficulties in terms of building consensus on key areas when it comes to both decision-making and implementation. Different stakeholders attribute more or less importance to different competences and stress very different areas for teacher training and professional development needs. These different points of view and lack of consensus alert for potential problems in the conception and introduction of new approaches to teacher training.

The motivation to use new technologies in the teaching-learning process was very low in Bulgaria according to our data. Ministry officials, teachers, inspectors, members of NGOs and students interviewed do not believe that it is overly important for teachers to

display competences related to the introduction of new technologies (ICTs) into the preparation and development of teaching-learning activities. Only university professors and teachers' unions showed certain sensibility towards ICTs but none of them recognized the need for teachers to know the pedagogic potential of ICTs.

This lack of knowledge and motivation both from the part of those who make decisions, as well as from those who teach and of those who learn may impede the implementation of measures oriented towards the use of new technologies in schools and the modernization of the education system. Thus, the urgent need to inform and educate the Bulgarian society on the use of new technologies as a promising didactic instrument becomes obvious from the findings of our study.

This need has been recognised by the Bulgarian government who made a considerable effort since 2005, through the National Strategy for the Introduction of Information Technologies in Bulgarian Schools (2005-2007), to equip teachers with basic skills on the use of ICT and the introduction of computers in the teaching process (World Bank, 2007). In May 2007, the Council of Ministries adopted an updated plan of action for the implementation of this strategy, and in 2007, the MES prepared a second strategy for Education and ICT (2008-2013).

None of the informants considered indispensable the action-research approach in the teaching profession as a means for the development of teachers' knowledge, skills and competences. This lack of awareness may also result in a bottleneck for the modernization of the Bulgarian education system and its alignment with European standards. The European Commission in its Communication for Improving the Quality of Teacher Education, based on the Common European Principles for Teacher Competences and Qualifications (European Commission, 2007), highlights that teachers should be encouraged to review evidence of effective practice and engage with current innovation and research to keep pace with the evolving knowledge society. In a context of autonomous lifelong learning, their professional development implies that teachers undertake classroom-based research and incorporate into their teaching the results of classroom and academic research.

Five out of the seven groups of informants (ministry officials, teachers, university professors, inspectors and students) do not consider overly important for teachers to acquire competences related to the adaptation of teaching practice student diversity. These findings suggest that the majority of our informants are not sufficiently sensitive about the principles of personalization and solidarity in teaching and learning. Teachers should be able to work with students with special education needs and students of different economic and social backgrounds and nationalities for the integration and mainstreaming of such students in public comprehensive schools. Taken into consideration the significant number of minorities, as the Roma, and other disadvantaged groups who live today in Bulgaria, it becomes vital to educate citizens on the importance of helping and living together.

The evidence gathered in this study suggests that, as in other European countries, the professional status of teachers is not broadly acknowledged in Bulgaria as this entire domain of competences has not been particularly valued by the different actors. It is subject matter knowledge which still retains a privileged consideration in the frame of mind of all actors in the education community, as the type of knowledge teachers should master and be qualified in. Special emphasis should be given to increase the awareness towards the professionalisation of Bulgarian teachers and the need to perform their role in a professional and ethical way. Moreover, there is a clear need to motivate teachers to participate in projects of professional and personal development through continuous training. The answers received from 201 informants reveal that our informants do not acknowledge as a priority the professional development of teachers, given that none of the responding groups deemed as necessary the participation of teachers in professional development activities. This is particularly worrying at a time when a curriculum reform was being implemented.

Finally, the role of teachers as evaluators and the competences that they should display in terms of objectively assessing students' learning progress are well accepted by all groups of informants except for students. It is not surprising that secondary school students manifest their rejection to this teachers' role, also manifested with their strong resistance against the establishment of an objective external school-leaving exam.

For the secondary education reform to be effective, i.e. for it to impact positively on building the personal competences of future citizens and their smooth transition from school to work and labour market insertion, the involvement and synergy of all actors concerned is required. Moreover, it is necessary to increase the awareness of the Bulgarian society towards those areas that have been identified as problematic in this study.

Teachers should understand school as a representation of the society where they should act ethically and responsibly sharing knowledge and contributing to its best function. Special attention should be given in the development of competences, both to teachers as to students, on one hand on team-working and on the other, on the understanding and incorporation of values of tolerance, democracy, collaboration and solidarity. Adapting teaching to students' diversity and helping the social integration of students with learning or behavioural difficulties should become an integral element of teacher education programmes.

The findings of this survey facilitate a comprehensive understanding of the competences and skills considered important for secondary education teachers by different stakeholders and the Bulgarian civic society. The divergence between the opinion of policy-makers and this of the actual practitioners on teacher training needs and teaching skills alert on potential difficulties for the successful implementation of the curriculum reform.

As Bulgaria did not have the capacity to supervise and monitor education quality systematically and an impact study on the curriculum reform has not been conducted yet (World Bank, 2007), the present study gave the opportunity to different stakeholders and the civil society to raise their voices and valorise the reform.

The collected data in the current investigation and the conclusions drawn could contribute to fundament the guidelines for the national policy on teacher training and professional development, thus allowing for different actors involved to have a clear and precise idea on the expected competences for secondary education teachers.

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ANNEX 1. DETAILED STATISTICAL ANALYSIS OF COMPETENCES BY GROUP

201 respondents were asked to rate the "direct" or "indirect" degree of importance (scale of 1 = no importance; 2= indirectly importance; 3 = directly importance) that developing each competency would have for secondary level teaching, and for organizing teacher education activities accordingly.

Competences with a mean of 2.75 or higher are considered "directly" important and those with a mean between 2.74 and 1.75 as "indirectly" important.

	Teaching Domain Competences	Mi	NGO	Unions	Teachers	Prof	Students	Experts	Total
	1, Designing teaching-learning situations for the subject-matter to be learned, and doing so in function of the students and of the development of competences included in the curriculum								
1	Mastering ways of representing and formulating the subject matter with the specific purpose of making it comprehensible to others	3.00	3.00	3.00	2.99	2.92	2.67	3.00	2.94
2	Understanding of what makes the learning of specific topics easy or difficult; and the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of the most-frequently taught topics and issues.	2.78	3.00	3.00	2.91	3.00	2.46	2.91	2.86
3	Analyzing students' misconceptions concerning the subject matter	2.50	2.00	2.80	2.63	2.69	2.42	2.78	2.55
4	Planning sequences of teaching and evaluation bearing in mind the logic of the content and of the learning process	2.80	2.50	3.00	2.94	2.92	2.54	3.00	2.81
5	Knowing the contents of the subject matter and its relation to other subjects	3.00	2.80	3.00	2.99	3.00	2.58	2.97	2.91
6	Knowing about different perspectives and developments in subject matter	2.80	2.80	3.00	2.97	2.92	2.50	2.94	2.85

7	Knowing of sources that provide information on teaching strategies and resources	2.70	2.60	2.80	2.61	2.77	2.33	2.78	2.66
8	Identifying key elements of the subject matter (concepts, postulates and methods) in order to facilitate meaningful learning for students	2.90	2.80	3.00	2.96	2.92	2.75	2.97	2.90
9	Bearing in mind representations, social differences (sex, ethnic origin, socio-economic, and cultural), needs and special interests of the students	2.70	2.80	2.60	2.53	2.62	2.25	2.72	2.60
10	Choosing varied and appropriate didactic approaches when developing the competencies included in the curriculum	2.90	2.75	3.00	2.68	2.77	2.38	2.68	2.74
11	Explaining why certain teaching approaches were selected and is able to describe them	2.50	2.40	3.00	2.90	2.77	2.58	2.94	2.73
12	Foreseeing situations of learning that enable integration of competencies in varied contexts.	2.67	2.60	3.00	2.43	2.69	2.75	2.66	2.69
13	Recognizing the importance for learning of student prior knowledge, interests and experiences	2.56	3.00	2.80	2.47	2.85	2.33	2.61	2.66
14	Knowing about family and cultural background of students	2.40	2.20	2.80	2.32	2.38	2.08	2.56	2.39
15	Being able to describe the different ways of learning of their students	2.11	2.40	2.80	2.71	2.46	2.08	2.84	2.49
16	Uses strategies to put into action student prior knowledge	2.90	3.00	3.00	2.82	2.77	2.78	2.94	2.89
	2. Steering teaching-learning situations in order for the content to be learned, and doing so in function of the students and of the development of the competences included in the curriculum	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
17	Creating the conditions for students to become involved in situations-problems and in significant topics or projects, bearing in mind their cognitive, affective, and social characteristics	2.80	2.80	3.00	2.95	2.92	2.63	2.97	2.87
18	Establishing a learning orientation by starting lessons and activities with advance organizers or previews	2.90	2.60	3.00	2.88	2.62	2.75	2.94	2.81

19	Presenting the subject matter in networks of knowledge structured around powerful ideas	2.56	2.00	3.00	2.60	2.85	2.54	0.28	2.26
20	Making it obvious that learning of subject matter is essential	2.40	2.80	2.80	2.95	2.85	2.88	2.97	2.81
21	Establishing a learning environment that invites students to thinks and act autonomously, even at the risk of error	2.80	3.00	3.00	2.97	2.92	2.83	2.97	2.93
22	Using teaching approaches that allow for more than one response or that invite thinking about different possibilities	2.70	3.00	3.00	2.70	3.00	2.75	2.81	2.85
23	Making available to students the resources necessary in the learning situations proposed	2.40	2.40	2.60	2.30	2.83	2.58	2.53	2.52
24	Giving students opportunity to learn, dedicating most of the available time to curriculum activities	2.70	2.60	3.00	2.80	2.46	2.58	2.94	2.73
25	Questioning to engage students in sustained discourse structured around powerful ideas	3.00	2.80	3.00	2.96	3.00	2.79	2.97	2.93
26	Guiding students in selecting, interpreting, and understanding the information available	2.90	2.60	3.00	2.63	2.77	2.75	2.75	2.77
27	Shaping students' learning by means of frequent and pertinent strategies, steps, questions, and feedback, so as to help the integration and transfer of learning	2.70	2.67	2.80	2.88	2.77	2.67	2.16	2.66
28	Providing correct, substantive and timely feedback to students	2.67	3.00	3.00	2.96	2.85	2.67	2.94	2.87
29	Adequate monitoring of student understanding	2.90	3.00	3.00	2.99	2.92	2.88	3.00	2.96
30	Giving the students sufficient opportunities to practice and apply what they are learning and to receive improvement-oriented feedback	2.89	3.00	3.00	2.84	2.85	2.79	2.00	2.77
31	Providing all students with opportunities to learn	2.70	2.80	3.00	2.92	2.92	2.67	2.94	2.85
	3. Evaluating learning progress and the degree of acquisition of students' competences in the subject matter to be learned:	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**

32	In a learning situation, managing information in order to overcome student's problems and difficulties, and to modify and adapt teaching to sustain students' progress	2.70	2.50	2.80	2.84	2.85	2.58	2.91	2.74
33	Flexibly altering learning activities according to feedback received	2.80	2.60	3.00	2.90	3.00	2.71	3.00	2.86
34	Explaining how teaching will be changed according to feedback received	2.10	2.60	3.00	2.77	2.69	2.00	2.94	2.59
35	Monitoring students' progress using both formal tests and performance evaluations and informal assessments of students' contributions to lessons and work on assignments	2.80	3.00	3.00	2.92	2.92	2.58	3.00	2.89
36	Constructing or employing instruments to enable evaluation of progress and acquisition of competences and skills	2.90	3.00	3.00	2.46	3.00	2.33	2.48	2.74
37	Planning learning sequences and assessment procedures taking into account both subject matter and learning processes	2.70	2.80	2.80	2.83	2.92	2.63	2.97	2.81
38	Communicating to students and parents, clearly and explicitly, the results achieved and the feedback concerning progress in learning and acquisition of competence	2.70	2.60	3.00	2.79	2.77	2.54	2.69	2.73
39	Co-operating with the teaching staff to determine the desirable rhythm and stages of progress in the training cycle	2.50	2.50	2.60	2.32	2.54	2.17	2.28	2.42
40	Exchanging ideas with colleagues regarding the appropriateness of the available pedagogical and didactic options	2.50	2.60	2.60	2.38	2.46	2.25	2.38	2.45
	4. Planning, organizing, and supervising the way the group-class works, in order to help students learning and socialization processes:	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
41	Defining and applying an effective working system for normal class activities	2.60	2.75	3.00	2.87	2.62	2.67	2.97	2.78
42	Providing students with explicit information on how lesson time will be distributed	2.20	2.50	2.60	2.78	2.31	2.67	2.91	2.57
43	Communicating clearly to students the requirements of correct school and social behaviour ensuring that they adopt them	2.60	2.40	2.60	2.95	2.62	2.67	2.90	2.68

44	Fostering students' participation – as a group and as individuals – in establishing the norms to work and live together in the classroom	2.89	3.00	3.00	2.95	2.85	2.58	2.94	2.89
45	Fostering student participation by having everyone participate in the generation of behavioural norms, or at least insuring they are known by all	2.70	3.00	3.00	2.89	2.77	2.58	2.97	2.84
46	Adopting strategies to prevent incorrect behaviour cropping up, and intervening effectively when it does	2.60	2.20	2.80	2.91	2.77	2.71	2.88	2.69
	5. Adopting teaching to student diversity	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
47	Designing learning tasks adapted to students' possibilities and characteristics	2.90	2.80	3.00	2.89	3.00	2.73	2.72	2.86
48	Foreseeing learning situations that allow for an integration of competences in different contexts	2.80	2.75	3.00	2.51	2.92	2.83	2.53	2.76
49	Organizing different learning rhythms adapted to students' possibilities and characteristics	3.00	3.00	3.00	2.88	2.92	2.61	2.71	2.87
50	Setting learning objectives that allow for a wide spectrum of cognitive processes	2.70	2.80	3.00	2.88	2.69	2.50	2.69	2.75
51	Organizing heterogeneous groups for students to work together	2.70	2.80	3.00	2.28	2.31	2.71	2.19	2.57
52	Helping the social integration of students with learning or behavioural difficulties	2.70	2.60	2.80	2.32	2.54	2.83	2.34	2.59
53	Seeking pertinent information regarding students' needs	2.30	2.60	3.00	2.32	2.62	2.17	2.29	2.47
54	Participating in the preparation and implementation of a plan of adapted performance	2.60	3.00	3.00	2.32	2.46	2.30	2.34	2.58
	6. Integrating the technologies of information and communication into the preparation and development of teaching-learning activities, classroom management, and professional development.	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
55	Adopting a critical and well-founded attitude to the advantages and limitation of ICT as medium for teaching and learning for society	2.70	2.60	2.60	2.29	2.92	2.25	2.06	2.49

56	Evaluating the pedagogical potential of ICT	2.60	2.40	2.60	2.26	2.92	2.29	2.06	2.45
57	Using a variety of multimedia tools for communication, using the ICT effectively to investigate, interpret, and communicate information, and to resolve problems	2.70	2.40	3.00	2.32	2.69	2.25	2.03	2.49
58	Using the ICT effectively to set up networks of exchange related with the subject taught and its pedagogical practice	2.60	2.60	3.00	2.07	2.46	2.04	2.25	2.43
59	Helping students use the ICT in their learning activities, to evaluate such use, and to analyze critically the data gathered by these networks	2.70	2.20	3.00	2.35	2.85	2.25	2.38	2.53
	7. Communicating clearly and correctly, both oral and written, in the different contexts related with the teaching profession:	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
60	Using the appropriate oral language when addressing students, parents, or colleagues	2.89	3.00	3.00	2.98	2.92	2.92	2.97	2.95
61	Presenting clearly the purposes of each lesson	2.90	3.00	3.00	2.96	2.77	2.67	3.00	2.90
62	Respecting the rules of written language in documents aimed at students, parents and colleagues	2.90	3.00	3.00	2.94	2.85	2.71	2.94	2.90
63	Knowing how to take a position, and maintain one's ideas and discuss coherently, effectively, constructively and respectfully	2.90	3.00	3.00	2.94	3.00	2.87	2.94	2.95
64	Using questions to stimulate students to process and reflect on content, recognize relationships among and implications of its key ideas, think critically about it, and use it in problem solving, decision making, and other higher-order applications	2.90	3.00	3.00	2.99	3.00	2.79	2.97	2.95
65	Communicating ideas rigorously, using precise vocabulary and correct syntax; correcting errors made by students in their oral and written work; constantly, seeking to improve oral and written experience	3.00	3.00	3.00	2.96	2.92	2.75	2.94	2.94
	School Domain Competences	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
	1. Co-operating with the school staff, with parents, and with the various social agents to achieve the school's educational targets:								

66	Co-operating with the other members of the school staff in defining targets, and in the preparation and putting into effect of projects on educational services	2.60	2.60	3.00	2.61	2.54	2.71	2.34	2.63
67	Promoting participation and the flow of relevant information to parents	2.40	2.40	3.00	2.59	2.38	2.50	2.31	2.51
68	Encouraging student participation in the management of the school and its activities and projects	2.50	2.60	3.00	2.64	2.46	2.79	2.31	2.62
	2. Working in co-operation with the other members of the teaching staff in tasks enabling the development and evaluation of the explicit competences of the training plan, and doing so in function of the students:	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
69	Knowing which are the situations requiring collaboration with other members of the pedagogical team for the design and adaptation of teaching-learning situations and the evaluation of learning	2.60	2.80	2.80	2.60	2.77	2.29	2.34	2.60
70	Working to achieve the required consensus among the members of the teaching staff	2.33	2.80	2.80	2.57	2.62	2.33	2.34	2.54
	Professional Domain Competences	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
	1. Acting critically as a professional, interpreting the objects of knowledge or culture in performing one's functions:								
71	Identifying the core issues and the axes (concepts, postulates, and methods) of knowledge in the subject in order to facilitate students' meaningful learning	3.00	3.00	3.00	2.71	2.92	2.96	2.38	2.85
72	Critically distancing oneself from the subject taught	2.57	3.00	2.60	2.28	2.50	2.74	2.06	2.54
73	Reflecting about practice and acting upon the results of such reflection	2.60	3.00	2.80	2.31	2.77	2.46	2.06	2.57
74	Explaining adequately the degree to which students achieved desired learning targets	2.70	2.80	3.00	2.86	2.85	2.58	2.93	2.82
75	Establishing relationships between the cultural background embedded in the prescribed curriculum and that of the students	2.50	2.80	2.60	2.28	2.62	2.58	2.03	2.49

76	Making the class a place open to multiple viewpoints	2.90	2.80	3.00	2.33	2.69	2.67	2.06	2.64
77	Taking a critical look at one's own origins and cultural practices, and at one's social role	2.60	2.80	2.80	2.59	2.75	2.75	2.34	2.66
78	Establishing relationships among different fields of the subject matter knowledge.	2.70	2.75	3.00	2.28	2.62	2.92	2.03	2.61
	2. Becoming involved in an individual and collective project of professional development:	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
79	Evaluating one's own competences and adopting the means to develop them using available resources	2.70	2.40	2.80	2.27	3.00	2.71	2.06	2.56
80	Exchanging ideas with colleagues about the suitability of pedagogical and didactic options	2.40	2.40	2.80	2.19	2.62	2.58	2.03	2.43
81	Reflecting on one's practice, and putting the results into practice	2.70	2.60	2.80	2.54	2.85	2.74	2.42	2.66
82	Encouraging colleagues to participate in research aimed at the acquisition of competences set out in the training plan and educational targets of the school	2.30	2.20	2.60	2.11	2.46	2.63	2.00	2.33
	3. Acting ethically and responsibly in the performance of functions:	**Mi**	**NGO**	**Unions**	**Teachers**	**Prof**	**Students**	**Experts**	**Total**
83	Being aware of the values at stake in one's performance	2.88	3.00	3.00	2.81	2.77	2.71	3.00	2.88
84	Attributing learning mainly to factors related to the teaching-learning process	2.22	2.60	3.00	2.47	2.46	2.68	2.56	2.57
85	Interpreting student learning difficulties as a challenge to be met	2.70	3.00	2.80	3.19	2.92	2.83	2.88	2.90
86	Dealing pedagogically with student negative comments	2.80	2.80	3.00	2.94	2.69	2.75	2.90	2.84
87	Encouraging democratic conduct in class. Giving students due attention and support	3.00	3.00	3.00	2.95	2.77	2.71	2.84	2.90
88	Allowing for differences in postures and points of view among students	3.00	3.00	3.00	2.91	2.77	2.54	2.78	2.86

89	Keeping high expectations: believing that the students are capable of learning and that they are capable of and responsible for teaching them successfully	2.80	2.80	2.80	2.62	2.85	2.46	2.75	2.73
90	Explaining, in function of the public interest, the decisions taken concerning students' learning and education	2.30	2.60	2.60	2.50	2.31	2.50	2.59	2.49
91	Respecting the confidential aspects of the profession	2.70	2.80	3.00	2.86	2.77	2.79	2.84	2.82
92	Avoiding all forms of discrimination by students, parents, and colleagues	2.90	2.80	3.00	2.95	2.92	2.83	2.94	2.91
93	Making judicious use of the legal and authorized framework governing the profession	2.70	2.75	3.00	2.93	2.77	2.21	2.94	2.76
94	Knowing about national educational policies related to the curriculum, contractual obligations of teachers and quality management	2.60	2.60	2.80	2.63	2.69	2.13	2.47	2.56

Source: Author

Note:

Mi:	Ministry officials from the Directorates of General Education policy, Teachers' training, Textbook approval selection, National Assessment Unit
NGO:	Experts from Paideia foundation and Special Education needs
Unions:	Teachers' Union of Sofia
Teachers:	Teachers from 46 different comprehensive and elite schools from all regions in Bulgaria.
Prof:	University Professors of the University of Sofia from the department of: Bulgarian language and literature, Sociology, Philosophy, Journalism, Foreign languages (French language), Mathematics.
Students:	Students from the University of Sofia.
Experts:	Inspectors from 26 regional inspectorates across Bulgaria

TRAINING TEACHERS IN BULGARIA:

CHANGING LEARNING PARADIGMS

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Introduction

After four decades under a totalitarian regime, Bulgaria passed through radical political change in the autumn of 1989 to become a democratic country. Eighteen years later, having suffered serious socio-economic misbalances during the transition from a centralized planned economy to a market economy, Bulgarian citizens celebrated on the 1st of January 2007 their accession to the European Union.

This historic landmark in Bulgaria's uneven transition from a communist country to becoming a member of the European Union, as well as the unfavourable demographic and labour characteristics of the country[1] had an important impact on its national education system. Bulgaria in the early 90s urgently needed to adapt its educational system to legitimise and help foster in this socio-political transformation.

Undoubtedly teachers, as key mediators and formative agents of the younger generation, have a central role to play in the transformation of Bulgarian society and the modernisation of its education system. According to the principles and aims that underpin the education system, teachers are expected to promote the knowledge, attitudes and skills which will enable youngsters to live productively within their changed society[2].

Within this context, the present paper aims to examine the provision of teachers' training in Bulgaria. It discusses the impact of innovative education reforms on the teaching profession and the extent to which teachers' training provision addresses the new roles teachers perform in the changing learning environments.

The information provided in this paper is based both on desk research of national and International sources - such as the Ministry of Education and

[1] Bulgaria has the slowest population growth of any country in the world since 1950 and an increasing labour migration to occidental countries (National Institute of Statistics, Bulgaria).
[2] Article 15 of the "National Education Act" and articles 8 and 9 of the "Level of Education, General Education Minimum & Curriculum Act".

Science (MES) in Sofia, Cedefop, Eurydice, the OECD and the World Bank - as well as on extensive *in situ* research conducted within the parameters of author's Doctoral thesis (Psifidou, 2007a).

The first chapter provides an overview of educational reforms undertaken in Bulgaria over the past two decades affecting both the content as well as the organisation of the education system. The second chapter presents the characteristics of the teaching profession in the country discussing the main challenges for attracting and retaining young people in the profession. The third chapter introduces the way teachers' education and training was traditionally organised in the country and highlights recent reforms leading to important legislative and institutional changes. Sessions 3.1 and 3.2 present in detail the provision of pre-service and in-service training for teachers raising ongoing debates and challenges. Finally, the conclusions acknowledge the significant progress Bulgaria has made to better prepare its teaching force for the changing role teachers are called to perform in our global society and provides recommendations for further improvements formulated on the basis of findings presented in continuation.

1. A decade reforming, innovating and modernising

Through considerable effort to democratise and modernise its education system, the Bulgarian government launched a series of reforms over the last decade. These were implemented mainly under the *Education Modernization Project* initiated in 2001[3] and financed by a World Bank loan (World Bank, 2000) and more recently under the National Programme for the Development of School and pre-school Education (2016-1015) adopted by the National Assembly in 7 June 2006 (MES, 2006).

The reforms addressed both the institutional aspects of the education system and its administration, as well as its pedagogical components. The new measures affected the financing of schools, the textbook policy, the

[3] This project was later on cancelled before its completion.

assessment practice, the school curriculum and inevitably the provision of teachers' education and training.

The most remarkable reforms began in 1993, when the market of the textbooks opened up without constraining the introduction of alternative textbooks for each subject (OECD, 2004a). Later, the MES adopted the National Education Requirements for Textbooks and Teaching Materials, as well as the Rules and Conditions for Assessing (MES, 2001a). While the new measure gave freedom to teachers to choose the most adequate textbook for their school and students, and to publishing houses to compete in terms of quality and cost, it also caused confusion among teachers, parents and students. To remedy the chaotic situation created, especially in the beginning, in schools and to facilitate teachers in their selection, in 2002, under an amendment to the National Education Act, the number of alternative textbooks was limited to three per subject and grade.

Changes in textbook provision were followed by changes in the curriculum policy. After ten years of ad hoc modifications introduced to the syllabi and learning programmes in an effort to eliminate their ideological weight (Psifidou, 2007b), in 1999 a systematic curriculum reform took place progressively in all levels of school education with the introduction of a National Curriculum Framework (MES, 1999c) and National Education Standards (MES, 1999b and MES, 2000). The new curriculum was not anymore a mere list of subjects but it was structured across eight broad areas defining the core content as well as the knowledge, skills and competences that students should acquire for each subject. Its new structure allowed for establishing links between related subjects, aiming to increase content flexibility and establish interdisciplinarity (Psifidou, 2008a).

More flexibility and adaptability was also granted with the introduction of the School Based Curriculum (MES, 1999d and MES, 2001c). Regional inspectorates and school directors were given the right to adapt the national curriculum to their local needs, while students had more opportunities to choose the subjects of their interest than ever before. Since first introduced, the percentage attributed to the School Based Curriculum was reduced from

30% to 10% as the decisions regarding the need for optionality in school curriculum varied together with the multiple changes of the government.

Changing the teaching content and the teaching materials required appropriate and immediate changes in the way students are assessed and evaluated. In Bulgaria, changes in students' examination system were introduced with significant delays of what was initially planned and under strong opposition from parents and students. The first attempts to introduce an external school leaving exam already in 2003 were failed as the government did not succeed in convincing civil society of the need and scope of externalising this exam to increase transparency and objectivity in students' assessment (Psifidou, 2007a). A systematic reform began only during 2005-07 when the first components of a national external assessment system were introduced. National external assessment after grade IV (end of primary school) was first introduced in 2007 and since then is being organised annually. The same year, the examination after grade VII (completion of lower secondary education) was launched for the first time in a test solving competition format. The state school-leaving examination (Matura) was piloted in April 2007 (World Bank, 2007a) and at the end of the school year 2007/08, after many years of conflictive efforts, an external Matura exam was finally organised for all students completing grade XII (MES, 2008).

Other reforms aiming to improve school education financing mechanisms and enhance cost efficiency were also introduced. A special *Consolidation of the School Network Program* is being carried out over the last few years to cut down the number of smaller size and merged classes. Since January 2007, a unified per student cost standard was introduced to municipal schools, kindergartens and service units. A delegated budget system was applied on an optional basis in 2007, while a year later, the system was implemented in all 3,062 state and municipal schools enhancing school director's financial independence in school management (MES, 2008).

Specially targeted measures to decrease drop outs and to increase access and mainstream vulnerable groups - especially ethnic minorities and children with special needs - are also under implementation for quite some time now.

These aim to make school a more attractive territory for all. Finally, to develop ICT infrastructure and a culture of research in schools are also parts of Bulgaria's national education strategy.

These reforms undoubtedly contributed to the modernisation of Bulgarian education system and its convergence towards European standards. Innovations though changed and complicated teachers' role and functions, and posed great challenges to their capacity and motivation. Experience shows that the more diverse and complex the process of learning and its expected outcomes are the more difficult is for teachers to cope with it. In other words, the greater the flexibility and complexity of the curriculum is, the greater the demands are on teacher competence, teacher involvement at classroom and school levels. Innovation in Bulgarian schools requires a more integrative teaching style encouraging learners to question, surmise and take risks. Teachers under the reformed curriculum are expected to work together and be open to more productive relationships with parents and local communities.

The way (future) teachers are being educated certainly determines the degree to which innovative approaches to teaching and learning can be taken forward with success. Thus, the need for their appropriate formation before entering the teaching profession and during their service becomes even more pronounced in a society and education system in transition as found in Bulgaria.

How did teacher provision change over time in Bulgaria to respond to the new educational content and learning environment? Are school teachers today well prepared to perform their duties and satisfied with the education and training received? Which are the main challenges and ongoing debates at policy and practice levels for ensuring a high qualified teaching force? These are some of the key questions to be discussed in the following sections.

2. The teaching profession in Bulgaria

The teaching profession is a regulated profession in Bulgaria. The requirements towards teachers' education and training are regulated by the legislation on education. The Regulation on Unified State Requirements for Obtaining Professional Qualification of Teachers (MES, 1997) defines the conditions, the order and the minimum educational level for teachers, as well as the criteria for their assessment.

The terms and conditions for appointing pedagogic personnel are regulated by the National Education Act (MES, 1991, amended 1996-2008), Statutes on Applying the National Education Act (MES, 2003, amended 2004) and the instruction for Appointment of Teachers and Educators (MES, 1994). Based on this legislative framework, teachers working in the system of school education (grades -12), teachers in pre-primary education and tutors have to hold a Bachelor’s degree while holding a Master’s degree is considered an advantage.

