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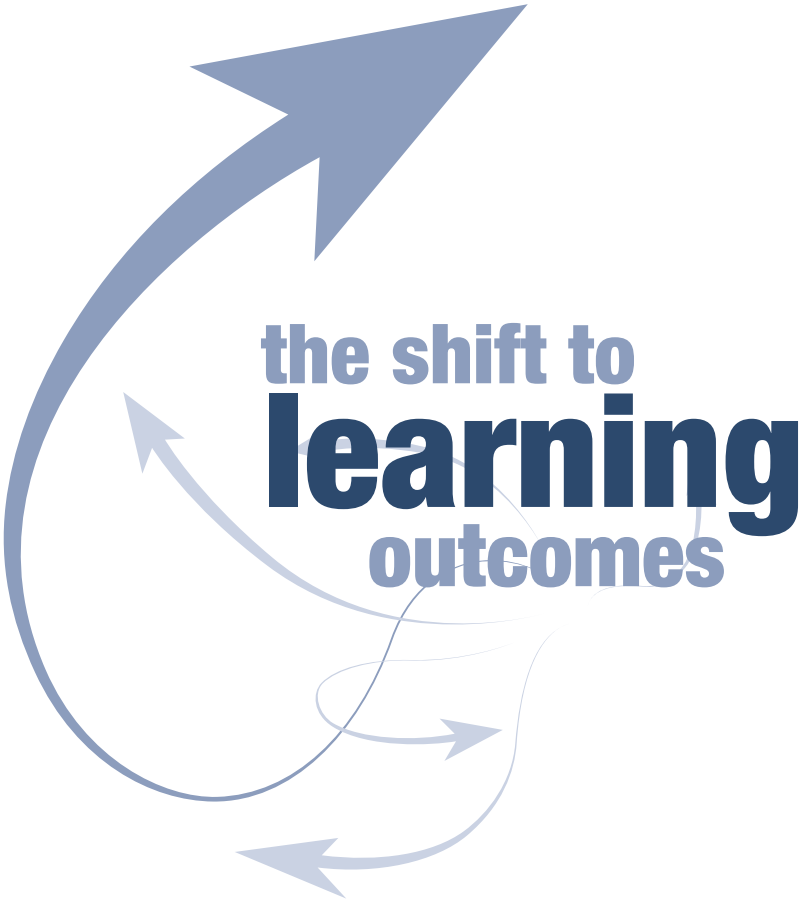

the shift to learning outcomes

POLICIES AND PRACTICES IN EUROPE

CEDEFOP

The shift to learning outcomes

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The **European Centre for the Development of Vocational Training** (Cedefop) is the European Union's reference centre for vocational education and training. We provide information on and analyses of vocational education and training systems, policies, research and practice. Cedefop was established in 1975 by Council Regulation (EEC) No 337/75.

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Foreword

This study addresses the shift towards learning outcomes currently taking place in European education and training policies and practices. At European level, launching the European qualifications framework (EQF) and the European credit system for vocational education and training (ECVET) has put learning outcomes firmly on the political agenda. At national level the rapid development of national qualifications frameworks (NQF) points in the same direction.

These developments have been captured in detail in this comparative study analysing the developments in the 32 countries taking part in the Education and training 2010 process. The study covers all the different subsectors of education and training – general, vocational and higher education – and is the first attempt to provide a complete overview of developments in this field. This wide coverage shows that the shift to learning outcomes can be seen as an integrated part of European and national lifelong learning strategies, addressing the need to create bridges between different parts of the education and training system.

The shift to learning outcomes is important for several reasons.

- It shifts focus from providers to users of education and training. By explaining what a learner is expected to know, understand or be able to do at the end of a learning process, individuals will be better able to see what is offered in a particular course and how this links with other courses and programmes. It is also an effort to increase transparency and strengthen accountability of qualifications – for the benefit of individual learners and employers.
- It introduces a common language making it easier to address the barriers between different education and training sectors and systems. If lifelong (and lifewide) learning is to become a reality, there is an urgent need to see how learning acquired in one setting can be combined with learning acquired in another. In a situation where lifetime jobs have become exceptions and where moving between work and learning has become a significant factor in most people's lives, learning outcomes may help to reduce barriers and build bridges.
- It also provides an important tool for international cooperation, allowing us to focus on the profile and content of qualifications, rather than on the particularities of the institutions delivering them.

The shift to learning outcomes described in this study shows a broad consensus among policy-makers, social partners and education and training practitioners on the relevance of learning outcomes for improving access to and progression within education, training and learning.

However, more and more stakeholders warn that the learning outcomes perspective can easily be reduced to mere rhetoric having little effect on education, training and learning practises. Some go even further stating that uncritical use of the learning outcomes perspective may prove harmful and represent a distraction. A key question asked in the study is whether increased attention to learning outcomes will make any difference at local level and to individual learners? While the learning outcomes perspective is a visible part of the overarching education and training objectives, it is not always clear how this perspective influences definition of standards and curricula, teaching and assessment practices and – eventually – individual learning conditions.

One of the main conclusions in the conference organised on this theme by Cedefop in October 2007, was that the shift to learning outcomes has to be based on the principle of 'fit for purpose'. The use of learning outcomes for referring national qualifications levels to the EQF is not the same as using learning outcomes when defining standards, describing curricula or designing assessment approaches.

While providing an extensive and rich review of developments in this field, the study shows that countries still have a long way to go in implementing a learning-outcomes-based approach at all levels. The study provides a basis for defining how to take this theme forward through future cooperation and research. We hope this report will be helpful to policy-makers and researchers as well as teachers and trainers in their efforts to make the learning outcomes approach 'fit for purpose'.

Responding to the need for systematic follow up, Cedefop has initiated a range of studies focusing on using learning outcomes for defining standards, curriculum development and assessment/validation. These studies will be carried out between 2008 and 2010 and draw attention to the changing role of qualifications in Europe, a change which is closely interwoven with the shift to learning outcomes.

Aviana Bulgarelli
Cedefop Director

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Thanks to the members of the Education and training 2010 Cluster on recognition of learning outcomes, who contributed actively to the study by discussing findings and pointing out strengths and weaknesses.

This study also benefited from the input to the Cedefop conference on The shift to learning outcomes; rhetoric or reality. The conference took place in Thessaloniki in October 2007. The discussions during this conference helped to clarify some of the issues covered by the report and thus contributed to the overall analysis.

Finally, thanks are due to Christine Nychas from Cedefop for her technical support in preparing this publication.

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Executive summary

This study demonstrates that European governments and stakeholders have become increasingly convinced that learning based uniquely on input will not respond adequately to future challenges for individuals, society or the economy. The trend is to rely, increasingly, on the identification of learning outcomes. This trend is recognised as critical in many different contexts across education and training systems.

Learning outcomes can best be defined as statements of what a learner knows, understands and is able to do after completion of learning. The term learning outcome can be used in clearer and less ambiguous ways than concepts such as competence, which has different meanings in different cultural contexts. Yet, learning outcomes apply in somewhat different ways across a range of functions. Investigating the data at systemic level, the use of learning outcomes in designing qualifications and the means for their recognition, as well as in curriculum and assessment, conjures up an image of Russian dolls, where each successive doll is larger, rather than smaller, than the one in which it is nestling. For each aspect of the learning process (whether formal, non-formal or informal) there is a range of issues specific to each one: curriculum design and implementation, assessment, teacher training, etc. Integrating those implications into policy for whole systems presents a substantial challenge for education systems in Europe; learning outcomes provide a helpful set of tools.

The environment in which learning outcomes approaches are now occupying an increasingly prominent position is the shift in European education and training systems towards lifelong learning frameworks. This gives learning outcomes a pivotal position in the redefinition of qualifications and the curriculum in VET, general and higher education.

In key respects, learning outcomes form part of an innovative approach to teaching and learning, which some commentators have identified as an integral part of a new learning paradigm. There is a growing and dynamic role for learning outcomes in education and training reform, always in conjunction with other factors. They are a tool that provides a guiding focus. Whether at the level of policy development or implementation, most European countries are planning or making a marked shift in this direction. Learning outcomes feature as a component of lifelong learning strategies and mechanisms for

implementation and provide a key role in organising systemic aims, curriculum, pedagogy, assessment and quality assurance. All these factors remain significant in planning and implementation. The increasing use of learning outcomes is expected to have profound implications for making systems more learner-centred, for the organisation of institutions, for curriculum and for the role and training of teachers.

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 this report 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 Europe, in recognition of prior learning, the awarding of credit, quality, learning plans, key competences for life, credibility for employers, etc., as well as modernising the governance of education and training as systems are reformed to encompass lifelong learning.

The emphasis is on defining learning outcomes to shape the learner's experience, rather than giving primacy to the content of the subjects that make up the curriculum. In one approach, a core of learning outcomes is defined with reference to the school curriculum. This does not mean that a growing emphasis on learning outcomes signals that provision for the definition or content of the curriculum has become unimportant. Rather, the identification of clear and apt learning outcomes acts as an organising principle for good practice in schools. The learning outcomes take a prominent place alongside the aims, objectives and ethos of the system or institution. They are intended to have a direct and formative impact on the curriculum and pedagogy, contributing significantly to what and how young people learn, and should have an impact on how learning is assessed.

Across Europe, the post-compulsory phase of general education is the phase of the education system that has been least influenced by reforming ideas about learning outcomes. If they begin to have a formative impact on university curricula and pedagogies, this may in due course have a consequential effect on the curriculum, pedagogy and assessment in upper secondary general education.

It is to be expected that learning outcomes will have an impact on styles of assessment. However, the evidence gathered for this report suggests that learning outcomes currently have a limited impact on the ways in which learning is assessed.

The report has provided numerous examples from current usage of how learning outcomes can be conceptualised and grouped. We have suggested that a particular formulation may be developed through the adoption or use of theories and research into learning outcomes, through negotiation between the stakeholders involved or, simply, through borrowing a formulation in use elsewhere. In practice, the identification of learning outcomes to create levels in a national qualifications framework should probably contain a well-judged mix of these sources.

A qualifications framework constitutes active networking and a focal point for the stakeholders engaged in the complex task of sustainably reforming major aspects of an education system. Learning outcomes are very prominent in the development of national qualification frameworks (NQFs) in Europe. The development of the latter has to be planned as an active process that engages the main stakeholders in continuous negotiation and, probably, compromise at different levels in the system. An NQF that is owned by an administration, and whose use is limited largely to official publications, probably serves little purpose. Here, the identification of learning outcomes can provide the organising factor to make explicit the achievements of a wide range of learners, irrespective of the types or modes or duration of learning and training undertaken.

Growing priority is being given to recognising informal and non-formal learning in a considerable number (but by no means all) of European education and training systems. This is supported both by the increasing use of learning outcomes and attempts to make qualification systems more coherent and more legible.

The study deals with each of these issues systematically, presenting and analysing a wide range of data.

CHAPTER 1

Introduction

1.1. Purpose of the study

The learning outcomes study focuses comprehensive attention for the first time on learning outcomes as they are conceptualised, developed and used across the 32 European countries that are participating in the Education and training 2010 programme ([2]).

In one sense, there is nothing new about concentrating on learning outcomes, particularly to achieve effective and well-motivated teaching and learning. However, a shift has taken place. There is a growing and widespread interest in identifying and harnessing learning outcomes in many aspects of our European education and training systems. In particular, interest has widened from the domain of pedagogy to include other settings, notably governance of education and training systems.

This study breaks new ground by exploring different facets of learning outcomes, ranging from their systemic application in education and training arrangements to their use as a tool to generate curriculum and assessment reforms. The study is innovative in that it looks at developments in the use of learning outcomes across the whole field of lifelong learning. This includes general education, vocational education and training and higher education. Necessarily, this also embraces formal, informal and non-formal processes of learning, and the recognition of all kinds of learning irrespective of the mode of acquisition.

The study is intended to develop three main lines of research:

(a) conceptual clarification; this raises questions such as, how can the concept of learning outcomes be made clearer, particularly when used in conjunction with terms such as competences and learning inputs? How is

([2]) Education and training 2010 is an integral part of the collaborative work that the European Commission and its agencies is engaged in with the EU Member States and the associated and candidate countries, and other education and training stakeholders in Europe. The emphasis is on developing dynamic systems of lifelong learning, a result of effective, appropriate reforms, such that education and training arrangements play a clear role in the achievement of the economic, social and environmental aspirations that European governments have agreed on through the Lisbon process.

the term used in different countries, cultures and subsystems of education and training?

(b) learning outcomes as an aspect of policy reform; here the task is to focus on current policy initiatives across Europe, to identify reforms that are taking place or may eventually occur as systems reform at national, local and institutional level. This raises questions such as, to what extent and how are learning outcomes perspectives impacting on overall education and training policies, for instance for lifelong learning, and in the development of national frameworks of governance? Are learning outcomes approaches being developed in general, higher and vocational education? If so, are similar or different approaches being taken? Is a focus on learning outcomes reflected in developments in qualifications, or the setting up of qualifications frameworks and registers? How do countries differ in the approaches that they are taking?

(c) learning outcomes as impacting on practical reform for institutions and learners; here the task is to attempt to ascertain, through direct or indirect analysis, the effect of learning outcomes approaches at the micro level of learners in their institutions, whether schools, workplaces or some other learning situation. This involves asking such questions as, are learning outcomes approaches being developed or used to redefine curricula and learning programmes? And, how are learning outcomes being framed as a basis for assessing formal, informal and non-formal learning?

1.2. Lines of research

The study aims to bring together a range of information about different facets of each education sector in a wide range of European countries. The authors set out to analyse the data in ways that are both helpful and challenging to policy-makers and other stakeholders. Throughout the report we bring to light examples and case studies that illustrate successful innovation and reform:, these are intended to focus attention on innovative practice at micro-level, as well as in national and sectoral policy development.

The analysis contained in the report is supported by the 32 country profiles that were collated for this report. This is the first time that researchers have attempted to collect information relating to learning outcomes on a country-by-country basis across such a wide range of themes. This has been an ambitious and complex exercise. We hope that the country profiles provide a sound source of information and ideas, and a useful basis for

deciding how to report in future on this aspect of innovation in education and training ([3]).

1.3. Learning outcomes in modernising education and training

In the context of the aims and programmes of work that the EU Member States and the European Commission adopted through the Lisbon process, a great deal of attention has rightly been paid to the main drivers of change. These include the exponential growth of knowledge in our information age, the rapid and rather unpredictable effects of globalisation on economic systems and associated labour markets, the speed of technological change throughout the world and the impact of demographic developments. To this must be added the recent recognition of the high risk of a lack of environmental sustainability. These drivers have placed national governments and other actors under pressure to generate the common, voluntary, collaborative work in which European countries and stakeholders are increasingly engaging, aiming for success in achieving interrelated economic, employment, social and environmental goals. It is common ground that education and training reforms have a key role to play in these developments, particularly through developing effective, inclusive and appropriate approaches to lifelong learning (Leney et al., 2005, Chapters 2 and 4; Marginson and van der Wende, 2007).

As European cooperation and mutual learning develops, the agreed emphasis is on improving quality in education and training, opening up access to learning to all – including targeted, excluded groups – and facilitating internal and international mobility in the labour market and for learners. The emphasis of collaboration is now placed on a series of challenging issues that are being taken forward through the Education and training 2010 process ([4]).

The process is taken forward in part through the work of clusters of Member States working together on specific themes: modernisation of higher education; teachers and trainers; making best use of resources; maths, science and technology; IT; access and social inclusion in lifelong learning; key

([3]) The 32 country profiles are available on request from Cedefop. Please contact qualification-team@cedefop.europa.eu and ask for 'learning outcomes country profiles 2007'.

([4]) This refers to the aspects of the Lisbon strategy that concern the development of education and training systems in European countries.

competences; and recognition of learning outcomes ([5]). Besides the obvious link for the cluster that centres on learning outcomes ([6]), each of the clusters can be expected to reflect a shift from concentrating largely on learning inputs (subjects, content, contact hours, etc.) towards some level of reliance on the primacy of learning outcomes.

Another aspect of the Education and training 2010 process is the work on common tools and principles. Initiatives include the European qualifications framework (EQF), principles and guidelines for identifying and validating non-formal and informal learning, the European credit system for VET (ECVET), and frameworks for quality assurance in higher education and VET. All these initiatives refocus attention onto the learner and onto learning outcomes. Older style qualifications frameworks were often based on learning inputs, such as years of study and the emphasis of the curriculum followed. The EQF and developing national qualifications frameworks in Member States define their levels according to descriptors of knowledge, skills and competences or some other conceptualisation of learning outcomes. Validation (or recognition) of non-formal and informal learning depends in most cases on what a person has learnt to know or do – or become – outside the formal sphere of learning institutions and their qualifications. Credit, where it is used, is increasingly awarded for outcomes that have been achieved, even where notional study hours are a consideration, rather than simply for completion of a period of learning. Quality assurance measures may depend partly on criteria such as qualification levels and the robustness and efficiency of bureaucratic procedures, but governments seek increasingly to know whether the learning outcomes achieved by students are also improving. In the Bologna higher education process the adoption of the ENQA *Standards and guidelines* (European Association for Quality Assurance in Higher Education, 2005) and the overarching qualification framework and NQFs mark a strong move towards external reference points and the implicit use of learning outcomes. However, as emphasised in this report, their full application will take time. Ministerial support exists but practical realisation will take longer.