The function of teachers and their competence in the educational process are defined in the job description. This regulates the working conditions and specifies the work relation between the teacher and his/her employer defining:

- the requirements to the teacher's pedagogic and special scientific training;
- the functions and roles of the teacher, in connection with mastering and building knowledge, skills and relations of the given area/subject; and
- the functions and roles of the teacher in connection with the forming of moral, social and personal knowledge, skills, relations and values of students.

Beyond these requirements, new National Qualifications Standards have been prepared and will be introduced under the new Law on Education submitted to Parliament for discussion in February 2009. These standards determine a bigger gamma of knowledge, skills and competences now expected from teachers. While before, the major focus was on the subject matter knowledge, the forthcoming National Qualifications Standards determine new

competences referring to teaching, school and professional spheres[4] (Psifidou, 2008b). Special emphasis is given on competences related to the use of information and communication technologies (ICT) and to know how to establish democratic conduct in classroom.

Actually, an important advantage for the teaching force in Bulgaria is the rising educational level of teachers and other education staff. Of the total number of the pedagogical staff of all schools in the country in 2002/03, the majority of them have a higher education degree. Statistics for the educational background of teachers show that 83% of them have university degrees, 15.8% have college degrees and only 1.2% has high school diplomas (see table 1). These figures draw a positive picture, as over the past years, there has been a steady tendency for the number of teachers with university degrees to increase by almost 8% (National Institute of Statistics, 2005).

TABLE 1 DISTRIBUTION OF TEACHING STAFF BASED ON COMPLETED DEGREE OF EDUCATION

Degree of education	Total teaching staff*	Total teachers
Master of Science or Bachelor	68201	62998
Specialist	13226	13151
Secondary education	965	965**

Source: Author, elaborated data found in Eurybase, 2006/7 www.eurydice.org

*NB included educational staff responsible for support and guidance.

** There are no head teachers or deputy head teachers with secondary education only

[4] The *teaching domain* contains the group of teaching competences which allude to the capacity of teachers to mobilise a variety of cognitive resources to face and deal with a specific type of teaching situation. The *school domain* includes the competences that teachers should display in order to build up a knowledge management system in schools functioning as learning communities which are capable of responding to the needs of students as citizens who have the right to learn. Finally, the *professional domain* refers to the professional knowledge of teaching and teacher professional developments in terms of lifelong learning (Psifidou, 2008b).

However, among the weakest sides of Bulgarian teachers' competences are computer skills and foreign language proficiency. In school year 2000/01, only 10% of all teachers were qualified in foreign languages, while only 6% possessed computer skills (Eurydice, 2005/6). These figures are being improved through the provision of training on basic computer literacy to over 95,000 teachers, and to over 2,000 specialised teachers in information technology during 2006-07 (MES, 2008). The National Program for Qualification of Pedagogical Staff approved by the Council of Ministers in 2007 and the new project "Improving the qualification and building an environment for career development of teachers, professors in high schools and directors[5]", launched in October 2008, will further support developments in this field (MES, 2008).

The major challenge Bulgaria is sharing with other European countries as far regards its teaching force, is the lack of attractiveness of the teaching profession to the young generation. This is often interpreted by the low social status of teachers in Bulgaria attributed to the low salaries as well as the surplus of teachers in certain subjects which decrease the demand and slow down the recruitment of new teachers (OECD, 2004b).

The total number of teachers in schools has been reduced by about 20% since 1990 (see table 2), but this is quite in analogy with the increased demographic and migration processes as well as the negative natural increase of the population[6] which impact on students' enrolment in schools[7]. What is alerting though is the fact that young teachers below 30 years old represent only the 11.5% of the total teaching force (Eurydice, 2005/6); a percentage constantly being decreased over the last few years[8].

[5] The project is approved within Operational Program "Human Resources Development" with a total budget of BGN 6 845 405.
[6] Compared to the previous year, the population number decreased by 39000 (0.5%) in 2007.
[7] 509 677 less students participate in all levels of education in 2007/08 in comparison to 1990/01.
[8] The largest group (36.5%) represents teachers between 40 and 49 years old. Together with those aged between 30 and 39 years, they form the 67% of the teaching staff in Bulgarian secondary education (Eurydice, 2005/6).

Table 2. TEACHERS BY LEVEL OF INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION (ISCED 97)

	1990/91	1995/96	2000/01	2005/06	2007/08
TOTAL	144 621	141 427	126 048	122 339	115 962
Pre-primary education (ISCED - 0)	28 776	23 890	18 693	19 254	19 456
Primary education (I-IV grade, ISCED-1)[1]	25 042	25 503	22 618	17 668	16 586
Lower secondary education (V-VIII grade, ISCED-2A)[1]	39 756	34 862	31 250	26 844	24 023
Upper secondary education (IX-XIII grade, ISCED-3A, 3C)	27 384	31 833	29 866	34 372	[2] 32 202
Post secondary non-tertiary education (ISCED-4C)	.	.	292	268	488
Tertiary education (ISCED-5B, 5A, 6)	23 663	25 339	23 329	23 933	23 207
Education in colleges (ISCED-5B)	2 947	3 111	2 167	2 399	1 882
Education in universities and equivalent higher schools (ISCED-5A)	20 716	22 228	21 162	21 534	21 325

Source: National Statistical Institute of Bulgaria, Published on 31.03.2008

[1] Up to 1992/93 primary schools cover I-III grade, lower secondary schools - IV-VIII grade.
[2] Incl. teaching staff in interschools centres.

Teachers' dissatisfaction with their remuneration and social status was demonstrated by a series of teachers' protests in recent years and demands for pay increase. The six-week long teachers' strike that ended in November 2007 represented the biggest national protest in Bulgaria. This decision came about after the government cabinet announced a 22.5% increase in wages for all employees in education and an allocation of 4.22% of public expenditure for the education sector for 2008 (Dimitrova, 2008[9]).

As of 28 August 2008, the minimal teacher wage for a starting teacher is 450 BGN (225 Euro) and the average teacher salary is 560 BGN (280 Euro) instead of 370 BGN that used to be before. Despite this increase, teachers' salaries are still among the lowest wage rates in the public sector and among the lowest in the European Union, together with Lithuania, Poland, Romania and Slovakia (Eurydice, 2003).

[9] Found in European industrial relations observatory online: http://www.eurofound.europa.eu/eiro/2007/09/articles/bg0709039i.htm

3. Teacher education and training

The initial education of teachers is carried out in the framework of higher education which has been a subject of radical changes for the last 20 years influenced by the European and global developments.

For almost half a century, prior to the political changes in the 1990s, Bulgaria's higher education had been shaped by the Soviet model; it was strongly state controlled in terms of ideology, curricula, and by the organisational and administrative framework. The number of students in all higher education institutions and programmes were determined centrally every year and unified curricula were laid down in detail by government bodies. Of the 30 higher education institutions (HEIs) existing in 1989, only three -the Universities of Sofia, Plovdiv and Veliko-Tarnovo- were multi-disciplinary institutions. The others followed the specialised professional training institute model favoured by the Soviet approach, i.e. there were pedagogical, technological, agricultural and medical institutes (Eurydice, 2005/6). The predominant study format was a five-year study programme (with a master degree).

The political changes of 1989 created a greatly different context for the Bulgarian higher education. As early as 1990, the "Academic Autonomy Act" was passed providing a much more liberal development framework for higher education in the country. Higher education institutions were granted full autonomy, private institutions were allowed to be established and study programmes were no more required to strictly comply with centrally designated standards (Eurydice, 2005/6). The evolution of the higher education system became dynamic but also chaotic. In a short time, more than 100 new faculties were established, programmes increased from 150 to 490, five private universities were opened and the student enrolment expanded enormously by about 95%: from 127,000 in 1988/89 reaching 248,570 in 1995/96 (OECD, 2004a, p. 128).

Concerned about the lack of governmental control over the developments in higher education, the parliament replaced the "Academic Autonomy Act" by

an entirely new "Higher Education Act" in 1995 (MES, 1995). This was a much more regulatory measure which aimed establishing a balance between the authority and responsibility of the state relating to higher education and the autonomy and freedom of the higher education institutions.

Based on the new Act, the state's authority in relation to higher education is exercised through the Parliament, the Council of Ministries (responsible for setting the state policy in education), the Ministry of Education and Sciences (responsible for the management of the education system) and the National Evaluation and Accreditation Agency (NEAA) which became fully operational in 1997, responsible to evaluate and provide accreditation for the higher education institutions and their programmes promoting quality assurance in higher education.

Thus, the predominant decision-making patterns are still top-down and the system is quite centralised. The government still determines the number of students entering each higher education institution every year as well as the number of students for each field of study. It also determines the tuition fees to be charged for the state higher education institutions.

The "Higher Education Act" (still into effect but many times amended since then) introduced the degree structure based on the three main cycles – bachelor, master and doctor; Bulgaria was among those countries which first signed the Bologna Declaration in 1999. Since 2002, under a new amendment on the "Higher Education Act", all Master Degrees were offered against a fee while a provision for limited free places to the best performers of the entry University exams was also granted.

As of 2007, there are 51 accredited higher schools in Bulgaria:

- 28 universities (24 public and 4 private);
- 14 specialised higher schools (12 public and 2 private);
- 9 independent colleges (1 public and 8 private).

Due to the fact that the statute of specialised higher schools is equal to that of universities, it is often said that there are 42 universities in Bulgaria.

In addition to the above mentioned number, there are 40 other colleges that are not independent but exist within the structure of a university. These colleges are profiled in technology, teacher training, nursing, tourism, telecommunications, etc. (Popov, Pironkova, 2007, p. 173). Thus, Bulgaria now has a very large and complex higher education infrastructure to maintain.

The latest amendments of the Higher education Act in 2004 and the ordinance for the implementation of a system for credit accumulation and transfer, issued in the same year, provided the legal framework for the implementation of the European Credit Transfer System (ECTS) in higher education. A credit system has been obligatory for all study programmes since then and is fully implemented so far. While this aimed to increase students' mobility, the opportunities to mobility are still limited in the sector given this credit system is not homogeneously applied in all universities across the country.

To increase the transparency and recognition of qualifications at national and European levels and to facilitate the mobility of students and workers, the Ministry of Education and Science has started working on the creation of a National Qualifications Framework since August 2008 (Cedefop, 2009a). This is in line with the European initiative to develop and implement the European Qualifications Framework for Lifelong Learning (EQF) formally adopted by the European Parliament in April 2008. This acts as a European Meta-framework for translation, comparison and understanding of qualifications acquired in formal and non-formal settings in different European countries (European Parliament/Council, 2008).

The administrative and legislative changes that have occurred together with the institutional developments of the past years that we have discussed in this section inevitably affected the provision of teachers' education and training over time and the way it is organised and delivered in the country today as we will see in continuation.

3.1 Pre-service teacher education and training

Within higher education, pre-service teacher training is performed at:

- teacher colleges (they prepare teachers for kindergartens, primary and basic schools);
- faculties of education at universities (they prepare teachers for all levels of education - from kindergartens to gymnasiums, and for all school subjects); and at
- departments of education at technical, economic and other specialised universities (they prepare teachers mostly for vocational education).

A total of 13 universities have faculties of education and they are the most popular place of teacher training. In addition, there are 12 teacher colleges which belong to universities' structures. College graduates usually continue their studies in part-time short-term programmes at universities' faculties or departments of education for obtaining Master's degrees.

3.1.1 Training models and curricula

Teacher's professional qualification can be obtained in two models, the concurrent and the consecutive:

- In the concurrent model, students pursue their academic subjects – such as mathematics, history- in the relevant faculty of the university, and those who decide to become teachers, take in the same time additional courses in the Faculty of Education.

- In the consecutive model, the teaching qualification is acquired after graduating the major speciality: those who are willing can enrol in a qualification course to become teachers either immediately after graduation or after some time.

The qualification course to become a teacher, in either of the two models mentioned above, includes both theoretical education and practical training

under predefined unified educational minimum requirements (MES, 1997, art. 15 par. 1).

The theoretical education in the professional course for future teachers is based on lectures, dialogues and self-training. It comprises analysis of literature sources, document research, development of topics and projects, and consists in compulsory, optional and extra subjects.

The minimum number of compulsory subjects and its time allocation consists in four elements:

- 60 academic hours of pedagogy (theory of education and didactics);
- 45 academic hours of psychology (adult psychology and pedagogical psychology);
- 15 academic hours of audio-visual and information technologies in education; and
- 60 academic hours of didactics/methodology of teaching the chosen subject: (MES, 1997, art. 7).
- 15 hours should be allocated to each of the optional subjects which depending on the orientation of each speciality, they are divided in two groups:
- pedagogic, psychological and methodological subjects; and
- interdisciplinary, applied and experimental subjects related to the area in which the teacher specialises.

From each of these two groups, students must select at least one or two subjects (MES, 1997, art. 8).

Students are also expected to do about 120 hours of teaching practice in schools[10]. The practical training, during which students must deliver personally between 10 and 22 lessons, shall be provided in forms and academic hour allocations as described below (MES, 1997, art. 9):

[10] Higher institutions arrange practices for students under a contract with state-run or municipal schools or kindergartens. Schoolteachers who participate in the student practice are paid an additional percentage of the basic monthly salary (Eurydice, 2005/6).

- 30 academic hours of “monitoring and analysis of classroom lessons” under the immediate supervision of a professor from the higher school;
- 45 academic hours of “ongoing teaching practice” consisting of visits to schools, observation of lessons and other forms of education in preparation for the “pre-graduation teaching practice”; and
- 75 academic hours of “pre-graduation teaching practice” under the supervision of a school teacher and a professor from the higher institution.

Teachers for special schools are trained in a defectology programme or receive additional qualification in this field specialising according to the category of pupils with special educational needs that they are going to work with (speech therapists, pedagogues for hearing impaired students, etc.). Sports and arts teachers are specialists in the respective sport or art who simultaneously acquire capacity for teaching (Eurydice, 2005/06).

3. 1.2 Assessment and evaluation

During their education, students pass exams in all of the compulsory and optional subjects. The training for acquiring the professional qualification of a teacher ends with an integrated practical and applied state exam, which consists of a delivery and defence of a lesson developed by the student. The state exams are carried out in front of a state examination commission, whose members are appointed by an order of the higher institution’s rector. The commission includes the teacher who supervised the “pre-graduation teaching practice”. The qualification of a teacher is being attested by a certificate attached to the diploma for a graduated degree of higher education (MES, 1997, art. 15 par. 1 and 2 and art. 16 par. 1 and 2).

3.1.3 Ongoing debates and challenges

Evidence shows that although reforms in higher education have been remarkable with regards European standards and in alignment with the Bologna process, these reforms do not follow the same speed of reforms taking place in Bulgarian compulsory and upper secondary education (OECD 2004a and Psifidou, 2007a). This increases the risk for a potential mismatch between the teachers' initial education and the knowledge skills and competences needed in the exercise of their profession in the country.

The curriculum of the pre-service education has been revised after democratisation and all the ideological elements have been removed like the rest of the education system. The depolitisation of the learning content though was a slow process. In late 1990, about 50,000 Sofia University students demonstrated against the poor education and the continued obligation to attend courses in Marxism. Their protest caused the university to eliminate all the compulsory political indoctrination courses (Psifidou, 2007b).

Recent research shows that the degree to which the learning content of the current pre-service system is linked to the reformed curriculum of secondary education varies from subject (specialization) to subject (Psifidou, 2007a). Furthermore, the National Education Standards introduced in the school system since 1999 are not officially integrated in the subject matter of higher education in all university departments.

The same source displays a divergence of opinions among different groups of interest on the quality and adequacy of the training models in use in the initial training of teachers. 18 educators (teachers, university professors, trainers), 50 administrators (ministry officials, inspectors, school directors, directors of teachers syndicates) and 28 representatives from the social group (students, parents, NGOs, publishing houses) interviewed in 2005, expressed a contradictory opinion on the quality and relevance of pre-service training of teachers.

While most of the university professors interviewed (8/10 people) were quite satisfied with the overall quality of the training models, teachers and experts/inspectors believe that still the emphasis is on the mastery of subject

matter knowledge, intended to be delivered in a predominantly expository teaching style. Other international sources (OECD 2004a and World Bank, 2006) conclude that the preparation of future Bulgarian teachers to work in real settings and especially in diverse classrooms should be further improved mainly in a time of mainstreaming children with special education needs and minority groups in comprehensive Bulgarian schools.

Most of the existing programmes today are still lecture centred, dominated by mere memorisation of facts and information, focused on theories regardless of their application, dealing with abstract ideas and aiming at vaguely formulated goals (Psifidou, 2008c). Initiative, flexibility, creativity, critical thinking skills, problem solving abilities, computer literacy, etc. are all skills demanded by the labour market, but the development of such skills is not considered in traditional study courses. Considerable efforts need to be put on improving the relevance of curricula to real employment settings of future teachers.

3.2 In-service teacher training

As the pre-service education for teachers in Bulgaria, in-service teachers' training is part of the higher education system and is regulated by the Higher Education Act (MES, 1995).

Continuous education is based on the qualification model contained in Ordinance No. 5 of the Ministry of Education and Science (MES) of 1996 with amendments and addendums of 1999, according to which, teachers' professional development is not obligatory in Bulgaria but it is increasingly being viewed as a professional responsibility. The ordinance establishes five vocational-qualification degrees with salary differentiation, which might be achieved at two-year intervals. This legislation however is expected to change under the new developments on teachers' career development (see section 3.2.2)

In-service teachers' training is offered both on a regular basis for personal and professional development, as well as on an *ad hoc* basis for training teachers

on new policy developments, such as the introduction of new National Education Standards, new curriculum requirements, external evaluation of students' achievement, introduction of information technologies, and so on.

To give an example, in 2003, four years after the introduction of the new school curriculum, training on new curricula by establishing a cascade teacher training system took place, addressed to all teachers for all education levels. This was part of the *Education Modernization Project* funded by the World Bank, thanks to which, a total of 150 trainers were trained who then trained 18,800 school principals and teachers. These were two-day seminars providing a total of 16 hours of general training (ASIARP, 2003). More recently, training is organised on foreign languages based on the Common European Framework of Reference for Languages learning (Council of Europe, 2001) and basic computer skills under the introduction of the new information technology subject in grade V (primary school) (MES, 2008).

In 2005, the National Pedagogical Centre within the structure of the Ministry of Education and Science was established with representation offices countrywide (32 Regional Pedagogical Centres overall). These support the pedagogical staff providing information and consultation on further education, training and career development. They have organised seminars on ICT for teachers and they also provide counselling for parents and students to prevent from early school leaving[11]. Their effectiveness and contribution though was questioned and in 2009 there are discussions for closing down the centres.

As far as regards continuous training on a regular basis, different units provide this training: universities, teachers' associations, trade unions, NGOs, training centres established by international programmes (e.g. EC-Phare, Tempus), regional inspectorates of the MES, etc.

Only the Departments for Information and Teacher Training though located in Sofia, Varna and Stara Zagora, respectively associated with the Sofia,

[11] Information found in http://www.npc-bg.com/centrove1.htm

Shoumen and the Trakian Universities (but with juridical autonomy) provide officially recognised training that may promote teachers' careers.

The courses are planned in relation to priorities expressed by the Ministry, requests from the inspectorates and schools, as well as from surveys addressed to participants. Recent developments aim to systematise the identification of training needs and the supply of training courses. A Directorate for Teachers' Training was established in MES to apply those measures targeted to develop a demand driven in-service teachers training system responding more quickly to newly emerging training needs (see section 3.2.2).

The funding for teachers' in-service development is distributed through the universities. Universities decide about the terms of financing and the arrangements vary between the institutions. International projects (Tempus, Francophonia, etc.) and the state fund the equipment of the training institutions (computer laboratories, copying machines, etc.).

In July 2003, a new division - the "Regulation for teachers' qualifications" - within the Directorate for Teachers' Training in the Ministry of Education and Science began work for the development of National Standards for Teachers. The standards are designed based on practices of other European countries and contain the following components:

a) general provision;
b) pre-service training and needed competences;
c) in-service training for career development; and,
d) principles and requirements for the teaching profession.

The standards include explicit competences on civic education, foreign languages and ICT[12].

In September 2004, the instructions No 2 were published as a temporary regulation until the standards are adopted.

[12] The former Deputy Minister for School Education (acting from 1998 to 2000) facilitated this information during personal interview held in the Ministry of Education and Science in September 2004.

3.2.1 Training models and curricula

In-service training is progressively increasing in quality and diversity in Bulgaria (Psifidou, 2008c). New courses are being developed gradually to support new policy developments in the Bulgarian education system, as well as to catch up with recent European trends, giving emphasis on innovative teaching approaches, computers applied in pedagogy and interactive teaching-learning processes. Examples of such courses include: New education technologies in teaching Bulgarian language and literature; Research activities for teachers of English language; Organizational skills and professional capacity of English language teachers; Integrative approaches to English language education content; Intercultural education for foreign language teachers, etc[13].

The syllabus and duration of courses depends on the respective organisational form in which they are carried out and whether or not they target the acquiring of a professional qualification degree or is held with another purpose – for example, getting acquainted with current problems; preparation on new school content; more specific professional duties and functions, or others.

The main organisational forms for increasing the qualifications of teachers and other pedagogical staff are:

- comprehensive course – with a duration of attendance lectures of no less than three weeks, with a syllabus, which encompasses the current problems in accordance with the pedagogical position held by the trainees;
- thematic course – duration of two weeks, with a syllabus, which encompasses theoretical and practical preparation on a specific professional pedagogical problem;

[13] These are examples of courses offered at the training institute in Sofia in 2004.

- instructive course – duration of one week, with a syllabus, which encompasses the preparation on a new school content, specific professional functions and others.
- professional pedagogical specialisation;
- specialisation in a concrete scientific field;
- training for acquiring and improving professional pedagogical skills; and
- seminars, practice, problem group, conferences and others.

With the exception of the professional pedagogical specialisation, all the other abovementioned forms for increasing the qualification do not lead to the acquiring of a professional qualification degree.

3.2.2 Career progression and evaluation

Teachers in Bulgaria attend in-service training courses for two main reasons: to achieve attestation and accreditation to advance their careers, and to upgrade their skills and keep abreast of new curricular and teaching developments. These are the findings of a pilot survey conducted in 2004-05 within the parameters of the project “Teacher Qualification Models for Education Reform Implementation” addressed to 304 teachers coming from different types of schools and having a wide range of professional experience (Balkan Society for Pedagogy and Education, 2006). The need for professional skills improvement is indicated as the principle motive for attending in-service training (50.32% of the interviewees) followed by the career development (40.64% of the interviewees). Only a 7.74% of the interviewees associated in-service training to higher remuneration.

Nevertheless, bearing in mind that attending training for career advancement (responded by the 40.64%) also implies increases in salary, we may deduce that teachers in Bulgaria participate in continuous training motivated equally for their personal development as well as for better working and salary conditions.

The existing qualification system for teachers in Bulgaria based on a five-grade promotional path has been criticised for being very rigid and inappropriate, failing to give performance-based salary incentives. For this reason, under the National Prorgram 2006-2015 (MES, 2006), a new system of horizontal and vertical career development and its binding with the system of differentiated payment are being prepared by the MES in consultation with social partners. These aim to enhance teachers' motivation for full-fledged participation in the teaching process and career development for constantly improving their qualifications.

According to the new system, horizontal opportunities for career development are to be provided by introducing five ranks for the position of teacher: "junior teacher", "teacher", "senior teacher", "principal teacher" and "teacher-methodologist", replacing the existing five qualification levels. Every teacher at the beginning of his/her career will be a junior teacher at least for two years. Horizontal progression in the scale of career growth will be determined by the accumulation of a certain number of years of service, the completion of specific forms of training and the evaluation of outcomes. The new teacher training and career development strategy should be in line with the European Qualifications Framework. The Ministry of Education and Science (MES) has a budget of 13.1 million BGN for developing this activity (World Bank, 2007a). In the beginning of 2007, this scheme was tried out in 25 schools in the country with another group of 25 schools voluntarily participating in the experiment. The draft decree for introducing the new career development system is ready but its planned implementation in December 2008 is postponed by the MES due to financial obstacles Bulgaria is currently facing at national level as a result of the generalised international economic crisis.

Vertical advancement is expressed in moving to a position with higher requirements in the hierarchical structure of the educational system. Foreseen changes in the vertical level, mostly relate to altering the requirements for taking on administrative positions in the public education system – head of school, deputy head, experts and heads of the Regional Inspectorates of

Education, administration of the Ministry of Education and Science. The new requirements are still under preparation (as of 2009).

The new career development system is associated with the differentiated approach in teachers' payment based on students' achievement. In 2007, the MES developed in cooperation with the International Monetary Fund (IMF), the World Bank and the social partners a differentiated pay model which was put to broad-based discussion and piloted in 27 educational institutions across the country[14]. The model presupposes the development of a system of objective indicators and criteria for the evaluation of the quality of teaching. The most important criterion should be the achievements of students in the external evaluation determining their entry and exit levels, as well as the overall quality of education within the school in question. In other words, the aim is to define teacher's individual salary based on the level of their career development and the learning outcomes students achieved at the end of a learning process. The mass introduction of the system of delegated budgets (MES, 2008) will facilitate the differentiated payment allowing for flexibility in determining teachers' salaries and higher payment given resources are efficiently managed.

Finally, the continuous development of teachers' qualifications is viewed in relation to the introduction of a system of observation, analysis and evaluation of their personal development and realisation aiming to grant teachers equal access to various qualification forms. A national register of teachers containing information about their participation in in-service courses is already in place aiming to enable forecasting skill needs and planning qualification activity. A model for quality control of in-service teacher training is also envisaged.

[14] The model was included in the National Differentiated Pay Program approved with Council of Ministers' Decision No. 541/07.08.2007. The program has a total budget of BGN 15 100 million and comprises two modules: Module One - pedagogical specialists - BGN 13 100 million, and Module Two - directors of kindergartens, schools and service units - BGN 2 million (MES, 2008).

3.2.3 Ongoing debates and challenges

Two major issues still challenge the provision of continuous training for teachers in Bulgaria: the cost and the access to training courses. The majority of the courses are free and the institutes are offering inexpensive accommodation, but teachers still have to pay for their travel expenses. As teachers cannot easily get paid leave or find substitutes, they find real obstacles to participate in such courses (Psifidou, 2008b). Special leave for training purposes is also not envisaged and teachers have to use their annual leave to participate. When seminars are held in big cities, teachers coming from rural or isolated areas in the country face technical difficulties to attend. This leads to unequal opportunities to improve teachers' training skills.

From the point of view of the providers, challenges arise in terms of the inadequate funding of institutes (OECD, 2004a). This is often seen as an impediment to increase the relevance and quality of the courses in offer. Members of the in-service training institute in Sofia and other educators interviewed in 2005 (Psifidou, 2007a) claimed that the institutes are not equipped adequately to carry out effectively these courses.

The same source reveals that the timely provision of teachers' training to support reforms implemented in the education system is crucial for ensuring their success. When the new curriculum framework and educational standards were introduced in 1999 in the school system, the lack of timely and appropriate provision of teachers' training –this was provided only after four years of the introduction of the new curriculum - caused confusion and prevented a unified approach of delivering the new educational content.

Finally, the link between pre-service and in-service training is quite loose and can not ensure continuity in the quality and appropriateness of the education and training teachers receive in the beginning and during their professional career. The collaboration between higher institutions offering initial education and training institutes offering in-service training for school teachers should be foster.

Conclusions

The adoption of a democratic political regime oriented towards a market economy and greater international integration created in Bulgaria a framework for education in strong contrast to what existed before. The school should function as an exemplary democratic social community contributing to the development of an ethical attitude and the citizenship skills of students.

Reforming education can not happen though overnight. The Bulgarian education system indeed needed time to discard many of the inhibiting features of the older era and to devise a host of new policies and procedures in keeping with democratic principles and a greatly changed socio-economic order. Within this transition, the role of teachers and their education and training has experienced important changes.

From the analysis presented in this paper one may acknowledge the significant progress the country has made to better prepare its teaching force and address challenges that are certainly not unique and limited to national borders. Bulgaria is facing challenges similar to those of other Balkan countries in transition but also with more developed economies and members of the European family with a lengthy membership (Cedefop, 2009b and Psifidou, 2008c).

What makes the case of Bulgaria perhaps different of the countries experiencing a longer tradition of democracy are the conflictive mentalities between innovation and persistence with the old era which are still quite pronounced in the Bulgarian territory (Psifidou, 2008d). Improving the quality of teacher education in Bulgaria has undoubtedly become a priority in the political agenda of the Ministry of Education and Science over the past three years and this is evident, among other, by the measures adopted aiming to improve teachers' career development and status.

However introducing innovative approaches to the learning process can not succeed solely with the introduction of new regulations; it requires a change in the frames of mind. Teacher repertoires are shaped by the crucible of experience and the culture of teaching. Policy makers need to understand that altering pedagogy requires a change in what teachers believe, however, "*getting professionals to unlearn in order to learn, while certainly not impossible, is close in magnitude of difficulty to performing a double bypass heart operation than to hammering a nail"* (Larry Cuban, 1986).

A recent paper entitled: "*School curriculum reform and mentalities in transition: looking into the Bulgarian case"* (Psifidou, 2008d) alerted stakeholders of a low understanding of certain preconditions for bringing education reforms into maturity and success. The analysis of the data collected during 2004-05 through 92 individual interviews and 201 questionnaires administered across the country with a representative sample of all actors involved in the education system, demonstrated four weak points:

- low understanding of the potential benefits of new technologies in the educational process;
- low awareness on the action-research approach in the teaching profession as a means for the development of teachers' knowledge, skills and competences;
- low understanding of the school as a social community; and
- low importance attributed to the need for continuous training of teachers.

Failure to acknowledge the potential benefits of new technologies in the educational process may be a major weakness with regard to the capacity of the actors involved in the education system. The quality of teachers' education and training should be reinforced and improved focusing on ICT and student-centred teaching methods. A considerable effort is being made by the Bulgarian government since 2005[15] to equip teachers with basic skills in the

[15] Through the National Strategy for the Introduction of Information Technologies in Bulgarian Schools (2005-2007) and other strategies that followed.

use of ICT and the introduction of computers in the teaching process (World Bank, 2007a and MES, 2008).