The Bologna process for higher education places strong emphasis on developing a credit-based approach to the curriculum, geared substantially to

([5]) See Eunec (2007) for a succinct summary of the peer learning activities that each of the clusters is engaged in.

([6]) This report is produced with the learning outcomes peer-learning cluster particularly in mind. Members of the cluster have contributed to the ideas, information and analysis contained in the report.

defined learning outcomes. This has the potential to reposition learning programmes. Improving the training of teachers and trainers often has, as major themes, defining the professional competences that professionals need to be effective, and preparing teachers to work within new paradigms of learning that are built as much on learning outcomes as on traditional approaches to subjects and mastery of content. Similarly, subject-related developments are tending to refocus on what the learner achieves as outcomes, rather than remaining limited to the inputs that the teacher provides. The challenges of access and combating social inclusion immediately raise the question of how to recognise and give credit for the learning outcomes that people achieve through their experience of working and life in their communities, even from their use of tools such as the internet, irrespective of a lack of formal schooling.

The evidence is that, at European level, there is an identified move to understand, develop and, as far as is useful, embrace ideas of learning outcomes across a number of the key developmental themes. This shows that a shift towards identifying and using learning outcomes as a dynamic tool for modernisation and reform is high on the policy agenda.

The 32 country profiles prepared for the study offer ample evidence that this trend is reflected at national level. Further, the report will show that countries are adopting a variety of approaches. The learning outcomes approach taken to the school curriculum and to vocational education and training may be expected to vary within one country, as may the approaches taken by neighbouring countries.

It is not easy to identify how far the impact of learning outcomes approaches are redefining practice in particular schools, higher education workplaces and other learning centres. In a study such as this, it is difficult to reach such a level of analysis. Never the less, the growing emphasis on individualised learning plans that are being developed in several countries, and the shift of general and vocational curricula away from detailed, centralised curriculum prescriptions, are strong evidence of effect at institutional level. Some of the common changes in work organisations suggest a shift in the same direction: hierarchies are often flatter; there is a new emphasis on the added value of effective teamwork; human resource (as contrasted to personnel) management lays emphasis on identifying the worker's targets or objectives, performance management and managing the learning needed to achieve objectives. Higher education reflects this, particularly as it becomes more business-focused and entrepreneurial.

This is developing territory. It is not always clear how important learning

outcomes can or should be in shaping different aspects of education and training policies and practice, and this is often contested ground. This is no longer seriously contested in VET systems, and is perhaps now less contested in higher education. As the recent conference in London concluded on higher education:

> 'The three Bologna cycles are based on generic learning outcomes, so it is clear that describing higher education programmes in terms of learning outcomes is a precondition for achieving many of the goals of the Bologna process by 2010. Learning outcomes are critically important in the development of national qualifications frameworks, systems for credit transfer and accumulation, the diploma supplement, recognition of prior learning and quality assurance' (DfES, 2007, p. 51).

Application can be expected to vary across 32 different European education and training systems, each with their own subsystems and facets such as qualifications, curriculum and assessment systems.

This study aims to develop an analysis that can help stakeholders achieve greater clarity for planning and activity in their respective contexts, without seeking to identify single solutions that can fit everywhere.

1.4. Terms and contexts

In those education sectors and countries where the term 'learning outcomes' is actually being used, there is a good deal of agreement on its definition.

The Tuning project for higher education ([7]) defines learning outcomes as 'statements of what a learner is expected to know, understand and/or be able to demonstrate after a completion of a process of learning'. In Canada, and for school education, the British Columbia Ministry of Education (Adam, 2006) describes learning outcomes as 'statements of what students are expected to know and to do at an indicated grade'. In some Canadian states, in fact, the learning outcomes comprise the prescribed school curriculum. Numerous other definitions of learning outcomes are similar. The definition of learning outcomes that is used in the European qualifications framework is in common usage and commands widespread acceptance. It is similar to those cited

([7]) González and Wagenaar, 2003, Glossary. For credit accumulation and transfer in higher education, the same definition of learning outcomes is used.

above, and provides a helping starting point. EQF defines learning outcomes as statements of what a learner knows, understands and is able to do on completion of a learning process (European Parliament, 2008).

This is a useful starting point. The EQF definition of learning outcomes was arrived at after an extensive period of research and discussion. It is a consensual definition agreed between the governments participating in Education and training 2010.

Never the less, we are exploring learning outcomes across a wide variety of systems and contexts; we have simplified this definition still further for maximum applicability ([8]). Therefore, the following definition has been adopted for the study:

> *Learning outcomes are statements of what a learner knows, understands and is able to do after completion of learning.*

However, the simplicity and comprehensiveness begins to unravel as soon as the complexity of the associated terms – in particular, the term competence – and country usage comes into play. At European level, a helpful distinction is made (European Parliament, 2008) between the broad concept of 'competence', which is reflected most clearly in the case of Germany reported in Table 1, and the more specific connotations of the term 'competences', which can be used to describe more closely defined combinations of knowledge and skills. In his introduction to learning outcomes in higher education, Stephen Adam refers to the definition used in the Trans-National European Evaluation scheme, which brings in the term competence: 'A learning outcome is a statement of what competences a student is expected to possess as a result of the learning process'. This statement can be read in two different ways. Either the terms learning outcome and competence mean the same thing, making this definition tautology, or the term competence describes specific aspects or connotations contained in the term learning outcomes, and is both clear and helpful.

The problem is that the term competence (as well as competences and competencies) lacks a clear, standard meaning both in the English language and across European language traditions. Once we introduce the term competence, definitions become fuzzy at best, and there is no way to place a single discipline or definition on it. It is now widely accepted that, for example,

([8]) It became clear during Cedefop's Learning Outcomes conference in October 2007 that, in some national cultures, the learning process implies or carries the implication of a formally organised programme or qualification. We have preferred, therefore, to leave the definition more open, for the purposes of the study.

the terms competence, *compétence* and *Kompetenz* each have rather different connotations in their respective language and cultural traditions.

Table 1. **Some different models of competence in European occupational practice**

In the first three examples, competence is defined as 'capacity' in relation to a broad occupational field. It is a multi-dimensional concept, combining different forms of knowledge and skills, as well as social and personal qualities. It relates to a person's ability to draw on multiple resources to deal with a given work situation.

Germany	Competence of action-taking or *Handlungskompetenz* is the principal aim of VET in the dual system: to enable the student to take autonomous and responsible action within the workplace. It is a multi-dimensional concept comprising occupational competence (*Fachkompetenz*), social competence (*Sozialkompetenz*), procedural competence (*Methodenkompetenz*) and personal competence (*Selbstkompetenz*). Each of these dimensions relates to particular knowledge, skills and competences. The latter include moral and social attributes such as taking responsibility and showing awareness of the consequences of occupational action.
Netherlands	Competence is 'the ability to successfully meet complex demands in a particular context through the mobilisation of psychosocial prerequisites' (Rychen and Salganic, 2003, p. 13). The Dutch system distinguishes between four types of competences: occupational, career, civic and learning competences. Each of these is defined in terms of knowledge, skills, attitudes and behaviour. The Netherlands has a competence-based qualifications framework. Core competences have been derived from job content analysis and serve as a basis for both curriculum development and assessment.
France	The French approach draws on knowledge (*savoir*), skills (*savoir-faire*) and social competences (*savoir-être*). Individual competences relate to each other and are difficult to disassociate from the overall occupational profile. Competences can be understood as dynamic processes of learning, developing and passing on knowledge. France has a competence-based qualifications framework. Competences have been derived from job content analysis and serve as a basis for both curriculum development and assessment.
England	In the English model, competence relates not to the overall capacity of the individual but to the individual's performance of prescribed tasks or skills

to a defined standard. This is epitomised in the National vocational qualifications (NVQ) system which combines 'units of competence' based on occupational standards into NVQ awards. Competence in this model is based on narrow and fragmented skill sets, which are cumulative rather than integrative. Any knowledge presumed necessary for underpinning performance is equally fragmented. With its focus on output, competence in the English system is not a holistic concept, nor does it encompass an individual's social or civic qualities. It contains no notion of development of the self.

Source: This table is drawn from the work of the UK Nuffield Foundation project Cross-National Equivalence of Qualifications and Skills, led by Linda Clarke (University of Westminster, London) and Chris Winch (King's College, London), with the participation of experts in the UK, France, Germany and the Netherlands. See: www.kcl.ac.uk/schools/sspp/education/research/projects/eurvoc.html [cited 20.5.2008].

Chapter 3 will take up this issue again but, as we will see, we are left with Hassler and Erpenbeck's accurate observation that:

> As most authors agree that a uniform definition, which determines a standardised method and understanding of 'competence', can neither be assumed nor expected, they tend to follow … their own approaches in defining and classifying competence in line with their respective research tradition (Adapted from Hassler and Erpenbeck, 2008).

Deciding against trying to apply a once-and-for-all definition of the term competence can help to widen horizons so that the reader gains a clearer view of how terms such as learning outcomes and competences are being developed and used in different countries. A survey of the Eurydice national agencies ([9]) provides illuminating evidence of the range of ways in which learning outcomes are being defined and built in to the national settings for general education. Six examples illustrate the range of approaches being taken.

([9]) See: Eurybase (the database on education systems in Europe). Available from Internet: http://eacea.ec.europa.eu/portal/page/portal/Eurydice/EuryPresentation [cited 24.10.2008].

Table 2. **Formulation and use of learning outcomes in European national curricula**

Austria	learning outcomes are part of new educational standards, known as *Bildungsstandards*. The Ministry defines *Bildungsstandards* ([10]) as the essential competences, which pupils at a certain stage of their education should have acquired. They comprise the essential learning experiences that will ensure that pupils gain the necessary knowledge and skills for future learning. Competences are described as clearly as possible for pupils and teachers so that they can be evaluated easily through testing and provide the initial framework to facilitate the conversion of abstract educational aims into concrete forms. Learning outcomes are not yet firmly embedded in the curriculum in Austria ([11]).
The Czech Republic	the Education Act (2004) defines the basic aims and principles of education, with the education system based on a system of framework educational programmes defining compulsory content, scope and conditions. The 2001 white paper, the *National programme for the development of education in the Czech Republic* (Ministry of Education, Youth and Sport, 2001), recommended the development of framework programmes for each phase of education. These framework programmes formulate framework goals, curricular content and expected outcomes of education, expressed as competences or key competences.
France	the *Code de l'Éducation* (Education Code, 2005) is the key education policy document defining learning outcomes in France. The *Code* defines the objective of compulsory education as being to ensure that every child is able to acquire a fundamental core (or 'canon') of knowledge and skills (known as the *socle commun* ([12])). The *socle commun* is acquired gradually from nursery education through to the end of compulsory education. Just as each competence is acquired across more than one discipline, each discipline contributes to the acquisition of several competences.

([10]) For more information see http://www.bmukk.gv.at/enfr/school/aen.xml [cited 20.5.2008].
([11]) *Bildungsstandards* have similarly been identified for schooling in Germany.
([12]) For text of the *socle commun* in French, see: http://www.education.gouv.fr/bo/2006/29/MENE0601554D.htm [cited 20.5.2008].

Italy	legislation in 2003 introduced a new concept of 'personalised programmes of study' or 'personalised study plans' for all phases of education (pre-primary education; first cycle education, i.e. primary and lower secondary school; and for second school cycle, i.e. upper secondary school). On the basis of this legislation, *Indicazioni nazionali per i piani di studio personalizzati*) anticipate learning outcomes, that pupils are expected to achieve on completion of specific learning subjects and cycles.
Portugal	current reforms mean that the whole philosophy of curricular development is focused on a curriculum based on competences. These comprise knowledge, capacities, attitudes and values to be developed by pupils throughout the education process. The 'National curriculum for basic education: essential competences' is the national reference document for the planning and developing the curriculum at both school and class level. It specifies the respective profile of competences (in terms of attitudes, skills and knowledge) that all pupils should have developed by the end of each cycle, or for the whole of the three cycles of compulsory education, as well as the learning experiences to be provided throughout each cycle.
Scotland (UK)	curriculum guidelines for local authorities and schools cover the structure, content and assessment of the curriculum in primary schools and in the first two years of secondary education. For each curricular area learning outcomes are expressed in terms of broad attainment outcomes or attainment targets, each with a number of strands or aspects of learning that pupils experience. The emphasis across the Scottish qualifications system is on the skills and knowledge a student has acquired by a certain level; the key principle is that learning outcomes should aim to assess pupils in as objective a way as possible, rather than comparing an individual's progress against that of other students.
Sweden	The education system is geared towards the idea of 'steering through goals'. These are decided centrally level with decentralised authorities that have responsibility for education (such as the municipalities) fulfilling these goals. In the overarching curriculum document for the period of compulsory school, two main types of goal are defined (Skolverket, 2006) goals to strive towards, and goals to be attained. Goals to strive towards determine the general direction of all work to be

undertaken in school, specifying the qualitative development desired. Goals to be attained indicate the minimum levels pupils should have attained when leaving school. Chapter 6 describes in more detail these learning outcomes statements in the Swedish system.

The above examples of how some of the Member States are developing more resilient use of learning outcomes in their general education systems and reforms suggest both areas of commonality and distinctive approaches.

Further investigation may show that, 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 adult worlds of working and community life, as well as personal wellbeing. As the report takes vocational education and training into account, ways of linking learning outcomes to occupational competences can be expected to come into play. Alternatively, it may be that higher education's strong traditions of specialised knowledge form a powerful influence over the kinds of learning outcomes that are given priority. Here, however, governments are steering higher education – for example through the employability and skills agendas and the growing emphasis on transversal or transferable. In many countries, the greater degree of autonomy of universities is also an important factor, since this gives them the ability to develop or control their own curriculum.

These themes are explored in the report, with different aspects of educational processes such as qualifications frameworks and curricula and assessment arrangements. The aim is to provide the reader with a balanced understanding of what is developing and sharper intelligence concerning the key issues, tensions and questions.

1.5. Limitations

Since this is the first time that a wide-ranging study of learning outcomes has been conducted at European level, limitations should be identified at the outset. First, we have been ambitious in generating the information contained in the country profiles, using a range of secondary sources and asking local experts to comment on and suggest improvements to the texts. These should

be seen as a careful first attempt at developing accurate, useful information. Further evidence gathering and analysis will doubtless suggest improvements. Second, while the analysis is wide-ranging, it cannot succinctly cover all aspects. Teacher and trainer initial and continuing training, for example, merits further study, as do other aspects.

1.6. How the study is set out

The introduction has described the aims and rationale for the study, has provided definitions without closing down the diversity to be found in the field, and has introduced some of the range and complexity of the information to be analysed.

Chapter 2 will describe briefly the methods that we have used for the study.

Chapter 3 explores the prevailing conceptualisations of learning outcomes, and the origins of the learning outcome formulations that Member States are using.

Chapter 4 analyses the use of learning outcomes at systemic level in European education and training systems.

Chapter 5 considers whether and how learning outcomes are being introduced and used in general, vocational and higher education qualifications.

Chapter 6 moves the emphasis to a more applied level, considering the extent to which learning outcomes is are beginning to dominate or sit alongside more traditional approaches to defining curricula according to inputs; it also deals with teaching processes and objectives, and associated issues of assessment.

Chapter 7 raises similar issues for national and other approaches to recognising informal and non-formal learning.

Chapter 8 returns to the macro level, asking how and how effectively learning outcomes form the backbone of national qualifications frameworks in Europe where they exist or are being planned; it analyses several other functions that learning outcomes are expected to perform. It also introduces new ideas about learning outcomes that are developing in the wider field of research.

Chapter 9 draws the analysis together and reaches conclusions.

The study is interlaced with short case studies, illustrating innovative or interesting practice or particular approaches. Some of the case studies explore issues or levels that the study would otherwise have difficulty in bringing to light.

CHAPTER 2

Methodology

2.1. Introduction

The methodology used for this study can be split into two aspects:

(a) the conceptual clarification of terms;

(b) an assessment of the use and impact of learning outcomes in education and training across the European Union. This second aspect considers learning outcomes as an aspect of policy reform and the impact on practice at institutional and individual learner level.

As with all studies, this has to be delivered within given time and resource limitations. However, the guiding principle is that this report, and indeed the process through which it has been produced, is formative rather than summative in nature. That is to say, it is intended to scope the subject area and establish an understanding of conceptualisations used. This is in order to provide an overview of learning outcomes within policy and practice, and a form of intellectual and policy benchmarking which can be used by all stakeholders as a common starting point for future monitoring and policy decisions.

The policy context has also influenced the methodology and the formative approach taken. This report is the product not just of research but of active dialogue between national and European stakeholders, for example actively involving the members of the Education and training 2010 peer learning cluster on recognition of learning outcomes.

Principles used

The research for this study has:

(a) sought a range of sources of information;

(b) employed several different means of collection of information;

(c) used a combination of primary and secondary sources;

(d) tried to capture both facts and perspectives.

The project team has used a comparative approach to triangulate between these sources and to validate the information gained.

2.2. Aim, objectives and research questions

The aim of this study is to develop an understanding of learning outcomes within education and training, at European level and below. Its objectives are to:

(a) develop clear definitions of learning outcomes and related concepts and how they are used (this extends to related terms);
(b) identify the use and purposes of learning outcomes at policy level across European countries;
(c) identify the impact of learning outcomes on practical reform for institutions and individual learners.