Furthermore, the limited awareness observed on the importance for an action-research approach in the teaching profession as a means for the development of teachers' knowledge, skills and competences, may result in a bottleneck for the modernisation of the Bulgarian education system and its alignment with European standards. The European Commission in its Communication for Improving the Quality of Teacher Education, based on the Common European Principles for Teacher Competences and Qualifications (European Commission, 2007) and European Parliament's Resolution (European parliament, 2008), highlights that teachers should be encouraged to review evidence of effective practice and engage with current innovation and research to keep pace with the evolving knowledge society. In the context of autonomous lifelong learning, their professional development implies that teachers undertake classroom-based research and incorporate into their teaching the results of classroom and academic research.

It is quite surprising that in Bulgaria - apart from the National Institute of Statistics (http://www.nsi.bg/Index_e.htm) which collects mainly quantitative research on teaching staff, educational institutions and enrolments -there is no state research institute to conduct systematic qualitative research on pedagogical issues and to support evidence-based policy development.

Findings also suggest that there is a clear tendency by the majority of informants to see teaching and learning as an individual activity limited to the walls of the classroom. Based on the low importance given to general competences related to the socialisation and collaboration, informants - among them the majority were teachers - did not seem to be aware of the need for both teachers and students to acquire competences such as team work, collaboration, open exchange of ideas, peaceful conflict resolution and transformation, all of them nowadays absolutely necessary for every citizen.

Finally, teachers need to understand school as a representation of the society where they should act ethically and responsibly sharing knowledge and

contributing to its best function. Special attention should be given in the development of competences, both to teachers and to students, on one hand on team-work and on the other on understanding and incorporating values of tolerance, democracy, collaboration and solidarity. Adapting teaching to students' diversity and helping the social integration of students with learning or behavioural difficulties should become an integral element of all teacher education programmes.

The Government's strategy in primary and secondary education approved by Parliament in June 2006 (MES, 2006), states that the main challenges in primary and secondary education systems are the decrease in the quality and relevance of skills taught and a decline in participation rates, particularly in upper secondary level. The deteriorating quality of education is often illustrated with examples such as the increasingly poor social status of teachers and the broken link between school and family environment, institutions and society.

Since then, as we have seen, considerable efforts are being made to improve teachers' career development and the provision of teachers' training. More targeted policies should be also developed to increase the awareness of the Bulgarian society towards those areas identified as problematic in this review, taking into consideration important European policy initiatives supporting individual learning pathways (Psifidou at all, 2009).

Teachers' education and training should - in addition to teaching knowledge – pay much more attention to building (future) teachers with skills, behaviour and attitudes relevant for the current developments in school education, in the market economy and civil society. Study programmes should be reconsidered and redesigned to align them with the new learning paradigm that focuses on the achievement of learning outcomes - knowledge, skills and competences acquired at the end of a learning process (Psifidou, 2009).

The training and professional development of teachers is an area that clearly requires increased political attention and strategic action as teachers need to

possess a new complex set of knowledge, skills and competences to cope with an enlarged range of challenges and demands.

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European Centre for the Development of Vocational Training

Methodological approaches to test the EQF descriptors on qualifications and curricula: Experiences drawn from LdV pilot projects[1]

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Introduction

The enhanced goals of the EQF imply in particular a learning paradigm that focuses on the achievement of learning outcomes and the development of knowledge, skills and competences, irrespectively of where, when and how (European Commission/Parliament, 2008). Learning outcomes are best understood as a collection of useful processes and tools that can be applied in diverse ways in different policy, teaching and learning settings. It follows that there is no single correct or apt way of approaching them. The term can have a range of connotations and denotations, precisely because it is used in different contexts. The evidence contained in a new Cedefop study (2010) strongly suggests the need to be sensitive to the particular context in which learning outcomes are brought into use. Notably, learning outcomes are also required to perform multiple functions in national education and training systems in European countries: recognition of prior learning, award of credit, quality, learning plans, key competences as well as modernising the governance of education and training as systems are reformed to encompass lifelong learning (Cedefop, 2009).

[1] Paper presented in the 3rd LdV Workshop on Testing the EQF: Building Synergies and Common understandings organised by Cedefop in 15-16 December 2010, in Thessaloniki, Greece. http://www.cedefop.europa.eu/EN/events/17341.aspx

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Although the concept of learning outcomes is not a new aspect in the teaching and learning context (and especially for VET), the current focus on traversal key competences and holistic learning outcomes is discussed as a "shift of paradigm" underpinning a different mental model of valuing outcomes for all those involved in education and training. As a consequence of this new learning paradigm, learning outcomes have a pivotal position in redefining qualifications and VET, general and higher education curricula and learning programmes, and yet this happens at varying speeds as national developments are in different stages of progress (Cedefop, 2010).

Additionally to this core approach underpinning the EQF, learning theories and social and cultural values shape the definition of the distinctive features of qualifications and curricula; as knowledge, skills and competences are differently understood in each country and education and training subsystem, the learning outcomes approach varies accordingly. Increasingly, outcome approaches to qualifications and curricula seem to be more aligned to constructivist learning theories according to which the learner must play an active role in the construction of meaningful relationships between cognitive, functional, emotional and social skills to be competent in a particular situation (Cedefop, 2010). Past experiences have shown that too detailed and narrowly defined learning outcomes oriented solely on functional performance have imposed limitations to the learning process (Psifidou, 2009).

Finally, the legal framework endorsing the education and training system in each country, influences the design and value of qualifications as the law defines rights, duties, and the possibilities educational institutions have in these contexts (Cedefop 2010). On top of all these regulations, we find internal institutional regulations and guidelines. And finally within these institutions, there are commissions or committees that, at the end of the day, do the actual work of designing a qualification profile and learning programme. Evidence shows that an outcome-oriented approach has important implications at all stages of developing official documents which describe and certify qualifications, requiring stronger and broader involvement of the different stakeholders concerned (Psifidou, 2010a).

These different factors influencing the definition and development of qualifications and curricula raise many challenges to policy-makers and practitioners. Traditional processes on the design of qualifications (specification of knowledge and skills the students need to learn) is not sufficient anymore to meet new employment needs. New qualifications should:

- be in alignment with the EQF context (national developments with regard to the establishment of National qualifications frameworks and/or the introduction of the Dublin descriptors in higher education, etc.);
- define learning outcomes in such a way that allow comparability, transparency and mutual trust at sectoral, national and international level; and

– take on board the experience and views of all actors concerned, and especially these of learners.

However, key questions to this learning outcome approach remain open and evidence of what works and what not still remains scarce. While intensive reforms are taken place by national authorities to redesign qualifications and curricula with an outcome-orientation, the impact of these reforms to the individual learners is not yet visible nor measurable (Psifidou, 2010b).

This paper analyses how learning outcomes can be used for defining and describing single, specific qualifications. To do so, it explores the different - but often complementary – methodologies developed by selected test and pilot projects[3] to define qualifications profiles and curricula having as a common denominator the use of learning outcomes, and discusses the challenges arisen and lessons learned.

1. Sectoral approaches to define learning outcomes

Learning outcomes should function as a "transmission belt" facilitating a linkage between those outcomes described in the level descriptors of the EQF or the national qualifications frameworks, and these found in national documents describing and certifying qualifications (qualification profiles, curricula, standards, etc.). However, the development of this linkage is often complex and should be underpinned by transparent approaches to inspire mutual trust. To illustrate how the interpretation of general EQF descriptors has been carried out at sectoral terms examples taken from the studied LdV pilot projects are presented and discussed in continuation.

In the **AMOR** pilot project for example, project promoters analyse curricula in two initial vocational trainings from the electrical engineering industry in Germany and Luxembourg, reformulate them on the basis of learning outcomes by the identification of seven working situations for electrical specialists and develop an activity matrix, to classify them to the EQF.

The analysis of the relevant curricula allowed collecting information about possible working situations that the graduates of the chosen programmes usually cope with. Working situations were considered as independent areas of professional activities (planning, organisation/implementation and control) and were divided in working situations of primary nature, meaning corresponding to branch-specific actions, and of secondary nature, representing supporting areas of action (according to the value

[3] For simplicity, each time reference is made to the aforesaid projects, their acronyms rather than the full title is used. For the full name of the project please refer to Annex. It is also important to note that projects' results are not presented here in a detailed way, but only those outcomes that are relevant to the objectives of this comparative analysis have taken into consideration.

chain by Porter, 1992). The analysis of working situations was necessary to identify these typically informally and non-formally acquired learning outcomes that could not be found in the curricula, but are important to perform in job.

Based on this analysis, fifty learning outcomes were defined nineteen out of which were newly defined and added by the project experts in the electro industry. The results were put in an activity-matrix structured into seven working situations and checked for consistency. The industry experts had to decide if single cells of the activity-matrix have a higher importance than others and attribute weighting factors and the corresponding EQF level. This was the basis for classifying learning outcomes to the EQF referencing levels carried out by experts in vocational training of chambers and research institutes for VET and validated by industry experts. Each cell of the matrix (cell A I to D III) – as a crossing of primary and secondary working situations – was assigned to the EQF in two ways: by an undifferentiated classification- learning outcomes as a combination of knowledge skills and competences) (see table 1) and differentiated into knowledge, skills and competences (see table 2.)

Table 1. EQF levels per cell across 5 partners[4] – undifferentiated EQF assignment

A. Safety	4	4	4
B Taking care of customers	4	4	4
C. Documentation	3	4	4
D. Quality management	4	4	4
	I. Planning	II. Install, put into operation and deliver	III. Mantain, measure and repair

Source: AMOR project report, p.17

Table 2. EQF reference levels per cell across 5 partners – results of the differentiated EQF classification

A. Safety	4	4	4
	4,0 / 3,7/ 4,1	3,3 / 3,8 / 4,1	3,6 / 3,9 /3,9
B Taking care of customers	4	4	4
	3,8 / 3,3 / 3,8	3,8 / 3,6 / 3,8	4,1 / 3,7 / 3,9
C. Documentation	4	4	4
	4,0 / 3,4 / 3,4	3,8 / 3,9 / 3,8	3,9 / 4,2 / 3,7
D. Quality management	4	4	4
	3,1 / 3,4 / 4,0	3,4 / 4,0 / 4,0	3,6 / 4,0 / 4,2
	I. Planning	II. Install, put into operation and deliver	III. Mantain, measure and repair

Source: AMOR project report, p.18

[4] Germany, Luxembourg, Austria, Poland and Hungary participated in this project.

For the final attribution of the corresponding level, the results per cell were compared between the two procedures. The matrix with the differentiated procedures was only slightly lower than this with the undifferentiated procedure.

A similar approach was followed by other pilot projects such as the **TransEQFrame**. However in this case, for identifying learning outcomes, the project partners referred to and analysed a richer source of national documents certifying and describing qualifications. National qualification profiles, EU Certificate Supplements (where available), framework curricula, legal executive orders, education acts, as well as training and examination regulations (including examination and occupational standards) from four occupational fields (business administration, chemistry, electronics and logistics) were analysed. Based on this document analysis, the selected qualifications to be referenced to the EQF have been first broken down into smaller sub entities "core activity areas" (similar to working situations identified in the AMOR project), mainly, directly taken from the descriptions of the respective occupational profiles. Then, learning outcomes including knowledge, skills and competences assigned to each "core activity area" were used for referencing "core activity areas" to EQF-levels (see table 3). Similarly, as in the majority of LdV projects examined both educational as well as trade specialists have been highly involved in this process.

Table 3. TransEQFrame template referencing

Source: List of core activity areas:	**Knowledge** Theoretical and/or factual knowledge	**Skills** Cognitive (involving the use of logical, intuitive and creative thinking) and practical skills (involving manual dexterity and the use of methods, materials, tools and instruments)	**Competence** Responsibility and autonomy	**EQF level**
	Description / comments for clarification			Referencing to EQF levels / comments for clarification
....				**EQF level**
....				**EQF level**
Overall referencing				**EQF level**
Source: Project TransEQFrame, Synthesis report work package 6, p. 28				

Other projects focused on a single sector. This is the approach used for example in the **EQF-Frame** pilot project in the sector of tourism. Concepts and descriptions of explicit and implicit learning outcomes found in official sources were analysed and evaluated against occupational standards, level of academic and practical difficulty, and competence required at the labour market. Then the best fit approach was applied to match the learning outcomes identified with these of the EQF descriptors. Sector

experts were systematically involved to debate and map the identified learning outcomes to the descriptors of the EQF.

Similarly, the **Tiptoe** project analysing the trade sector, compares nationally developed occupational profiles with national educational qualifications or programmes to arrive at a transparent overview of differences and similarities between countries and between the labour market and the educational point of view. Four occupations have been identified within the trade sector (shop assistant, shop manager, logistics assistant and logistics manager) and analysed in terms of knowledge, skills and competences. Then these learning outcomes identified by employers were compared with those delivered by educators. Within each qualification and/or educational programme, "core tasks" were identified and associated with knowledge, skills and competences as in the case of the TransEQFrame project.

Table 4. KSC analysis of educational programmes for the trade sector

	Knowledge Theoretical and/or factual knowledge	Skills Cognitive and practical skills	Competence Responsibility and autonomy
List of core tasks /possible subtasks Description/ comments for clarification of KSC-items			
Core tasks A:			
(Subtask 1)			

Source: TIPTOE Working guidelines for WP4: Researching trade qualifications from an educational point of view, September 2009, p.20

Likewise, sectoral and educational experts, participating in the **€qualifise** project analysed in terms of learning outcomes syllabuses and assessment materials of qualifications in the financial services sector. On the basis of existing levelling methodologies in UK, a panel of experts developed one single approach for assigning EQF and NQF levels to examined qualifications and tested it in fifteen countries and thirty qualifications. The panel had to distinguish whether qualifications are predominantly based on Knowledge (K), Knowledge and Skills (KS), or full Competence (KSC). Once this distinction was made then each of these components was weighted in terms of approximate percentages according to the extent to which its learning is based on (a) 'Knowledge' / *knowledge and understanding*, (b) 'Skills' / *application and action* and (c) 'Competence'/*autonomy and accountability*. The analysis showed that qualifications may reflect aspects of all three learning categories, or of one or two of them. When assessing a qualification that it is mostly made up of pure knowledge, with some elements of skill but little or no elements of 'competence' assessed, the panel was recording the following result:

Table 5. Example for levelling knowledge-based qualifications

Learning Category	Weighting	Level
Knowledge	90%	4
Skills	10%	3
Competence	0%	n/a
Overall Level = 4		

Source: €qualifise project, 2009, Quality assurance system: A guidance for levelling qualification in the financial services sector. Annex 2, p. 16.

Equally, a qualification based on competence assessment might have the following result:

Table 6. Example for levelling knowledge-based qualifications

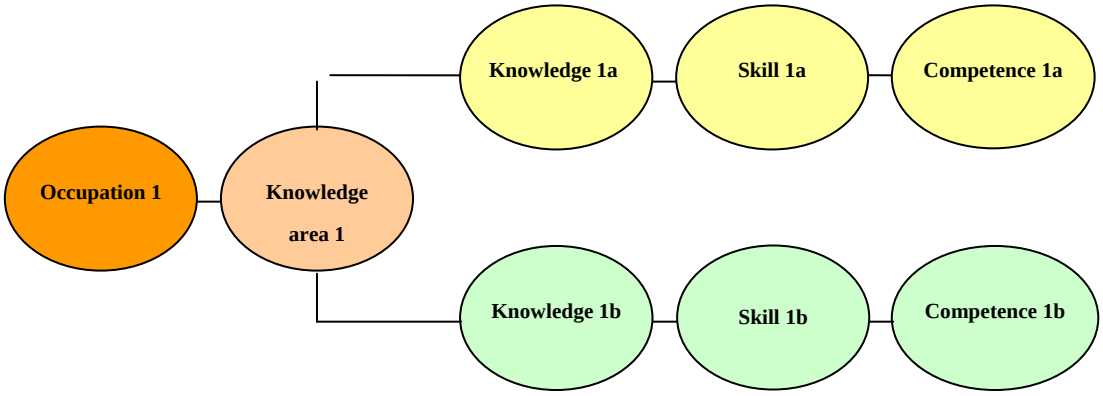
Learning Category	Weighting	Level
Knowledge	10%	3
Skills	20%	4
Competence	70%	4
Overall Level = 4		

Source: €qualifise project, 2009, Quality assurance system: A guidance for levelling qualification in the financial services sector. Annex 2, p. 16.

Once each unit of the qualification was reviewed and allocated a level, the overall level of the qualification was determined. Similarly, when each unit was reviewed and a percentage weighting for each learning category recorded, the overall weighting for each learning category was determined. For this process, the best fit approach was again followed.

The **Food-fit** project developed an inventory of occupations in the food companies linked to the EQF descriptors. Project partners analysed the key occupations in the food sector, identified functional areas within each occupation and partner country and related them to the most relevant technical occupations in the sector. For each occupation, "areas of knowledge" were identified which were then related to learning outcomes (knowledge, skills and socio-labour competences required for carrying out the job). The final result is presented in the figure below:

Figure 1. Structure for description of learning outcomes



Source:adapted from Food-fit project report. Work package 3. Design of tools for the sectoral development of EQF, p. 26.

For the description of learning outcomes, two methodological references were used: functional analysis[5] and Bloom's taxonomy[6]. A common lexicon was developed to describe and write learning outcomes, using the principles of the European Qualifications Framework (EQF), verbs of action identified in Bloom's Taxonomy (cognitive domain) and the dictionary of skills Hay McBer, recommended by the OIT / Cinterfor. For the description of knowledge, action verbs were used within the fields of knowledge, comprehension and analysis of situations. Skills were described using action verbs within the fields of implementation, synthesis and evaluation, while competences were described within the field of social, organisational and personal skills more frequently used in the labour market (see table 7).

[5] Functional analysis is a method used to identify the required competences of a productive function by means of a deductive strategy. By concentrating on the functions or results/outcomes instead of the activities, the descriptions produced are independent of the technology or methods used to achieve the function. In other words, instead of describing what people are doing, functional analysis describes what people have to achieve (Mitchell, L. and Mansfield B., 1996).

[6] Blooms taxonomy distinguishes between the cognitive, attitudinal (affective) and psychomotor domains, and between the levels knowledge, comprehension, application, analysis, synthesis and evaluation (Bloom,1956).

Table 7. Model of descriptive table for learning outcomes: Example of the occupation Quality Control Technician

Occupation	Knowledge area	Description of knowledge	Skills	Competences
Quality Control Technician (ISCO CODES: 211- Physical and earth science professionals. 214- Engineering professionals (excluding electrotechnology). 2265- Dieticians and nutritionists)	Food safety	Food hygiene Microbial and parasitic contamination. Microbiological deterioration. - Path of access to knowledge: ISCED 6.	Techniques of evaluation of nutritional state, critical analysis and interpretation of results - Path to access: university training. Masters degree. Permanent training	Focus on order and quality. Continual verification and control of work and information. On-the-job learning
	Quality control	Standardisation and food legislation - Path of access to knowledge: ISCED 6.	Necessary processes for adapting the food industry to ISO rules. - Path to access: Self-study. Updating of knowledge. Seminars.	Conceptual thought. Ability to identify the relationship between situations that aren't obvious. On-the-job learning.

Source: adapted from Food-fit project report. Work package 3. Design of tools for the sectoral development of EQF, p. 19

Once occupations were described in EQF terms for each functional area, the best fit approach was applied for referencing levels to the occupations. The final tool developed for the referencing process contained: the name of the occupation in question; the attributed functional area; the functions and tasks to be performed; the official name of ISCO occupation; the NACE code; the EQF level; the evolution of the occupation (whether it is an emerging occupation in medium or larger companies, or a traditional occupation with new skills and competences, etc.), and the reasons for choosing to analyse and reference this occupation.

Other LdV projects aim at the development of a sectoral -usually competence- meta-framework. The partners of the **EQF-sports** pilot project, for example, aiming at a European sectoral framework on sport activities, use functional analysis to develop a functional map (this is the graphic representation of the results of the functional analysis) to specify the current and future needs of employment in sports sector. On the basis of this functional map, a detailed sector competence framework based on units and credits is developed. This describes both the competences acquired in occupations as well as the competences to be achieved through curricula and learning programmes. This competence framework is divided into manageable units made of learning outcomes – broken down by level into competences, skills and knowledge

and the range and scope of coverage required (in line with the EQF). These units then are given a level from the EQF and corresponding credits.

Table 8. Example of competence framework in Fitness for EHFA Basic Instructor

B1.1 Analyse the needs, abilities and potential of individuals and groups			**Instructor Learning Outcomes Mapping to a separate document**	
Competency	**Skills**	**Range**	**Basic**	**Advanced**
B1.1.3 Analyse information and determine risk factors	1. Interpret all recorded data using accepted criteria	All data gathered Using standard criteria Norms	2.7 3.9 3.10 4.10	8 This number refers to the section in the knowledge framework
	2. Prioritise key needs and responses	According to client health status According to client fitness status According to clients expectations	2.7 2.15 3.10 3.9 4.10 4.11	5 8 9
	3. Identify and prioritise risk factors	Medical, physical and psychological Injury status Fitness levels Factors that might affect clients ability to participate in programme	2.7 3.9 4.10	8
	4. Review and confirm data with client	Clarify data Utilising communication and Interpersonal Skills		
	5. Develop a summary profile of client to assist in the design of a programme to meet clients needs	Collate and categorise data		5 8 9

Source: EQF sport project, WP 5, Guide to develop a sector competence framework based on units and credits, March 2008, p. 6

Another example is drawn from the approach applied in the **EASCMF** pilot project which develops a European automotive sector competence meta-framework. To do so, project partners analysed and compared publicly recognised professional profiles. Based on the criteria of topicality, comparability and availability in the partner countries, four national descriptions considered as national variants of a profile in the automotive sector were selected for more detailed analysis. Additional material which could *implicitly* comprehend information about the abilities required to perform in work was also analysed (prerequisites of access to training, curricula, methods of

training, learning locations, examination regulations, etc.). Then, the EQF categories were identified within the descriptions of national profiles: knowledge, skills and competence required to achieve the reference objective, in this case, to: *deliver a car which works to the optimum satisfaction of the customer, at the same time meeting the requirements of the enterprise.*

The **EQUFAS** project followed an original approach somehow beginning from what for other projects is the last step and going backwards. Project partners first defined the EQF level to which they wanted to refer the qualifications from the agriculture sector (level 3) and then defined a common framework based on which learning outcomes-based curricula and assessment tools were designed. The other originality of this project is the way learning outcomes have been identified. While other projects have analysed official sources and/or performed a work analysis in each partner country for identifying learning outcomes, the EQUFAS project developed an experiential method: observed and assessed students while working in companies associated with six different branches of the Agricultural sector (during pilot study periods organised by the project partners) outside of their country of study. This approach allowed first to conclude on those generic competences which are of outmost importance for mobility reasons (language skills, communication skills, intercultural competences, etc.) and to assess whether more specific competences acquired through their studies in their country matched with these needed to work in a different country. They then developed a common framework for the agriculture sector on the basis of the 8-EQF levels and the four domains and eleven dimensions of the 4CYOURWAY-framework[7] (see below). The three main building blocks of the EQF (knowledge, skills and competence) were then covered by at least one or more dimensions of the 4CYOURWAY-framework.

Table 9. EQUFAS common framework for the agriculture sector.

		1	2	3	4	5	6	7	8
Responsibility	**Responsibility**								
	Autonomy								
Range	**Public**								
	Timeline								
Complexity	Tasks								
	Procedures								
	Knowledge and understanding								
Transfer	Ambiguity								
	Change								
	Range								

Source: EQUFAS project report, p.15-16

[7] www.4cyourway.nl and http://www.linqueconsult.nl/nieuws/index.php?id=59

2. Insights and lessons learned from pilots

The examined LdV pilot projects have developed and tested interesting methodologies to identify the expected learning outcomes in the respective sectors and to redesign curricula and qualification profiles accordingly. This testing exercise allowed project promoters to draw important conclusions summarised in the following points:

1. The degree to which outcome orientation is realised in curricula and qualification profiles differs across the partner countries of the studied projects

Some projects analysed curricula and found a weak outcome-orientation (e.g. certain occupations in the €qualifise project). Although curricula contain a lot of information on study times, methods and contents, there was little (or none) information on expected learning outcomes. In this case, project partners have redesigned curricula in terms of learning outcomes using different methods. Other projects found that actually in opposition to earlier assumptions, the analysed curricula contain a strong outcome-orientation (e.g. AMOR); but still curricula should be redesigned to take into consideration learning outcomes not captured in formal curricula acquired though non formal and informal means.

The degree to which curricula are outcome-oriented varied significantly between sectors and countries. In the TransEQFrame project for example, project promoters concluded that some curricula of the examined qualifications were strongly outcome-oriented (in the Netherlands), in other cases this outcome orientation was supported by framework conditions -system characteristics (in Denmark); other were broken down into learning units defined in terms of learning outcomes and assessment criteria (in Finland); other were partly outcome oriented containing elements more or less geared towards learning outcomes, but with no systematic description of levels or dimensions of learning outcomes. In other cases, the focus was rather on the description of input factors (in Austria); and finally some were totally input-oriented (in Bulgaria).

In any case, at the level of curriculum, it is too simplistic to characterise these approaches only as input- or outcome-focused curricula. There is actually no pure type of input- or outcome-curriculum defined in theory. It is possible to say on the basis of empirical research (Cedefop, 2010), that curricula are always mixed and that the kinds of "outcomes" they define varies hugely among the countries, so that even two outcome-oriented curricula look very different. So often, learning outcomes do not replace learning inputs (contents, teaching and learning methods, timetables, etc.)

but in most cases, may have a more or less prominent role for defining these inputs. LdV pilot projects have described curricula and qualifications using a balance between input and outcome elements. Referencing tables include information on knowledge, skills and competences of the respective qualifications as well as the name of the qualification degree giving access to this occupation, the duration of studies, etc. (e.g. Food-fit project).

2. When learning outcomes are formulated in a very operational way for specific occupations, there are matching difficulties to the generic descriptors of the EQF.

The analysis of national sources documenting qualifications shows that learning outcomes may be expressed in rather broad or narrow terms and this determines the degree of difficulty for the referencing process. When learning outcomes are defined at the level of units for example, they express the specific outcomes/objectives of single teaching units and thus precisely determine the contents of training and education programmes. In some cases, learning outcomes refer directly to the professional context, whereas in others they rather refer to a body of knowledge to be assimilated by the learner. Some countries define assessment criteria/performance criteria, whereas in other countries outcome statements are too vague to be used directly for assessment.

Differentiations also exist along the divide between competence and associated knowledge. In some cases, a difference is made between what students should be able to do, and what they should know and understand, whereas in other cases associated knowledge is not formulated in terms of learning outcomes but rather as a list of items to be addressed in classroom. These differentiations and the often disparity between expected learning outcomes in curricula and achieved learning outcomes defined in qualifications have posed difficulties to project partners testing different referencing approaches (e.g. in €qualifise project).

3. Complementary research methods to desk analysis are required to identify learning outcomes acquired also by informal and non formal means, often not explicitly stated in official documents.

Promoters of different pilot projects noted that national documents describing qualifications are not easy to be interpreted in EQF terms as there were found conceptual ambiguities between the EQF key terms and their understanding and use at national and/or sectoral level. This is the case even in countries with an inherent outcome orientation in their systems. Another conceptual issue of that kind is present when there are differences between the competence models used in national

qualifications systems and the EQF dimensions (e.g. the German national qualifications framework). It was also found in many cases that the official documents describing national qualifications can not supply the information that corresponds fully to the EQF criteria. Therefore, complementary methods to desk research were used by LdV projects' partners to identify these learning outcomes required for carrying out the job of a specific occupation and acquired though non formal and informal means.

In many projects functional analysis is used for the identification of work requirements (e.g. the Food-fit project). The starting point for determining the work requirements and training needs are the study and analysis of the system of production and the labour market. Occupations are divided into tasks and duties, of which the function is identified to determine skills and knowledge requirements independently of a specific work-place. These requirements are clustered and transformed into learning outcomes with associated performance criteria.

4. Tools developed within the LdV projects can be valuable bases for designing qualification and curricula based on learning outcomes as well as for referencing qualifications to the EQF levels.

These tools may be "competence matrixes" for mapping competences to a specific type of course; templates for curricula covering the structural and legal aspects of a curriculum; guidelines on how to write a qualification profile; and checklists for curriculum designers with relevant things to keep in mind. Others, such as the AMOR project, develop an "activity-matrix" based on curriculum analysis and identification of learning outcomes via working situations.

The DACUM[8] method and Bloom's taxonomy[9] are often cited as tools for the clustering of learning outcomes (e.g. Food-fit project). Bloom's taxonomy remains until now the most widely used taxonomy for describing learning outcomes and assessment criteria. Especially due to the increasing implementation of national qualification frameworks and outcome-based approaches for the design of curricula, the use of this taxonomy is very popular in the European member states but other taxonomies are used as well (Psifidou, 2010c). In addition to these well-known methods, other projects use a broad set of empirical research methods (such as surveys, workshops, interviews, observation, etc.) to carry out the levelling process.

[8] An acronym for Developing A Curriculum, DACUM is a Structured Group Interview (SGI) Technique commonly used to develop curriculum for both academic and vocational course content.
[9] See note 6.

5. There is room for different interpretations concerning the individual categories of learning outcomes in the EQF (knowledge, skills and competence).

Despite the explanations on the three learning outcome categories in the EQF there is still room for interpretation concerning the individual categories. For example, the EQF describes competences as "taking responsibility and acting independently". The term "responsibility" was understood by some project partners basically as a legal responsibility, others, however, rather saw it as an informal "taking care of" or operative participation in the process of qualifications establishing. Project promoters explained that without clarification among different stakeholders involved in the referencing process, this might lead to a distortion of future EQF classification.

6. Identifying and involving the key stakeholders concerned is crucial for a transparent and comparable approach to learning outcomes in designing curricula and qualification profiles.

All LdV projects have involved both education specialists as well as experts in the respective sector for developing the referencing tools and deciding on the levelling of the piloted qualifications. In many of them, the involvement of experts from different backgrounds (especially employers and employees) in the process of work analysis was an essential element of the methodological design. On the basis of their personal experience and knowledge of a sector or an occupation, they provided inputs in the curriculum development process or gave feedback on the results. Some projects (the AMOR, €qualifise, etc.) even recommend the type of stakeholders who should be involved in the entire process (teachers, educationalists, sector experts, etc.), the qualifications and knowledge that should have and the different functions that should perform. To identify and contact the key stakeholders, different approaches have been used by project partners (surveys, questionnaires, workshops, *in-situ* research, etc.).