The following research questions are addressed:

(a) what lies behind the descriptors of learning outcomes that countries are using or developing?
(b) are these derived using research, by negotiation, or by some other combination of processes?
(c) do learning outcomes differ according to the use made of them, that is to say the functions they perform?
(d) can a single approach to defining learning outcomes work uniformly across the subsectors of education?
(e) how far have European countries shifted towards using learning outcomes at systemic level?
(f) do we observe a unified approach to learning outcomes in national general education and VET systems?
(g) how do approaches to learning outcomes in higher education fit into the picture?
(h) to what extent are learning outcomes being adopted to steer VET qualifications and qualification reforms?
(i) how are countries describing learning outcomes for VET qualifications?
(j) how are learning outcomes impacting on the specification of qualifications in general education?
(k) how are learning outcomes impacting on the specification of qualifications in higher education?
(l) are learning outcomes approaches having much effect on the curriculum in general education?
(m) how is the emphasis on learning outcomes impacting on the curriculum in vocational education and training in European countries?
(n) how are learning outcomes defined in systems that recognise informal and non-formal learning, or in planned reforms?

2.3. Methodology

2.3.1. Inception phase

This first step involved detailed team discussion supported by a literature review to identify and establish definitions and conceptualisation(s) of terms. This is covered in Chapter 3. At this stage the team established the intellectual and subject boundaries for the project. This was often easier to define by what should be left out, rather than included. For example, it was agreed that the role of teachers and trainers is a critical part of understanding and using learning outcomes. However, this topic was outside the terms of reference for the project and should be covered in subsequent research.

In addition to the literature review, and to support the conceptualisation, an enquiry was made to the information network on education in Europe (Eurydice). We asked three questions:

(a) which (national) education policy documents define learning outcomes in your country?
(b) how do these documents define learning outcomes?
(c) what do these documents demonstrate about how learning outcomes are incorporated into the curriculum, assessment, and qualifications systems or the systems for teacher training?

The literature review covered two types of material. The first is academic literature, used to support the conceptualisation of terms; the second is policy and policy-driven research literature. The EQF has provided a useful starting point in that it provides, across Member States, agreed definitions for terms such as learning outcomes. However, it must be regarded as partial, in that definitions are tailored according to the particular functions of the EQF. The work of Cedefop, Winterton et al. (2006) on conceptualisation of terms also provided a useful starting point. The literature review also supported the design of the writing framework for the country profiles ([13]) and provided information for the interim report.

As with all thematic reports across 32 European countries, scale and fair geographical representation remains a challenge. This was addressed using a method successfully employed by the project team for two other European reports, known colloquially as the '*fiche* method'. This mimics the reporting method used by the European Commission, using country reports to compile European level reports. It involves drafting a common writing framework which

([13]) See footnote 3.

is designed thematically and then completed for each country, by the project team, using available literature sources. These are then sent to at least one contact in each country for validation of the information and a critical interpretation of it. It is important to note that this is done from that individual's perspective, rather than as an official response from that country. The country profiles provide a thematically comparable source includes both primary and secondary information. They also provide a means of gathering case studies and examples for inclusion within the report.

The initial part of the writing process could be regarded as part of the literature review, in that key reports and documents were used in the first instance to complete the profiles. These included:

(a) Cedefop ReferNet country thematic overviews ([14]);
(b) 2005 national progress reports on the Education and training 2010 programme ([15]);
(c) 2004 Directors General for Vocational Training (DGVT) questionnaire response for Achieving the Lisbon goal: the contribution of VET;
(d) 2006 DGVT questionnaire response to Cedefop;
(e) country submissions to the EQF consultation;
(f) country reports for the European inventory on the validation of informal and non-formal learning ([16]).

2.3.2. **Interim phase**

Country profiles, started in the inception phase, were completed as drafts during the interim phase for the majority of the 32 countries ([17]). These were then sent to country contacts for validation and commentary.

From the beginning, close cooperation was established between the Cedefop project coordinator, the project team and the peer learning cluster on learning outcomes. This involvement enabled formative reflection during the writing process and has provided direction on the themes to be addressed and relative policy priorities. It has also provided a means to access some of the perspectives from the participating countries of the cluster. Finally, interaction with the cluster has provided an additional source of information to allow triangulation with the information collected through the profiles and the comments from country contacts.

([14]) See: http://www.trainingvillage.gr/etv/Information_resources/NationalVet/Thematic/
([15]) See: http://ec.europa.eu/education/lifelong-learning-policy/doc34_en.htm [cited 24.10.2008].
([16]) Produced by ECOTEC Research and Consulting for the European Commission and Cedefop. Available from Internet: http://www.ecotec.com/europeaninventory/2007.html [cited 3.7.2008].
([17]) See footnote 3.

The interim report was submitted at the end of this phase, drawing on the literature review.

2.3.3. Final phase

Identified during the interim phase, the country examples were gathered predominantly from the profiles. The stakeholder conference was also useful for identifying examples for inclusion into the final report.

The last main source, and a key formative part, was the conference (Learning outcomes: rhetoric or reality?) organised by Cedefop on the 15-16 October 2007. At the conference the draft report was presented to approximately 80 stakeholders from across the Member States; included were those involved in applied research, academia, teacher/trainer training and a business voice from the European Economic and Social Committee. This provided an invaluable opportunity for validation, dialogue and reflection: formative valorisation rather than dissemination. As a result, the report has been revised to address gaps and errors (factual and interpretative). This has also directly informed the concluding chapters of the report.

2.4. Conclusion and suggestions for further monitoring

Learning outcomes can be difficult to grasp, both conceptually and in terms of policy use and impact, because of the plurality in the usage of the term: across different levels, different sectors, and with different stakeholders. They also form an important element within education and training. As such their use and impact warrants consideration for future policy monitoring. This should be done, where possible, through current European reporting mechanisms; one option is within the reporting process for the Education and training 2010 programme. As demonstrated here, the Eurydice and ReferNet networks provide a means of monitoring within their areas, and Cedefop's Training of Trainers Network (TTnet) could be used to include teachers and trainers. The DGVTs are also an important channel for reporting. However, for each of these means, reporting must be planned and coordinated between them, so that it is efficient and not an additional burden.

This chapter emphasises the formative nature of the project. The report provides information, analysis and an overview for the use of cluster members and a wide range of stakeholders involved in European cooperation.

CHAPTER 3

Literature review: conceptualising learning outcomes

3.1. Overview

This chapter is based on analysis of selected literature on learning outcomes and related areas. It raises some underlying questions and frames the issues that will help us understand the policy choices being made and strategies implemented in Europe. Four questions help organise the material and ideas:

(a) what lies behind the descriptors of learning outcomes that countries are using or developing?
(b) are they derived using research, by negotiation, or by some other combination of processes?
(c) do learning outcomes differ according to the use made of them, that is to say the functions they perform?
(d) can a single approach to defining learning outcomes work uniformly across the subsectors of education?

A starting point is to understand the terms and categories that countries use to describe their approaches to learning outcomes. We have identified our working definition of learning outcomes as 'statements of what a learner knows, understands and is able to do after completion of learning' (See Chapter 1). Further, we have indicated why we are not seeking to establish a single definition for terms such as competence.

Much of the international literature about learning outcomes appears at the moment to be mainly produced in, or about, English-speaking countries across the world. However interesting and insightful this literature may be, it is clearly only part of the picture in Europe. Similarly, much of the higher education dialogue is based on experience and literature associated with north-west Europe. We have gone beyond this in the research for the study, even though we have not resolved the problem completely.

At some risk of overgeneralisation, outcomes-based approaches started to make a real impact from the mid-1980s, when they were introduced as part of

the reforms intended to improve the employability of young people and the unemployed, and to improve the labour market relevance of vocational qualifications. The initial focus was on VET and the learner was targeted as an individual functioning in the labour market and the workplace. One of the tools introduced was functional analysis of occupations ([18]), with learning outcomes (often called competences) as one of the key elements of the methodology. This approach was highly developed in the literature of the English-speaking world, but was also clearly present in the approaches to functional analysis used, for example, in Germany and in France.

In recent years, as education policy-makers have started to reflect on the type of education that will be appropriate for living and working in the 21st century, some rather different and more varied ways of conceptualising learning outcomes have appeared. One current example is the recent *socle commun* in France. The focus here is primarily on the citizen, and each of the competences is a combination of essential knowledge, skills, abilities and attitudes. The *socle commun* is to be acquired gradually from nursery education through to the end of compulsory schooling, with the intention that each competence should be acquired across more than one discipline and each discipline should contribute to the acquisition of several competences.

Table 3. **'Socle commun' in general education in France**

The *socle commun* defines the objective of compulsory education as to ensure that every child is able to acquire a fundamental core of knowledge and skills (the *socle commun*). This is regarded as essential to an individual's educational success, future learning, and personal and professional future in society.
The core is:
- command of the French language;
- command of the main elements of mathematics and science and technology;
- cultural education/awareness to enable participation in society/the exercise of citizenship;
- command of at least one modern foreign language;
- working knowledge of information and communication;
- civic and social competences;
- autonomy and initiative.

See Chapter 6 for a short case study on the French *socle commun*.

([18]) One example of this methodology is provided in Table 12 in Section 3.4. on functional analysis.

A second approach is observed in Sweden where the overarching curriculum document for compulsory school (seven- to 16-year-olds), pre-school and leisure centres (*Skolverket*, Swedish National Agency for Education, 2006), defines two main types of goal: goals to strive towards and goals to be attained. The former determine the general direction of all work to be undertaken in school, specifying the qualitative development desired, while the latter express the minimum levels pupils should have attained when leaving school. Some of the goals to be achieved are quite similar to the competences in the *socle commun*, while others focus differently. Chapter 6 will elaborate on these approaches.

Similar developments are underway in the UK. In Northern Ireland, the curriculum aims to 'empower young people to achieve their potential and to make informed and responsible decisions throughout their lives' ([19]). The English curriculum includes basic key competences elements (such as, 'have the essential learning skills of literacy, numeracy and information and communication technology') but also aims to enable young people to become 'confident individuals who … have a sense of self-worth and personal identity, relate well to others and form good relationships, are self-aware and deal well with their emotions'.

These are just a few examples of how general education, particularly compulsory education, is integrating the notion of learning outcomes in appropriate ways. However, it seems that upper secondary general/academic qualifications (*baccalauréat general, Abitur*, etc.) that open entry to university, appear to be least affected by reforms linked to learning outcomes. Given the work under way in higher education, this may change in the next few years ([20]).

In higher education, the Bologna process is at an early stage of reforms that embrace learning outcomes. It is a modernisation process, which is a reaction to globalisation that sees the recently defined purposes of higher education institutions as including:

> 'preparing students for life as active citizens in a democratic society; preparing students for their future careers and enabling their personal development; creating and maintaining a broad, advanced knowledge base; and stimulating research and innovation'
> (European Ministers of Education, *London communiqué: towards the*

([19]) For more information on the Northern Ireland curriculum, see: http://www.nicurriculum.org.uk/
([20]) See Chapter 6, where this argument is developed more fully.

European higher education area: responding to challenges in a globalised world, 2007, paragraph 1.4.).

It is clear that contexts and needs vary, depending on whether the focus is VET, general or higher education. To examine how countries are currently using learning outcomes in the evolution of their education policy, it is best to bear variation of both focus and context in mind. Even so, there are common intentions over and above the national differences. International comparisons have an increasingly influential role in this respect. The international PISA surveys ([21]) now have substantial influence in several countries, with the design of the PISA tests intending to assess how pupils are able to use what they have learned. In consequence, some countries, previously well placed in the results of input-based comparisons, found themselves lower down the scale in learning outcomes assessments. In many cases this has led to reflection, review and reform. Results of the PISA surveys have had an impact on recent reforms in Austria, Germany, Luxembourg and Norway.

While this study has VET as a focus, the terms of reference broaden the mapping and analysis to include general and higher education to obtain as full a picture as possible. This has enabled the writers to take account of the plurality of the notion of learning outcomes, as well as the variety of foci and contexts. This is also important as more countries move towards lifelong learning and more seamless, integrated education systems. Our literature review intends to be illustrative rather than definitive. Our aim in this chapter is analysis that links the models that the literature may suggest with the data coming from secondary sources ([22]).

3.1.1. A new paradigm for learning?

Giving priority to learning outcomes is frequently described as indicative of – and leading to – a new approach to learning and teaching. In a paper on applying a changing policy paradigm to VET reforms in developing countries, Grootings and Nielsen argue that, ever since the development of formal systems of education and training that provide standardised programmes, the challenge has been to engage all learners in successful learning (Cedefop, Grootings and Nielsen, 2009). Theory and research offer different

([21]) OECD PISA reports http://www.pisa.oecd.org/pages/0,3417,en_32252351_32236130_1_1_1_1_1,00.html

([22]) Much of the information we have been able to gather on a country-by-country basis is contained in the series of 32 country profiles (see footnote 3).

understandings of why, where, what and how people learn, and what motivates them. Some of the more recent publications examine the contributions of brain research to the development of learning science and the roles of emotional and social intelligence in enhancing capacities to learn ([23]). This is taken up in more detail in Chapter 8.

Summarising some of the most influential ideas about successful learning, Grootings and Nielsen contrast two differing approaches. Traditional (behaviourist and cognitive) approaches ([24]) assume that:

(a) learning is basically a steady accumulation of discrete entities of knowledge and skills that can be presented to learners;
(b) there is one best way of learning;
(c) learning is essentially an individual activity;
(d) learning that is non-transparent or tacit is inferior;
(e) learning centres on the stable and enduring, i.e. facts and proven evidence;
(f) learning is replicable.

In contrast, active learning (constructivist) approaches see learning as a selective process in which people give their own meaning to information, continuously interacting with their various environments:

(a) people build up their own meanings, based on what they already know and how they see the world around them;
(b) different people give different interpretations to the same thing, may retain different aspects and may act differently on the basis of the same information;
(c) there are many ways in which people can learn without someone else passing on pieces of expert knowledge (Verloop and Lowyck, 2003);
(d) learning is a social activity and a lot of learning is tacit (Lave and Wenger, 1991; Wenger, 1999; Schön, 1983);
(e) learning is dynamic and context-bound and, therefore, good learning depends on meaningful learning environments (Kolb, 1984).

Contrasting these approaches to learning, Grootings and Nielsen believe that active learning is justifiably referred to as a new paradigm, one that is becoming more and more appropriate to our times:

> 'The active learning paradigm stresses the need for new criteria for – and new kinds of – learning outcomes' (Cedefop, Grootings and Nielsen, 2009).

([23]) See for example OECD (2007b), Goleman (1995) and Goleman (2006).
([24]) See Driscoll (2000) for a critical evaluation.

The point here is that the cognitive approach tends to emphasise the individual acquisition of certain kinds of learning, while approaches based on ideas of active learning tend to emphasise the dynamic role of social relationships and the situations in which learning takes place. In the research and theory of Lave and Wenger (Lave and Wenger, 1991; Wenger, 1999), this is summed up in the importance given to communities of practice. The communities of practice concept is not a tabulation of outcomes but it is currently enjoying a strong influence on how learning takes place and, therefore, on outcomes.

Table 4. **Lave and Wenger: communities of practice**

- Most learning in society, at work and in organisations can be best understood as situated learning.
- Most learning is not an individualised activity, but a joint enterprise.
- We learn in groups and communities of different kinds, some formal, others fluid.
- This mutual engagement binds people into communities of practice.
- Communities of practice involve their participants to a greater or lesser extent in active learning practices; communities enable members to construct identities.
- As members/learners become more competent, they tend to move more to the centre of a particular community, on a spectrum from 'legitimate peripheral participation' to full participant.

In summary, the situation impacts on learning, and much of our knowledge and know-how derives from the community of practice.

Active learning approaches now seem to be gaining favour at all levels of the European policy debate. Whether they fundamentally change the paradigm or modify its focus is a debatable issue. Alain Michel offers a neat description of the current paradigm of school education in France as fundamentally still that of agricultural and industrial France at the end of the 19th century, with formal education scrupulously following the three unities of classical theatre: the unity of time (the class hour), the unity of place (the classroom) and the unity of action (the teacher in front of the class) ([25]).

([25]) Alain Michel, Editorial in *Parcours et Compétences*, Administration et Education, No 2, 2007. For an exploration of such issues, see also 'Futures of learning – A compelling agenda', European Journal of Education, Vol. 42, No 2, June 2007 (guest editors: R. Carneiro, J. Gordon, G. Leicester and A. Michel).

For higher education, and looking across the spectrum of education and training in Europe, Adam (2004) observed that approaches to learning outcomes have achieved a high priority in large numbers of official documents and conferences across Europe. While convinced that learning outcomes are quite rightly at the forefront of educational change, Adam advises care: learning outcomes have not often been converted to practical application and are frequently poorly understood.

Adam, like other observers, concludes that it is probably still the case that most European countries are using learning outcomes to only a limited extent, and not in a coherent or holistic way. Never the less, the evidence is that this area of activity is attracting a considerable amount of attention, certainly in terms of policy development and perhaps also in local teaching and learning processes. It is certainly the case that higher education has adopted learning outcomes to express various external reference points, including the levels in the EQF, and to define the cycles (Dublin descriptors) in the Bologna overarching framework for qualifications of the European Higher Education Area (EHEA).