Concluding remarks

To summarise, the presented examples show how an approach of identifying and describing learning outcomes in curricula and qualifications can take different but complementary forms among LdV projects testing the EQF, with some of them piloting on qualifications from different sectors (occupational domains), while other focus on one specific sector (tourism, sports, financing, food, etc.). All of them though use the learning outcomes approach as a means to carry out this "interpretation" process, breaking down qualifications into smaller entities (core-activity areas, core tasks, working situations, etc.) and using the best fit approach for associating levels to units and/or qualifications.

A commonality in the approaches of these projects is their starting point; they all use the same sources for collecting information about learning outcomes: they refer to national documents underpinning qualifications (curricula, syllabuses, qualification profiles, training and study regulations, training programmes, etc.), and usually, complement the information found in these sources with learning outcomes identified through work analysis. Some LdV pilot projects while interpreting the generic EQF terms into sectoral concepts, aim to develop also a sectoral meta-framework which can take different forms (this is usually a competence framework).

The results of this preliminary analysis highlight issues requiring attention and actions from policy-makers and practitioners in vocational education and training. However, they also reveal the limits of our knowledge and understanding of current developments and of the effects and implications of learning outcomes approaches in vocational education and training. Building on new EU and international analytical studies of learning and teaching processes, there are still many issues in need of further research.

In recent years, Cedefop's analytical work has increasingly focussed on learning outcome approaches in vocational education and training to design and describe qualifications, to set standards and to influence quality assurance, validation and certification approaches. Between 2009 and 2011, Cedefop organised two International Workshops[10] to debate about innovative curriculum policies and practices in Europe and beyond. In 2010, a comparative study in nine European countries on learning outcome approaches in VET curricula was published to provide a better understanding of recent curriculum policies and point to main tendencies and

[10] http://www.cedefop.europa.eu/EN/events/4432.aspx and http://events.cedefop.europa.eu/curriculum-innovation-2011/

challenges in this field (Cedefop, 2010). This research is now being expanded in all 32 countries participating in ET 2020 and will continue in the coming years.

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Annex: LdV Projects' acronyms

AMOR:	Approach for the Matching process of Outcome-based curricula to the EQF in vocational education
EASCMF:	European Auto Sector Competence Meta Framework
EQF-Frame:	EQF Flexible References and Methods of Evaluation
EQF-sports:	Implementing EQF in the Sports Sector
Equalifise:	European Qualification Assurance League in Financial Services
EQUFAS:	Experiences with the EQF in the Agricultural sector
Food-fit:	Methodological proposals to facilitate the introduction of the European Qualifications Framework (EQF) in the food sector of the European Union
Tiptoe:	Testing and Implementing EQF- and ECVET-Principles in Trade Organizations and Education
TransEQFrame:	Trans-European Qualifications Framework Development)

Interregional discussions around a conceptualisation of an inclusive curriculum in light of the 48th International Conference on Education[1]

Introduction

"Curriculum is without a doubt one major area that can foster development of inclusive education or, in the worst case, can be a barrier for inclusion." (Halinen and Savolainen, 2009)

The causes for exclusion vary across the world and are both multi-dimensional and highly contextual, related to negative attitudes around diversity, a legacy of segregated educational facilities and settings, the inadequacy of general educational provision, amongst other factors. However, in all contexts, the lack of a robust, motivated, relevant and flexible curriculum is often a common concern, playing a significant role in systemic exclusion and making education systems unable to effectively address all learners' needs.

This article aims to elaborate upon the interregional discussions which have emerged in light of the 48th UNESCO International Conference on Education (ICE) around the key role of inclusive curricula for democratising learning opportunities. At the same time, it seeks to identify certain emerging consensus and ongoing debates in terms of inclusive education and curricula at both a theoretical and practical level across the five UNESCO regions.

At the beginning of the 21st century, UNESCO has defined inclusive education as "a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education ....". (UNESCO, 2003, p.7). The ICE outcomes also broaden this conceptualisation of inclusive education with a view to achieving the Education for All (EFA) goals as "a general guiding principle to strengthen education for sustainable development, lifelong learning for all and equal access of all levels of society to learning opportunities" (ICE outcomes, 2008). This definition moves away from traditional understandings of inclusive education as the sum of piece-meal initiatives and efforts in favour of specific groups or targeted categories (e.g. students with special needs, ethnic, gender, cultural, socio-economic and migrant groups) towards an understanding of inclusive education as the provision of quality lifelong learning opportunities for all learners, where equity and quality go hand in hand.

A broadened concept of inclusive education is grounded in the belief that education is a fundamental human right, the axis to enjoy other human rights, and the foundation for a more just society. It is a process of strengthening the capacity of an education system to reach out to all learners, by recognising and improving them as active participants in communities and society at large. It involves a never-ending search to find better ways of understanding how to effectively facilitate and support participation in communities, as well as the identification and removal of existing barriers to participation and learning. In particular, this process involves learning how to engage with and value diversity, and how diversity between

[1] R. Opertti, J. Brady and L. Duncombe, Capacity building Programme, UNESCO-IBE.

individuals and groups can foster learning, as well as strengthen education systems, communities and societies towards the attainment of more inclusive and cohesive societies.

The ICE outcomes also underscore the need for a holistic approach to the design, implementation, monitoring and assessment of educational policies for the attainment of the EFA agenda. (UNESCO, 2008a) This echoes UNESCO's 2003 definition of inclusive education, which further states that "inclusive education involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children". (UNESCO, 2003, p.7)

Inclusive education guides all educational policies and practices, intertwining different dimensions (access, processes, participation and learning outcomes), levels (formal, non-formal, adult education) and units (national frameworks, curricula, schools, classrooms, teachers and learners). Accordingly, key multi-pronged strategies have been prioritised in this respect, for example, assessment and monitoring of the needs of different groups; the planning and allocation of resources towards inclusive education policies and programmes; clear and solid legislative frameworks supporting inclusion; unified and participatory policy design and implementation based on shared social values and principles; advocacy and awareness-raising for tackling negative societal values, attitudes and practices towards diversity; as well as re-orientating the design and implementation of curriculum towards inclusive education so that it can effectively address all learners' needs. (Opertti et al, 2009)

While this article intends to concentrate on the role and implications of inclusive curriculum in the development of inclusive education, the interdependence of these strategies must clearly be taken into account, and will be addressed briefly in the section on supporting the implementation of the curriculum. Inclusive curricula can only be efficiently developed and implemented within systems that provide schools, teachers and other staff, with the orientation and necessary supporting conditions to progress from vision to practice. Because of how all curricular elements are connected and influence each other, systematic ways of understanding and developing inclusive values and principles, public policies, and systems to underpin inclusive practices are essential.

Defining inclusive curricula in light of the 48th ICE

UNESCO-IBE perceives the curriculum as a well-embedded instrument and mirror of the complex interfaces of society, politics and education, e.g. within political and policy discussions and agreements of a variety of stakeholders. (Braslavsky, 1999) It is broadly defined as: a reflection of the kind of society to which we aspire (i.e. core foundations, objectives, concepts); the pedagogical and administrative action plans of an education system (i.e. frameworks, syllabus, structures, supports); and an interactive, non-linear and dynamic tool and process of pedagogical development (i.e. disciplinary content, learning strategies, assessment, learning outcomes) as well as administrative development (i.e. design, management and follow-up of the curriculum).

Indeed, educational reform throughout the world increasingly focuses on curriculum-based approaches as well as the complex feedback relationships between curricula and the achievement of both equity and quality. (Moreno, 2008) The curriculum has also been put forward as a way of contributing to the development of more inclusive societies, e.g. by

providing a new emphasis on the role of school as educating and sharing values. (UNESCO-IBE, 2010a)

From this standpoint, the curriculum has been identified as a crucial tool to promote a broadened concept of inclusive education and to ensure the implementation of holistic educational policies from a long-term perspective. The UNESCO guidelines, for example, have identified the curriculum as the central means by which the principle of inclusion could be put into action within an education system, respectful of cultural, religious, gender and other differences in line with common shared values. (UNESCO, 2009a)

The ICE outcomes describe a curriculum which is flexible, relevant and adjustable to the diverse characteristics and needs of lifelong learners, reflecting an inclusive society which ensures more equitable distribution of opportunities and the elimination of poverty and marginality. In particular, they highlight the need for: inclusive learning environments which encourage the active role and the participation of learners, their families and their communities; effective and flexible curriculum frameworks that accommodate local contexts and diversify pedagogical practices; the participation and consultation of all stakeholders in decision-making processes; stronger links between schools and society; early childhood care and education (ECCE) programmes; Information and Communication Technologies (ICT) usage; high-quality non-formal educational opportunities with the possibilities for formal recognition and adult literacy programmes. (UNESCO, 2008a)

This conceptualisation of an inclusive curriculum strongly supports an understanding of student diversities as enhancing and democratising learning opportunities. It combines the density and strength of core universal concepts (e.g. the value of diversity, the right to lifelong learning, comprehensive citizenship education) with options, flexibility and consideration of all learners within schools and classrooms, thereby addressing and guaranteeing their individual right to education. It is essential to ensure that curricular processes, provisions, settings and content share common frameworks which at the same time providing tailored approaches towards the personal needs of all learners. Indeed, an inclusive curriculum does not imply a breaking-up of the education system nor the curriculum into smaller independent sub-units without any linkages between them. “The key element of inclusion is not the individualisation but the diversification of the educational provision and the personalisation of common learning experiences ... This implies advancing towards universal design, where the teaching-learning process and the curriculum consider from the very beginning the diversity of needs of all students, instead of planning on the basis of an average student and then carry out individualised actions to respond to the needs of specific students or groups who were not taken into consideration by an education proposal based on a logic of homogeneity instead of diversity”. (Blanco, 2008)

Indeed, traditional “inclusive education” curricular policies have primarily implied special needs policies within existing school structures and syllabus, which are organised in ways that reinforce the idea of students as fitting into separate categories of difference. There has been a call to develop curriculum proposals which recognise that all learners are unique and diverse. Where specialist support is required, it should be provided in ways that reduce the stigma of marking some children as different and separate; it is essential that such additional support is given under a common vision of including all learners. This means respecting their individual characteristics, while extending what is ordinarily available to all learners within the general educational provision. (Florian, 2010)

Inclusive curricula from an interregional perspective

When conceptualising an inclusive curriculum in light of the 48th ICE, the interregional discourse has tended to focus on four main concerns, namely: the focus of the curriculum; the purpose of the curriculum; the relationship between national, local and school interests; and the question of how to effectively support the implementation of the curriculum. This article will address these concerns in turn, with reference to various interregional perspectives and examples, bearing in mind there is no one "successful" international model but many visions, experiences and strategies to share and build upon.

The focus of the curriculum

The focus of the curriculum can be broadly understood as relating to curricular objectives, goals and contents, defining competencies, understanding and supporting the learning process of every pupil and how this can be combined in a coherent way throughout the curricular framework.

Curricular objectives, goals and contents

In terms of curricular objectives, goals and contents, it is important to note that, traditionally, subjects have played a key role in education systems. In fact, the mindsets and practices of education systems have typically been constructed around the study of knowledge and subject areas, within relatively stable epistimolgical definitions and boundaries of knowledge areas. Often, the content has taken on a leading role than other areas of the curriculum, such as the curricular objectives (which may refer to good citizenship; healthy and balanced development of a person, etc). It is interesting to understand and compare how innovative school models have attempted to move away from this content-based approach in order to improve educational achievement in difficult social surroundings, as in the case of France. "Opening up the school to this culture radically transforms the elitist conception of knowledge as the instrument whereby power is exercised by the privileged social classes". (Pagoni, 2006) This has meant that distressed children are not isolated or given special 'treatment', instead, the aim is to cater for them without singling them out in the collective learning process. (Govinda, 2009)

Too much emphasis on academic content has also been identified as a key challenge across all regions in terms of other implications such as the narrow definition of learning and learning outcomes, as well as restricting teaching practices, amongst other things. (Halinen and Savolainen, 2009) For example, at the secondary education level in the Arab region, it was noted that teachers tend to hold a strong disciplinary ethos, which may hinder coordination with colleagues from other disciplines. (Opertti and Brady, 2010) Research also suggests that an over-emphasis on academic content or an over-burdening of academic content within a curriculum also tends to create time pressures for teaching staff. (Halinen and Savolainen, 2009)

The World Bank also suggests that excessively academic and subject-oriented curricular structure, objectives and content**,** which are disconnected from economic and social realities, are highly to blame for the major issues which remain to be addressed in order to twin high-quality and relevant education in all regions. (World Bank, 2005) In many regions, skills and

knowledge learned in school may have very little relevance for the out-of-school lives of many students, especially those that come from socio-cultural backgrounds that differ from the predominant societal view embedded in the school's culture. Moreover, this also risks alienating parents from their children's learning, as they cannot offer as much support. Similarly, in all regions, many areas of curricula "bear little relation to the skills sought by employers and lack uniform standards". (EFA GMR, 2010)

One key challenge is to expand access and democratise education while ensuring quality learning opportunities through relevant curricula. In Sub-Saharan Africa, access to secondary education is lower than in any other region of the world and highly biased against the poor, with girls at a particular disadvantage. (UNESCO EFA GMR, 2010) Experts agree that there is a serious mismatch between social expectations and needs and what education systems actually offer. (Aglo, 2006) A growing number of countries – including South Africa, Rwanda and Tunisia – are moving away from over-loaded and out-dated content and are forging stronger links between technical and academic streams under common curricular frameworks. Others – including Gambia, Ethiopia and Tanzania – have started the process of developing their curricula to focus on selected competencies in key knowledge areas and skills. Ethiopia, for example, has introduced an 'alternative basic education' programme using low-cost community centres in remote areas aimed at helping 7-14-year-old children of pastoralists who may have missed out on primary school. (UNESCO-IBE, 2009b)

In Europe, Sweden has also recently embarked on a series of curriculum reforms, motivated by concerns that pupils are not prepared enough for higher education and working life. It seems too many pupils leave school with low-level qualifications, while more and more qualifications are required by the skilled labour market due to rapid technical development, international competition, as well as demographic changes. The concept of knowledge underpinning these reforms has been broadened to reflect a combination of facts, understanding, skills and accumulated experiences. The reforms have aimed to clarify and simplify the structure in terms of curricular and syllabi objectives, so that the content of a programme and where the programme is leading is clearly conveyed to students.

In addition, there is now increased collaboration in Sweden between school governing bodies, higher education partners and the world of work at national and local levels, as well as with local programme councils for TVET programmes. Key changes are also taking place in Swedish upper secondary education, including higher eligibility requirements, more time for subjects in vocational studies and less for core subjects, and an introduction to apprenticeship training. (UNESCO-IBE, 2010b) Similarly, in the Middle East, a region marked by high youth unemployment and high drop-outs rates in secondary education (UNESCO EFA GMR, 2009), governments are trying to prioritise the development of technical and vocational education within the framework of restructuring secondary education. (UNESCO-IBE, 2009b)

More generally, relevant curricular content should also help to develop knowledge, attitudes, and values as well as teaching-learning methods that support a genuinely inclusive society, with a focus on non-discrimination, human rights, removal of stereotypes, and respect for diversity. For this purpose, a comprehensive review of existing curricula and materials through the perspective of an inclusive education lens has been recommended. In particular, this should consider to what extent inclusive education ideals are currently being promoted

and whether, in fact, stereotypes exist in regard to, for example, sex, ethnicity, rural origin, and disability. (Asian Development Bank, 2010)

Finally, it may also be worth considering whether curricular objectives are set too high; universal requirements which are rigidly defined and not contextualised cannot match the learning needs of all. Having high level objectives can of course help teachers and learners reach good results, but only when teaching and learning processes can be organised flexibly according to the needs of individual learners and when learners are strongly supported in their learning. Finland is an example of a country where practically 100% of pupils in basic education (grades 1-9, years 7 to 16) complete their studies and reach the same (relatively high) goals. (Halinen and Savolainen, 2009)

Defining competencies

With respect to defining competencies, it is important to consider that "There is a growing sense in which 'what you know' is less important than 'what you are able to learn", yet many education systems continue to follow rigid curricula based on traditional disciplines. (UNESCO EFA GMR, 2009, p. 92) Two of the Education for All Goals, as set by the international community in 2000 to be achieved by 2015, also lay clear emphasis on the significance of developing learners' competencies in education: Goal 3 refers to "Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes", whereas Goal 6 refers to "Improving every aspect of the quality of education, and ensuring their excellence so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills". (UNESCO, 2000, p.17)

As a response to these challenges, competency-based approaches have been put forth as particularly useful for developing and implementing an inclusive curriculum, to address diversity of all learners and increase curricular relevance. (UNESCO-IBE, 2009a) Indeed, educational and curriculum reforms around the world are increasingly guided by competency-based approaches (Jonnaert et al, 2006). Interest in such approaches, especially at the secondary level, can also be explained by the approach's key objectives of quality, efficiency and usefulness of educational provision in terms of economic and social development. (World Bank, 2008)

A "competence" can be defined as "knowledge, skills, values and attitudes, accompanied by the ability to use them in a certain context". (Halinen, 2010, p.5) Others have described competencies as "complex processes of achievement with qualification in certain contexts, integrating different kinds of knowledge (knowing to be, knowing to do, knowing to know and knowing to co-live), in order to carry out activities and/or solve problems with the aim of contributing to personal development, construction and strengthening of the social network, the permanent search of a sustained economic-entrepreneurial development, and the concern and protection of the environment and the living species". (Tobon, 2007)

In overall terms, four core elements should be taken into account in light of adopting competency-based approaches as the principal axis of curriculum design and development:

- Developing competency-based approaches should imply the generation, mobilization and integration of resources, such as knowledge, know-how, attitudes and values, in order to face diverse type of learning situations and their links to real-life situations. It is not solely a matter of applying knowledge and capacities, or developing skills;

- The different types of situations are the criteria to conceptualize and define the exit (graduation) profile as well as to orientate the selection and prioritization of disciplinary contents (the syllabi) and to set up the assessment criteria and tools. The situations should reflect what is expected from the curriculum with regards to societal demands and needs;

- Competencies are socio-historical constructions developed through diverse situations. General life and/or citizenship competencies should be conceieved and developed in different types of situations;

- There are different ways of developing competency-based approaches at the school and classroom levels; but for any of them to be truly effective, competencies should be selected and prioritized based on gathering, interpreting and prioritising the demands and needs of societies. (UNESCO-IBE et al., 2010).

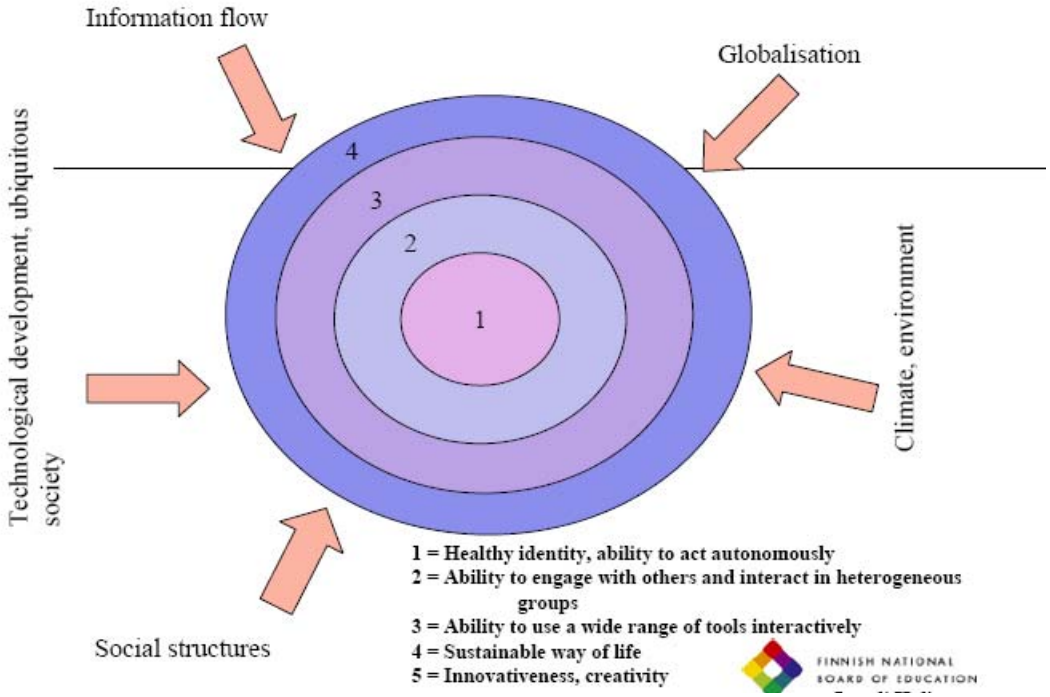
Competency-based conceptualisations echo the four pillars of education, identified by the report of the International Commission on Education for the Twenty-first century: learning to know, i.e. knowledge of subjects and learning to learn; learning to do, i.e. ability to face a variety of situations including work experience; learning to be, i.e. exercising independence, judgment, combined with a sense of personal responsibility for attaining common goals and understanding and realising one's talents; and learning to live together: among individuals, groups, nations, i.e. developing an understanding of others and their history, traditions and spirituality. (UNESCO, 1996)

Competency-based approaches imply combining *knowing* and *doing*. A competency "takes the context into account, is the result of a process of integration, is associated with criteria of execution or performance, and implies responsibility". (Aguerrondo, 2009) This basic combination is key to defining, developing and assessing competencies needed in later studies, work and society. As a transversal axis for revising content, processes, provisions and settings, one of the advantages of competency-based approaches and contents is their inherent adaptability to a multitude of real-life settings for a range of learners and schools, providing an optimal combination of content and contexts. (Cox, 2008) For example, in several countries, a competency-based approach has helped diversify learning objectives and strategies, based on a more flexible and relevant exit profile. (UNESCO et al, 2009b)

In light of a broadened vision of inclusive education, such an approach can be seen as an opportunity to develop an inclusive curriculum and effectively respond to students' diversity. Indeed, incorporating competencies into disciplines and classroom practices may mobilise and integrate a wide range of values, attitudes and learning resources (i.e. knowledge as well as know-how, and activities to face different situations using a competency), so as to respond to diversity more effectively. Competency-based approaches may help teachers better understand their own role as facilitators who are empowered to adapt their learning stategies to the diversity of learners. It may also help teachers to better demonstrate to learners the

rationale behind competencies, the competencies themselves, and the resources and methodologies required to achieve curricular goals. (Jonnaert, 2007) As a result, a competency-based approach offers an innovative and alternative way to conceive and organise curricular structure, objectives and content in order to contribute to forge independent, critical, confident and assertive citizens.

Several elements of competency-based reforms remain controversial. Certain key questions remain about how to select, define and select core competencies, taking differing contexts and their respective needs into account. One example is the diagram below, which reflects the point of reference for the Finnish National Curriculum. (Halinen, 2010)



Other concerns relate to how to integrate and connect competency-based approaches to curricula and syllabus which are mainly grounded on knowledge. Several proposals have been put forth to try and address these concerns. For example, Rogiers (2005) distinguishes between two approaches to implementing a competency-based curriculum. The first one is based on the development of transversal competencies at school. It promotes interdisciplinarity and intends to introduce life competencies by inviting students to resolve problems and situations through active learning. They recommend the importance of teaching the student through on-going "active" methods, focusing on the process of learning and applying the know-how and other elements to meaningful situations. Along these lines, the curriculum does not prescribe competencies, but rather provides the ingredients to allow for their development (Joaennert et al, 2009). This approach implies serious changes to study programmes in terms of their content, design and presentation, as well as well-trained and effectively supported teachers, for its adequate and sustainable implementation.

The second approach, known as the 'pedagogy of integration', distinguishes between two levels of curricular design – a first level to develop basic competencies geared towards a general exit profile and a second level to develop more complex competencies, which provide for a specific exit profile. (De Ketele, 1996; Rogiers 2000, 2003, 2004) This approach is based on a definition of competency which entails "the spontaneous mobilization of a set of resources in order to apprehend a situation and respond to it in a more or less relevant way" (Rogiers, 2010). As such, a competence can only exist in the presence of a specific situation, through the integration of different skills, themselves made up of knowledge and know-how. The pedagogy of integration therefore aims to make sense of the learning process, by placing the learning process within a meaningful context, and acts as a evidence-based method for organizing learning and evaluation. Addressing complex problem situations may encompass, for example: (1) school experiences: knowledge, know-how and how-to-be; (2) situations of everyday life; and (3) the relevant mobilisation of competencies. This approach has been developed in several European and African countries with positive results; it has allowed all students to progress, regardless of their different start points in terms of performance, and teachers can adapt themselves at their pace.

Another useful perspective is to view competencies as the bridges to pre-existing subjects within a new competency-based curriculum, i.e. a "curriculum organiser. Viewed as such, competencies can (1) enhance the relevance of content by encouraging the application of knowledge to simulated life situations; (2) facilitate the formulation of expected student outcomes in concrete and practical statements; (3) integrate subject content that is traditionally separate in the curriculum; and (4) provide a mechanism for gathering accurate and meaningful data on student performance and achievement for assessment". (Stabback, 2007) For example, Belgium has established curricular cycles based on a set of standards in order to address both general and specific competencies relevant to everyday life, work and learning situations: the "foundation competencies", which concern the first eight years of mandatory school and the "diploma-level competencies", which are related to the end of secondary level. (Rey, Carette, 2006; Stabback, 2007)

Other concerns, which have been raised with regard to competency-based approaches, relate to the implications of competency-based approaches on assessment. Indeed, competencies are not taught "for the sole purpose of testing them; following the progress of each student is just as important and depends on the teacher's ability to use diverse observation and diagnostic techniques". (Scallon, 2004) Some maintain that it is only by dealing effectively with a situation that a person can be declared competent; the competent handling of a situation thus constitutes the principal criterion for assessing competencies. (Jonnaert, 2007) Yet, one of the main difficulties that teachers seem to encounter with competency-based approaches is evaluating students' learning outcomes, e.g. assessing the acquisition of competencies such as "respecting his/her environment", "information research" or "processing information".

Across many regions, there is also often a clear tension between innovative competency-based curricula and pre-existing techniques of assessment, e.g. traditional written tests which determine students' transition to higher grades. As Labate suggests, "there are frequent gaps between the agencies respectively in charge of curriculum design and national examinations, each of them pursuing different objectives and responding to different logic frameworks (curriculum relevance vs. assessment validity). Curriculum experts usually take a one-sided view of assessment as a part of the curriculum process, as seen in the many recommendations

present in curriculum materials directed towards assessment practices. These recommendations are usually in line with a constructivist theory of learning, advocating for "authentic" assessments that should be performance-based, and used for formative purposes. However, it is harder to find instances of a reversed, "upstream" flow of information, where curriculum designers make good use of exam outcomes to review and renovate the curriculum." (Labate, 2010)

Understanding and supporting the learning process of every pupil

In light of the 48th ICE 2008, curricular processes that effectively support the learning process of every learner imply developing and implementing curriculum frameworks that understand how learners learn in different ways and have different needs with regard to curricular goals, contents, time, methods, materials, learning environments, as well as supports, and assessment, amongst other things.

In particular, it is crucial to reflect on increasing *participation* in learning processes - not just *who* gets to be included, but *how* - and *what is recognised as achievement* in a learning community. Participation should relate to the quality and meaningfulness of learners' experiences, incorporating the views of the learners themselves. 'Achievement' should relate to outcomes of learning across the curriculum, not merely test or examination results, and should not be restricted to academic attainment.

Meaningful participation and achievement implies students learning alongside others and collaborating with them in shared lessons as part of a learning community. In particular, there is strong evidence of the potential of approaches that encourage cooperation. e.g. where pupils can discuss, work, solve problems together, help each other, give feedback to each other etc. Meaningful participation also involves active engagement with what is learnt and taught, and having a say in how education is experienced to actively create personal knowledge and meaning. Inclusive curricula must encourage students and teachers to construct interactive and collaborative relationships built on trust. Curricula must guide teachers through complex planning processes for learning, to take into account the learners' own thinking about what to do next, as well as teachers' own professional ideas and judgements based upon the learner, not just pre-conceived (lowered) expectations. Curricula must also provide a range of opportunities for learning to help learners participate freely and actively in classes.

In China, for example, the new school-based curriculum reform is attempting to better stimulate the active engagement of learners through collaboration and peer coaching, while encouraging students to address and resolve problems through open discussion. It also aims to develop more democratic relationships between teachers and students, with teachers playing a more facilitative role. The reform also provides for alternative assessment criteria and techniques to the traditional exam-oriented system. (UNESCO, 2010b)

Most importantly, learners should be at the centre of all considerations. For many learners, the frustrations they experience once they have entered school will negatively impact on their will and ability to learn, hampering lifelong learning opportunities and their fundamental human right to education. Attention must be paid to the individuality of learners and their participation and progress as learners. This contrasts with teaching and learning processes defined by expectations for development according to standardised outcomes across a

particular cohort of learners (usually by age, or disability). Because inclusive education focuses on the individuality of *all* learners within relevant cultural and social contexts (rather than their conformity or deviance from an abstract model of 'normal'), differences between learners are recognised and responded to without being used to sort or classify learners in ways that may be divisive or stigmatising within communities.

A key challenge for inclusive curricula is to focus on enriching and extending what is ordinarily available to everyone through specialised teaching and learning supports. There is good evidence that the effective deployment of additional resources that traditionally accompany learners identified as having 'special educational needs' support the learning of everyone, and specialists and mainstream teachers are encouraged to develop creative, new, collaborative and flexible ways of working that support all learners. (Florian, 2010) For example, using visual stimulus as an aid to support a deaf child makes curricular content more accessible for all, and, in this way, extends what is 'ordinarily available', enhancing the quality of teaching and raising achievement for all.