Later in this chapter, we ask whether the search for a new learning paradigm is the only factor driving towards learning outcomes approaches.

3.2. Descriptors in use

The language that governments are using at the policy level to describe their reforms helps us to understand the extent to which educational systems are orientated by input, process, or learning outcomes.

Literature, the profiles and the Eurydice survey (Eurydice, 2008) permit some first comparisons between approaches to systems. Where countries are using outcomes-based approaches, they are actually often expressed as competences. The table below shows some headline comparisons in how competences are categorised by different models and different countries. To place this comparative table in an international framework that is intrinsically based on learning outcomes encompassing all forms of learning, we have chosen to use the Unesco four pillars of learning: learning to know; learning to do; learning to live together; and learning to be.

These pillars were first developed in the report to Unesco of the International Commission on Education for the 21st century chaired by Jacques Delors and published in 1996 (Delors, 1998). Since they are intended to cover all types of lifelong and lifewide learning, the four pillars have major

advantages over the ISCED framework for this study. In the table that follows, which is intended as a snapshot illustration, we have judged how best to allocate the terms used by different schemes into the scheme developed by Unesco.

Table 5. **Some categories used for describing learning outcomes**

Country/model	Learning to know	Learning to do	Learning to live together	Learning to be
France	*Savoir*	*Savoir faire*		*Savoir être*
France (*socle commun*)	*Connaissances*	*Capacités*	*Attitude*	*Attitude*
Ireland	Knowledge (breadth and kind)	Know-how and skill (range and selectivity)		Competence (context, role, learning to learn and insight)
Malta (Bloom's taxonomy)	Knowledge	Skills		Attitudes
Portugal (secondary education)	*Competências cognitivas*	*Competências funcionais*	*Competências sociais*	*Competências sociais*
Cyprus	Cognitive (Proficiency)			Affective, transfer
Krueger, Ford and Salas	Cognitive	Skill-based		Affective
Tuning project	Independent	Interpersonal		Systemic
EQF	Knowledge	Skills		Competences
EU key competences	Knowledge	Skills		Attitudes

From the start, it is clear that countries (as well as academics and development projects) define and operationalise the ideas of learning outcomes and competences differently. This is in evidence among countries included in the survey of the Eurydice network, provided for this project (Eurydice, 2008).

Austria and Germany cover learning outcomes as part of *Bildungsstandards* (educational standards). In Austria, these are competences that learners are expected to have acquired on completion of a specific grade. In Germany, learning outcomes are defined more widely, as 'subject-related' and 'subject adjoining' basic qualifications, which are relevant for further general and vocational training. The Czech Republic and Cyprus have similar approaches. In the latter, learning outcomes are defined as a series of aims and objectives, illuminated by grade descriptions, which provide a general indication of the standards of achievement expected by students awarded particular grades at the end of each stage of education. In the former, key competences are defined for each level or type of education; these formulate learning outcomes. In Greece, learning outcomes are categorised rather differently. They relate to the development of specific skills, such as communication, functional mathematics, teamwork, decision-making or managing resources. Sweden does not explicitly use 'learning outcomes'. However, its system is goal oriented. It has in its curriculum 'goals to be attained' and 'goals to strive towards' (see above). A clear distinction can be made between aims and objectives, which describe what a system, school or teacher hope to achieve and learning outcomes, which focus on what a learner knows, understands and can do.

In summary, the range of approaches will usually be related to the stage of education but may also relate to progression to the next stage. They focus on goals or standards of achievement or on key competences or specific skills to be achieved. National cultures, education traditions and policy decision-making all contribute to a picture that has elements in common and is marked by a variety of approaches. This also suggests that there can be a tension between setting many tightly defined targets in the form of learning outcomes, and taking a broader approach to identifying learning goals or objectives not necessarily linked to a standard of achievement ([26]).

Traditionally, for example, and especially recently, there has been considerable emphasis on performance and bureaucratic models of learning which focus on measurable skills and attainment targets. What is clear is that the limitations of such perspectives constrain thinking about, and divert attention from, other valuable forms of learning.

A higher education view on this is offered by the Tuning project on higher education reform; this sees learning outcomes as 'statements of what a learner

([26]) To go into greater depth it would be necessary to investigate further both the implementation and practice associated with these approaches and their assessment.

is expected to know, understand and/or be able to demonstrate after completion of learning' (Wagenaar, 2004). The outcomes are formulated as competences which represent a dynamic combination of attributes, abilities and attitudes. These may be developed to a greater level than required by the learning outcome, giving a spiky rather than a flat profile. We return to the concepts used in the Tuning project later in this chapter.

In higher education the definitions of learning outcomes subsume skills, competences, attitude, etc. The generic is emphasised alongside the subject specialist; many in higher education are doubtful about the term competence, seeing it as too narrow and focusing largely on skills for the labour market.

Even at the European level, different approaches may be apparent. Winterton notes that the Berlin communiqué of the Bologna process on higher education '… encourages Member States to describe qualifications in terms of workload, level, learning outcomes, competences and profile' (Cedefop, Winterton et al., 2006, p. 3). The European Commission has developed the European credit transfer and accumulation system (ECTS) in such a way that credits are now expressed in terms of learning outcomes. ECTS is presented as a student-centred way of describing learning by attaching credits to learning outcomes, based on the workload of the average learner in formal education. In contrast, the European credit accumulation and transfer system being developed for vocational training (ECVET) is based entirely on learning outcomes, without reference to notional learning hours.

Behind this lies a basic question about balance in developing the use of learning outcomes. The appropriate balance in the different parts of national systems between learning inputs, the teaching and learning processes, and learning outcomes, calls for careful judgement.

3.3. Ideas behind descriptors

It is often difficult to ascertain the source from which learning outcomes have been derived, how the development work has been undertaken and with which experts, partners and/or stakeholders.

In some cases the information is well documented and disseminated. The Germany VET methodology for developing *Kompetenz* in VET has involved close interaction between researchers (whether in universities or public agencies), policy-makers and practitioner communities, involving piloting new projects, etc. The UK's functional methodology for analysing professional profiles and standards – leading to the identification of competences to be

acquired through training or experience, then assessed – is also well known and has been widely adapted and used in central and eastern Europe. While differing in detail, the methodology for identifying learning content and assessment requirements for French vocational and technical qualifications has some clear similarities. Both of these involve giving a prominent place to employers or social partners in identifying skills needs. Information in the Slovenia profile informs us that the Bloom taxonomy has been influential in the process of identifying learning outcomes or competences for occupational standards.

At the European level, the origin and development of outcome statements is somewhat clearer. In higher education, the Tuning project has developed, through research- and theory-informed dialogue, a complex typology based on three types of competence: instrumental, interpersonal and systemic. Similarly, working towards the European qualifications framework, a series of expert papers, consultations and decisions based on a consensus of European Union governments has led to an eight scale framework based on statements of knowledge, skills and competences. The Bologna process has adopted the Dublin descriptors produced by the Joint quality initiative (JQI) as the basis of the three higher education cycles. These descriptors are built on knowledge and understanding, applying knowledge and understanding, making judgements, communications skills, and learning skills ([27]). For languages, a scheme based on six levels involving linguistic attainment statements in different areas of skill has been modified considerably across a number of years of development, as associated schemes for self-assessment and external testing have also been built in, based on the same principles and design.

Beyond this, we are often left with a hazy answer to the question, of where the standards or statements of learning outcomes originate. Therefore, we now take a brief look at some of the influential sets of ideas that may have given coherence to conceptualisations of learning outcomes.

3.3.1. Bloom's taxonomy

In recent times, Bloom's taxonomy has been the most widely known way of categorising knowledge and skills. It has had a direct impact on framing some approaches to learning outcomes and even, where the formulation was not known directly to stakeholders developing learning outcomes schemes, it may still have had an indirect influence. Originally (Bloom et al., 1964) the

([27]) See: Bologna working group on qualifications frameworks, 2005, p. 65.

taxonomy specified the cognitive and the affective domains. Indeed, the taxonomy originates from the cognitive tradition described earlier, but its influence has been far and wide. As Winterton (in Cedefop, Winterton et al., 2006) points out, a third dimension that is now always included in the Bloom taxonomy was added later; this is the psychomotor domain. The cognitive relates to mental skills, or knowledge. The affective relates to feelings, attitudes and emotional aspects of learning. Psychomotor skills refer to manual, dexterous and physical skills. The taxonomy above these three headings is expressed in terms of learning outcomes; the order is intended to be in sequential order of difficulty.

Table 6. **Bloom's taxonomy of outcomes**

Evaluation Synthesis Analysis Application Comprehension Recall	Internalising values Organising and prioritising Valuing Active participation Awareness and attention	Origination Adaptation Complex overt response Mechanism Guided response Set response Perception
COGNITIVE SKILLS	**EMOTIVE SKILLS**	**PSYCHOMOTOR SKILLS**

Bloom's taxonomy is mentioned in the profiles, but only in relation to Malta and Slovenia. Bloom's and similar taxonomies have certainly been influential in many large workplace organisations (see Cedefop, Winterton et al., 2006) and, at least implicitly, in formulations of learning outcomes developed in some countries. Often, such categorisations lead to large numbers of subcategories, sometimes seen as on a hierarchical basis, other times, not. A strength of the taxonomy in practice is that it focuses attention on the need to consider learner progression.

3.3.2. The meta-competence approach

A holistic approach is sometimes encapsulated in the concept of meta-competences or meta-cognition. Meta-cognition refers to knowledge concerning one's own cognitive and thought processes, and the active monitoring and development of these processes in the pursuit of goals or objectives. Some researchers (including Flavell, 1993) discuss two dimensions of meta-cognition, calling these self appraisal and self management.

Self-appraisal is a reflective capacity; referring to reflections about one's knowledge and abilities, including what you know, how you think, and when and why to apply knowledge and strategies. Cognitive self-management refers to meta-cognitions in action; this means the ability of the individual to plan and implement appropriate strategies and to monitor, adjust and troubleshoot their performance.

The point of keeping meta-competences at this broad level is to avoid breaking learning outcomes down to rather narrow targets and levels, but to keep in sight the wider objective of enabling the development of expert learners and minimising the numbers of novice learners. It is worth bearing in mind that detailed targets can become so narrow and specific that the original aims for learning or reform can get lost in the implementation of the detail ('losing sight of the wood for the trees') ([28]). In contrast, a more holistic approach to learning outcomes can, in the right circumstances, empower stakeholders to reach new solutions.

Commonly, researchers have taken this idea of novice and expert learners and turned the concept into a series of steps to expertise. For example, Dreyfus and Dreyfus (1986) differentiate learners on a 5-level scale between novices, advanced beginners, competent, proficient, and expert performers. Each level has expertise statements attached. Some of these are expressed in 'can do' terms, others in 'can't do' terms. This model is, therefore, more of a skills acquisition model and does not really read as a description of learning outcomes.

Implicitly, the idea of meta-competences may fit well with the active learning frameworks outlined above.

3.3.3. Functional analysis

This is mostly used to derive learning outcomes or competences for vocational education and training. It has been in wide use in the UK for some time and has often been used in donor funded reform projects on labour market and VET developments. Often, the method of functional analysis for developing outcomes-based VET qualifications in the UK follows a set process.

([28]) See: Allais, 2007.

Table 7. **Main steps for developing outcomes-based VET qualifications in the UK**

National occupational standards (NOS) are the building blocks for VET qualifications in the UK. Sector skills councils (SSC) and other standard setting bodies (SSB) develop the standards with their respective industries and employers. In many cases, NOS are used to inform the development of vocational qualifications. NOS comprise individual statements that awarding bodies use to inform their development of units and qualifications.

The awarding body uses the suite of NOS and, again in consultation with the relevant SSC or SSB as well as with other relevant partner organisations, to develop a structure for a new qualification. Usually, the qualification structure includes a combination of mandatory and optional units. Each unit includes a set of learning outcomes that learners must achieve in order to complete successfully for assessment. The learning outcomes will state what a learner will know and be able to do, following a learning activity.

Source: Cortes, 2007 – note from QCA.

3.3.4. The EQF formulation

The EQF is expressed as a discrete table of eight levels, each one defined by a series of statements relating to knowledge, skills and competence. These statements of learning outcomes are intended to coincide with the most widely recognised landmarks and stages in mainstream education and training systems, and, at the same time, with the extent of difficulty, autonomy and responsibility associated with different jobs in the labour market. Often, it is easier to remember the EQF levels by their normative link than by the associated learning outcomes ([29]). Given that the underlying purpose is to support both lifelong learning and mobility in Europe, whether for work or study, and has built on earlier work on transparency of qualifications, it is not surprising that this link is present. The emphasis of learning outcomes is consistently identified with the need to define such outcomes within an inclusive approach to lifelong learning, rather than to be tied to particular kinds and phases of institutions, curricula and qualifications.

([29]) A comment to this effect was also made by David Raffe, University of Edinburgh, as he reported orally on the outcomes of the EQF conference held in Edinburgh in 2005, under the UK Presidency.

Table 8. **The European qualifications framework**

Each of the eight levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.			
Level	**Knowledge** **Described as theoretical and/or factual**	**Skills** **Described as cognitive (use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments)**	**Competence** **Described in terms of responsibility and autonomy**
1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
2	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information to carry out tasks and to solve routine problems using simple rules and tools	Work or study under supervision with some autonomy
3	Knowledge of facts, principles, processes and general concepts, in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study Adapt own behaviour to circumstances in solving problems
4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities

5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities where there is unpredictable change Review and develop performance of self and others
6	Advanced knowledge of a field of work or study, involving critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts Take responsibility for managing professional development of individuals and groups
7	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking Critical awareness of knowledge issues in a field and at the interface between different fields	Specialised problem-solving skills required in research and/or innovation to develop new knowledge and procedures and to integrate knowledge from different fields	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
8	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

Source: European Commission, 2008.

Prior to the elaboration of the EQF, earlier formulations of qualifications and learning outcomes frameworks all seemed to settle on different numbers of levels in the framework. Even within the UK and Ireland, the framework for Ireland has 10 levels, Scotland 12 and England (with Wales and Northern Ireland) eight levels. The Council of Europe's common European framework of reference for languages uses six levels. In terms of conceptualising learning outcomes, this suggests that they are eminently contextual and that the number of levels and their exact formulation will reflect both the history of qualifications in a particular country or region as well as the major debates and stakeholders involved. However, as a current paper on the European qualification framework shows (Coles, 2007), European countries currently considering how to develop their own national qualifications framework seem to favour eight levels. This includes Belgium, the Czech Republic, Spain, Lithuania and Slovakia. A number of profiles refer to the anticipated influence of the EQF. It is expected that, for higher education, countries will produce further levels within the three Bologna cycles and, by implication, within the EQF. Contrary to popular perceptions, the Bologna cycles are envisaged as meta-guidelines. As such, they are intended to provide an external reference point for national qualification framework alignment, thus helping countries to develop their own levels.

3.3.5. The Tuning project

As the Tuning project illustrates, the Bologna process is attempting to place emphasis on learning outcomes. The Tuning project has developed its own classification of generic learning outcomes, expressed in terms of instrumental competences, interpersonal competences and systemic competences. This can be tabulated.

Given the number of countries whose higher education systems have agreed to participate in the Bologna process, this classification can be expected to have a policy level influence and – presumably in differentiated ways – on learning and teaching in higher education. The extent to which this is already the case remains doubtful; until now the main impact of the Tuning learning outcomes has probably been to publicise the importance of generic competences, which are not subject-based but are generic and transferable. One source of tension is that graduates, employers and academics frequently apply different rankings to skills, in terms of their importance.

Table 9. **The Tuning project generic learning outcomes**

Instrumental competences	Interpersonal competences	Systemic competences
Capacity for analysis and synthesis	Critical and self-critical abilities	Capacity to apply knowledge in practice
Capacity for organisation and planning	Teamwork	Research skills
Basic general knowledge	Interpersonal skills	Capacity to learn
Grounding in professional knowledge	Ability to work in inter-disciplinary team	Capacity to adapt to new situations
Oral and written communication	Ability to communicate with experts in other fields	Creativity
Knowledge of a second language	Appreciation of diversity and multiculturalism	Leadership
Computing skills	Ability to work in international context	Understanding other cultures
Information management skills	Ethical commitment	Ability to work autonomously
Problem solving		Project design and management
Decision making		Initiative and entrepreneurial spirit
		Concern for quality
		Will to succeed

Source: Adam – Presentation associated with Adam (2004).

3.3.6. The OECD design and selection of key competences (DeSeCo) project

The OECD has developed a classification of key competences through collaboration with experts, researchers and institutions, and based on sound theoretical understanding (OECD 2005). Specifically, each key competency – a term preferred to competence – must contribute to valued outcomes for individuals and societies, help people to meet a range of demands in today's world and be important for all, not just for specialists. The three broad categories are: using tools (such as language and technology) interactively; interacting in heterogeneous groups; and acting autonomously. The DeSeCo scheme, which is for general education, can be summarised in a table.