It is also important to understand, identify and remove barriers to participation and learning within school communities. As part of this process, consideration should be given to those groups of learners that are most vulnerable to marginalisation, exclusion and underachievement. This means recognising the fact that, because of the systematic use of categorisation, some learners may currently be excluded from participating in education (e.g. in the classroom, school activities, etc). This means that prioritisation of policies and programmes towards certain learners may still be necessary, but should be done in a way which is conscientious of not perpetuating isolation and segregation once participants are involved within mainstream educational provision.

For example, across many regions, the way the formal education systems are structured has been shown to be a huge barrier to participation and learning within school communities. Indeed, a strong hierarchical separation between primary and secondary education, between lower and upper secondary education, and between general and TVET disciplines create interruptions and discontinuities in learning. (UNESCO, 2009a) Separated and segregated institutional, curricular and pedagogical provisions have also been linked to inequalities in terms of access and achievement, as well as student drop-out, while many learners are also excluded from the education system due to early tracking and academic selection. (OECD, 2001, 2003, 2006) Equally, the links between formal and informal learning environments have not been sufficiently taken into account; "for children, school only represents an expanded space for learning beyond home and the neighbourhood". (Govinda, 2009)

Similarly, assessment standards and techniques may provide a key challenge in terms of inclusive curricular processes to avoid stigmatisation and exclusion. As inclusive curricula aim to be responsive to learners' needs, assessment should be performed and measured along these same inclusive values. National testing should encourage "measuring what we value' instead of 'valuing what we can measure'. Although many countries use national summative assessment methods, evidence suggests that this approach may not explain learning processes to learners, nor encourage them to improve and progress within the educational system.

Furthermore, most of the standardised or other traditional tests can measure only certain types of academic learning outcomes, leaving little value to other types of knowledge (e.g. forms of informal knowledge) and skills in school. Many tests are also time-bound, which

creates more time pressures for both teachers and students. Time limited tests further fail to measure the true knowledge of students for whom, for some reason (for instance dyslexia, intellectual disability, teaching language proficiency), reading and writing and completion of exams take more time than for average students. Assessment must be utilised for supporting learning and not for penalising learners, especially those learners who are most disadvantaged. Black and Wiliam (2005); Wiliam (2000).

This implies, amongst other things, avoiding the temptation to over-emphasise the importance of standardised outcomes in relation to pre-established targets of content knowledge relying on narrow assessment methods, often used for comparing students. This kind of information does not necessarily correlate with adult success in social, vocational or other indicators of quality of life. (Peters, 2005) This is especially the case when summative assessment is the only means of assessment applied. In contrast, formative assessment techniques *for* learning (personalised, multi-faceted feedback), as opposed to assessment *of* learning, has been shown in Europe to work as a much more effective tool to give feedback on the participation and achievement of learners, to allow teachers to identify areas for development and to plan their lessons, to motivate learners, and to develop pupils' skills of reflection. (Watkins, 2007)

Taking some examples, the basic education system in Finland does not include national testing at all. In China, there are reforms aimed at taking students' well-being and healthy development into account in assessments, instead of just academic credits alone. However, the examination system is seen by different internal and external stakeholders as a way to ensure equity by enabling successful students to get better job opportunities. In the CIS countries, it has been noted that information about students' marks was not confidential, creating competition between students. Regarding Latin America, Magendzo has also recommended a formative and diagnostic approach, noting that, "from failure there is no learning." (UNESCO-IBE, 2009)

Focusing on putting all this coherently together

It is clear that the components of curricula and education systems are highly interrelated and dynamic. For this reason, it is essential that an inclusive curriculum reform be developed from a holistic perspective and in a sound and coherent way. For example, rigid assessment systems, often relying on standardised tests, do not allow or support individually or locally adjusted curriculum goals, which often means that assessment 'steals' the place of curriculum in teaching. This is especially so when the standardised assessment given at the end of the year or a phase of schooling determines not only the students' chances for further education but is also used as a way to evaluate the efficiency of the teaching in a school. When this is the case, teaching may be geared into preparing students for the examinations rather than guiding and supporting students to learn what is described in the curriculum. Especially when the learning outcomes are evaluated by standardised exams - and these evaluations may also have financial implications and stigmatisation afflicts - very little room is left for adjusting curriculum goals locally. Furthermore, students who face individual barriers to learning may become a liability for the school, a risk factor for decreasing school performance, which may lead to the exclusion of such learners.

Several countries, especially in Northern Europe, are now aiming to provide more holistic, diverse, coherent and flexible curriculum frameworks as tools for inclusion. They are attempting to provide a more diverse, common and combined range of formal, non-formal

and informal learning opportunities through multiple and connected pathways, settings, provisions and processes while attempting to move away from segmented institutions, pedagogical specialisations and strict time constraints. This is based on the fundamental principle of lifelong learning across all educational pathways and provisions, in terms of access, processes, and outcomes, and starting (crucially) from early childhood care and education. Moreover, these frameworks are strengthened by combining both centralised and decentralised components in this process .(Halinen and Jaervinen, 2008)

The Netherlands, for example, has identified some key guiding criteria for developing coherent, high-quality curricula, namely relevance (based on a shared and convincing need), consistency (designed in a logical and integral way), practicality (usable in practical settings), effectiveness (achieving desired outcomes) and scalability. In China, various challenges have been identified with respect to curricular reform: a) the new curriculum encourages innovation and diversity, but the majority of innovations are still in a formative stage and are yet to achieve maturity at the systematic and professional level; b) teachers' training and professional development in line with the curricula still lacks policy support; c) intense competition in entrance examinations remains a major obstacle in promoting the new curriculum policy. (UNESCO-IBE, 2010b)

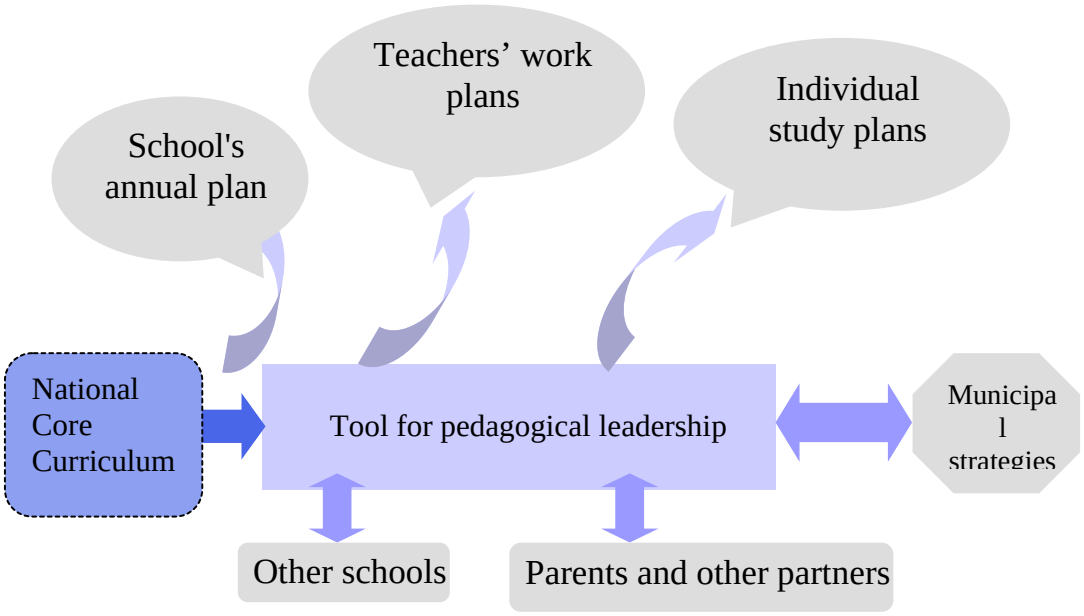
Overall, it is clear that the focus of a curriculum must carefully combine and balance these three diverse elements (curricular objectives, goals and contents; competencies; and student learning processes), while adapting them to differing realities, expectations and needs. The common threads in this delicate balancing act are the fundamental objectives of an inclusive curriculum, education system and society.

The purposes of an inclusive curriculum

When conceptualising an inclusive curriculum in light of the 48th ICE, the second main concern which the interregional discourse has tended to focus on are the fundamental purposes underlying an inclusive curriculum as a tool for inclusion. The national vision of the curriculum and its expression in an appropriate framework informs critical decisions with respect to other levels and dimensions of the system. Therefore, there is a permanent need for a close and careful look at how curricula are conceptualised and organised. This allows for a sound way of designing and developing reforms linked to core definitions of the kind of society which is sought and the expected role of education in society. At the macro level, curriculum change has been seen across many regions as a key foundation of educational concerns and reforms, in terms of policies, curriculum philosophy and content, classroom methodology and teacher education and professional development (UNESCO-IBE, 2009c).

For example, high-quality curricula are seen as reinforcing education as an instrument for social mobility and change, combating poverty and inequity. An inclusive curriculum may be seen as a tool to encourage equity and quality as going hand in hand, and to support competencies for citizenship education and personal development, as well as a crucial factor in the improvement of the welfare of the poorest population by supporting key social and economic policies with a view to attaining social cohesion and inclusion. In the Arab States, "curriculum development and reform has been noted as a key engineering endeavour during all periods of reform, to reflect the new political and social realities". (World Bank, 2008)

At the classroom level, one perspective of an inclusive curriculum is that of a common learning process and an empowering pedagogical tool for teachers (see table below). (Halinen, 2010) This view perceives an inclusive curriculum as one which provides the scope for teachers to ensure that the opportunities provided for learning are relevant to all learners within the community of a class or school.



From this perspective, an inclusive curriculum aims to bridge all dimensions and levels of learning, while also providing access to lifelong learning opportunities from a rights-based perspective for advancing the attainment of EFA goals. It also aims to support the diversification of teaching methods and learning materials to address the cultural, social and individual diversities of all learners. More broadly, it creates an essential tool for putting inclusive education into practice at the school in the classroom, while incorporating the multiple levels (i.e. global, national, local and school levels) and dimensions involved in the process.

In line with this vision, the following checklist has also been provided to policy-makers as guidance for reflection in developing and implementing an inclusive curricula (UNESCO, 2009a):

- Are principles of non-discrimination, appreciation of diversity and tolerance being fostered through the curriculum?
- Are human rights and children's rights part of the curriculum?
- Does the curriculum address the coexistence of rights with responsibilities?
- Is the curriculum inclusive of all children?
- Is the content of the curriculum relevant to the needs and futures of children and youth?
- Are the programmes, learning materials and teaching methods well adapted and relevant to the lives of youth and adults?
- Does the curriculum allow for variation in working methods?

- Does the curriculum promote education on health and nutrition?
- Does the curriculum incorporate HIV/AIDS prevention education?
- Is the curriculum sensitive to gender, cultural identity and language background?
- Does the curriculum discuss education for sustainable development?
- Does the curriculum reflect visions and goals of wider development in your country?
- Is feedback gathered and integrated for regular revision of the curriculum to take new visions and circumstances into consideration?

The relationship between national, local and school interests

When conceptualising an inclusive curriculum in light of the 48th ICE, the third main concern which the interregional discourse has tended to consider is the appropriate relationship between national, local and school interests, with a particular focus on school-based curriculum.

Across all regions, there is a pressing need to develop curriculum content and pedagogical practices that recognise how everyone brings different prior learning and life experiences to the classroom. These help learners make sense of the world in diverse ways, even when they encounter common experiences. (Linklater et al, 2010) A "glo-local" curriculum can help create an effective learning environment that fosters such content and practices by merging global, national and local realities, expectations and needs, and recognising the relevance of individual learners' experience as they participate in the community and culture of a school.

With this in mind, there are currently two main prototypes of curricular reform that stand out across the regions. The first model of reform focuses on the processes of curriculum development and implementation through phases of adoption, implementation and then generalisation. This model generally takes a top-down approach, which is adopted by education authorities. It usually entails adopting a centralised planning approach, which may create tensions between the prescriptive, implemented and experienced curriculum. The resulting gap has been described as the "hidden curriculum" (INRP, 2010) Another concern is that this model risks creating a perception of isolation between the different actors involved, and, therefore, resistance to change.

The second model of reform focuses more on the dynamic of actors in terms of phases of appropriation, the generalisation of practices and the integration of the reform within pedagogical routines. This interactive and dynamic relationship between teachers, schools and communities is increasingly understood as critical to all inclusive transformative curricular processes, moving away from previous perceptions of the school and its stakeholders as "noncontroversial recipients" of curricular reform. In a review of sixteen different national contexts, it was concluded that efforts for making school management participatory and consultative, involving teachers, parents and other stakeholders, was crucial to promote inclusive schools. (Govinda, 2009) In contrast, in one study of the introduction of inclusive assessment approaches, it was found that professional development had little effect if participating teachers were later hindered by the context of the teaching environment and by beliefs about teaching and learning. (Lock and Munby, 2000)

Various combinations of these two models have also been put forward. These attempt to

combine orientation, density and the strength of universal concepts with options and leeway, so that the curriculum can be developed as quality educational processes in schools and classrooms. For example, it has been suggested that a limited national core curriculum of essential knowledge, goals, and values should be defined, while the delivery of this standard curriculum should be adapted through the promotion of teaching processes such as differentiated instruction, multilevel instruction, teaching to multiple intelligences, etc. (Asian Development Bank, 2010) Such "curriculum differentiation" intends to help teachers respond "to the diversity among learners in any one classroom by using student characteristics such as student background, experiences, interests, learning modalities, abilities, and needs". In other words, different content can be used in different ways, with different materials and methods, through innovation, flexibility and adaptation, in order to teach the required curriculum. (Ahuja, 2005)

From a broader perspective, it has been suggested that it is necessary to achieve a sound combination of national strategies, school-based curricula and local inputs, while facilitating genuine dialogue and cooperation among the different actors at national, local and school levels and across multiple sectors. (UNESCO-IBE, 2010) It is crucial for teachers, parents and students to work together actively. Indeed, the co-operation and interdisciplinary teamwork of teachers has been shown to be essential for extending and enhancing the educational provision in ways necessary to address the increasing diversity amongst learners in schools (e.g. collaborative teaching, peer tutoring), making an asset of the expertise of people with different perspectives from their own.

In Latin America and several Asian countries, for example, education systems are now beginning to mandate some of these approaches, e.g. by allowing a certain percentage of the standard curriculum in basic education to be adapted to the local context (UNESCO-IBE, 2009a). In the Arab region, some decentralisation of curricular development and reform of content has taken place, although curricula is generally more centralised, e.g. content, disciplines and school class times are prescribed at the government level. (World Bank, 2008) In some European countries, a core curriculum with complementary provisions, which provide room for flexibility and/or guidance on various content, has been developed. In other European contexts, a common, national core curriculum has been implemented, outlining common goals as foundations upon which local curricula are built, without quantifying local freedom. (UNESCO-IBE, 2009a)

In China, curricular reforms aim to diversify schools through school-based curriculum, within the national framework for basic education policies. This involves giving schools and teachers the opportunities to decide their own curricular contents and allowing students to select subjects, design their own future and develop their personalities. The reforms have also entailed the provision of comprehensive fieldwork activities (research-oriented learning, community service, etc.) and new innovations in senior high school curriculum systems, such as compulsory common modules complemented by elective ones. As such, a school-based curriculum allows schools, teachers and students to familiarise themselves with their own local conditions, traditions and social development. It is also motivating for schools and teachers to participate in the reform and develop a richer and more diverse curriculum. From this perspective, teachers are seen more as co-learners as well as co-developers of the curriculum and schools are perceived as learning communities. (UNESCO-IBE, 2010b)

Taking another national example, the Irish National Council for Curriculum and Assessment (NCCA) activities are based on three complementary levels: the learning environment (early childhood settings, schools and classrooms); the committee level (specialist representative committees, who develop aims, objectives and learning outcomes, as well as design assessment and build consensus) and; the knowledge and research level (research and knowledge networks). These three levels work together on developing curriculum policies both *across* and *within* the traditional interactions between national, local and school interests. Implementing this approach has apparently allowed teachers to have access to evidence and also generate evidence, has given students room to actively participate in the process, made curriculum discussion a public concern and allowed schools and classrooms to lead the change rather than respond to change. As a consequence, it has also allowed more risks to be taken and achieved a greater balance between the national and the local levels. (UNESCO-IBE, 2010b)

Numerous international research studies have identified the advantages of an interactive curriculum planning and implementation process. For example, dialogue and cooperation has been shown to create commitment and willingness to act according to common guidelines, while also providing enough time and clear, local school structures for discussing the basic values, attitudes and practical arrangements for responding to the different needs of students. It has been suggested that it allows schools to make better use of the collective knowledge, expertise and creativity present within their community e.g. "good practices" of inclusive education can be effectively recognised and shared. (Ainscow and Miles, 2008)

However, many limitations have also been identified, even with a combination of the two prototypes. For example, without the local openness, competencies and skills to adapt and develop curricula to local and more inclusive contexts, curriculum differentiation can have a limited effect in practice. Indeed, the building of teachers' capacity to be curriculum co-developers is seen as an important part of this process. (Asian Development Bank, 2010) Similarly, it has proved hard to adapt a curriculum if it is undermined by a rigid assessment system which does not take into account curricular adaptations. In China, other challenges in terms of implementation have also been identified, e.g. gathering organisational support at the different administrative levels, while implementing capacity development activities around the new curriculum policy in terms of funds for training and research programmes at national and local levels, setting up of resources centres at the local levels, etc. (UNESCO-IBE, 2010b)

A paradigm change is seen as essential; encouraging the participation of everyone in curricula development must be seen as a key strategy, and, where a common working process offers possibilities to take different local interests, needs and perspectives into account, engage actors and utilise their versatile expertise. On the other hand, the question remains how to facilitate such participatory processes in the first place. In Europe, it was noted that a key component has been strong leadership and clear vision at all levels. The education system also needs to support the different actors in the system to work together in renovated ways. Finally, a considerable amount of background policy-orientated research must be performed, especially where there are disparities among national, local and personal identities. (UNESCO-IBE, 2009a)

Supporting the implementation of the curriculum

A fourth main concern that emerges from the international discourse is the importance of understanding how the curriculum interacts with other elements of the education system, and how, as a consequence, an inclusive curriculum must be supported and empowered by education systems as a whole. Some of the key areas of these discussions, i.e. those most regularly featured in interregional discussions, are highlighted below, namely legislation, public policies, and teacher education.

Legislation

As a key starting point for inclusion, legislation is seen as playing an essential part in the efforts towards inclusion. In particular, it can provide: the articulation of principles and rights in order to create a framework for inclusion (e.g. legislation for inclusion, alongside anti-discrimination legislation, in schools and the workplace); the reform of elements in the existing system, which constitute major barriers to inclusion (e.g. policies preventing specific groups to attend their local school); the mandating of fundamental inclusive practices (e.g. schools should educate all local children); and the establishment of procedures and practices to facilitate inclusion (e.g. a flexible curriculum, community governance). (UNESCO-IBE, 2008b)

For example, article 24 of the UN Convention on the Rights of Persons with Disabilities has been seen as a significant step in binding governments to a guarantee and eligibility for free, high-quality and inclusive education systems. Moreover, this legal obligation, which encompasses inclusive policies, systems, legal remedies etc, aims at achieving high-quality education, not only for learners with disabilities, but for all learners. (UNESCO-IBE, 2009a) This represents an important paradigm shift from focusing on the problems of learners (the so-called medical model or defectology approach) to placing the focus on the provision of equitable learning opportunities for all learners, taking into account their specific needs and existing barriers.

Public policies

It is also commonly agreed that an inclusive education system requires a high-level and visible policy commitment to inclusive education, promoting diversity as a philosophy and practice. (UNESCO-IBE, 2009a) This commitment does not only have a symbolic significance but it also helps to orient all actors around a common goal of inclusion and supports a change in attitudes and culture towards inclusion. Indeed, according to interregional research, a crucial step towards inclusion is to convince stakeholders that diversity is not a hindrance to the attainment of good learning outcomes by all students. (OECD, 2010)

It has been suggested that a policy commitment should take the form of a comprehensive, intersectoral National Action Plan, with immediate, transitional and long-term targets. These targets should be meaningful and measureable, with a clear timeline and statement of resources. For example, a clear plan of action could be constructed to enable the progressive transformation of specialised institutions into resource centres and to develop close collaboration between specialised and general education systems. Along these lines, policies

should be backed up with effective financial and human resources and a comprehensive needs analysis (based on statistical and qualitative tools) in order to enable rational planning.

Another area of interregional consensus is that planning should be done by the government in active consultation with key partners. The curriculum is both a policy and technical issue involving multiple stakeholders from inside and outside the education system, as well as a continuous and dynamic development of processes and outcomes. "Understanding the articulation between the system's overall policies, school and classroom sectoral policies may allow the whole education sector to break the vicious circle of reciprocal demands made by governments on teachers and by teachers on governments". (Braslavsky, 2001) Along these lines, some Latin American experts have emphasised the development and implementation of more "subjective policies", i.e. the consideration and sharing teachers personal and social narratives in order to better understand what they are thinking and doing as well as for developing a culture of trust within and outside the education system. Such policies would truly engage teachers and other educational stakeholders in the inclusion process. (UNESCO-IBE, 2010a)

The OECD has also recommended that teachers should be "active agents" in analysing their own practices and their own students' progress, and should be actively involved in policy formulation. (OECD, 2005) Indeed, by recognising teachers as co-developers of an inclusive curriculum, it can support teachers' ownership of an inclusive curriculum reform within their own local, national and regional context, to help understand and respect teachers' identities, and to ensure the sustainable investment in the learning competencies of teachers within teachers' professional development strategies. (UNESCO-IBE, 2010a)

At the same time, it is interesting to note that in some European countries, a certain policy-making autonomy was granted to schools and teachers in the past. However, trends seem to be now moving back towards certain specification and prescription at the national level, especially in domains such as literacy and numeracy, and attention to continuous learning standards. These reforms aim to make the education system more focused and accountable, by creating structure, transparency and continuity, providing more data and evidence and more national orientation. They also aim to provide a conceptual and methodological framework as well as strengthen public, professional and political debates about priorities for curriculum improvement and renewal. (UNESCO-IBE, 2010b)

Teachers and teacher education

Across all regions, research findings show that the key factor for good learning outcomes is not only what is taught but how it is taught. For example, the quality of teaching can have a much more significant role in determining the learning outcomes of students than other often mentioned challenges for quality, like class-size or class heterogeneity. (Halinen and Savolainen, 2009) Teachers play a considerable role in creating inclusive environments for learning and will have a direct impact on how new curricula are implemented and how knowledge, skills, attitudes and values are shared and assessed.

It is also important to highlight that expectations with regard to teachers' roles have evolved across different interregional contexts, particularly in connection with issues of diversity and inclusion; "teachers are now expected to have much broader roles, taking into account the

individual development of children and young people, the management of learning processes in the classroom, the development of the entire school as a "learning community" and connection with the local community and the wider world". (OECD, 2005) Indeed, in China, the Netherlands and South Africa, effective professional development now aims at educating teachers to develop curricula as well as knowledge, skills and teaching approaches for diverse learners (e.g. skills for critical self-reflection, using individual learning plans to support students' welfare and development), build teacher communities and leaders, as well as create links back to research and other policies in terms of feedback and evaluation, amongst other things. (UNESCO-IBE, 2010b)

It has been recommended that teachers should feel supported as well as challenged in relation to their responsibility to keep exploring and developing effective ways of enhancing the learning of all students. In particular, teachers need to be recognised, engaged and supported to be professional curriculum co-developers, whose confidence, competencies, knowledge and positive attitudes can invaluably reinforce the principles of inclusion and inclusive curricula. (Opertti et al, 2009)

In contrast, in most regions of the world, many teachers are still under-trained, under-paid and work in difficult conditions. There have been numerous calls for governments to value and support the teaching profession through teacher education for inclusion and improve their working conditions. (EFA GMR 2005; 2010) Many of the new expectations and recommendations about inclusive teachers have not necessarily been considered in the principles of curricular reform, e.g. in school curricular content and timings, which can put pressure on teachers, as well as on their relationship with learners.

For example, this could be the case in countries where teachers are not free to creatively adapt the curriculum based on local or individual needs, due to a strict curriculum that dictates the content of teaching and learning up to the everyday work in the classrooms. In some contexts, such creativity is even directly forbidden and differentiation from the expected is sanctioned by inspectors, even if it seems evident that the national level curriculum does not fit well with the local culture and conditions. (Halinen and Savolainen, 2009)

Similarly, there is often a mismatch between basic and secondary curricular reform and teacher education curricula. In most countries, preparation of a national curriculum is the task of the Ministry of Education, whereas the responsibility for designing teacher education curriculum may be left with rigid academic institutions or different departments. One example can be found in the current emphasis on wider competencies instead of solely focusing on subject-based knowledge. This view can be very new to many teachers compared to how they have been trained in relation to subject knowledge and how learning outcomes are defined. (Halinen and Savolainen, 2009)

Taking this into account, the OECD have recommended that "teacher profiles need to encompass strong subjective matter knowledge, pedagogical skills, the capacity to work effectively with a wide range of students and colleagues, to contribute to the school and profession and the capacities to continue developing". (OECD, 2005) These profiles should guide both pre- and in-service training, as well as continuous professional development.

Forging the agenda around a conceptualisation of an inclusive curriculum

In conclusion, despite a general consensus on a broadened concept of inclusive education and the key role of inclusive curricula, developing and implementing inclusive curricula remains a significant challenge across all regions. A re-conceptualisation of an inclusive curriculum in light of a broadened concept of inclusive education may help stakeholders reflect upon various core dimensions of an inclusive curriculum, connecting it to other efforts towards inclusion within the entire education system, as well as help find new ways of working together, across different dimensions, levels, regions etc. These reflections should aim to include all stakeholders from inside and outside the education system, be informed by evidence as well as bear in mind ideological considerations, and contribute to the clarification of concepts and strategies, as well as alternatives.

The following key challenges represent open debates towards the development of an inclusive curriculum:

- What do we understand as an inclusive curriculum? In particular, what are its main rationale, objectives, strategies and contents? Who are the main stakeholders?

- Are all stakeholders willing to re-consider the role, objectives and scope of education? Are all stakeholders ready to consider in more depth how teachers and students position themselves, and how they respond to processes of curricular reform? What are the incentives to do so in terms of access, retention and achievement?

- Are the "conventional" subjects of curricula relevant to the skills and competencies that young people need today? How should education face future cultural, social and economic challenges and opportunities, such as citizenship education and education for sustainable development?

- Do all stakeholders agree on the need for developing an inclusive curriculum from childhood to adult education, based on a perspective of education as a human right and a pillar of personal and social development? Have the following key dimensions been considered: developing a common conceptual framework, addressing gaps in curricula, establishing common core competencies, facilitating the navigability between the different tracks and promoting diverse strategies and options for students' learning and assessment?

- How much do policy-makers, supervisors and teachers disengage from the objective-based tradition and how close do they get to a competency-based approach? Can they establish bridges and links between both approaches?

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„Dobbantó" („Springboard") programme - HUNGARY

Public Foundation for the Equal Opportunities of Persons with Diasabilities

„Dobbantó" is a currently running project with the aim of making 15 applying schools throughout Hungary able to support young people (15 to 24), being at risk of social exclusion because of leaving mainstream education too early, and/or having learning disabilities/difficulties. With the help of this programme early school-leavers are given a second chance through **one extra school year** during which they are prepared for being able to re-enter education or the labour market and be successful in either of the settings.

The background for the necessity of the project can be identified with the fact of the rising number of students with learning difficulties and behaviour disorders the majority of whom go to vocational schools and a large number of them drop out (cca. 30 percent). According to the 126.§ of the Act on Public Education, the catch up of concerned young people is to be solved by providing personalised education in preparatory 9^{th}-year classes of assigned vocational schools.

However, vocational schools are not prepared for the task of handling „difficult" students. The Public Foundation for the Equal Opportunities of Persons with Diasabilities was assigned to handle this problem by starting a project to work out a programme which has been running since January 2008 and will finish in December 2011.

For designing the process experts form rather different fields were invited to participate in the project staff. In the spring of 2008 experts started to think what the main goal for the students could be during one year, i.e. what it is possible to achieve with young people who have been distracted from going to school and often being demotivated to learn. Based on the experience of similar programmes worldwide and taking the imaginary description of supposed to-be students into account, the main goal was defined in terms of motivating them to stay at school first and also empowering them to make plans for their own future and to make commitments. The objective seemed to be achievable by developing the students' basic skills which could be needed for either further education or entering the labour market. So the task was given: to design and work out a curriculum that would be an answer to the objective above and also would be appropriate to answer the individual problems of members of a highly sensitive and at-risk target group. In addition schools had to be prepared for working with students who – often – were not welcome by them.

As a result a complex programme has been developed to make the vision a reality, including

- individual support for school leaders provided by business coaches called educoaches in the programme for being able to change on institutional level,
- support for teacher-teams provided by change facilitators to learn new pedagogical approaches and to change classroom management,
- new, competence-based curriculum (modules) with challenging content.

When talking about designing the curriculum for the one extra year of Dobbantó, it is essential to state that the Hungarian National Core Curriculum (NAT)[1] does not contain requirements but development tasks. It has also been supposed that the students would probably be on very different levels as compared to the requirements laid down in the curriculum of the 7-8th graders.The goal of this single year can not primarily be to supply the missing knowledge, but to keep young people inside the school, to raise their enthusiasm in participating the sessions actively,and to make them trust him-/herself in being successful. Meanwhile, students must develop their key competences by working on the curriculum.

Competences to be developed within the Dobbantó year were defined upon the basis of the European Framework for key competences for lifelong learning (2006) which identifies and defines the key abilities and knowledge that everyone needs in order to achieve employment, personal fulfilment, social inclusion and active citizenship in today's rapidly-changing world, on the one hand, and on the basis of a number of surveys made with employers about their expectations against employees, on the other hand. As a result the following competences have become the object of development goals in the curriculum of Dobbantó:

- communication competences including reading, writing and ICT among others
- learning competences including planning and orginizing of his/her learning process and using learning sources among others
- competences pertaining to social and healthy lifestyle also including cooperation
- basic employment and career building competences including competences for adapting to change and self awareness and self organization among others as well as
- work-related competences including work-related specific communication, social and learning competences among others.

Finally, the decision was made that key competences (basic skills) and career building competences should be emphasized in the programme. Thus, the time is divided between the two fields during the week as follows: three days of the week are spent working with key competences exclusively while two days are for developing career building competences in an emphasized way with a parallel development of basic skills whenever possible.

Students' development is to be built on their strengths applying as much group work and cooperative learning as possible. That is essential as according to experiences from similar programmes the majority of students are supposed to suffer from adaptation difficulties. Cooperative learning is meant to be an effective way to handle this problem.

The content was to be delivered in a module-system where three types of modules were worked out. One type (17 modules) covers Communication (Mother Tongue), Mathematics, Science, Social Studies and Foreign Languages (English/German). The second type covers basic employee and career building competences (8 modules) while the third type of modules is connected with work-related competences (22 modules).

The structure of the modules are the same for the sake of being user-friendly, containing material for 18-25 up to 50 lessons in three to five submodulesincluding alternative tasks for individual needs, as well.

For teachers, primarily the competences to be developed in Dobbantó are „obligatory", but they are free to choose as to what tools they apply in their implementation. Contents, methods, tools in details are offered in the modules for their work. However, creativity of teachers is also an important factor and teachers are invited to enrich the materials knowing their own students best.

Thus, teachers have freedom to use the learning material from modules they find the most suitable for their students except for the eight modules of basic employee and career building competences. That is because among the eight modules the first and last ones are of special nature introducing the opening and closing weeks of the school year. The ones from the second to the seventh modules contain training sessions for building self awareness and developing various social skills as well as basic knowledge about the world of work necessary for being a conscious employee later on. 21 modules of the 22 developing work-related competences cover the sectors all the professions, trades are listed in in Hungary currently. Schools are obliged to choose and introduce at least six sectors on a consensus reached with the students of their Dobbantó group. One very special feature of that kind

[1] **202/2007. (VII.31**.) **Government regulation** on the modification 243/2003. (XII. 17.) on the publication, introduction and application of NAT .

of modules is the activity of job shadowing which is to be done one day weekly compulsorily. Job shadowing is highly motivating for students, firstly, because it links school learning with the necessary knowledge at the workplace. Secondly, it offers an outside activity which is a change from everyday classroom learning, and last but not least, students can learn from authentic people about what it is like being an employee or running a business.

The schools participating in the project have received financial support to build a pleasant and challenging learning environment meaning an attractive classroom with non-traditional school equipment, a corner for relaxation and privacy, a tea kitchen, mobile furniture and a learning resource centre for their Dobbantó-group.

All activities in Dobbantó (on the levels of school leaders, teachers and also students) are expected to be done with a high level of conscious reflection.

During this preparatory year students are not assessed on the basis of marks, instead they learn how to assess themselves and how to do peer assessment. Even teachers are assessed by students, especially, when leading training sessions.

After the first year of the programme (June 2010) the results are highly promising as out of the 191 students going to Dobbantó classes during the last school year 170 were learning either in mainstream or adult education in September 2010. Another 13 young people have found work for themselves and only a few former Dobbantó students are out of either education or work. The project staff is really proud to state that about 8 percent of last year students have gone to mainstream high schools from where they will be able to go directly to higher education.

The figures can be seen as evidence for the complex programme of Dobbantó being suitable to handle the problem of dropping out succesfully. Besides, feedback from both schools and teachers show that it is welcomed in the schools participating in the project.

OECD REVIEW ON EVALUATION AND ASSESSMENT FRAMEWORKS FOR IMPROVING SCHOOL OUTCOMES

www.oecd.org/edu/evaluationpolicy

Note prepared by Stefanie Dufaux as a contribution to:

Cedefop

International Workshop on Curriculum Innovation and Reform

An inclusive view to curriculum change

January 2011

Linking Assessment and Curriculum Innovation

1. The quality of education relies largely on its system's capacity to absorb feedback for improvement. Many countries therefore set up evaluation and assessment frameworks through which they gather information on the performance of students, as well as teachers, schools and the system itself to identify areas for improvement. Sample tests for students are used to identify learning gaps and repeated assessment provides information on students' individual progression. Thus, assessment is an essential tool to gather information for smart decisions in teaching and the development of educational programmes.

2. Improvements in learning not only require a professional and comprehensive assessment of students' learning achievements but also a methodology to recurrently define new objectives for the outcome of learning. Assessment is a tool which provides the necessary information to support students on their individual learning path as well as the creation of potential for innovation in curriculum development.

3. The OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes aims to respond to the increased policy interest in creating coherent assessment frameworks for improvement and accountability. It provides a platform on which countries can exchange experiences, identify common challenges and discuss good practices. An in-depth study of current challenges in the policy field and the present state of research are combined to present a sound analysis of the field as well as recommendations for improvement. A significant part of the review focuses on the potential of improving learning and teaching through student assessment.

4. In this regard the OECD Review and the International Cedefop Workshop on Curriculum Innovation and Reform have numerous topics of common concern which will be elaborated in the following.

Cycles of Improvement in Assessment and Curriculum Development

5. The development of assessment tools and curricula is a mutual one. Curricula determine what needs to be assessed and assessment shapes requirements for learning. They supply each other with information in a recurrent cycle of adjustment.

6. Aligning curriculum, standards, incentives and assessment faces the challenge to create a comprehensive framework for successful learning. While standards clearly define the knowledge and skills students are expected to have attained at different stages of their education, curriculum covers the objectives identified in standards, and student assessment focuses on attainment of standards. But if one of these components does not match the others, no valuable information can be inferred.

7. However, a number of factors may disturb the functioning between these different aspects. Policy makers may want to demonstrate high expectations for students and try to raise standards. Moreover, education objectives may not mean the same thing to all stakeholders and standards-writers may have to prioritise certain research results in the field over others. Thus, formulating standards implies the consideration of political, cultural and scientific aspects (Looney, forthcoming).

8. Assessment may draw an authentic picture of a student's competency level by adjusting its tools to learning content. This creates accountability for many stakeholders, such as parents, students or policy makers. By measuring the actual learning outcome which a student gained during a specific program, accountability and comparability with other programs is established (Rosenkvist, 2010).

9. Curriculum development increasingly incorporates high order thinking skills such as critical and creative thinking (Nusche, forthcoming).This creates new challenges for assessment as the measurement of

these competencies is much more complex compared to the assessment of low order skills like the acquisition of knowledge. In consequence test results, especially from standardised assessments, may not actually supply an accurate picture of student achievements or the development of high order skills can even be neglected in teaching. Countries therefore may consider developing "complex assessments" combining performance-based assessments with standardised assessments. Performance-based assessments are better able to capture complex student performances, such as reasoning and problem solving skills, while standardised assessments increase reliability of results. Rethinking traditional assessment tools therefore may have positive effects on the documentation of students' actual competencies.

10. Assessment, especially if it is connected to high stakes for teachers or schools, implies a major risk of "teaching to the test", meaning a strategic behaviour of teachers, tightening the curriculum and neglecting subjects or the development of skills which are not covered by assessment (Looney, 2009; Rosenkvist, 2010). Teachers' focus tends to shift towards test taking skills and the actual time for instruction is being reduced (Nusche, forthcoming). If tests concentrate on the assessment of low order thinking skills, as these are easier to be measured, high order skills risk to be neglected in teaching as well. The design and scope of assessment tools thus may also affect the scope of teaching and learning.

11. It is widely debated whether standardised student test results should be made publicly available or not (Rosenkvist, 2010). While publication produces accountability especially for parents, society and policy makers, they do not necessarily capture the full spectrum of student learning objectives. This entails an increased risk of a possible narrowing effect on the curriculum. Hence, there is a case to provide complementary evaluative information which broadens the base of evidence and provides more explanation of the factors which have influenced performance.

12. Conversely, assessment may positively affect teaching and learning development by identifying basic skill gaps and giving teachers the possibility to react to the needs of students. Especially low performing students may receive additional support for reaching achievement objectives (Rosenkvist, 2010). Assessment provides clear criteria for orientation, both for students and teachers. It may thus function as a guideline and enhance students' performance.

Specific Challenges in VET

13. Vocational education and training concentrates on direct preparation of students for their activities on the labour market and therefore primarily seeks to achieve a high level of employability among its graduates. In consequence, employability is probably the most important indicator for the quality of VET. Success on the labour market requires especially the acquisition of skills and knowledge which students can immediately use when entering the labour market. Mostly, this includes technical knowledge and craft skills as employers have a strong interest to employ graduates who instantly apply their skills and become productive.

14. But the contemporary labour market is changing quickly and thus, VET students are required a lot more than providing skills which serve the short-term economic interests of companies. Employees are requested to be flexible to adapt their skills to changes in their working place, caused by technological development and a company's adjustments to an expanding market. Employers meanwhile increasingly search a labour force with a strong ability to learn which necessitates a high level of numeracy and literacy as well as team-working, problem-solving and communication skills (OECD, 2009).

15. Employability is not only desirable at the stage of graduation, but a topic of concern throughout the career of an employee. Chances for long term employability can be increased if curricula in VET include

skills promoting re-employability. However, this also tends to increase labour turnover which is not necessarily in the interest of the individual employer.

16. Subsequent to vocational training a number of students decide to continue into tertiary education. This is not necessarily in the interest of firms. But the development of additional skills in VET, in particular high levels of literacy and numeracy equips students with additional competencies which may facilitate their transition into advanced education institutions.

17. For the support of high students' achievement curriculum development relies on different sources of information including stakeholders, research and assessment. Assessment represents a major tool to identify possibilities for the improvement of teaching. It may reveal the need to adjust standards or the focus of competencies taught. Furthermore, information provided by assessment may promote reforms and innovation in teaching and curriculum development. But, it is important that schools and teachers have the capacities to use data effectively in order to make improvements (Looney, 2009).

18. In many aspects it is desirable to integrate employers in curriculum development. Not only does this increase the quality perception of VET education among employers, but they also best know which specific skills are on demand in the labour market (OECD, 2009). However, the inclusion of generic skills is not necessarily in the interest of employers. Skills, promoting mobility on the labour market or the student's continuation into tertiary education are only of interest for the individual student or labour market development as a whole. The consideration of such skills in curriculum development thus, is often neglected not taking into account the needs of a fast and unexpectedly changing economy.

19. Determining the skills taught in VET also implies the consideration of assessment tools. While competencies which rely on pencil and paper tests are relatively easy to assess, the measurement of practical skills poses more challenges. Moreover, the assessment of a number of generic skills, such as problem solving capacity is highly complex. For some skills which seem to be crucial to be included in the qualification framework, the formulation of standards is actually not possible.

20. Many OECD countries progressively develop their curricula on an outcome-oriented basis, meaning that teaching content is defined by an achievement objective, verified through assessment (Looney, forthcoming). But not all skills can be included in an output based approach, nor being compared along standards. Therefore, it is important that curricula grow above the content of assessment. This can be achieved though the inclusion of additional standards for certain input factors, such as the number of years of study or mandatory but not assessed units of the program. Qualification frameworks can incorporate input factors which assure that certain efforts, such as a project work for the acquisition of problem-solving competencies have been made by the student. Even though the inclusion of input factors does not provide any information on outcome it allows additional aspects of learning to be considered in the qualification framework. This guarantees the development of a wider range of skills in the curriculum and an authentic estimate of the exact student's competency level.

Qualification Frameworks - Building Standards in VET

21. What students are expected to learn is usually defined in a national qualification framework. It provides a rank order of qualification stages, enabling its assessment on each level. Clearly defined qualification levels support transparency, increase accountability, comparability and quality (Rosenkvist, 2010). Qualification frameworks set clear standards for levels of competencies and determine the assessment process and situation. The standards built offer a guarantee both for employers as well as students for the level of education to be reached in a specific program.

22. A rank of qualification levels, defining the student's competencies may also enhance flexibility for students to take individual pathways. The career opportunities of students are not only a question of teaching content but also how qualification frameworks are designed. Certification of educational attainment at different levels and a detailed definition of the skills implied establish new gateways for students and facilitates individualised routes in education. Especially from compulsory education and into tertiary education, qualification frameworks function as important transition facilitators. Otherwise, the consequence is the creation of dead ends in education paths.

23. Increasingly, countries are setting up national vocational qualification frameworks. Through this institution students' qualifications become comparable throughout the country. A wide geographical labour market is created, implying enhanced mobility for job seekers (OECD, 2009). Employers and employees thus, are more likely to find a match of competencies required and supplied. Yet, participation of schools and teachers allow local and thus additional knowledge flow into education content. In the conception of a national vocational qualifications framework, schools need to have a certain flexibility to adjust curriculum and assessment to their needs and specific context.

24. Numerous countries define a high number of qualifications in their framework to respond to local needs. While this allows the definition of specific skills on demand through employers, it also reduces the meaning and signalling value of certificates. Employers no longer have the capacity to differentiate between different qualifications.

25. OECD countries show a great variety of approaches towards assessment for certification. Certification may lead students into different educational paths, such as for the progression into higher education or into the labour market and encounter possibilities of subject choice for individualised specialisation. Moreover, certificates may be granted on the basis of different forms of assessment systems. Assessment may be organised on the basis of credits or a single final exam, imply options for the choice of learning content for the student, and be administered internally or externally. The certification of successful completion of an education program implies thus a number of options for policy makers.

26. Certificates, however, are an important tool for the communication of competencies which an employer may expect from a graduate or a student at a specific educational level within the qualification framework. Furthermore, national standards allow comparability of certificates for employers and geographical flexibility for job seekers which further increases readability.

Conclusion

27. While the OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes takes account of challenges and policy options in primary and secondary education on the whole, VET has some particularities which require special attention. In terms of integrity, qualifications frameworks in VET provide smooth transitions from compulsory and into tertiary education to facilitate individual pathways. This is both a question of teaching content as well as qualifications framework development. In this process the role of employers is central for the identification of specific skills on demand but it risks neglecting the focus on important competencies for long term employability and mobility on the labour market. For policy makers this also implies acknowledging the limits of outcome based curriculum development and to include input based criteria for the definition of standards in qualification frameworks.

28. Links between assessment and curriculum development are very tight and imply the mutual transfer of information. What needs to be learned and what can be assessed particularly in regard to the development of practical skills and high order thinking competencies challenges this process. But recognizing the potential of curriculum reform for developments in assessment as well as the knowledge transfer from

assessment into teaching practices is essential for innovative improvements of students' opportunities as well as their integration in the labour market.

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Cedefop International workshop on Curriculum Innovation and Reform

20-21 January 2011, in Thessaloniki, Greece

The job description, competency framework, training framework model in initial vocational training: an unsatisfactory curriculum model

Xavier Roegiers, Professor, Université de Louvain-la-Neuve (Belgium), président of the BIEF

This conference is epistemological and methodological. It attempts to answer the question "how to ensure that the reform enters *each classroom*, in a perspective of efficiency and equity" (Renato Opertti, 2011).

It attempts to link the demand of the labour market on the one hand, and classroom practices on the other hand, not with the view that young people depend on the labour market, but to develop the potential of each of them, beyond the labour market as it currently stands (the current labour market and an alternative labour market). It shows how the practice of complex situations and integrative assessment tasks as the target of learning is an interesting perspective that goes beyond the division between knowledge, skills and competences.

It was long believed that the competence-based approach, as it reinforced the dimension of meaningful learning in training, would solve problems in initial vocational training. However, it should be noted that many education systems - from industrialized, emerging to developing countries - are struggling to develop or implement initial vocational training curricula with competence-based approach in the field[1].

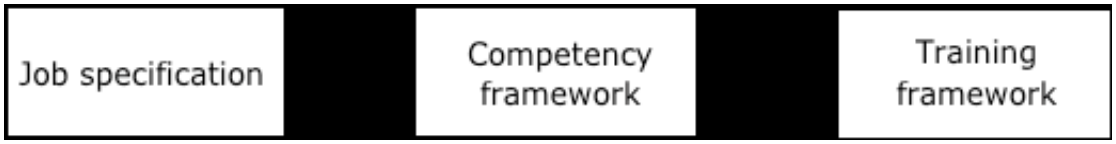
To what reasons can we attribute these difficulties, whereas one would have expected that this curriculum shift took place in a natural way?

1. To the diversity of social referential practices related to certain professions, and therefore the difficulty in agreeing on the content of the practice of these professions, and skills to develop as a priority.
2. To the way the term "competence" is understood in curricula. It is the case when is understood as "crosscutting competence", a particularly difficult concept to operate in initial vocational training.

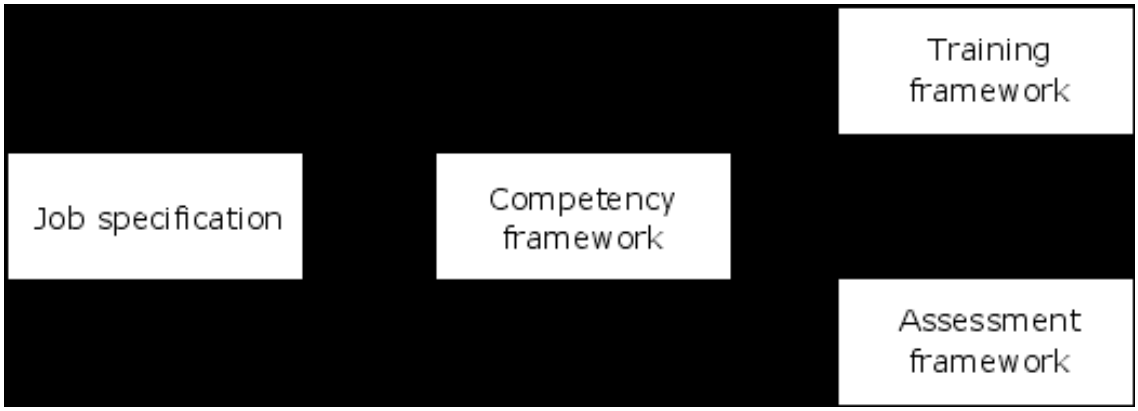
[1] Roegiers, X. (2010). *Des curricula pour la formation professionnelle initiale*. Bruxelles : De Boeck

3. To the way competency frameworks are understood and constructed: sometimes endless lists of know-how, criteria and indicators, forming unmanageable check lists for the trainer to handle. In addition to this problem, there are different understandings and formulations of these competences, which obstruct the daily management of diversity by trainers who, in their own career as professionals and/or trainers, have never been acquainted with the culture of competence-based approach.
4. To the too tenuous and abstract link between curricula on the one hand, and assessment-validation system on the other (VAE or acquired initial training).
5. To the illusion that the initial training delivered in technical and vocational training institutions can be conceived in the same way as in business, whereas the objectives of vocational training centres, their context and the means they have, are quite different. Apart from that, the pedagogical constraints associated with the use of didactical materials in these institutions, as well as how to manage the development of psychosocial capacities, clearly show this malaise.
6. To a "rushing ahead" in the way new curricula are written, which often goes too fast, too far, and does not take realistic account of current training practices of trainers and the limitations of how initial training system is organised (disciplinary separation, workload and schedule, nomination of teachers and trainers...).

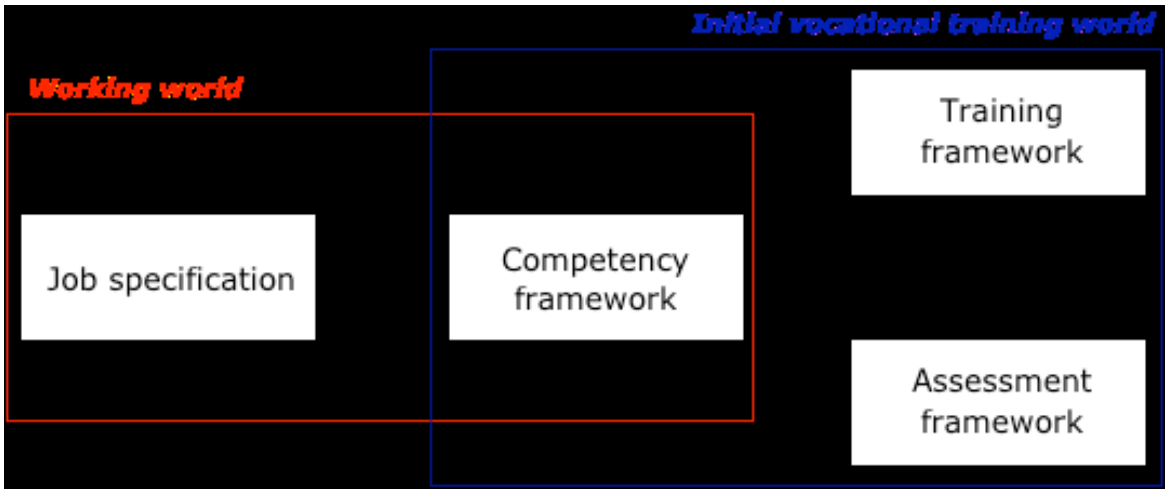
The scheme that envisaged job description, competence framework and training framework in a linear way does not work in practice.



The assessment framework must be first introduced, as it is equivalent to the training framework, in terms of validation of learning achievements.



But this is not enough. Indeed, competency-based curricula start from the assumption that the competency framework is the interface between the working world and that of initial vocational training.



However, it is not. The competency framework, like the job description, is dictated by the demands of the working world. It consists of a list of competences that meet professional requirements. Initial vocational training is often confusing because, operationally, it can not handle those lists of competences, given its organization. It leads to huge difficulties in deducing a training framework from a competency framework. It also reflects the existing gap to deduce an assessment framework from a competency one.

These difficulties have led us to propose an operational articulation between competency framework and training framework.

We introduce a framework of curriculum engineering (“curriculum framework”), which is based on a core of professional competences, corresponding to the key activities of a profession (2 or 3 competences per profession). In addition to that, the curriculum framework:

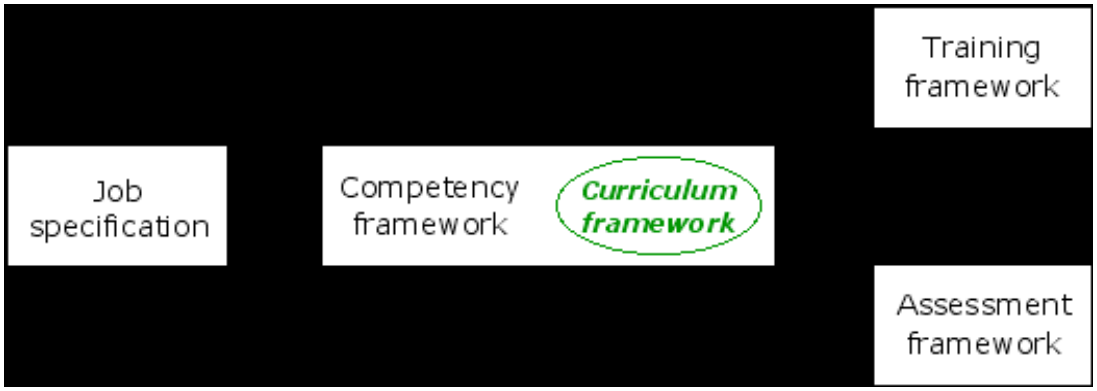
- specifies to which family of tasks or complex situations each of the core competence is associated;
- gives some examples of such tasks or complex situations;
- reformulates the core competences in a more comprehensive and concrete form;
- specifies the parameters of each family of tasks or complex situations;
- specifies the assessment criteria of these tasks or complex situations, in order to assess professional competences related to these situations;
- specifies various professional know-how, levels of competences and psychosocial and crosscutting abilities feed into each core competence;
- sets out some key resources (knowledge of the profession, technical know-how...).

The dimension of critical thinking is not absent (and more generally, the “depth acquirements: analysis skills, problem-solving skills…”), as well as creativity.

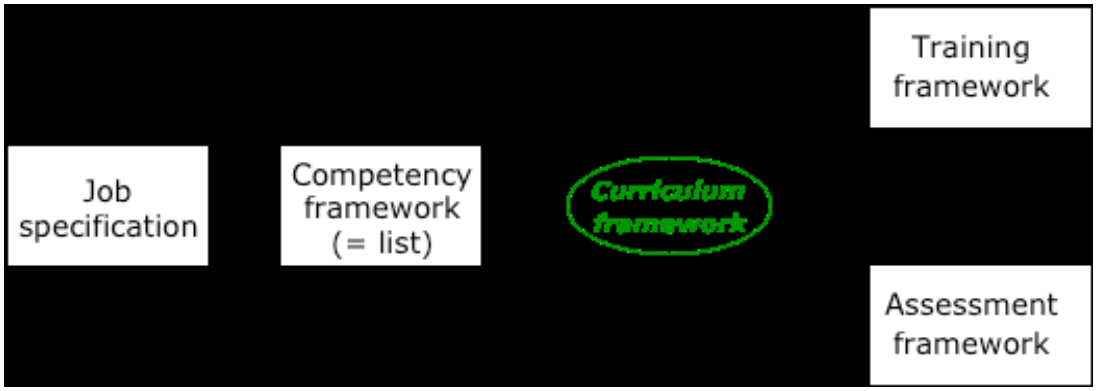
The training framework and the assessment framework are developed on the basis of these core competences.

Where is this curriculum framework situated in the process?

(1) It can be *an integral part of the competency framework*, if its character - official or not - can allow extensions. This is the most logical solution, since competency frameworks are intended to be implemented, whether for training or certification of competences, but it is not always possible.



(2) If the official status of the competency framework does not allow this curriculum framework to be inserted, it may be *subject to a common introduction* to both, the training and the assessment frameworks.



In these schemes, we respect both the specificity of the world of work and the vocational training institutions. Training and assessment practices may evolve in the direction of effectiveness, as well as equity[2].

Why equity? For several reasons that it is not possible to detail here. I can mention two reasons:

- Firstly, for the development of resources, each teacher can use teaching methods that suit them : classroom practices should not change immediately for everyone ; initially, it may be sufficient to introduce integrative situations after a period of resource development ;
- Secondly, the focus is more on process than on the results : the function of the school remains first learning before assessing ;
- Thirdly, the fact of evaluating students based on complex situations is fairer than on the basis of resources; this fact is highlighted by research results more and more numerous.

The main obstacle is a political obstacle: do all countries really want an equal system?

[2] Roegiers, X. (2010). *Pedagogy of Integration. Education and Training Systems at the Heart of our Societies*. Bruxelles : De Boeck (traduit du français à l'anglais)



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CEDEFOP | European Centre for the Development of Vocational Training

Brief note of national developments on curriculum policies and practices

Country: FINLAND

Contributor: Sirkka-Liisa Kärki

Date: 20.12.2010

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

Outcome-oriented approaches in curriculum policy have been true in the Finnish VET-education system nearly twenty years.

National core curricula in the vocational education and training and national requirements in the competence based qualification system at upper secondary level both initial and additional VET have been based on learning outcome-approach from 1993-1994.

Changes from goal oriented approaches to outcome-orientation have taken quite a long time, because it has meant also rather deep change in the ways of thinking from input orientation to output orientation.

Also in the higher education there have been many developmental processes towards outcome-orientation; outcome-oriented approaches are in use in some faculties but not everywhere. The general Education is not yet very much outcome-oriented.

The proposal of the Finnish National Qualification Framework is based on learning outcomes at all levels.

2. What is the rationale behind these reforms? What do they aim to achieve?

The rationale behind VET-reforms has been a need to express to learners and work life as clear as possible what a learner is able to do after the education and certification. The other rationale has been a demand to direct education and training to learning outcomes not only to the content of education, and to get a clear basis for assessment of learning outcomes. The recognition and validation of prior learning and its implementation has put forward this kind of reforms.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

Upper secondary Vet

The learning outcomes of the whole qualifications are expressed as learning outcomes. Vocational qualifications consist of units, which are composed on the basis of functions in working life and named according to activities at working life. Units are nationally decided and defined by the Finnish National Board of Education in the national qualification requirements.

The learning outcomes of the units of qualifications, as well as assessment targets and assessment criteria of units have been defined as learning outcomes and guidelines for skills demonstrations and other assessment are based on learning outcomes. Theory and practice (KSC) are expressed, studied and assessed together within the same unit and there is a common mark in the certificate. KSC' are described as learning outcomes of the units. Targets of assessment are common in all VET qualifications.(1. Mastering of work processes, 2. Mastering of tasks, working methods, tools and materials, 3. Mastering of knowledge that forms foundation for work and 4. LLL- key competencies common to all qualifications. Learning outcomes and assessment criteria are expressed as activities of the occupational area and activities in work. National requirements of qualifications/units consisting of expected learning outcomes and assessment criteria of each unit are at three levels (satisfactory, good, excellent). Assessment of all units are based on qualitative criteria and achieved learning outcomes (Assessors: on-job-instructors, teachers and students self assessment).

The student makes her/his vocational qualification by competence tests in real working life situations. National requirements for qualification, tripartite representatives (employers, employees and educators) have defined the requirements. Skills written in requirements shall be demonstrated in competence tests. The competence test is assessed by tripartite evaluators: representatives of employers, employees and educators

Competence-based qualification system

The Starting point is the requirements of working life. There are four basic principles: 1) tripartite cooperation, 2) accreditation of prior learning, 3) demonstration of skills in real working situations, 4) personalisation. Qualification is independent of the way vocational skills have been acquired. Qualifications are on three levels: vocational qualification, further vocational qualification, and specialist vocational qualification.

4. What is the current stage of implementation of these reforms?

These reforms have been implemented years ago and we continue systematically to develop national core curricula and national requirements.

5. What are the main challenges faced?

To-renew the ways of thinking from content, time and input orientation to learning outcomes; to change teaching and learning so that it's also based on learning outcomes.

CEDEFOP | European Centre for the Development of Vocational Training

Brief note of national developments on curriculum policies and practices

Country: GREECE, tourism sector

Contributor: Lia Marinakou

Date: 21/12/2010

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

Although many European countries have adopted the learning outcomes (LOs), there seems to exist limited activity in this field in Greece. The learning outcomes approach is a systematic way of expressing in further details the content and nature of the modules taught, however, very little progress has been done in the field. Only recently some Greek universities have started including the LOs in their modules descriptions.

LOs are widely used by private colleges since they are educational institutions that work on a franchised agreement with mainly British universities that long ago adopted this system.

In the tourism sector no progress has been done. The education provided in the country is mainly by Technological Education Institutes (TEI), and there is only one University department that provides a higher education course. Most of the education and training is vocational, provided mainly by OTEK and other institutions. These have very slowly adopted the LOs but have still a lot of progress to do. Some of the professions in tourism are accredited by an organisation under the auspices of the Ministry of education, but not all the sectors are covered.