Table 10. **OECD DeSeCo key competence framework**

Competence 1	***Using tools interactively***
1A	The ability to use language, symbols and text interactively
1B	The ability to use knowledge and information interactively
1C	The ability to use technology interactively
Competence 2	***Interacting in heterogeneous groups***
2A	The ability to relate well to others
2B	The ability to cooperate
2C	The ability to manage and resolve conflicts
Competence 3	***Acting autonomously***
3A	The ability to act within the big picture
3B	The ability to form and conduct life plans and personal projects
3C	The ability to assert rights, interests, limits and needs

Source: Adapted from OECD, 2005.

The DeSeCo project is also mentioned in the profiles but only by Finland and Hungary. The Finnish documentation indicates that the DeSeCo descriptors have been influential in developing the core curriculum, which is common to basic education, upper secondary general and vocational education and to teacher training. It is sometimes difficult to understand clearly whether the Finnish case relates mainly to learning outcomes or is a midpoint between learning outcomes, teaching and learning processes (a reduced core curriculum) and learning inputs (taught subjects and hours of instruction). Perhaps the OECD competence scheme oscillates between a learning outcomes approach and a teaching and learning process approach. In the case of Hungary, the underlying concept of learning outcomes being developed is increasingly based on the results of the OECD's DeSeCo project and the EU recommendations on the key competences.

3.3.7. The EU key competences

As part of the Education and training 2010 programme, the EU has also developed a set of key competences, working through expert groups representing the Member States and consultation (European Commission, 2005). The EU has preferred the term competence. The descriptors used for the eight key competences are based on the categories knowledge, skills and attitudes. To date, no attempt is made to define them by levels, except in the fields of languages (Lenz and Schneider, 2004) and ICT.

Table 11. **The eight EU/European key competences**

Communication in the mother tongue	Learning to learn
Communication in the foreign languages	Interpersonal, intercultural and social competences and civic competence
Mathematical competence and basic competences in science and technology	Entrepreneurship
Digital competence	Cultural expression
Source: Adapted from European Commission, 2005.	

The detailed descriptors, which are available in the document cited, refer to 'abilities to …'. The EU key competences fall into three groups. First, the primarily cognitive competences (such as mathematical competence) are measurable at national and international level. Second, there are competences that require a higher degree of cross-curricular organisation if they are to be achieved (digital competence, learning to learn, social and civic competences, etc.). Finally, a group of underpinning transversal competences is identified, such as critical thinking, creativity, initiative, problem solving, risk assessment, decision taking and the constructive management of feelings. In addition, the Council of Europe's common European framework of reference for languages is clearly anchored to learning outcomes rather than mode of acquisition, across the domains of listening, speaking, reading and writing. The European Commission has commissioned a cross-country study of key competences in general education, and this will be one of several constructive ways in which this study can be followed up ([30]).

([30]) The study, which started in January 2008, is led by the Polish organisation, Centre for Social and Economic Research, the Autonomous University of Barcelona (UAB), the European Institute of Education and Social Policy (FR), the National Institute for Educational Research and Development (HU), and the Qualification and Curriculum Authority (UK). The report of the study which focuses on the 27 Member States, will be delivered in June 2009.

3.4. Implications

The schematic presentations of learning outcomes schemes summarised above help to raise questions about how learning outcomes are developed in particular settings:

(a) whether a particular set of learning outcomes is based on a particular theoretical position or set of research findings;
(b) whether a set of learning outcomes is the result of a process of negotiation on the part of stakeholders. If so, the leading stakeholders and their motivation can be identified;
(c) whether the set of learning outcomes are a 'ready made' set, which has been developed in relation to an external reference point, such as the EQF or the Bologna process;
(d) what the balance is between generic and technical/subject specific/sectoral learning outcomes and whether there is, for example, an excessive focus on the cognitive aspects.

This suggests a three-part typology, based on the derivation of systems of learning outcomes.

Table 12. **Derivation of learning outcomes categorisations**

Type 1	Type 2	Type 3
Learning outcomes based on a theoretical or research formulation	Learning outcomes based negotiation between stakeholders	Learning outcomes borrowed/adapted from elsewhere

In many cases, the derivation will be a mixture of these types.

3.5. Typology of learning outcomes based on function?

Conceivably, generic statements of learning outcomes may be capable of performing several different functions. However, it is also conceivable that statements of learning outcomes may have to vary according to the function they are intended to perform. Here, we discuss several possible concepts of learning outcomes, according to their role or function.

3.5.1. Learning outcomes as reference level descriptors

This concept facilitates effective, reliable and valid operational comparisons between national/sectoral formal and non-formal learning. It also facilitates the acceptance of learning outcomes, whatever their origins, for the purpose of gaining employment or for credit accumulation and transfer. These statements of knowledge, skills and competences are specific to the learner perception of level of difficulty in an area: a learning programme or pathway; a qualification; or a unit/module.

> 'One of the key virtues of focusing on knowledge, skills and competences, is that these relate to learning outcomes or outputs, irrespective of the routes of acquisition involved, rather than on learning inputs' (Cedefop, Winterton et al., 2006, p. 5).

Commenting on the development of the 10-level national framework of qualifications in Ireland, Winterton notes that some educationalists are concerned that, while the framework may be appropriate to VET, the approach may prove to be utilitarian and somewhat reductionist if applied rigorously to all parts of the system. Similar concerns are sometimes expressed by higher education staff; that learning outcomes, at worst, perform a reductionist role and oversimplify the higher education curriculum.

3.5.2. Learning outcomes as a tool for relating theoretical and practical learning

Here the concept of learning outcomes facilitates the application of knowledge to practice, particularly in an initial or continuing VET programme of learning. Also, in an appropriate context, the concept may enable the identification or construction of knowledge from practice. This latter process has been described as situated learning, where individuals interact with their communities of practice (see earlier description of communities of practice). In general, the literature on communities of practice has concentrated more on the context of learning than on learning outcomes.

> 'In 2004, a report by a wide range of (German) experts considered the expectations of schools in terms of educational goals and learning outcomes, arguing that educational goals are relatively general statements about the knowledge, abilities and skills, as well as attitudes, values, interests and motivations, that schools are expected to impart …

> According to these experts, competency models serve, on the one hand, to describe the learning outcomes expected of students of given ages in specific subjects. On the other hand, they map out possible routes to knowledge and skills based on sound scientific insights. Arguing that competency models thus provide a framework for operationalising educational goals, they conclude that these models bridge the gap between abstract educational goals and concrete occupational tasks' (Cedefop, Winterton et al., 2006, p. 36).

Similarly, recent national and European research and policy tend to emphasise the importance of linking the learning outcomes achieved in different modes of learning (theoretical and practical) in different communities, such as school, workplace or community. For example, the Dutch national report that the DGVT prepared for the Maastricht study (Leney et al., 2005) emphasised that competence-based education is explicitly aimed at the key issues or problems in occupations and careers, and prepares the learner to deal with them while tailoring learning to the identified needs and preferences of the learners.

3.5.3. Learning outcomes and cognitive, skills-based and affective learning

Bloom's taxonomy, probably the most widely known scheme for categorising cognitive, emotive and psychomotor skills – sometimes referred to as knowledge, attitudes and skills. – is often used in teacher training. It is a typology that is almost certainly familiar – directly or indirectly – in many European learning institutions.

Winterton indicates that the Bloom's taxonomy, or a variation, has had considerable influence over both French and Portuguese conceptualisations of knowledge, skills and attitudes. (Cedefop, Winterton et al., 2006). The Portuguese secondary education system has been revised by the Ministry of Education and the curricula are being designed to achieve learning outcomes specified in terms of cognitive competences (*competências cognitivas*), functional competences (*competências funcionais*) and social competences (*competências sociais*).

In some respects this function of learning outcomes is similar to attempts to link theoretical and practical learning. The difference, however, is seen when the attempt is made to link all subsectors and facets of learning into a single scheme of Bloom-like categories. As far as we know, no country has yet tried to put such a scheme into full operation. This aspect of the typology could also

contain the current curriculum development reforms which aim to take a holistic approach to educating children and young people (see above examples of Sweden, Northern Ireland, etc.).

3.5.4. Learning outcomes as a vehicle for quality assurance

Here, discussion moves away from the construction of learning programmes by prioritising learning outcomes to a focus on quality assurance indicators, whether at institutional, local or national level. Quality assurance, based on reliable indicators and data, is in demand as European countries try to increase the efficiency and effectiveness of their education and training provision. There is also evidence that ministers are increasingly being called to account to justify current levels of public education expenditure; mechanisms are being sought to do this.

Learning outcomes – as the PISA tests testify – are seen as one way of measuring system performance, but other measures are seen as equally valid. The numbers of learners qualifying at a certain level (upper secondary or first degree, for example) or progressing into specific further pathways, both tend to be accepted indicators as the evaluation of education systems develops. Both of these relate to education system outcomes. However, neither is a learning outcome, at least in the sense that this report intends. The learning outcomes approach may well help countries develop a suitable vehicle for quality assurance. But this does not mean, for example, that outcomes-based assessments used for summative performance indicators can necessarily be the same as assessments used in learning communities for diagnostic and learner-development purposes.

This suggests several questions, explored in the chapters that follow:

(a) can the same set of learning outcomes operate in general, vocational and higher education, or does the learning context make this difficult or impracticable?
(b) is the same set of learning outcomes that a community such as a school or workplace develops for teaching and learning broadly the same as the learning outcomes that are needed to evaluate the performance of a national system?
(c) can learning outcomes bridge the gap between theoretical and practical learning, and link academic and vocational aspects of learning?

3.6. Conclusions

This chapter has set out some of the main current approaches to conceptualising learning outcomes. These may be found in the research and may have an impact on policy and on practice. Beyond this, the literature investigation has raised a series of questions, and suggested issues for further exploration.

Broad questions are:

(a) what lies behind the descriptors of learning outcomes that countries are using or developing?
(b) are these derived by using research, by negotiation, or by some other combination of processes?
(c) do learning outcomes differ according to the use they are put to?
(d) can learning outcomes work uniformly across the subsectors of education?
(e) what are the observed effects of defining learning outcomes on assessment systems?
(f) is there a shift in the factors influencing the formulation of learning outcomes, away from a VET-led approach towards approaches integrating higher levels of plurality (different sectors of education and different national approaches)? What will be the impacts of developing learning outcomes for higher education on the descriptors for lower levels?

On the impact of learning outcomes, alongside inputs and teaching and learning processes:

(a) are the formulations of learning outcomes changing educational systems and their emphasis on inputs and processes, or are learning outcomes approaches simply being absorbed by the processes they are intended to influence?
(b) what is the dynamic balance in the different parts of national systems between learning inputs, the teaching and learning processes that teachers and trainers rely on to provide coherence and structure, and learning outcomes?
(c) how will the range of learning processes or styles impact on systemic processes and the identification of learning outcomes?

For the ways that learning outcomes have been developed in a system or aspect:

(a) is a particular set of learning outcomes based on theoretical or research outcomes (research linked to policy and practice)?

(b) if so, what model or approach is being used? How?
(c) is this set of learning outcomes the result of a process of negotiation on the part of stakeholders?
(d) who are the important stakeholders?
(e) is the set of learning outcomes a 'ready made' set, borrowed, adapted or handed down from elsewhere?
(f) is the full spectrum of learning outcomes included or is there a dominant focus?

For learning outcomes in relation to function:

(a) can the same set of learning outcomes operate in general, vocational and higher education, or does the learning context make this difficult or impracticable?
(b) is the same set of learning outcomes that a community, such as a school or workplace, develops for teaching and learning, broadly the same as the learning outcomes that are needed to evaluate the performance of a national system?
(c) can learning outcomes bridge the gap between theoretical and practical learning?

This suggests several key perspectives.

Table 13. **Mix of inputs, process and learning outcomes**

Inputs	Processes	Learning outcomes
Definition of teaching hours and subjects, examination requirements, etc.	Inputs and/or learning outcomes translated into programmes of learning and assessment.	How defined and assessed. Impact alongside inputs and processes? Centralised or decentralised.

Table 14. **Derivation of learning outcomes categorisations: reality may be a mix**

Type 1	Type 2	Type 3
Learning outcomes based on a theoretical or research formulation	Learning outcomes based on negotiation between stakeholders	Learning outcomes borrowed/ adapted from elsewhere

Table 15. **Learning outcomes according to their function**

Learning outcomes as reference level descriptors	Learning outcomes as a vehicle for quality assurance
Learning outcomes as a tool for relating theoretical and practical learning	Learning outcomes to link learners' cognitive, skills and affective learning
Learning outcomes in the formulation of lifelong learning policies and as a lever for reform	Learning outcomes for legibility or transparency of learning activities and qualifications

These questions and issues are taken up in the chapters that follow.

CHAPTER 4

Systemic level learning outcomes

4.1. Overview

The background to this study is the EU's Lisbon strategy and, in particular, the lifelong learning agenda ([31]). Since 2000, the main emphasis has been on developing the tools to stimulate and support implementation at systemic level ([32]) in all the Member States. For the EU this means, in practice, a multi-activity approach. This includes setting objectives and defining benchmarks which the national systems use to measure their progress and on which they report, establishing peer clusters focusing on identified key areas for development and charting progress, and supporting the diversity of practitioner and sectoral level innovations through the lifelong learning programme and its predecessors.

European perspectives being developed through the work of the Education and training 2010 programme are shared by OECD, which emphasises in its publications on lifelong learning, the necessity of taking a systemic view comprising all forms of learning (see for example OECD, 2007a). The 2007 publication is based on work undertaken with 22 countries over several years and focuses specifically on the links between qualifications systems and lifelong learning.

Policy studies and research at European and international levels address similar questions. One concerns the enabling role that qualifications can play in supporting lifelong learning: opening access to further study, including higher education; giving formal value to personal development; and contributing to career development and employability. According to Young and

([31]) This is substantially documented in many sources including the EU's information and documentation websites (Cedefop, Eurydice, DG EAC).

([32]) The term 'systemic level' has been chosen to identify governance and reform projects whose brief is system-wide. This is in contrast to reforms, for example, to reforms in particular subsystems, such as general education or sectoral VET reforms, and to reforms in particular aspects, such as curriculum or qualifications. The current emphasis on developing lifelong learning policies is a clear example of the systemic level, and of system reform.

Gordon (2007), the stated reasons for developing national qualification frameworks (NQFs) tend to include:

(a) moving from a supply-led approach to education and training to one that takes better account of demand;
(b) improving the coherence of a particular national qualification system through connecting the different parts and making the whole more transparent to users;
(c) making the components of individual qualifications more portable and so encouraging progression;
(d) providing a framework within which an individual's formal and informal learning can be recognised and accredited (for the purposes of study, training, employment, mobility, etc.);
(e) providing a basis for the exchange, credit transfer and recognition of qualifications between different countries.

All of these are also held to be prerequisites for lifelong learning systems. To this purpose NQFs are structured around a set of levels and level descriptors; they are constructed and developed with stakeholder involvement, to build trust, and they allow users to envisage possible pathways through learning provision, recognition and validation. Some NQFs (or equivalent structures) express the level descriptors in terms of learning outcomes. Others include the learning outcomes in the different types of standards. In many cases, this link between qualifications, learning outcomes and lifelong learning is intended to serve as an enabling mechanism for progression in VET and improved access to higher education. It is also the case that the intention behind the development of the European qualifications framework (EQF) is to support and encourage these developments, although there is currently no intention that the EQF should replace national frameworks.

The policy debate over the last 20 years has been about bringing together all types of learning, and creating the frameworks able to recognise and validate experience and learning achieved in different ways to confer qualifications. The logic is that qualifications need to be built to a common structure based on identified learning outcomes if they are to be achievable both through different types of formal learning programmes and recognition of prior experience and learning. This approach has been developed principally in VET; the higher education Bologna process, which involves 46 countries, also places emphasis on a combination of qualifications framework, quality assurance and learning outcomes.

Another facet of lifelong learning concerns the factors in mainstream education that should equip people to continue learning and to have the desire

to learn. One of the gaps in progress pointed out both by the OECD and the European Commission is the absence of measures and approaches to introducing a lifelong learning perspective into compulsory education systems. This would include ensuring that children learn how to learn and develop the desire to learn. For systems this means many challenges, including recognising that school education is only one part (however crucial) of the lifelong and lifewide process. Some education systems are responding to these challenges by introducing more personalised approaches, seeking to address the personal development needs of the whole child, as well as their development as citizens and as future contributors to the economy. One of the vehicles is through rethinking the compulsory education curriculum around a number of key competences or a core curriculum (European Parliament, 2007), which also entails assessing children's achievements rather than syllabus content learned, and therefore identifying the learning outcomes (or learning objectives) which should be achieved.

This study focuses both on learning outcomes for VET – at all levels and for all populations – and on the spectrum covering general education and higher education. Taking this approach sheds light on the different ways that learning outcomes are being developed in different parts of education and training, presenting examples of moving forward the Europe lifelong learning agenda. It also draws attention to the complex nature of the exercise: individual systems do not all design their learning outcomes in the same ways and nor do the major subsectors of education and training. Learning outcomes that have primarily a vocational function (e.g. as part of vocational and technical qualifications) may be highly technical and identify only the specialist skills required; this characteristic is being challenged along with research, as a broader concept of learning outcomes, including transferable or key competences, is found to be more fit-for-purpose and to encourage learning. Other types of learning outcomes presented in this study are more focused on key competences deemed necessary for living and working in the 21st century. Another issue raised by the OECD is the lack of interconnectedness of education systems in implementing lifelong learning. This lack is confirmed in this study with at least two approaches to learning outcomes sometimes found within one education system.

Strong disjunctions traditionally exist between higher education and VET. In many countries the framing of higher education qualifications and the framing of VET qualifications are separate, and there is both institutional reluctance and technical difficulty in bringing the two into closer alignment. This lack of connection has also emerged as a potential problem within the

European qualifications framework, for which the specific intention is to bring into alignment different forms of qualification through the adoption of common levels based on generalised learning outcomes. This tension can be seen clearly at the European level, where the development of the higher education framework (through the Bologna process) has occurred separately from the VET developmental work (through the Copenhagen process). In consequence, differing approaches are also being taken to credit accumulation and transfer in higher education (ECTS) and in VET (ECVET).

There are some clear disjunctions between the EQF and the Bologna framework, raising concerns about the tendency for subsectors to remain watertight in their responses to the major challenges for learning in the 21st century. This does not mean that the same learning outcomes are relevant for all age groups, phases of learning, types of learning and purposes. Rather, lifelong and lifewide learning needs a consistency of approach that percolates, that has its impact on all parts of the education and training system and can, for example, underpin teacher education. At the European level it is important that these tensions are resolved, if the collaborative work is to open up possibilities for Member States to work successfully to ease such disjunctions.

The previous chapter established that there is a strong policy interest across Europe in using learning outcomes to shape education and training reforms. There are differing approaches that countries can take, both in the ways in which they define and understand learning outcomes and how stakeholders use them.

This chapter explores the systemic level. It probes how learning outcomes are being used, or introduced, across systems of education and training. To do this, we investigate three questions:

(a) how far have the European countries shifted towards using learning outcomes at systemic level?
(b) do we observe a unified approach to learning outcomes in countries' general education and VET systems?
(c) how do approaches to learning outcomes in higher education fit into the picture?

We also aim to understand why countries have shifted to learning outcomes, with influences including:

(a) economic pressures; issues of improving employability and relevance in VET. Increasingly, this also applies to higher education;
(b) continuing reform in education and training systems;
(c) developing and implementing a lifelong learning strategy;

(d) a combination of gathering momentum and international (European) influences;
(e) the globalisation imperative, which has sharpened the need for reform. The Bologna process in higher education can, for example, be seen as both a result of, and a reaction to, globalisation.

The analysis now returns to the issue of the ways that countries are conceptualising learning outcomes in their reform programmes at the level of the whole system.

4.2. The shift to learning outcomes at systemic level

The evidence 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. Chapter 3 has shown that the formulations used in different countries are not identical, e.g. *Kompetenz* in Germany includes connotations that are not identical to various formulations of *compétences, acquis* or *résultats de l'apprentissage,* in France. Similarly, concepts of *mokymosi pasiekimai* (learning achievements or learning attainments) and *mokymosi rezultatai* (learning results) in Lithuania have their own emphasis. Nevertheless, and despite varying definitions, the recent adoption of the *socle commun* for France's compulsory phase of education and the 2003 agreement between the German regional (*Land*) ministers on *Bildungsstandards* for general education both provide evidence of a shift towards learning outcomes.

Some countries already use learning outcomes as part of a systemic approach to reform of education and training policies and in implementation. This means that they have identified their variant of a learning outcomes approach as a way of defining key reforms, policies and practice at all levels.

Opening a Bologna higher education seminar in Edinburgh in 2005, a leading member of the Scottish Credit and Qualifications Authority (SCQA) indicated that, in Scotland, learning outcomes are used as an organising concept that is central to developing a lifelong learning strategy:

> Learning outcomes are central to our work in regard to:
> - recognition of learning for credit;
> - credit transfer;
> - qualifications frameworks;

- explanations to learners;
- quality assurance;
- assessment of learning;
- links between vocational and "academic" learning' (Andrew Cubie) ([33]).

These categories are applicable to subsectors of education and training, at all levels. Implementation of key competences in the classroom could be added.

The examples below illustrate the types of shift occurring in some European countries.

In Denmark, there is a clear determination on the part of the government to shift to learning outcomes as a basis for defining key systemic aims and reforms. The government action plan Better education, emphasises defining targets at all levels in the system from the individual learner upwards, with clear methods of evaluation ([34]). The emphasis here is on the individual learner's outcomes, rather than concentrating largely on teaching objectives. Estonia is at an earlier point in the process, but committed to using a learning outcomes approach systematically. In the UK, the definition of learning outcomes is a principle and an element of implementation that affects curriculum design, delivery, assessment, and quality assurance.

Table 16. **Extracts from Better education, Denmark**

The general aim is that everyone should acquire a number of individual competences as well as being prepared to take part in society and knowing its basic values.
There must be coherence and progression in proficiency and competence requirements throughout education. Basic, general, social, cultural and personal competences must be taken into account, the proficiency and competence requirement, the teaching level and the relevant competences must be constantly developed. The educational courses offered must be constantly adapted to the structurally-conditioned competence requirements in the Danish business sector.
Emphasis must be laid on clear formulations of targets for the individual subjects, levels of education, and programmes and institutions, complete with clear criteria

([33]) See: www.aic.lv/ace/ace_disk/Bologna/Bol_semin/Edinburgh/ACubie.pdf [cited 3.7.2008].
([34]) For the full text of the action plan, see: http://pub.uvm.dk/2002/better1/ [cited 3.7.2008].

for the assessment of the target achievement. A clearer formulation of targets must, on the one hand, strengthen the basis for the teaching, and, on the other, be able to document continuously how a strengthening of the proficiency, qualification and competence level is taking place in the individual institutions. The targets must reflect that the programmes are to contain subject-specific challenges for all, including the most gifted. Everybody must be challenged to perform their very best. Teaching must be targeted towards the individual pupil with the point of departure being his or her abilities and development potential.

Table 17. **The national curriculum in Estonia**

The national curriculum includes a general section, subject syllabi and cross-curriculum subjects.
The general part includes:
- the basic principles of the national curriculum;
- the goals of education and schooling;
- the basic principles of integration of schooling;
- lists of compulsory subjects and optional subjects, and the arrangement of school time, by stages of study;
- the basis for organising education and schooling and assessing study results;
- identification of general competences according to stages of study.

As each school prepares its own curriculum, according to the national curriculum, the general part of the national curriculum sets out the structure of the school curriculum and principles for preparing it.

Subject syllabi include teaching goals, activities for gaining teaching goals, subject content and required results for each study stage.

Cross-curriculum topics concern important fields of life that affect students' personal and social development but are not treated in any separate subject. The national curriculum presents teaching goals for cross-curriculum topics and competences to be acquired for each study stage. Compulsory cross-curriculum topics are: environment and sustainable development; building up a professional career; information technology and media; and safety.

Ireland provides a clear example of how learning outcomes can be identified for public education and training, specifying learning outcomes for the different levels of the national framework of qualifications (NFQ). While the three countries mentioned above are examples of defining learning outcomes in general education, in the Irish example they are defined through the

descriptors in the qualifications framework. For each of the 10 levels there are descriptors for: knowledge (breadth and kind); know-how and skill (range and selectivity); and competence (context, role, learning to learn and insight).

Table 18. **The learning outcomes approach in Ireland**

The learning outcomes approach is a fundamental part of the Qualifications (Education and Training) Act 1999 which established the National Qualifications Authority of Ireland to develop of the national framework of qualifications that was launched in October 2003. Ireland is planning continued implementation of the national framework, providing principles, aims and elements of implementation relating to learning outcomes. It is intended to encompass all education and training awards in a 10-level structure, ranging from recognition of the most basic learning achievement – level 1 - to doctoral awards at level 10. The awards related to learning outcomes defined in terms of standards of knowledge, skill and competence.

Each level of the national framework is based on nationally agreed standards of knowledge, skill and competence. *Awards in the framework* (September 2005) states:

'These new awards are made on the basis of "learning outcomes" defined in terms of standards of knowledge, skill and competence. This introduces a new approach to the meaning of an award. It recognises learning outcomes – what a person with an award knows, can do and understands – rather than time spent on a programme'.

The Further Education and Training Awards Council (FETAC) and the Higher Education and Training Awards Council (HETAC) are the main awarding bodies. FETAC make awards from levels 1-6 (excluding those made at post primary/secondary levels 3-5 by the State Examinations Commission) and HETAC makes awards from levels 6-10. The universities are the other main awarding bodies at levels 7-10.

Source: Ireland profile.

Spain, Hungary, Malta, the Netherlands, Portugal, Slovenia and Finland all place learning outcomes at the centre of the national discourse on reform, but they are at varying levels of establishing legislation, setting up frameworks and/or pursuing implementation. From the available data, this also appears to be the case in Iceland. Luxembourg has a system in which curriculum content has a dominating role over teaching and learning, but an ambitious reform programme aims, in the long term, to give learning outcomes a defining role across all the subsystems of education and training.

In Norway, Parliament has taken key decisions to change the governance system for teaching and learning across the schooling system. This

encompasses primary, lower secondary, general and vocational upper secondary, including apprenticeship pathways. Learning outcomes are defined at the national level, while implementation is subject to decentralised local decision making for the learning context and curriculum: higher education is also intended to be consistent with this development, A key policy focus is on preventing and dealing with low levels of basic skills among adults.

Table 19. **The new school curriculum approach in Norway**

The new curriculum for primary and secondary education was developed as part of the knowledge promotion reform. It comprises the core curriculum, the quality framework and the subject curricula.

The core curriculum constitutes the binding foundation and values for primary, secondary, upper secondary and training.

The quality framework sets out the responsibility of school and training establishments to organise and adapt teaching and learning processes to develop broad competences for pupils and apprentices. Key competences are integrated into the quality framework: they include learning strategies (leaning to learn), social competences, cultural competences, motivation to learn, and pupil participation. Basic skills are integrated in all subjects from grade one and taught across subject-specific curricula. They comprise: the ability to express oneself orally; the ability to read; the ability to do mathematics; the ability to express oneself in writing; and the ability to use digital tools.

Subject curricula include clear objectives for learner competence (learning outcomes) after 2nd, 4th and 10th grades, as well as after every stage in upper secondary education and training. Continuity and coherence of objectives are emphasised. Decisions on how to organise and adapt teaching and learning methods are made locally.

Finland and Slovenia place emphasis on identifying learning outcomes, yet explicitly see no reason to ignore or underplay objectives relating to good teaching. Nor do they see contradiction, in many cases, between a learning outcomes approach and the identification of learning inputs, such as required teaching hours or modules for specific subjects in the school system. In Finland this is the case for the core curriculum that covers basic education, upper secondary general and vocational pathways and teacher training. The report will return to these cases in subsequent chapters on qualifications and curriculum.

4.3. A unified approach to learning outcomes in general education and VET?

A few countries are attempting a unified approach; they seek to find a single or coherent system-wide way to use learning outcomes as a vehicle for carrying through reforms linked to modernising education and training. However, in most European countries, moves towards a learning-outcomes approach are taking place in different, often uneven, ways in different aspects of the system. This is apparent when we compare developments in vocational and general education, where learning outcomes are developing both at a different pace and in different ways.

This distinction is clear in Germany, where learning outcomes are expressed in the various formulations of standards or *Kompetenz* that have developed, in particular for VET, incrementally and over many years. The Standing Conference of Ministers agreed a policy on standards for general education (*Bildungsstandards*) in 2003. In France, the methodology for developing vocational qualifications such as the *Baccalauréat Professionnel* was first developed in the 1980s. It is based on functional analysis of occupational competences, linked to learning competences for assessment and curriculum input. Compulsory schooling has the *socle commun* (Chapter 1), starting from 2007, that now links the content and teaching objectives of the compulsory education curriculum more firmly to learning outcomes.

The framing of learning outcomes through the various definitions of competences used in Germany and France shows that what is considered appropriate in general education or basic schooling differs from vocational programmes. The Netherlands, Austria and the countries of the UK, among others, illustrate this.

A further distinction identifies countries that are at a deliberative and policy development stage as they consider the need to develop approaches based on learning outcomes. The profiles suggest that Bulgaria and Turkey are at this stage. Luxembourg is committed to a comprehensive approach to learning outcomes, but the measures are not in place at the time of writing. Hungary is involved in reforms of different subsectors, with a gradually developing set of approaches to learning outcomes.

That many countries are developing somewhat different conceptualisations of learning outcomes in their general and VET systems reflects more than historical accident. Luxembourg has pointed out that developing a unified

outcomes-led approach may prove more difficult *vis-à-vis* general education than in VET. A quotation from a policy document from Slovenia, included in the country profile, underlines the dual importance of moving towards learning outcomes while maintaining high quality teaching input:

> 'With respect to our central European tradition we expect that both general knowledge and a major emphasis on a high-quality teaching process will remain a legitimate and valued part of the educational outcomes' (Slovenia profile).

This comment questions the appropriate balance between learning outcomes led education and training, knowledge-based and subject inputs, and high quality teaching. It may also raise questions about how messages on what constitutes learning outcomes are filtering down to national policy. As reforms take national systems away from traditional approaches in a variety of ways, this is an important question for policy-makers and practitioners. Other countries (e.g. France, Sweden, the UK) are reforming compulsory education based both on what is considered important for a young person to learn (and how they should learn it) for a knowledge-based society and for addressing the failure of the education system to engage significant numbers of young people in learning.

A shift is occurring across national education and training systems. Until recently, the predominant focus on learning outcomes was VET driven; now the learning outcomes approach is increasingly being introduced into general education systems, particularly in basic or compulsory schooling. The only subsector of education systems which appears to remain largely input-driven is upper secondary general education leading to the diploma that completes secondary general education. There are exceptions, such as Ireland and Scotland, where the qualifications frameworks and the level descriptors encompass this level.

Two observations can be made. First, learning outcomes for general education are increasingly becoming embedded in the national approach to education; this is a recent development. Second, the same outcomes learning approaches may not be suited to all types of learning.

4.4. Higher education approaches to learning outcomes

Higher education has embraced learning outcomes in a number of ways. It is arguable that the whole Bologna process represents a complex systemic application of learning outcomes. The Dublin descriptors that form the basis of the three cycles are expressed in terms of learning outcomes. The overarching Framework of qualifications of the European higher education area against which 'new style' national qualifications frameworks are being articulated are outcomes-based approaches that employ level descriptors, national generic qualification descriptors and subject benchmark/sectoral statements (Tuning). Collectively, these external reference points fit with the emerging quality assurance frameworks (based on the ENQA standards and guidelines). These, together with the use of learning outcomes to express modules and individual qualifications, constitute a unified European higher education infrastructure and underpinning methodological approach which accommodates academic autonomy and the requirement for institutional and national diversity.

European and international approaches to defining and applying learning outcomes systemically in higher education are well documented through the Bologna process and, in terms of a pilot involving over 100 universities, through the Tuning project ([35]).

Chapter 3 illustrated the extent of the generic learning outcomes and competences featured in the Tuning project. These are intended to guide renewed structures and processes in higher education, alongside the sets of subject-specific learning outcomes that specialist groups are developing. These statements of learning outcomes include far more items and more detailed coverage than are generally found in national systems or European general or vocational education. The collectively agreed learning outcomes for higher education use a specific form of categorisation and are extensively elaborated. At least to this extent, they differ from many formulations found in other subsystems.

Given that the Bologna process is intended to lead to the creation of a European space for higher education, it is also worth noting that national systems are moving at differing rates to incorporate learning outcomes as

([35]) Tuning reports (EU Socrates project) are on http://www.relint.deusto.es/TUNINGProject/index.htm [cited 3.7.2008].

active tools for reform. The 2007 Bologna process stocktaking seminar held in London for ministers of education (DfES, 2007) reached the conclusion that parts of the Bologna process are moving forward rapidly. This includes good progress on the three-cycle degree system and on quality assurance. Slower progress overall is being made in many countries on some agreed action lines. The following quotation from the report suggests that placing the focus on the learner and on learning outcomes falls into this category:

> 'There is a need to link all the action lines: if the Bologna process is to be successful in meeting the needs and expectations of learners, all countries need to use learning outcomes as a basis for their national qualifications frameworks, systems for credit accumulation and transfer, the diploma supplement, recognition of prior learning and quality assurance. This is a precondition for achieving many of the goals of the Bologna process' (op cit., p. 2).

Countries seem to be 'developing' sets of learning outcomes but not necessarily adopting a particular set. They may use the Tuning work, akin to subject and transversal benchmark statements. The intention is that countries use these as a set of external reference points to help them develop their own learning outcomes or competences for higher education and, mostly, they are moving towards the use of these learning outcomes more slowly than towards some other objectives of the Bologna process; this is mainly the consequence of an approach that is bottom-up, rather than imposed. Later we will explore whether this has implications for the development of national qualifications frameworks or for the European qualifications framework. An issue for future reflection is whether the development of learning outcomes in higher education will have a 'knock-on' effect on general education, in terms of the basis for developing the learning outcomes and how they are defined. This question is linked to higher education entry policies and their influence on student assessment.