This reform addresses the university and TEIs level (for ptychio = BA, and diplomas as well as for postgraduate diplomas = Master or Doctorate).

The other vocational training institutions (i.e. KEK, IEK etc) are not in the higher education level in the Greek system.

Since 2005, a national organisation for quality assurance has been established, but it has not operated yet with quality controls.

2. What is the rationale behind these reforms? What do they aim to achieve?

There is an effort to compile with the European reforms and to try to implement the European Qualifications Framework, in order to ensure quality in learning and teaching, to accredit the typical and non-typical education and training in the country, to follow the Bologna agreement and to support and help employment mobility in Europe.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

Very few have adopted the LOs system therefore there is not much research done in the characteristics or other features.

The ITE from 1998 onwards has developed guidelines for the content of studies of each department of the higher education institutions (TEIs). In addition, the programmes of study have been revised since 1998 following the Bologna declaration, adding the ECTS system. They have also incorporated the Student Work Load (SWL) and the course units i.e. 32-4 units in a 4 year programme. Each includes aim, LOs with subject specific competences, content and bibliography.

Only one TEI offers the Diploma Supplement even though all institutions should deliver it.

4. What is the current stage of implementation of these reforms?

The initial stage is implemented in reference to Qualifications framework and identifying the qualifications and comptetences required for the few professions in tourism, and hospitality and tourism management.

Some courses, programmes have started using the ECTS credits such the Greek TEIs. Those were somehow forced due the Erasmus programme, of student exchange among European universities.

The current government is trying to implement the Bologna system and to proceed with quality assurance systems and NQFs but a lot of work remains to be done.

5. What are the main challenges faced?

The main challenge is that many different organisations and bodies are involved in education, learning and teaching in Greece, thus it is difficult to coordinate all the work towards this system. Additionally, the qualifications and professional rights are not legally nor socially recognised, or fully recognised thus it is difficult to develop the relevant LOs incorporating skills and competencies that are required for each profession, especially in hospitality and tourism. There is also a suggestion that there are no systematic deliberations with social partners, local authorities and the civil society, and of course there is lack of culture in using LOs.

CEDEFOP | European Centre for the Development of Vocational Training

Brief note of national developments on curriculum policies and practices

Country: SLOVENIA

Contributor: KLARA SKUBIC ERMENC

Date: 13/12/2010

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

All types of the curricula (elementary, secondary, tertiary education) in Slovenia reflect *the turn to learning outcomes* since 1996 when the new educational legislation was adopted. Before, the curricula were manly content-based. In the last 15 years we can follow the process of developing outcome-oriented curricula: at the beginning the focus was on *learning objectives* (inspired by B. Bloom) and *knowledge standards*. The process was later criticised, so new solutions were constantly sought. New concepts emerged; among them, the *concept of competence* was the most influential. Today, all types of curricula are (becoming) *competence-based*.

Another important issue was *knowledge standards*. At the elementary school level, national knowledge standards were introduced (as part of the school subjects syllabi and as a base for national assessment). But some elementary school syllabi only defined minimum standards, some included basic standards, and a few also optimum knowledge standards. Presently, a reform of general upper secondary school curriculum is underway. Knowledge standards have been abandoned, and *learning attainments* introduced.

In VET, we distinguish *occupational standards* from knowledge standards. Occupational standards were introduced to meet employment needs. They form a basis for VET curricula, as well as a basis for the National Vocational Qualifications – a system of assessment and validation of non-formal and informal learning. Occupational standards are the meeting point of two systems: school system and certification system.

The term *learning outcome* has so far only been used in relation to the EQF and Slovenian qualifications framework. For many it has a technicist connotation (equating knowledge to sport results). The Slovenian qualifications framework is now being developed, with learning outcomes defined as "knowledge, skills and competences standardised at a certain qualification level."

2. What is the rationale behind these reforms? What do they aim to achieve?

The Slovenian curricular theory and practice differentiates between three types of curriculum: "content-based", "process-based", and "goal-oriented" – the latter could be understood as an outcome-based approach, since curricular planning focuses on the aims one wishes to achieve in contrast to the contents one wishes to convey or the process one wishes to involve the students with.

The introduction of the outcome-based curricula was a reaction to the traditional content-based curricula which are considered inadequate for three main reasons:

(a) They could not provide an adequate basis for the selection of necessary knowledge in knowledge-intensive societies. Since new knowledge was continually added to the syllabi, they caused an overrepresentation of rote learning in schools, a lack of higher levels of knowledge/learning, and – especially in VET – a lack of integration of knowledge and vocational skills.

(b) It was believed they cannot provide a good basis for addressing the needs and interests of individual learners and assessment of their achievements. If syllabi are goal-oriented, they are supposed to give teachers more freedom to choose the appropriate teaching methods and contents to address these needs, and the definition of learning goals and objectives should be a better basis for assessment.

(c) The latter argument was further developed in relation to adult education and the idea of lifelong learning. It has been argued that the Slovenian educational system should follow the principle that it is the results that count, not the path that leads to them.

One could argue that the search for the tools that could translate this principle into reality is the main rationale behind the gradual transformation the curricular policy. Since this is not a straightforward and unambiguous task one can understand the "flood" of the concepts ("learning outcomes", "outputs", "products" "aims", "objectives"…) as the result of this search. However, the abundance of the concepts does not mean the abundance of theories. On the contrary, they all follow the same curricular paradigm and the same goal: how to make knowledge measurable and comparable.

The process-based approach also has strong supporters in Slovenia. They argue that in order to achieve good results, the curriculum should be structured in a manner that helps the teacher support individual students developing their competences (Vigotskian idea of *scaffolding*). The meaningful learning process is more relevant to good achievements than striving for outcomes, they argue. The concept of competence is close to both curriculum types, the difference being that the outcome-oriented approach emphasizes the idea of competence as outcome and the process-based approach sees it primarily as a developing human characteristic.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

As for VET, *the guiding concept for curriculum development is the concept of competence*. Competences are defined as "developing and demonstrated abilities of individuals which enable them to act creatively, efficiently and ethically in complex, unforeseeable and changing circumstances in professional, social and private life." (Zevnik 2007, pp. 23). The development of competences involves:

- acquiring theoretical, conceptual and abstract knowledge;
- developing skills, expertise and procedural knowledge;
- developing an autonomous and ethical stance towards other people, community and the environment.

Competences combine into modules – programme units in VET educational programmes. "A module represents a comprehensive unit of objectives and contents combining professional, theoretical, practical and general knowledge." (ibid., pp. 24). Occupational standards serve as a basis for educational programmes. These consist of three types of modules:

Basic modules comprising basic professional knowledge and generic competences in a certain sector (eg. sector: food technology).

Mandatory modules providing for the meeting of minimum requirements for particular vocational qualifications within a sector (eg. qualification: cook).

Elective modules, offered by schools in the open curriculum, providing qualifications from other programmes or even sectors (eg. fast food cook, brewer module).

Alongside the competence-based approach, a *criterion-referenced assessment* is gradually gaining ground in VET. So far it is limited to internal assessment. External national examinations still follow the concept of normative assessment (general and vocational maturity examinations).

4. What is the current stage of implementation of these reforms?

The competence-based curricula in VET have all been developed and implemented. With the ESS support, their development and implementation has been constantly monitored and evaluated. At the beginning the evaluations focused on topics that were directly linked to the new characteristics of the curricular concept (open curricula, school curricula, assessment and knowledge standards, on-the-job training, key competences …). Currently, more evaluations are being conducted. They have extended the research into two main areas:

(1) one is student-centred issues and inclusion: individualisation and differentiation of instruction, individual study plans, special measures for students at risk, students with special needs, dropout, student-teacher relations, the concept of upbringing and moral education, equity:

(2) the other is quality issues: self-evaluation, peer evaluation, quality of open curricula in the syllabi.

5. What are the main challenges faced?

The systemic level

a) *The institutionally differentiated VET system*. Slovenian VET system differentiates between vocational and technical programmes. There is a growing gap between the two in their attractiveness: technical programmes are fairly popular and attract relatively successful and motivated students; vocational programmes are generally much less favoured. Students with lowest school results in elementary school enrol to vocational schools, which is reinforcing the differences in quality between schools as well as social and economic homogenisation, since in Slovenia there is a positive correlation between success at school and socio-economic and cultural factors.

b) *The question of national knowledge standards*. There is an internal debate whether national VET curricula should also include at least minimum knowledge standards or not. Those in favour of national standards argue that this would unify the quality of all schools (the schools substantially differ in the quality of their outcomes), those against warn that the standardisation of knowledge diminishes the professional autonomy of teachers and schools, which can cause the lowering of the students' achievements. They also argue that realistic and quality standards are very difficult to develop.

The curricular level

a) *The quality of syllabi*. Some evaluations show that the quality of some of the reformed syllabi (either for subjects or modules) might still be a problem: some of them prescribe outcomes that exceed the qualification level; some of them include obsolete knowledge.

b) *The students' choice*. Many reformed VET programmes are still not particularly open to the students' career interests and needs.

The school level

a) *The competence-based learning process*. Many evaluations show that many teachers' teams have not yet mastered the competence-based approach. Some resistance to it is also present.

b) *Didactic approaches*. Evaluations show that there has been little change at the level of teaching methods. The lack of project- and problem-based learning processes is reported, as well as a low ability of teachers to effectively respond to the heterogeneity of student population.

Resource:

Zevnik, M. et. al. (2007): National Institute for Vocational Education and Training in Development of a Common European VET Area. Ljubljana: National Institute for Vocational Education and Training.

CEDEFOP | European Centre for the Development of Vocational Training

Brief note of national developments on curriculum policies and practices

Country: The Netherlands

Contributor: Dr Ilya Zitter, Centre for Expertise in Vocational Education and Training (ecbo)

Date: December 2010

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

Since 2004, it was formally permitted to experiment with competency-based qualification frameworks. The qualifications frameworks specify the competencies (integration of knowledge, skills and attitudes) of professionals on leaving upper secondary vocational education with a diploma. The process of making these frameworks is directed by the Ministry of Education and Culture. A national coordination organisation facilitates the process in which different stakeholders, both educational and from (regional) professional practice, play their part.

In august 2010, all upper secondary vocational educational institutes were obliged by law to implement these competency-based qualification frameworks. This was recently postponed to August 2011.

2. What is the rationale behind these reforms? What do they aim to achieve?

The rationale behind the national implementation of competency-based qualification frameworks were to focus on the needs and capabilities of individual learners. Upper secondary vocational education should attract (new) learners, suit and challenge learners, and be flexible enough to adapt to a diverse learner population.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

The national curriculum reforms focus on the '*what*' of education (i.e. the competency-based qualifications frameworks), while giving the educational institutes the lead in '*how*' to educate towards these required formal qualifications. As a consequence, a diverse and broad variety of competency-based is developed. However, in this variety, similar features can be identified:

- More real-life, authentic tasks or projects as part of the curriculum.
- Closer collaboration with professional practice, (regional) businesses and institutes.
- An emphasis on self-directed and collaborative learning.
- The role of teachers is shifting towards coaching and facilitating learning-to-learn.

4. What is the current stage of implementation of these reforms?

All educational institutes are working on implementing the necessary curriculum changes needed to educate learners towards the new, compulsory competency-based qualification frameworks. Progress is at very different stages. While some institutes are stuck in the process of 'window dressing' to comply with new regulations, many other institutes have embraced the new directions and have rigorously innovated their educational programs.

5. What are the main challenges faced?

The main challenges are the consistent implementation of curriculum changes and equipping teachers with the necessary skills. Both challenges also require adequate educational leadership.

Brief note of national developments on curriculum policies and practices

Country: .Romania

Contributor: Zoica Elena Vladut

Date: 10.12.2010

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

The outcome oriented approach is more advanced in VET, rather new in higher education and is to be introduced in general education.

2. What is the rationale behind these reforms? What do they aim to achieve?

-the development of the national qualifications framework

-increase the relevance of qualifications and curriculum for the labour market and students' needs

-allow the allocation of credit points

-allow mobility in learning and flexibility on the labour market

-facilitate the recognition of non-formal and informal learning

-ensure the mutual trust.

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3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

- modular curriculum

-evaluation on competencies

- more work based training

- credit points allocation

- transferability of learning outcomes

4. What is the current stage of implementation of these reforms?

The process started in the year 2004 with VET; qualifications are learning outcomes based. A new revision is planned to start in 2011 and this will be made in accordance with the new reference framework for curriculum which is also under revision; a new law of education was adopted in beginning of January 2011.

The process started in 2006 with HE. A number of qualifications in HE were defined based on learning outcomes. The curriculum is also to be revised.

5. What are the main challenges faced?

A better involvement of social partners.

Teachers training to support these challenges

Improving VET attractiveness

Brief note of national developments on curriculum policies and practices

Country: UK

Contributor: CEI at the University of Warwick

Date: 12 January 2010

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

Curriculum policy in the UK has provided support for outcome-orientated approaches in both VET and IVET since the 1990s. The focus on outcomes has led to the design of new types of qualification (ISCED Levels 3 and 4), e.g. NVQs and GNVQs, and to new processes and agencies that participate in curriculum and qualification design.

More generally, outcome-orientated approaches have influenced thinking about the curriculum and have affected the design of the National Curriculum in England and of curriculum design in other nations within the UK.

Outcomes-orientated approaches have also informed the development of the National Qualifications Framework and, more recently, the Qualification and Curriculum Framework – which currently applies to post-secondary, vocational qualifications.

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2. What is the rationale behind these reforms? What do they aim to achieve?

There is a complex history behind these reforms. The intentions of policy makers and reformers have changed over time. However, intentions have included:

1. reforming the curriculum to ensure that learners acquired the capabilities and skills that employers sought and that were of improved economic value

2. making more use of work-based learning as an environment for learning and place for gaining qualifications

3. encouraging a variety of pedagogies that were believed to be effective and engaging, e.g. student centred, active learning, skills based, authentic tasks etc.

4. increasing the voice of stakeholders in the design and legitimation of the curriculum

5. making the educational process more transparent and accountable to users and regulators

6. disaggregating or unitising learning so that prior learning and progression can be recognised and learners can make choices about what they want to learn and when they want to learn

7. creating and operating efficient funding systems for VET programmes

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

A distinctive language for defining the curriculum, e.g. learning outcomes, performance and assessment criteria

Specialised agencies and processes associated with the design, negotiation, approval and operation of these curricula

Funding and support agencies whose role is to encourage the take up of these new curricula and ensure that the curriculum is implemented in the manner in which policy makers intended

4. What is the current stage of implementation of these reforms?

Implementation in the UK can be described as 'mature'. VET and IVET curriculum have been reformed a number of times following the rationale of outcomes-orientated approaches. This rationale is no longer perceived as novel. The rhetoric of outcomes-orientated approaches is widely accepted and used.

5. What are the main challenges faced?

Reforms have not always delivered what was promised. Repeated reform is associated with instability, over-regulation, undermining of the credibility of qualifications and institutions and excessive work load for educational professionals. The involvement of stakeholders in the development of curricula has not always led to curricula which do have more validity and credibility than those that they replace. Designing, quality-assuring and implementing curricula (teaching and assessing) formulated in terms of outcomes has raised problems. In particular, there are concerns about over-fragmentation of the curriculum which, according to critics, can reduce the value and usefulness of learning, work against its application in life and work and increase the burden and reduce the validity of assessment.

Political and economic changes have created uncertainty about funding and the future direction of outcomes-orientated approaches.

Brief note of national developments on curriculum policies and practices

Country: IRELAND

Contributor: Siobhan Magee

Date: 14 January 2011

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

FESS support Providers at Levels 1 – 6 of the NFQ. At these levels the National Awarding Body is FETAC. FETAC's Strategic Plan commits the organisation to putting in place a comprehensive suite of awards at levels 1 to 6 of the National Framework of Qualifications (NFQ). It is planned to achieve this is by:

- the migration of existing awards into the Common Awards System (CAS).
- the development of new awards in new areas.

2. What is the rationale behind these reforms? What do they aim to achieve?

The Common Awards System is the new way of developing FETAC awards. It is a coherent and structured way of developing awards, which is consistent with the National Framework of Qualifications. It is outcomes based. By 2014, every FETAC award will be part of this system. This means that all awards will share common characteristics including:

- a common format. Awards Specifications make it easy to see the requirements and the standards for each award;
- explicit reference to the award types and level indicators of the National Framework of Qualifications;

- breadth and balance within the structure so that learners achieve specific expertise alongside general knowledge, skill and competence in line with the National Skills Strategy;
- a focus on outcomes of learning - what learners will be able to do on achievement of the award. Standards of knowledge, skill and competence are expressed as learning outcomes, facilitating flexibility for providers and programmes;
- a credit system, reflecting the typical amount of learning required, which enables learners to accumulate recognition over time;
- a clear relationship with other FETAC awards to help plan access, transfer and progression;
- a unique six digit code, signaling the level and award type;
- accessibility for all registered providers.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

Award Types
There are four types of Common Award - **major**, **minor**, **special purpose** and **supplemental**. Award types are an important feature of the National Framework of Qualifications. A major award reflects a significant volume of learning. It is the principal class of award within the Framework. Special purpose awards recognise specific relatively narrow ranges of learning, typically required for particular jobs. Supplemental awards recognise learning which up-skills or updates previous achievement, again typically in an employment context. All these awards are made up of one or more minor awards.

Minor awards recognise small volumes of learning that are coherent and relevant in their own right, but also link to one of these award types. Minor awards are the building blocks for FETAC awards. Minor awards are also known as components.

Award Specifications
The requirements of common awards are outlined in award specifications. Specifications outline:

- how an award is structured
- the purpose of an award
- the learning outcomes for the award and
- the appropriate assessment techniques

Award specifications will be available for all major, minor, supplemental and special purpose common awards:

- certificate specifications, special purpose specifications and supplemental specifications set out the requirements for awards, including the named minor awards;
- component specifications set out the requirements for a minor award.

Programme Validation
Any programme leading to a common award must be validated by FETAC, prior to commencement of the programme. Only registered providers, who have agreed quality assurance systems with FETAC may submit programmes for validation. Consult Awards for Validation at Level 1 and Level 2 and Awards for Validation at Levels 3, 4, 5 and 6.

4. What is the current stage of implementation of these reforms?

The timetable for the CAS has been as follows

Development – 2004 -2006

Implementation (New Awards Level 1 and 2) – 2008

Migration of Existing Awards – 2008 – 2011

Publication – 2010 onwards

Review of Standards – 2012

By October 2011 All Level 4 and some Level 5 and 6 awards will be ready

By February 2012 all awards will be in accordance with the CAS

Please see FETAC publication and deactivation dates below;

Publication and Deactivation

Level	Type	Publication dates	Deactivation date (last date for certification)
3	Major (4) and associated minors	October 2010 (all)	5 December 2011
4	Majors (9+) and associated minors	February 2011 – set 1 October 2011 – set 2	5 December 2012
5	Majors (100+)	February 2011 – set 1 October 2011 – set 2 February 2012 – set 3 October 2012 – set 4	5 December 2012 5 December 2013
6	Majors (100+)	February 2011 – set 1 October 2011 – set 2 February 2012 – set 3 October 2012 – set 4	5 December 2012 5 December 2013
5	Minors	February 2011 – October 2012	Date of the major award of which they are a part or December 2012 or 2013. Check website*
6	Minors	February 2011 – October 2012	Date of the major award of which they are a part or December 2012 or 2013. Check website*

*Vocationally specific minor awards will be deactivated at the same time as the major award of which they are part. The final major award to be deactivated will determine the deactivation date of any recurring vocational minors.

5. What are the main challenges faced?

The main challenges will be to meet the specified targets, with regards to the Common Awards System.

Providers must be upskilled in the area of Programme Development. For Providers this will involve the design of the Programme and Assessment (including modes of delivery and assessment, duration, learner profile, context, added value). The Programme will then be validated by FETAC and delivered and assessed by the Provider, in accordance with the Provider's Quality Assurance.

This process will require much support from FETAC and from FESS.

Brief note of national developments on curriculum policies and practices

Country: Italy

Contributor: Manuela Bonacci

Date:14/01/2011

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

The outcome-oriented approach is becoming a prominent and central issue for defining and guiding education, training and lifelong learning strategies, even in systems traditionally not very much output-oriented as, for example, general education.

Conceptual, political and practical developments are increasingly referring to Learning Outcomes (LO) when setting overall objectives for their education and training systems and when defining and describing qualifications.

Outcome-oriented approaches in curriculum policy have started, in Italy, at national level in 1999 (even though there had been severeal experiences before), in Higher Technical Vocational Education and Training pathways (post-diploma), named IFTS (Istruzione e Formazione Tecnica Superiore). They are defined on the basis of minimum standards of competences and described in terms of common minimal basis/units of competences to be acquired as a result of a learning process.

IFTS experience has been then followed by other developments of outcome-oriented approaches in the VET system, in particular in the three-year courses ruled by local authorities (IVET).

In 2010 a reform addressed both IFTS pathways and the three-year VET courses, but above all, the Secondary level Education was renewed as well. Changes in the way of understanding learning (from input to output) has influenced the way curricula were designed.

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2. What is the rationale behind these reforms? What do they aim to achieve?

The *ratio* behind these reforms is quite complex and diversified for the three different systems (Secondary level Education, IFTS and the three-year VET courses), but there can be identified common principles guiding these reforms, such as:

- contributing to modernising both Education and VET systems towards an increasing permeability of systems through the development of common principles and approaches, progressive curricula, etc.
- fostering transparency of educational and training processes in order to facilitate mobility of people;
- creating a new perspective in which the focus has changed from training activities to individual activities which could be realized, during the entire life, also in contexts less formalized and institutionalized, but equally important and crucial for the growth of qualification of citizens;
- increasing awareness and motivations of individuals/learners/students in their own learning opportunities, through more flexible pathways of validation and recognition of learning acquired in all different contexts;
- encourage an easier dialogue with the Labour Market in terms of required competences described in terms of knowledge, skills/competence and other personal resources;
- increasing coherence with European reforms (EQF, ECVET, validation) to support mobility of citizens.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

The adoption of an outcome-oriented approach reflects an important and innovative approach of describing, assessing and validating learning.

Developments implemented:

- Curricula are described in terms of Learning Outcomes (knowledge, skills and competencies)
- Occupational standards have been developed in the VET system
- Minimum requirements for specific vocational qualifications have been defined
- Labour Market requirements have been gathered

4. What is the current stage of implementation of these reforms?

The concept of an outcome-based education is high on today's Education and Training Systems programming, with a great direct impact on how learning is conceived.

In fact, the shift from an objectives-oriented approach to an output-oriented approach is taking quite a long time, especially in systems which are not very flexible (such as general education for instance), because it provides a deep change in the development of curricula, learning programmes, teaching and assessment processes, etc.

5. What are the main challenges faced?

The attention is no longer on learning inputs typical of the teaching process (contents, length of the learning experience, type of institution), but on learning outcomes, typical of learning processes.

A common language for defining curriculum, qualifications, etc. is becoming more widespread among different systems.

VET and IVET curricula changes have been implemented.

Brief note of national developments on curriculum policies and practices

Country: Lithuania

Contributor: Vidmantas Tūtlys

Date:17-01-2011

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

1. Up to what extent curriculum policies in your country consider/introduce outcome-oriented approaches? Please indicate which levels/types of education and training such reforms address.

Learning outcomes approach today influence curriculum policies in the all levels and sectors of education system, but at rather different extent:

1. Qualifications provided by the VET system are defined and described using learning outcomes approach. The existing VET standards describe the qualifications provided by the initial VET institutions by using competences. VET curricula are designed on the basis of VET standards and are also described in terms of competences and training objectives. However, the VET curricula also provide the indications of the corresponding subjects, which provide the knowledge and skills related to the outlined competences.
2. The sub-sector of higher vocational education (colleges) also uses the VET standards described in terms of competences.
3. The sub-sector of university higher education is only at the initial stage for defining and describing degrees and qualifications and for setting standards by the learning outcomes. There has been recently launched the national project for the implementation of the ECTS system which will facilitate the defining of the higher education degrees and qualifications in terms of learning outcomes. The curricula of the university higher education is largely based on the subjects (input) and oriented to the time, or credit based approach. The process of the reorientation of the university curricula to the learning outcomes approach is only at the very initial stage.

2. What is the rationale behind these reforms? What do they aim to achieve?

The rationale behind these reforms consists of the following aims:

1. To increase the orientation of the curricula to the labour market needs, thus enhancing employability of schools leavers and their employment quality.

2. To increase accessibility and attractiveness of the vocational education and training to young people by increasing flexibility, transferability and permeability of the education and training pathways. This aim is important in order to change the current distribution of the enrolment of students between the initial VET and higher education with the dominant flows to higher education.

3. To facilitate the improvement of quality of VET and higher education by increasing the orientation to the needs of learners and labour market in curriculum design.

4. To facilitate closer cooperation of VET and higher education institutions with the social stakeholders, especially with the employers, by increasing their involvement.

3. What are the new features/characteristics/principles that these new outcome-oriented curricula introduce?

The main novelty introduced by new outcome-oriented curricula is their referencing to the standardized descriptors of qualifications. For example the VET standards integrate standardized descriptors of occupations providing the information on the goals of occupation, objectives and derived competences split into training objectives for each listed competence.

Other important principle which is introduced by the outcome-oriented curricula is the principle of social partnership meaning closer and more intensive involvement of social stakeholders (employers, trade unions, professional organizations) in the processes of curriculum design, organization of training process and assessment of learning outcomes.

4. What is the current stage of implementation of these reforms?

There are foreseen the following developments of curriculum policy in the VET:

Current VET standards will be replaced by the sectoral occupational standards. In principle their structure is quite similar, but sectoral - occupational standards will cover all qualifications in the sectors and will not prescribe the training aims and specifications of competence assessment. In the next 3 years it is planned to develop such sectoral-occupational standards in 5 sectors.

There will be implemented the National Curriculum of Modular Training which will permit to acquire vocational qualification through different training modules in the different VET institutions. It will also bring the credit transfer to the vocational training on the national level, which is not feasible now due to the big variety and differences of the VET curricula, when each VET provider has its own training curriculum.

5. What are the main challenges faced?

1. Lack of systemic and competent involvement of social stakeholders in the processes of curriculum design. It is related both to the issues of motivation to cooperate in this field and to the lack of know-how and competence in curriculum design. Especially the trade unions and professional organizations need a lot of support and training in order to prepare them for more significant responsibilities and active involvement in curriculum design, organization of training and assessment of learning outcomes.

2. Lack of systemic and effective basis of research of qualifications and labour market forecasting. Implementation of the learning outcomes requires significant investments to the research of qualifications and forecasting of skills needs.

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Key messages in relation to inclusive and special needs education: A comparative point of view in European countries

Contributor: *Amanda Watkins*

Date: *December 2010*

The concept of "Outcomes" is not new to education and training; what is now undoubtedly evident is the massively increased salience and prominence of this concept over the past few years in national and European policies and in any discussion about curriculum reform. In common with "learning outcomes", "outputs", "attainments", "products" "aims", "objectives", "capacities", "assessment standards" or "(key) competences", outcomes of learning feature in many official curricula and other documents. However, there are important conceptual differences between these terms and not yet a clearly marked delimitation. Taking into consideration these different understanding, we would like you to provide some brief information on the following issues:

Compulsory Education Systems in countries

The education systems of 27 member countries of the European Agency for Development in Special Needs Education differ at all levels.

Information on approaches taken in compulsory education countries is available from the National Overview section of the Agency website:

http://www.european-agency.org/country-information/austria/national-overview

The overviews are factual descriptions of systems and are presented in thematic areas that can be compared between countries:

1. **Legal System** including rights of children with SENs
2. **Financing**
3. **Identification of Special Needs**
4. **Special Needs Education within the Education System** including:
   - both mainstream and special systems
   - co-operation with other services
5. **Teacher Training** including basic and specialist training
6. **Development of Integration/Inclusion** presenting the process of development of inclusion in the country and cover both views of and routes to integration
7. **Quality Indicators for SNE:** a description of the ways in which each country identifies and ensures quality SNE provision.

[The SNE data for each country is available as a final section in the National Overviews.]

These overviews provide different aspects of information relating to curricular approaches in compulsory education.

Teacher Education Curricular

Initial information on systems for Teacher Education for Inclusion is available from:

http://www.european-agency.org/agency-projects/teacher-education-for-inclusion

In the coming months, this website will include country reports describing the systems of initial teacher education, including approaches to competences based approaches in 26 Agency member countries.

Assessment Approaches

Information on assessment issues and approaches in 25 Agency member countries is available from: http://www.european-agency.org/agency-projects/assessment-in-inclusive-settings

A main challenge facing all European countries centres upon developing their systems of pupil assessment so that they facilitate and do not act as a potential barrier to inclusion. With the Agency project, the key question was for consideration was how assessment in inclusive classrooms informs decision-making about teaching and learning approaches, methods and steps in the best possible ways.

Three areas of challenges were identified:

(i) Using assessment information to inform monitoring of educational standards in the most appropriate way;

(ii) Ensuring assessment used within initial identification of SEN informs teaching and learning;

(iii) Developing assessment policies and procedures that promote on-going assessment.

A main conclusion of the project was the identification of the concept 'inclusive assessment'. This was defined as: An approach to assessment in mainstream settings where policy and practice are designed to promote the learning of all pupils as far as possible. The overall goal of inclusive assessment is that all assessment policies and procedures should support and enhance the successful inclusion and participation of all pupils vulnerable to exclusion, including those with SEN (Watkins, 2007, p.47).

Inclusive assessment is based on the general principle of celebrating diversity by identifying and valuing all pupils' progress and achievements in mainstream settings. It involves legislative measures that take into account the needs of pupils with SEN, ensuring that all pupils are entitled to take part in the all assessment procedures in a way that meets their learning needs. It also very

clearly links into and supports the strategies and approaches identified as being effective in inclusive classroom practice.

Inclusive assessment requires that:

- Teachers in mainstream classrooms should have the appropriate attitudes, training, support and resources for assessment;

- Mainstream schools should promote an 'inclusive culture', plan for inclusive assessment and be appropriately organised;

- The work of all specialist support staff involved in assessing pupils with SEN should effectively contribute to inclusive assessment in mainstream classrooms;

- All educational policies concerned with assessment - both general and SNE specific - should aim to promote inclusive assessment practice and take into account the needs of all pupils vulnerable to exclusion, including those with SEN.

Perceived Challenges and Opportunities

Various aspects of Agency work (Meijer et al (2006), Watkins (2007), Kyriazopoulou and Weber (2009) – all available from: http://www.european-agency.org/publications/ereports) suggests that there are a number of areas for policy development requiring further attention:

- The on-going tension between the need for schools to demonstrate increasing academic achievements and the position of pupils with special education needs;

- The development of systematic monitoring and evaluation procedures within the framework of special needs education in inclusive and segregated settings;

- The development of flexible frameworks of provision that support inclusive practice applied to all sectors of educational provision, including the secondary sector, transition from school to employment phase, post compulsory, higher and adult education (with the same degree of focus being given as within the pre-primary and primary sectors).

Across the Agency member countries work, it is possible to highlight a number of common factors for implementing inclusive approaches to teaching and learning. These are factors within educational environments involved in the various European projects conducted by the Agency that appear to underpin the work of teachers and other professionals and stakeholders in inclusion.

These are general factors that are not always related to classroom practice as such. These factors have more to do with the overall educational environment and how this environment can support (or otherwise) successful inclusion. The factors of the educational environments that appear to support inclusive assessment can be grouped into two aspects of inclusion policy and practice:

- Infrastructure: the structures, policies and support systems for inclusion;

- Shared value systems: the attitudes, professional values and beliefs that underpin a school's educational culture and approach.

In conclusion, two further arguments as a result of Agency work can be put forward for consideration:

- Special teaching approaches designed to meet the needs of pupils with specific needs and or disabilities is good specialised teaching for all - the only difference that it should include special methods and tools as appropriate for particular needs.

- All the evidence suggests that what is good for pupils with SEN is good for all pupils in inclusive settings. Good teaching approaches benefit all pupils.

TEACHER EDUCATION FOR INCLUSION

A project conducted by the:

European Agency for Development in Special Needs Education

The European Agency for Development in Special Needs Education is an independent and self-governing organisation established by its member countries to act as their platform for collaboration regarding the exchange of information on development of provision for learners with special educational needs. The ultimate goal for the Agency is to improve educational policy and practice for these learners.

The Agency currently has national networks in 27 European countries[1] and is financed by the member countries' ministries of education and the European Commission Lifelong Learning Programme, as one of the 6 institutions pursuing an aim of European interest in the field of education (Jean Monnet Programme)[2].

The developing co-operation between European policy makers in the area of teacher education is highlighting a range of common concerns and priority areas for future work. These form the basis for the current European Agency for Development in Special Needs Education project on Teacher Education for Inclusion.

The following key challenges were identified by Agency Representative Board members (RBs) and National Co-ordinators (NCs) as being of priority within the Teacher Education for inclusion project:

- What kind of teachers do we need for an inclusive society in a 21st century school?
- What are the essential teacher competences for inclusive education?

It was agreed the project would focus upon:

- The training of mainstream, general teachers and how they are prepared to work in inclusive settings;
- The initial training phase as a priority.

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[1] Austria, Belgium (Flemish and French speaking communities), Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom (England, Northern Ireland, Scotland and Wales).

[2] The Action Programme in the field of Lifelong Learning for 2007-2013 entered into force on 14th December 2006. Source: http://ec.europa.eu/education/programmes/llp/structure/monnet_en.html

The essential question for consideration is: **how all teachers are prepared via their initial training to be 'inclusive'.**

The fact that across 26 member states, there is so much agreement on priorities for teacher education presents a major opportunity – shared problems motivate collaborative working at both policy and practice levels. Such a collaborative approach has been the basis for the Agency project.

The project began in early 2009 and, following initial preparatory activities, the project has developed three activity 'tracks' involving 55 experts from 26 European countries. These experts – from policy and teacher education backgrounds – work collaboratively on the overall theme of how mainstream teachers are prepared via their initial training to be 'inclusive'.

International Literature Review

In order to put the Agency project activities into a wider context, an extensive review of literature has been undertaken and two documents are now available:

- A review of international policy statements impacting upon teacher education. This document presents information on documents, reports and project write-ups from key international organisations: mainly the European Council, Parliament and Commission, UNESCO, OECD and the Council of Europe.

- A review of international literature in the field of teacher education generally and teacher education for inclusion specifically. The review has been developed with input from representatives of the European Commission, DG Education and Culture, UNESCO International Bureau of Education and OECD-CERI. Most importantly, a review of research information has been conducted by experts from 18 countries participating in the Agency project and this is also included in the review document.

This research review sets out to provide an overview of literature which informs further work on the Agency Teacher Education for Inclusion project; in particular, it provides information regarding:

- Changing conceptions of inclusion;
- The European context for teacher education for inclusion;
- Policy frameworks to support teacher education for inclusion;
- Effective practice in initial teacher education for inclusion with a focus on models of training, curriculum, teaching practice and assessment.

Copies of these documents are available for download from: http://www.european-agency.org/agency-projects/teacher-education-for-inclusion.

Country Reports

26 countries are taking part in project activities and focussed country information has been collected via a questionnaire in order to provide:

- A description of the reality of teacher education situations in countries;

- Information on practice that indicates ways forward/effective innovations.

All country information is (as of 2010) being analysed to identify trends, similarities, challenges and features of innovative practice. This detailed country information will be used in different ways:

- English (and where available country language versions) of reports will be available as country reports via the Agency web site;

- The information will be put into a searchable thematic database of key topics;

- The information will also be used in preparing a project summary report.

The summary report will use all sources of project information: literature review; country survey information; country information/reports and will aim to provide an overview of current situations in countries and identify the challenges as well as evidence-based best practice; make recommendations for policy and practice.

Overall, the summary report will attempt to use all sources of information to address the issue of how mainstream teachers are prepared via their initial training to be 'inclusive'.

(The report will be available in mid 2011, translated into all Agency member country languages.)

Developing a profile of inclusive teachers:

RBs and NCs, via the initial country survey, requested information on the necessary competences, attitudes and standards required of and for all teachers working in inclusive settings in mainstream schools. This is a main concern also identified in the international documents and statements on priorities for teacher education.

A major task of the Agency project is to develop a profile of inclusive mainstream teachers that is based upon national level information, but is then agreed upon at the European level.

This profile being developed considers the following key aspects:

- What attitudes do mainstream teachers working in inclusive settings need?
- What knowledge and skills do they need?
- What initial training to develop both the above do they need?
- What are the implications for training all teacher trainers?
- What systemic changes are needed to allow they to implement their training?
- What policy framework is needed for all of the above to happen?

All areas of teacher competence are comprised of three elements: attitudes, knowledge and skills. A certain *attitude* or belief demands a certain *knowledge* or level of understanding and then *skills* in order to implement knowledge practically.

The working definition of a competence used within the project is that *a competence is a statement describing teacher action that can be demonstrated in some way. A teacher should be able to provide some sort of evidence that*

they: hold certain beliefs (attitudes and values) understand certain things (knowledge and understanding) and can effectively do certain things (skills and abilities).

This working definition fits in with the Bologna process model (http://ec.europa.eu/education/higher-education/doc1290_en.htm) of higher education leading to clear learning outcomes.

The table presented in the Annex summarises some key factors relating to the use of competences in teacher education systems in the participating countries.

Rationale for using competences

It can be argued that the profile of competences document aims for ideals within ITE, but the Agency project experts believe the content is realistic and should be the goal for all ITE if the move towards inclusion is to be achieved across Europe. The following statements outline an agreed rationale for the proposed competences for inclusive education.

(i) The aim of a profile is to present agreed recommendations on areas of necessary competence for all teachers working in inclusive settings, along with a consideration of key issues relating to their implementation. The focus of the profile is upon competences to be delivered in initial teacher education (ITE) programmes preparing students to work in the compulsory education sector.

(ii) The competences for working in inclusive education are necessary for all teachers, not just specialists, just as inclusive education is the responsibility of all teachers, not just specialists. The competences should reinforce this critical message.

(iii) Competences for inclusive education should not only focus upon meeting the needs of specific groups of learners in particular (e.g. those with special educational needs). Competences should provide all teachers with the foundations they need to work with a diverse range of needs within a mainstream classroom. The competences should reinforce the critical message that inclusive education is an approach for all pupils' learning, not just an approach for a few with additional needs.

(iv) The competences identified for ITE should be seen as a foundation of key attitudes, knowledge and skills that need to be built upon during induction and further teacher education opportunities. Competences are not finite or complete, but are a basis for a teacher's continuous professional development of knowledge, understanding and skills. Clear progression routes are crucial and competences should be seen as an integral part of a continuum of professional development opportunities, including specialist SEN training courses.

(v) Competences needed by all teachers to work in inclusive education are not in contradiction to specialist training for SNE teachers who may support mainstream teachers in their work. Rather, the competences follow the UNESCO model of general, specialist and expert teachers all working within inclusive education.

(vi) Competences should not be narrow – the aim of using competences should be to develop teachers as lifelong learners and reflective practitioners. The identified competences should be in line with the principle that teaching is a

reflexive profession. Competences should move away from the paradigm of teachers as 'deliverers of knowledge'. Their training should prepare them for this by being based on a model of ITE where learning and competence are developed, not delivered via content based curricular.

(vii) The profile of competences should be a tool for student teachers as much as for their teacher educators. It should support their initial teacher education and prepare them to teach to a competency approach throughout their careers.

(viii) Competences need to be developed and refined by means of a dialogue with wider stakeholders within national situations and contexts. Through such a process, agreed competences can potentially be a mechanism for reducing the perceived disconnection between classroom teachers and other stakeholders in education.

(ix) Competences for inclusive education should be seen as one starting point for course design/planning. The principle of inclusive education as a systemic approach should apply to ITE as well as school based curricula.

The proposed areas of competence for working in inclusive classrooms

The starting point for competences for inclusive education are core beliefs and values about teaching and learning that are the foundation for acquiring knowledge, developing understanding and implementing skills. These three core values relate to:

1 – Personal responsibility for learners - all pupils in a class are the class teacher's responsibility;

2 – Working with others - collaboration and teamwork are essential approaches for all teachers to take;

3 – Personal professional development - teaching is a learning activity and teachers must take responsibility for their lifelong learning.

These core values relate to **all** teachers' work, but in relation to inclusive education there are a number of specific areas of competence (rather than specific and perhaps discrete competences) that all teachers must develop in order to prepare them to work effectively in inclusive classrooms. The specification of these discrete areas of competence as well as a consideration of the implications of the application of competences in ITE is the current focus of work within the Agency TE4I project.

Annex: DRAFT summary of country information

Country	Length of training and qualification	Competences outlined in national policy/used in ITE	Competences cover inclusive education	Definition / approaches to 'inclusion'
Austria	3 yrs primary 4.5 secondary Bachelor/PG Diploma	Legislation states all courses must use competences. Set by individual HEIs	Yes – but term inclusion used in only 4/14 colleges	'Barrier-free inclusion ' set out in 2007 paper on re-design of school system (not High schools). Have legal basis for non-discrimination
Belgium (Fl)	3 yrs Bachelor (+can do 30 credit PG) 180 credits, 45 are teaching practice	Government competences 2007 Primary and secondary – inc some info on attitudes	Yes	Dealing with diverse needs – beyond SEN – inclusion as process of quality improvement. Equal opportunities act.
Belgium (Fr)	3-5 yrs Certificate/Bachelor (for secondary)	None	-	Integration is commonly referred to
Cyprus	4 yrs Bachelor	None. Colleges determine content	Some relevant course content	Term integration still commonly used but moving towards inclusion
Czech Republic	4 yrs Bachelor/Masters (Secondary)	Standards /competences being developed (HEIs differ)	Yes	Has National Action Plan for Inclusive Education.
Denmark	3.5-4 yrs. Bachelor (primary) Masters (secondary)	Yes	Competences in SEN – some reference to attitudes	Broad definition – inclusion as dynamic process – school accommodates all learners – but segregation increasing
Estonia	3-5 yrs (plus on job training)Bachelor /Masters	✓	✓	Currently working towards broader definition of inclusion
Finland	4/5 years. New masters degree	Not defined centrally but national guidelines	Basic special needs studies in all ITE	Broad view of inclusion and diversity

				2007 strategy
France	3+ years. Bachelor changing to Masters	10 skills outlined centrally for teachers	Yes	Moving towards wider definition but inclusion replacing integration without change in underpinning ideas
Germany	3.5 – 5.5 years. Cert/Bachelor primary – further in-school training for secondary	Standard by Standing Conf of Ministers 2004/2006?	Developing SEN as part of ITE	Differences between Lander/problems with terminology
Hungary	2-4 yrs (primary/secondary – Bachelor)			
Iceland	3 yr B.Ed plus extra yr for secondary	Yes Central requirements but decisions made at local level	Some content integrated, some specialist	Wider view of inclusion
Ireland	3 or 4 years Bachelor/PG Diploma	Teaching Council required learning outcomes	Yes	UNESCO broad definition
Latvia	2-5 yrs. Bachelor	Standards being revised – colleges decide content	Yes – intro to SEN, some content re attitudes	No official definition – refs to 'social inclusion'
Lithuania	3-4 years Bachelor	Comp profile and standards	Yes – content varies across colleges	No formal definition – limited view focusing on access to physical environment National Ed Strategy 2003-2010 (legal basis)
Luxembourg	2-3.5 yrs. Bachelor – primary, Masters-secondary	None. Content set out by Ministry	Inclusion in primary – little in secondary	No official definition
Malta	3-4 years (Bachelor – PGCE)	Comp for primary	Yes	Usually associated with 'mainstreaming' SEN
Netherlands	4 yrs (240 ECTS) Bachelor - primary Masters - secondary	Yes – content decided by individual colleges	Some coverage Intro to sen in primary SEN	'Appropriate education' for SEN
Norway	3-6 yrs. Bachelor – primary 4 yrs+ secondary			

Poland	3-5 yrs. Bachelor – primary, Masters - secondary			
Portugal	3-4 yrs Masters	Yes Content in legislation but autonomy in colleges	Yes	New law is inclusive but no specific mention
Slovenia	3-5 years Bachelor – primary Masters- secondary	Yes – decisions by individual colleges	Yes – some in new programmes post Bologna	Moving to wider definition
Spain	3-4 years (240 ECTS) Bachelor – primary Masters - secondary	Centrally set - 2007	Yes but ad hoc 6-12 ECTS – SEN a 'subject' in basic training	Wider definition – key principle of reform. Attention to diversity. Organic law of education
Sweden	3-5 yrs Bachelor	Not centrally set	Yes	School for all – inclusion not specified in recent legislation
Switzerland	3-4 yrs (+ diploma) Bachelor	Used by individual HEIs	Approx 5% course	Principles agreed by college of Rectors (German)
UK (England)	3- 4 yrs Bachelor/PGCE	TDA standards – including attitudes. HEIs are responsible for how these are met.	Yes – many sep SEN modules	Still understood largely re: SEN
UK (Northern Ireland)	3-4 yrs Bachelor/PGCE	Teaching Council	Yes	As above
UK (Scotland)	4 yrs degree or PGCE	GTC Scotland – Colleges decide content	Yes – input on rights model, inclusion and barriers to learning	Additional support for learning – wider view
UK (Wales)	3-4 yrs. Bachelor/PGCE	WAG - standards as for England	Yes	Additional learning needs still main focus

More information on the venue and how to get there



Workshop Venue

The “2nd International Workshop on Curriculum Innovation and Reform: An Inclusive View to Curriculum Change” will take place on:

Thursday, 20 January 2011 at The MET Hotel
26th October Str., 48, 546 27 Thessaloniki, Greece
tel: +30 2310 017000, + fax: + 30 2310 017100
e-mail: themethotel@chandris.gr, Internet: http:// www.themethotel.gr
and
Friday, 21 January 2011 at Cedefop premises (European Centre for the Development of Vocational Training)
Europe 123, 57001 Thessaloniki (Pylea), Greece
Postal address:
PO Box 22427, Finikas , 55102 Thessaloniki, Greece
Tel. (+30) 2310490111 Fax (+30) 2310490049

Getting to the MET Hotel from the Airport

Please kindly note that there will be no welcome desk at the airport upon your arrival. You are kindly requested to make your own arrangements from the airport to your hotel.
It is recommended to take a taxi outside the Arrivals hall of “Macedonia” Airport of Thessaloniki. Taxis take approximately 20 minutes to reach city centre depending on traffic. The tariff ranges from 15€– 20€. Payment should be made in cash.
There is also a bus service operating 24 hours a day that links “Macedonia” Airport of Thessaloniki with the city centre. The bus route for the city centre is No 78 and it takes approximately 40 minutes depending on traffic to reach the terminus. In order to get to the MET hotel from there, you need to change from the terminus of the bus No 78 to the bus No 31 and get off at the 5th bus stop named “Fix”. The MET hotel is within a walking distance and is visible from the bus stop. The cost of the ticket is 0.80€ and can be bought at a ticket booth outside the airport with limited opening hours kiosks, or at the ticket machine in the bus (0,90€, small change is needed for that).

Find your way to Cedefop

Cedefop will provide transportation in the morning of the 21st of January from the MET Hotel to Cedefop premises (where the workshop will be continued during the 2nd half day).
If you don’t plan to stay at MET hotel, you need to reach Cedefop on your own on the 21st of January for attending the 2nd day of the workshop. Cedefop is easy to access by taxi within maximum 30 minutes from any part of the city, the city’s suburbs and about 10 minutes from the airport. A taxi will cost around 20€, depending on the distance. Should you wish to order a radio taxi, please call one of the following numbers: (+30) 2310525000, 2310866866 and make your appointment. In general, taxis are easy to find, at the airport and all over the city; taxis are blue-white and easy to stop in the street. Please don’t be surprised if other passengers are picked up along the way to your destination. Due to the low fairs that taxis offer, this is a common practice in Greece.

Secretariat and information desk during the workshop

The secretariat desk will be located at the workshop venue close to the plenary session room, and will operate:
Thursday, 20 January 2011, 8.30 - 17.30, at the MET Hotel
Tel.: (+30) 2310 2310 017000; Fax: (+30) 2310 017100
Friday 21 January 2011, 9.00 - 13.30, at Cedefop
Tel.: (+30) 2310490068; Fax: (+30) 2310490240

Workshop Secretariat is provided by:
LDK Consultants
Off. 21 Thivaidos Str.
P.O Box 51299, 14564 Kifissia, Greece
Tel: (+30) 2108196752 (Workshop line), (+30) 2108196700
Fax: (+30) 2108196759, (+30) 2108196709
e-mail: curriculum-innovation@ldk.gr

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Workshop Hotel

THE MET HOTEL ***** - city centre



The Met Hotel is situated in the new harbour area of Thessaloniki and just 1.8 km away from Aristotelous square, Thessaloniki's city centre (free shuttle service available). The hotel combines an exquisite combination of unique location, modern architecture, and high-end luxury, in the city of Thessaloniki. The Met Hotel's guest rooms feature panoramic city and sea views. Its combination of technology and discreet luxury ensure a relaxed stay. The hotel also offers spa and fully equipped fitness centre. There are 2 stylish restaurants, where guest can discover flavours of International and contemporary Asian cuisine.

26th October Str., 48, 546 27 Thessaloniki, Greece
tel: +30 2310 017000, + fax: + 30 2310 017100
e-mail: themethotel@chandris.gr, Internet: www.themethotel.gr

Map of the Hotel

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Thessaloniki

Set on the northern shores of the Thermaikos Gulf that opens into the Aegean Sea, Thessaloniki is approximately 550 kilometres north of Athens and in close proximity to Chalkidiki's beautiful beaches. It is the metropolis of the region of Macedonia, one of Europe's oldest cities and the second largest city in Greece.

Founded in 316 BC by Cassander, King of Macedonia, the city was named after his wife, Thessaloniki, sister of Alexander the Great. It was here that Alexander the Great established the seat of his great Macedonian Empire, imparting a legacy that has left modern Thessaloniki dotted with the treasures, temples and monuments of one of history's greatest leaders.

Thessaloniki has the largest university in Greece, Aristotle University with about 95.000 students, which is one of the most established universities in the academic community in Europe.

The city of Thessaloniki today offers the visitor an exciting experience, as it possesses the second largest and most important port in Greece, the International Fair which attracts commercial interest from all over the world- offers cultural events, theatres, Modern Art galleries, libraries, some of the most exclusive stores in Greece, an immense variety of high standard recreational facilities and examples of modern architecture, art nouveau and eclecticism.

A few of the city's many attractions include the 16th century White Tower, Thessaloniki's many churches, in particular the 4th century Rotonda dedicated to St George, containing mosaics of the period, and the 8th century Agia Sofia, which was converted into a mosque during the Ottoman rule.

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People & Life

Thessaloniki is a popular destination. You will certainly enjoy a pleasant and interesting stay in the city. People are friendly and happy to help with any questions. The atmosphere is unique during the day in the commercial and shopping centre, but especially during the evening, in the wide variety of bars, restaurants and theatres for entertainment. Thessaloniki is renowned for its unique location, along the Thermaikos Gulf, its sunsets, its long history, its monuments and museums as well as its distinguished cuisine.

Time

Greece is 2 hours ahead of Greenwich Mean Time (GMT +2) throughout the year.

Language

Greek is the official language but English is widely spoken.

Currency

The Greek currency is EURO. Credit cards are widely used in most establishments. Most currencies and traveller's cheques can easily be changed either at banks, hotels or money-changers with some handling charges.

Weather in January

Thessaloniki lies in the transitional climatic zone, so its climate has displayed characteristics of continental as well as Mediterranean climate. Average temperatures in January range from 11C° to 2 C°.

Power supply

The standard current in Greece is 220 volts. Plugs are European standard with two round pins.

Useful phone numbers

Police*	100
Tourist police station	(+30) 2310554870, (+30) 2310554871
Ambulance*	166
Fire*	199
Emergency phone**	112
Phone book information*	11888

**It refers to a local number and can be used only from a local phone.*
***It refers to a European number. After a recorded message in English and Greek, an operator receives the call in English, French or Greek, puts the caller through to the necessary service, and assists with interpretation, if necessary.*

Links

> Information on Greece as a travel destination: http://www.visitgreece.gr
> Thessaloniki International Airport Macedonia (SKG): www.thessalonikiairport.gr
> Hellenic Culture: www.culture.gr
> Area information on the prefecture of Macedonia: www.ellada.net

> Travel information on Halkidiki: www.halkidikinet.gr
> Weather in Thessaloniki: www.weather.yahoo.com/

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Key Competences in Curricula
What Challenge for Assessment?
Tapio Säävälä
European Commission
MET HOTEL


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LEARNING OUTCOME APPROACHES IN VET CURRICULA IN FINLAND
Sirkka-Liisa Kaiki
Head of Qualifications Unit,
Counsellor of Education


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Curriculum


approach developments in Italy
Teaching process
Learning process
INPUTS Approach
OUTCOME - OBJECTED Approach
(contents, length of learning, type of institution, etc)
(Knowledge, skills and competence)
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A positive attitude towards the five of the eight key competences involves a disposition to:
- critical dialogue
- critical appreciation and curiosity
- critical reflection
(European Reference Framework, 2007)
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Julian Stanley
UNITED KINGDOM








OSTRIA A


OSTRIA D









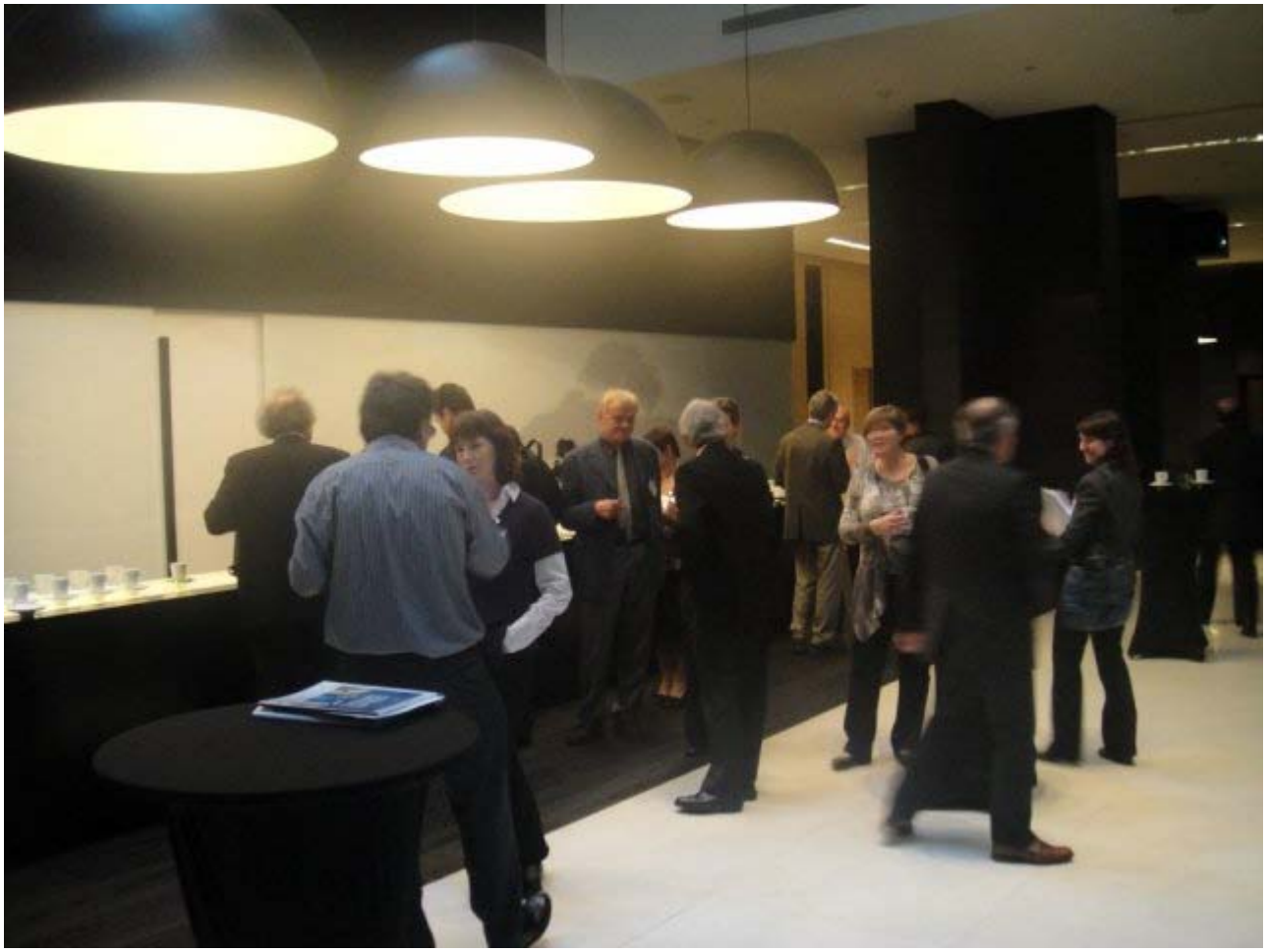











































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and Reform


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and Reform


Selected Responses to Question 3
• No connection again:
- Outcome oriented curricula does not necessarily imply learner-centredness
- If the outcomes are too narrow for instance, it will not happen
• It depends more on the way the outcomes are conceptualised, written and assessed
Curriculum Innovation and Reform














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The role of curriculum in the context of lifelong learning

Curriculum is increasingly seen by stakeholders as a dynamic framework guiding teaching and learning processes and as a steering mechanism for quality. It features in key European policy documents as a new consensus for contributing to Europe 2020, the European strategy for smart, sustainable and inclusive growth. Findings of empirical research widely recognise that curriculum relevance is a condition sine qua non, not only for improving the human capital potential of education and training graduates but also for retaining learners in education and training systems and for promoting lifelong learning. The endemic irrelevance of curriculum may be one of the greatest obstacles to matching education and training provision successfully to learner and labour market needs. Adopting a learning outcomes approach when developing curricula - valuing what a learner knows, understands and is able to do on completion of a learning process - is seen by many policy makers as an effective way to avoid such potential mismatches and promote active learning and inclusive teaching. However, this assumption depends on many factors, including how curricula are being delivered in learning environments.

Cedefop's work on curricula and learning outcomes

In recent years, Cedefop's analytical work has increasingly focussed on learning outcome approaches in vocational education and training to design and describe qualifications, to set standards and to influence quality assurance, validation and certification approaches. In 2009, Cedefop organised the 1st International workshop to debate about innovative curriculum policies and practices in Europe and beyond http://www.cedefop.europa.eu/EN/events/4432.aspx In 2010, a comparative study in nine European countries on learning outcome approaches in VET curricula was published to provide a better understanding of recent curriculum policies and point to main tendencies and challenges in this field. This research is now being expanded in all 32 countries participating in ET 2020 and will continue in the coming years.

Workshops objectives

The workshop will build upon this ongoing research and provide an opportunity for policy makers, researchers and practitioners to reflect on how outcome-oriented approaches to curricula may promote or hinder learner-centeredness and inclusiveness in teaching and learning processes. The workshop will thus address the following main objectives:

- To examine the implications of current developments in curriculum policies and practices in four levels:
  - The design of curriculum
  - The delivery of curriculum in different learning environments
  - The way learners are assessed, and
  - The benefits for learners
- To formulate key messages that can usefully support curriculum policy developments at national level.
- To identify new lines for future research.

The following questions will be debated in the workshop:

- Does this emphasis on learning outcome approaches to curriculum policies underpinned by socioeconomic pressures change the role of curriculum? How?
- How current curriculum and assessment policies and practices address the dual role of VET to improve competitiveness and to contribute to social cohesion?
- What are the strengths and limitations of an outcome oriented approach to curricula to facilitate learner-centeredness and inclusiveness?
- What evidence exists to show that learners benefit from these new approaches?

The workshop will be carried out based on an interactive approach (world café) allowing participants to share experience and brainstorm on the various issues. The workshop will close with a panel discussion with high level education/training and labour market experts devoted to *Putting the views together – A curriculum for all learners.*

The conclusions and working reports produced from this workshop, as well as, related publications and notes collected by the participants will be available for download in due time in this website.

Cedefop project manager responsible for this event

Ms Irene Psifidou, rena.psifidou@cedefop.europa.eu

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