4.5. Conclusion

The rationale for using a set of generalised learning outcomes as an organising principle for coherence across the main subsectors of education and training to support lifelong learning can be observed in developments in a number of European countries. It is not clear, however, whether this

approach is relevant to all countries. Many countries are developing learning outcomes for general and vocational education in different ways and higher education may be developing its own distinctive approaches. Current trends may lead to new relationships among the learning outcomes defined for higher education, compulsory education and VET.

Different approaches to learning outcomes may suit the specifics of different levels and subsectors of education. The differences may be in complexity, in the kinds of knowledge, skills, attitudes, aptitudes, competences, etc., brought into consideration, or in the external point of reference, such as generic skills in higher education, broad occupational standards in a sector of the labour market, and specific tasks in a particular job. Never the less, developments ask the question of whether learning outcomes should replace inputs (such as subjects and learning hours) and identified processes (such as good teaching programmes) and take the central position; or whether learning outcomes should occupy one of the defining roles, forming a three-pronged foundation alongside inputs and processes. In practice, the solution lies in finding the appropriate balance and combination of components, rather than seeking an either/or solution.

The issues arising can be summarised as follows. Most European countries are moving towards a learning-outcomes approach or similar but they are taking place in different, often uneven, ways in different subsectors of the system.

There is a lack of interconnectedness within national education systems in implementing a lifelong learning agenda. This situation raises concerns about the tendency for subsectors to remain quite watertight in their responses to the major challenges of learning in the 21st century. It also raises associated issues about how the learning outcomes approach is being integrated into teacher education, training the trainers, and training school leaders ([36]).

A learning outcomes approach is now becoming an important aspect of system governance. This raises two crucial questions:

(a) whether the same types of outcomes are suited to all types of learning;
(b) the appropriate balance between learning outcomes-led education and training, knowledge-based and subject inputs, and high quality teaching. It may also question the 'messages' on learning outcomes that are filtering down to national policy-making level.

([36]) These questions lie outside the scope of this study, but they merit further research.

A shift is observed from a focus on a VET-driven approach to learning outcomes, towards approaches expressing the plurality of European compulsory or basic education systems.

Other types of learning outcomes (e.g. for compulsory education) appear to be much more focused on key or core competences deemed necessary for living and working in the 21st century. They also appear to be embedded in the national approach to education, with some transferable skills are seen as important for higher education.

The only education subsector which appears to remain predominantly input-driven is upper secondary general education leading to the diploma that completes secondary general education. Higher education is beginning to shift gradually.

A question for the future is whether there will be any knock-on effects of developing learning outcomes in higher education for general secondary education, given that higher education entry policies may have an influence on secondary student assessment. Similarly, while learning outcomes are an important design feature of the European qualifications framework, it is too early to know what will be the longer-term effect of its implementation.

CHAPTER 5

Learning outcomes in vocational, higher and general education

5.1. Overview

This chapter builds on the conceptualisations of learning outcomes that are in current use (see Chapter 3) and the conclusion (Chapter 4) that using a single approach to learning outcomes across education and training systems is limited to a few European countries. It explores in more detail the extent to which learning outcomes are linked to structures and reforms of qualifications in general, vocational and higher education. It suggests that learning outcomes can – and almost certainly should – be an important factor in guiding qualifications reform. Indeed, in some key respects, learning outcomes are being harnessed to drive reforms.

Exploration of a range of European cases presented in Chapter 4 also suggests that the ways in which learning outcomes apply or are being derived for general, vocational and higher education, differs considerably. The explanation for this may only partly be because national traditions often place the subsectors into separate boxes for policy and development purposes. It could also be that different subsectors are responding to different needs, objectives and drivers.

In practice, the derivation of learning outcomes for general education is likely to have different points of reference from vocational education and training or higher education. Some countries take a rather segmented approach, seeing learning outcomes as more readily adapted to particular sets of qualification, in particular VET. Others seek a single, overall formulation of learning outcomes for their education and training qualification. It seems that higher education is finding the learning outcomes aspects of the Bologna process among the most difficult to come to terms with. Perhaps this is not surprising; giving a key role to learning outcomes in higher education challenges, in many ways, the traditional approach to the curriculum taken in universities.

5.2. Learning outcomes steering VET qualifications and reforms?

A major driver for reform of vocational education and training is the need to improve the relevance and attractiveness of VET qualifications in uncertain labour market conditions. This is evident in many countries seeking to establish or maintain competitiveness in the global economy. Governments, providers and other stakeholders are seeking to meet more effectively the demand for knowledge, skills and qualifications, even when stakeholders lack clarity as to precisely what kinds of skill and qualification are needed, and at what levels.

Most countries refer to learning outcomes (in their own terms) as an increasingly important or key defining factor in developing qualifications. Analysis of occupations, in the context of national institutions and approaches, is used to develop and/or update relevant competence standards. They are then interpreted into the learning outcomes expected for the different vocational qualifications corresponding to those occupations. In some cases a training standard is also developed. Like many other countries, the Netherlands has a well-defined approach to the occupational analysis.

Table 20. **Occupational analysis in the Netherlands**

The Advisory Committee for Education and Labour Market in the Netherlands published a proposal in 1999 entitled *Shift to core competences* in response to the employers' argument that the skills required for work are better obtained through work rather than formal education. Detailed competence profiles (*beroepscompetentieprofiel*) have been defined for 291 occupations, specifying in each case a broad job description (*beroepsbeschrijving*) and vocational competences with associated success criteria divided into core functional or technical tasks (*kerntaken*) and core behaviour (*kernopgaven*). These are further subdivided into specific competences associated with the job (*bereopscompetentie*), some of which are a hybrid of functional and behavioural aspects. Each job competence is classed as having one or more of the following 'dimensions':

- the profession-specific method or process dimension (*vakmatig-methodische dimensie*) refers to professional competences such as techniques with which to carry out core functions and core tasks in an appropriate manner;
- the administrative-organisational and strategic dimensions (BOS, *bestuurlijk- organizator-izcshce en strategische dimensie*) refer to professional competences directed at professional functioning in the context of work organisations;

- the social-communicative dimension (*social-communicatieve dimensie*) refers to professional competences directed at establishing and maintaining contacts, cooperation, teamwork, etc.;
- the development dimension (*ontwikkelingsdimensie*) refers to professional competences that contribute to the development of an individual, team, occupation, organisation or business.

Source: The Netherlands profile.

The different forms of occupational analysis, if they are effective, provide a clear reference point for identifying learning outcomes for VET qualifications. There may be drawbacks: employers and other experts may still not be clear about current – let alone future – skills needs; the functional analysis may tend to define only the minimum knowledge and skills needed, or may tend too much towards technical or generic skills; and the competences needed for a specific job may not coincide with the competences needed by a well-rounded individual in today's society. Some analysts also draw attention to the risk of too high a degree of specification of outcomes which can lead to qualifications that are cumbersome to implement without necessarily becoming sufficiently transparent to the user (Allais, 2007).

There are many European examples of how a functional approach is being developed to harness learning outcomes to VET qualification reform. In Greece, where learning outcomes have not been adopted throughout the whole system, a major initiative is the development of the National system for linking vocational education and training with employment (ESSEEKA). This is intended to provide citizens with the opportunity to certify their qualifications and vocational skills, regardless of the pathways they followed to obtain them recognising learning outcomes separate from learning provision. For countries like Greece, recognising and validating prior learning and experience is a key factor stimulating a move towards an outcomes-based approach.

This does not necessarily mean that the notion of outcomes is defined in the same way everywhere or that the type of highly structured procedures and mechanisms which have existed for many years in some countries are already in place across Europe. Such a structure is developed over a period along with the necessary expertise, both in social partner organisations and in the public authorities (notably Ministries of Education), so it should not be expected that newer Member States and candidate countries have the same type of fully operating mechanisms as France and the Netherlands. The move to defining competences and learning outcomes took place in both countries

many years after the establishment of these tripartite bodies (Bouder and Kirsch, 2007).

Even in countries at an early phase of VET reform, there is an endorsement of outcomes-based approaches in recent policy documents. In Croatia, for example, the 2006 white paper for VET states that the development of qualifications should focus on learning outcomes which can be demonstrated and the methods and evidence of assessment, rather than being linked to a period of study, the age of the student or the type of provider (Croatia profile). Cyprus is beginning along a similar path, introducing a competence-based system of vocational qualifications, which should also open the way to recognising informal and non-formal learning.

A distinction can be made between countries that have developed a prominent position for learning outcomes in their VET systems, and those considering or planning such a development. In Hungary, an outcomes-based approach has been introduced over the last decade through the VET register of professional qualifications recognised by the state (national qualifications register). This specifies the outcome requirements for listed qualifications, with an annual review taking into account the needs of employers.

Some are using an outcomes approach to VET qualification reform through developing partial or national qualifications frameworks, while others are using catalogues of occupations and qualifications. England, Wales, Scotland and Ireland have all developed the former. Germany, Hungary and Portugal have tended to rely on the latter. France combines a framework and catalogue approach. Vocational awards are created or revised through professional consultative commissions (CPC), which have been established in all ministries that issue awards (see table below). In Spain, the law that regulates the national catalogue of qualifications states that the levels of occupational qualification are established according to the professional competence required by the productive activities in accordance with criteria of knowledge, initiative, autonomy, responsibility and complexity – among others – of the activity. Major reforms are under way in many countries but some distance from implementation.

Table 21. **French Ministry of Education method for developing VET qualifications including identifying competences to be assessed**

Vocational awards in France are created or revised through vocational consultative commissions (*Commissions Professionnelles Consultatives*), which have now been established in all ministries that issue awards. They differ slightly from one ministry to another but the principles are the same, as is the composition of the commissions: representatives of the ministry, employers, employees and special experts. The needs analysis first establishes that there is a need for a new or revised qualification. Then, further analysis is undertaken, brokered by the relevant ministry, with the CPC taking the process forward. These are the stages.

(1) Needs analysis (*la phase d'opportunité*). A needs analysis which can be requested by any of the stakeholders takes into account: the evolution of the branch, recruitment patterns of the industry involved, the prospects which the diploma offers, the different modes of learning best suited to it, and the relevance of the request in relation to existing diplomas.
(2) Occupational standard (*référentiel des activités professionnelles*). This involves the 'construction of the identity of the diploma'. This standard is defined according to the competences required to exercise the profession and involves substantial input from the professionals.
(3) Standards of competence (*référentiel de certification*). This stage involves interpreting professional activities into competences to be acquired (knowledge and skills). The role of teachers is essential here.
(4) Assessment standards (*modalités de validation et la mise en conformité réglementaire*). This phase is under the responsibility of the Ministry of Education. The examination regulations (contents, length, weighting of the subjects), any prerequisites for the diploma, and the number of teaching hours are defined.

5.3. Describing learning outcomes for VET qualifications

Having established that most European countries have shifted towards defining and developing learning outcomes, either as an integral part of their VET qualification systems or as a driver for reform, it is worth exploring the classifications they are using. The country-based sources we have consulted provide information on how they arrived at their classifications of learning outcomes: the demand side – variously described as employers, the social partners or working life; social partnership; and the work of government research agencies (as in Germany) or other experts. Beyond the question of who decides,

and how the method of occupational analysis operates, the question 'on what basis are learning outcomes conceptualised?' remains largely unanswered.

There are exceptions. Luxembourg recognises the influence of German conceptualisations and Portugal that of France. Turkey and other countries cite the influence of the level descriptors of the EQF. One country that takes the conceptualisation back to its particular origin is Slovenia, stating that that the learning outcomes approach is generally well accepted and usually seen as a very useful way of bringing vocational programmes and schools closer to 'real life' and the needs of the market. Sources referred to in the Slovenia profile indicate that all their educational programmes today reflect the approach of learning outcomes, that syllabi follow this logic, and they follow the Bloom taxonomy/concept of learning outcomes.

We have suggested in Chapter 3 three ways of developing a learning outcomes scheme, with many countries using a combination. These are:

(a) using research or theory to specify the categories or item banks of learning outcomes, such as the Bloom Taxonomy;
(b) using a process of negotiation, such as a high level commission or social partnership approach;
(c) borrowing a formula, such as the EQF formulation of knowledge, skills and competences at eight reference levels.

We return to this theme in the final section of the report. Below we provide examples of the range of terms and descriptors that national systems are using as they describe their approach to learning outcomes.

In the Spanish catalogue of VET qualifications, occupational profiles begin with general competence (*competencia general*), then a brief description of the essential functions of the occupation, after which units of competence (*unidades de competencia*) are outlined in terms of elements of competence establishing the behaviour expected of the person and the desired outcomes. Units of competence only describe functions and desired outcomes and there is no mention of underpinning knowledge or social competences. Qualifications are structured in the catalogue as units of competence, which are the minimum number of units that can be recognised and accredited and that relate both to the specific skills that are needed for a certain profession, and those needed for effective professional performance.

The Irish national framework of qualifications identifies declarative knowledge (outside particular fields of application), and skills (the know-how involved for application in a particular environment) and competence (practical application of skills and knowledge). Competence is understood in terms of context, role and learning-to-learn/insight.

In Lithuania two kinds of standards are defined for VET: occupational standards (*profesinis standartas*) and VET standards. Occupational standards are defined as the description of qualifications and competences needed for acquiring a qualification as well as assessment criteria and methods. VET standards are defined as the regulation of qualifications acquisition in the VET system. They comprise the following nine parts:

(a) general occupational description;
(b) occupational purpose (*profesijos tikslas*);
(c) areas of activity (*veiklos sritys*);
(d) competences (*kompetencijos*) and their limits (*kompetencij ribos*);
(e) training objectives (*studij tikslai*);
(f) assessment of competences (*kompetencij vertinimas*);
(g) basic skills (*svarbiausieji bendrieji geb jimai*);
(h) final assessment of qualification (*baigiamasis kvalifikacijos vertinimas*).

Portuguese occupational profiles are competence-based, using a typology like that in secondary education: knowledge, technical know-how and social and relational skills. From this work on occupational profiles, a methodology is being developed for the production of a national catalogue of qualifications, which includes competence standards for each qualification.

The formulations of Germany, France and the UK have probably all been influential in different circumstances. Although there is a tendency to stereotype these three systems, they illustrate different approaches and histories. In Germany, *Kompetenz* is subdivided in a number of ways. In the training manuals, VET curricula are now specifically based on *Handlungs-kompetenz* (vocational action competence). This is described in terms of a typology of competences: *Fachkompetenz* (subject), *Personalkompetenz* (personal) and *Sozialkompetenz* (social). Considerable attention has been paid to the needs of meta-competences, particularly for high technology manufacturing processes. The UK approach to developing an outcomes-based system with NVQs in the mid-1980s was the first of this type in Europe and struggled for many years to tackle all the ensuing issues linked to the balance between vocational competence and underpinning knowledge, the roles of the different actors, the place of curriculum, the needs of young people as opposed to adults, etc. Though many of the principles are now visible across Europe, their interpretation into provision has evolved considerably. The French approach to standards and competence, on the other hand, has been strongly influenced by the experience of the introduction of the *baccalauréat professionnel* in 1987 as part of the general policy to raise the qualifications level of young people leaving the system. This diploma,

designed as a progression route for holders of vocational awards at the lower level, has had substantial influence both at the lower and higher levels and in other countries structuring their vocational training provision.

These examples provide sufficient evidence to conclude that, while countries are tending to adopt a learning outcomes approach to reforming VET qualifications, there is a significant – and probably rich – variety of ways in which these outcomes are perceived and expressed.

5.4. Learning outcomes and general education qualifications

Available information on the use of learning outcomes in general education qualifications is less extensive than that available for VET, and this calls for further European research. A major difference is also that learning outcomes in general education are not necessarily linked to the acquisition of qualifications, especially in compulsory education.

In some countries, general upper secondary qualifications appear more impervious or resistant to change than vocational provision (see Chapter 4): a general *baccalaureate* or *matriculation* may have a cultural status as totem or gold standard that is selective and has an ascriptive role as well as an educational one. General education qualifications are often considered tightly linked to a country's cultural identity, due to their national specificity, and so are likely to be resistant to change.

An additional consideration may also come into play. While VET systems are explicitly and clearly an element of the Lisbon strategy, EU policy remains more ambiguous and reticent *vis-à-vis* national general education systems for reasons of subsidiarity. Though VET and HE systems also to some extent pursue their own specific agendas, priorities and calendars of reform, this is even more explicit in the case of general education (both compulsory and upper secondary). As well as acting on specific priorities, agendas and reform rhythms, the different subsectors of education systems also bring in different sets of actors, each also with their own agendas. This can be expected to have an effect on the introduction of outcome-based approaches in general education and on whether such reforms are synchronised and harmonised among the different subsectors.

However, in some countries learning outcomes are being developed for general education as well as for VET: examples are Denmark, Estonia and Norway. Reforms in Denmark over many years have emphasised objectives-led

outcomes and, more recently, a move towards individualised learning plans, with an emphasis on developing and assessing individuals' developing competences. Reform to this end was carried out for upper secondary education in 2005. In Estonia the shift is towards learning outcomes and one of the six priorities for general education is that the national curriculum should focus more on basic competences and knowledge, decreasing the volume of subject syllabuses and increasing their integration and schools' options.

There may be different ways of clarifying learning outcomes in general education, but they are often associated with subjects and cycles. The Spanish Ministry of Education and Science introduced legislation to develop a common approach, with core curricula for all levels of education: primary, lower secondary and upper secondary and initial vocational training. These determine the general objectives for each stage of education, as well as specific objectives for each area or subject. General education learning outcomes in Cyprus are built into the design documents for qualifications in terms of knowledge and skills associated with stages, and also of attitudes and awareness. In Portugal there is a national reference document – the *National curriculum for basic education: essential competences* – for curriculum planning and development at both school and class level. This includes general and specific competences which pupils are expected to develop during compulsory education. For each subject or subject area, the document identifies and defines the respective profile of competences (in terms of attitudes, skills and knowledge) that all pupils should have developed by the end of each cycle, or for the whole of the three cycles of compulsory education, as well as the learning experiences to be provided throughout each cycle. Learning outcomes are approached through reflection on the way each subject or subject area contributes to the pupil's whole development. Other countries, such as France, also define sets of competences by cycle or stage.

Clearly, some countries are beginning to take a holistic approach as well as a subject/cycle approach to learning outcomes, as a way of avoiding overemphasis on learning inputs. We turn to this theme in the next chapter.

5.5. Qualifications in higher education

The position regarding higher education qualifications is not clear-cut. The Bologna process is having a major impact that will continue to grow as the various reforms continue to be implemented across the European Higher Education Area (EHEA). There is a multi-speed Europe: several, mainly north

western European countries, began reform before the Bologna process started and are now ahead of most other countries in central, eastern and southern parts of Europe.

Information on the exact state of implementation of learning outcomes across the 46 Bologna countries is patchy and unreliable, as national reports on the subject vary in precision and quality. The systems which have developed the most mechanisms associated with this approach are found in Scotland and Ireland. These are the first two countries to have undertaken successfully the Bologna self-certification process through which their national qualifications frameworks were articulated against the overarching framework of the qualifications of the EHEA. Self-certification is a complex procedure designed to ensure that real reform takes place. All Bologna countries committed to undertake it and to have started the process by 2007. The creation of these 'new style' qualifications frameworks, based on learning outcomes, is acknowledged to be a challenge ([37]). Further, in 2005 European ministers adopted the European Association for Quality Assurance in Higher Education (ENQA) standards and guidelines which also require the use of learning outcomes approaches where:

> 'The quality assurance of programmes and awards are expected to include development and publication of explicit learning outcomes' (ENQA, 2005, p. 17).
> 'Student assessment procedures are expected to be designed to measure the achievement of the intended learning outcomes and other programme objectives' (op. cit., p. 17).
>
> 'In fulfilment of their public role, higher education institutions have a responsibility to provide information about the programmes they are offering, the intended learning outcomes of these, the qualifications they award, the teaching, learning and assessment procedures used, and the learning opportunities available to their students' (op. cit., p. 19).

In addition to Scotland and Ireland, also England, Wales and Northern Ireland have extensively and for many years pioneered the higher education use of learning outcomes. Belgium, Croatia, Denmark, Estonia, Hungary, Italy,

([37]) For details of the current situation on introducing qualifications frameworks see the documents produced at the Council of Europe Forum on Qualifications Frameworks, 11-12 October 2007: http://www.coe.int/t/dg4/highereducation/QF/ [cited 3.7.2008].

Moldova, Portugal, Romania, Spain and Sweden are moving at various speeds towards more comprehensive implementation of learning outcomes. The rest of the Bologna countries are also implementing change. This is often initially done by national legislation but there is a danger that such top-down measures are not necessarily matched by bottom-up activity. A further complication is in the 2007 national stocktaking reports which indicated that while many countries have begun to use credits or transfer and for accumulation, a much smaller number link credits with learning outcomes. The European credit transfer and accumulation system (ECTS) now call for the use of learning outcomes, but progress is slow.

The European Commission Tuning educational structures in Europe project is a major driver of change promoting the introduction of a learning outcomes approach ([38]). This university-driven project has, inter alia, led a Europe-wide consultation process including employers, graduates and academics to identify key learning outcomes and competences that should inform generic (transferable) and subject specific reference points for those creating qualifications. The project encourages a more student-centred approach to higher education and therefore promotes curriculum reform and concomitant changes in teaching, learning and assessment.

Different Bologna reforms are being implemented in no particular order. However, the Ministers for higher education have established several deadlines for reform with the optimistic overall aim of completing the EHEA by 2010. Learning outcomes are a central aspect. The potential and widespread significance of learning outcomes is only just beginning to be realised. Their introduction is designed to facilitate the fundamental reform of existing qualifications and the creation of new ones fit for the 21st century. It is arguable that the main end product of the Bologna reforms is better qualifications based on learning outcomes and not just new educational structures. For this sort of bottom-up approach there is a need for fundamental change at institutional level where academics are responsible for creating and maintaining qualifications. This transformation from using traditional input/content approaches to output/outcomes approaches to conceive, validate, monitor and express qualifications is proving slow and difficult.

([38]) The Tuning project: http://www.tuning.unideusto.org/tuningeu/

European higher education provision is commonly divided between academic- and theory-based programmes on the one hand and more practical professional/vocational programmes (ISCED 5A and ISCED 5B). However, this binary divide is changing according to Eurydice:

> 'It is increasingly common for universities and non-university institutions to offer programmes at both levels. Further, the two programme levels are gradually becoming more similar to each other in terms of curriculum, orientation and learning outcomes' (Eurydice, 2008, p. 19).

An unintended consequence of the increased transparency engendered by the Bologna reforms, and the use of learning outcomes, is that they are calling into question traditional distinctions between higher education and vocational education and training. The introduction of new style qualifications frameworks based on learning outcomes is helping authorities reconsider the relationship between their separate frameworks for general education, VET and HE. The outcome of this could well be a proliferation of unified national lifelong learning frameworks based on credits and common methodological approaches employing learning outcomes. This is what the EQF is designed to encourage. Learning outcomes have the potential to act as a 'neutral' currency that, when linked to credits, can provide a seamless link between VET and higher education. For this to be realised there would need to be no national or international disjunctions in the definition and understanding of credits, which means that any future development of ECVET and ECTS must be based on a single and common notion of credit and learning outcomes.

The agreement by Bologna countries to adopt learning outcomes approaches is clear from the direct and increasing frequency of statements concerning them made in the Bologna communiqués of Berlin 2003, Bergen 2005 and London 2007 (European Ministers of Education). The official Bologna process stocktaking report underlines their importance:

> 'If the Bologna process is to be successful in meeting the needs and expectations of learners, all countries need to use learning outcomes as a basis for their national qualifications frameworks, systems for credit transfer and accumulation, the diploma supplement, recognition of prior learning and quality assurance. This is a precondition for achieving many of the goals of the Bologna process by 2010' (DfES, 2007, p. 3).

Higher education's adoption of learning outcomes is naturally slow and difficult. This is acknowledged by the stocktaking report:

> 'However, the 2007 stocktaking shows that the movement towards adopting a learning outcomes approach in higher education takes time. This is particularly evident in the slow progress on establishing national qualifications frameworks and arrangements for the recognition of prior learning. Very few countries have put in place national qualifications frameworks that provide seamless progression for learners through all cycles of higher education, thus affirming the national commitment to lifelong learning' (DfES, 2007, p. 51).

European higher education is committed to using learning outcomes. However, understanding and integrating the use of a learning-outcomes-based approach remains a key medium-term challenge facing both ministries and higher education institutions. For most countries, the difficult task of producing and implementing qualifications frameworks and learning outcomes is just commencing.

5.6. Conclusions

The table below illustrates the different ways that learning outcomes are identified and used in the subsectors of general education and VET, and the actors involved.

Table 22. **Learning outcomes in qualifications**

	VET (initial, adult learning)	General education
Needs Analysis	Sector-based and occupation-based Social partners and state usually involved Identification of labour market needs, futures skills needs, qualification needs, etc. Sector needs analysis, usually leads to occupational standard	Ministry of Education specialists Increasing influence of the EU and international bodies

Design	Two routes: 1. Curriculum development by (Ministry of Education) education specialists for formal education settings for initial technical education and training. May be used for continuing vocational training (declining importance) 2. Identification of competences and the learning outcomes by both (Ministry of Education and/or Ministry of Employment) education/training specialists with input from other ministries and social partners for initial (technical education and training) and continuing (continuing vocational training) training (increasing importance)	Ministry of Education specialists and curriculum developers in the Ministry of Education or public sector agency/authority Two routes that coexist: 1. Subject-based development of curriculum. Input based 2. Definition of knowledge and competences desired as outcome. Learning outcomes identified. Leading to subject-based syllabi or cross-curricula key competences
Implementation	Learning in different settings through different modes of delivery Assessment through traditional testing, recognition of prior learning (RPL), etc.	Formal learning settings, mainly schools. May entail learning outcomes being defined in the classroom Formal assessment, mainly standard 'pen and pencil' tests Some RPL for adults
Evaluation and feedback	By labour market and HE	By HE and initial and continuing TVET (Labour market not mentioned because general education diplomas usually not specifically intended for labour market entry)

Learning outcomes for vocational qualifications are increasingly being referenced to a functional or research-based analysis of labour market demand. Often this involves identifying occupational standards and associated professional competences. Countries may, for example, formulate their categorisation of knowledge, skills, competences, aptitudes or attitudes, and may pay varying attention to technical and softer skills. Their identification involves both government actors and the social partners.

In general education, subject-based knowledge and, often, subject-related skills have a traditional and durable influence over the qualifications that young people achieve at key transition points in their school careers, particularly as they move on to higher education or the labour market. The trend in general education is probably for qualifications to move away from narrow concepts of subject mastery; however, they still tend to be dominated in many countries, especially in the upper secondary curriculum, by the delineation of subjects, with perhaps more attention gradually being paid to wider learning outcomes. On the whole they are identified and designed within ministries of education and their agencies.

In higher education, the Bologna process signals a powerful intention to move beyond traditional structures. The project is to redefine the basis for qualifications, so that they become based on learning outcomes. Yet, in most countries the higher education sector has been more successful in carrying through reforms to the formal structures of qualifications than in underpinning reform by placing the emphasis on the learning, through the innovative use of learning outcomes. It is clear that labour market requirements, professional demands and generic transferable skills and competences are now recognised as important elements, mainly due to the work of the European Commission Tuning project. There are tensions between these new dimensions and the traditional subject-based knowledge skills and understanding that dominated academic higher education in the past. It is not yet clear what mixture of learning outcomes will emerge in the future and how they will differ from country to country and institution to institution, as befits academic autonomy and the diversity that characterises higher education. However, it is certain that countless new qualifications will emerge with new orientations and a focus on real-world applications.

There is some tension in applying learning outcomes to these different fields of qualification, and countries respond to this in different ways. Some countries are attempting to formulate an overall statement of learning outcomes that is sufficiently general to apply across the subsectors. Others seem content that the learning outcomes are phrased differently for the different sectors. Some

countries perceive more difficulty in using learning outcomes to generate reforms to qualifications in general education than in VET, while inserting learning outcomes as an underpinning reform tool in higher education is proving challenging.

5.6.1. Summary of issues arising

The three subsectors of education and training that have been examined – VET, general and higher education – are responding to different agendas and timetables. The factors leading to the use of learning outcomes in provision and qualifications are different (employability, labour market needs, competitiveness, harmonisation, responding to the challenges of the 21st century, etc.) as are also the approaches and actors involved. Depending on the country, the formulation of the learning outcomes may also be quite different. The challenge may be one of respecting the different needs and rhythms of VET, general and higher education while creating flexible and cohesive systems that enable individuals to trace pathways.

The actors involved differ. In higher education there is active involvement at three levels: European, national governments and the institutions. In VET, social partners are a key player in all countries alongside government. For general education, learning outcomes are defined by ministries of education and their specialist agencies and staff as part of overall curriculum development.

The process in higher education is both top-down and bottom-up with the institutions playing a significant role. The political will at European and national levels is supporting the Bologna reforms while the institutions are highly involved in the processes of making them work in context.

CHAPTER 6

Learning outcomes in curricula and assessment

6.1. Modes of delivery and assessment

This chapter explores the use of learning outcomes in the curriculum and in assessment in specific European countries. This takes us closer to the level of practice in terms of teaching and learning in different environments. However, in the nature of the data we can gather from secondary sources for a study of this kind, this is still largely restricted to the level of policy discourse, rather than micro-studies of classroom interaction. We take the curriculum to refer to the requirements or expectations that govern the design of learners' programmes of study. Assessment refers to the range of ways that attainment can be described or measured. We will refer first to curricula in general education, then VET, then higher education; the third of these through the lens of the Bologna process. Finally, we explore the extent to which innovative approaches to learning outcomes are having an impact on assessment practices.

The concept of the curriculum reaches much wider than formally taught or required activities. A recent analysis of curriculum reform in VET in south east Europe described the curriculum as:

> A balanced relation between the potentials and interests of individuals and the requirements of society. From the individual point of view 'it' can be seen as the totality of measures, interactions and experiences, which will influence the future life of a person. But individuals can make up their curricula only within patterns, laid down by organised bodies and social institutions within society. These institutional frameworks are anchored in the specific social system of a society (Parkes and Nielsen, 2006).

Here, different paradigms of learning are helpful as we draw distinctions between approaches to curriculum reform in different European systems of education. It is safe to conclude that learning outcomes feature increasingly in European aims and types of curriculum specification. However, the use

varies. Learning outcomes may be expressed as the rather limited objectives of the taught curriculum in specific subjects. It is arguable that such a narrow, subject-driven approach does not, in practice, constitute a learning outcomes approach, since learning programmes are defined for the learner by the inputs specified in the subject syllabi. In this case subject content steers the intended outcomes for the learner, often supported by traditional, 'pencil-and-paper' types of tests. Though clear outcomes are expected – often in terms of memorised knowledge – it is the syllabus that is driving and circumscribing learning. At the other end of the spectrum, learning outcomes for the curriculum and assessment are expressed as generalised, holistic learning outcomes that a young person should achieve by the end of, for example, compulsory schooling. The outcomes are not limited to a subject basis for acquiring the desired knowledge, skills and attitudes or competences.

The trend for learning outcomes linked to the VET curriculum is for the statement of learning outcomes to have a closer link with predefined occupational standards. An important issue concerning the definition of learning outcomes in VET curricula is the weight given to technical skills compared to key or transferable skills or competences, and how the latter are defined. This question is also important for general education, as numerous developments show, including the eight key competences defined through European cooperation.

Interesting examples of assessment can be found in the information gathered in the country profiles and from other sources, illustrating how assessment has developed to record learning outcomes rather than the traditional models based on classroom and textbook knowledge, and traditional end of course examinations. Later we refer to forms of assessment that reflect a learning outcomes approach, such as continuous teacher assessment, the accumulation of evidence in a portfolio, and demonstration assessment. However, we are left with the conclusion that, while teaching methodologies may be adapting more to a learning outcomes approach of one kind or another, much assessment remains in the traditional mould.

6.2. Learning outcomes affect on general education curricula

The information in the profiles suggests that learning outcomes now occupy a significant place in defining the school curriculum. Much of this interest is evident in current or recent reform programmes, suggesting that attention to

learning outcomes is an increasingly prominent factor in curriculum reform.

An indication of the extent to which learning outcomes are now prominent in documentation on the school curriculum in different countries is given in the table below. Some countries, such as Italy, are now in the process of introducing reforms in which learning outcomes are prominent; in others, such as Sweden, this kind of development is quite well established. The listing is intended to be illustrative rather than exhaustive, citing examples.

Table 23. **Learning outcomes in the school curriculum**

Croatia	the new National Education Standard (CNES) both outlines the content of education in the compulsory phase and defines the knowledge, skills and abilities associated with the curriculum.
Iceland	learning outcomes are reported as providing the basis for all curricula.
Finland	the national core curriculum defines a limited, core curriculum, shifting the emphasis towards outcomes and away from content dominance.
Portugal	the National Curriculum for Basic Education: Essential Competences is a national reference document for planning and development of the curriculum; it includes general and specific competences.
Malta	the national minimum curriculum defines learning outcomes as educational objectives that enable students to acquire knowledge skills and competences across several related areas.
Hungary	reforms of the upper secondary examination system are expected to encourage a more outcomes-based approach to the general curriculum.
Ireland	recognised qualifications are to fall within a learning-outcomes led approach, and this should eventually impact on all curricula.
France	the recent introduction of the *socle commun* for compulsory education means that the achievement of identified basic competences is considered to be a priority in curriculum design and implementation.
Estonia	one of the six priorities for general education is the development of the national curriculum such that there is more focus on the basic competences and implementation of knowledge alongside a decrease in the volume of syllabi.
Germany	the *Bildungsstandard* agreement across the *Länder* identifies key competences for the school curriculum in terms of subject-specific contextual competences and generic competences cutting across subjects.

Denmark	the 2002 Better Education Plan introduces a personal education plan for each student, based substantially on intended learning outcomes.
The Netherlands	in the lower secondary cycle, a move towards competences and away from the subject basis of the curriculum may develop, based around independent learning, interpersonal skills, entrepreneurship and scientific thinking.
Sweden	the development of the school curriculum is based firmly on steering through goals of learning outcomes; these are 'goals to be attained' and 'goals to strive towards' (see Table 26).
UK	in Northern Ireland and England recent developments attempt to articulate the 'big picture' of the curriculum, concentrating attention on the learning outcomes that the student should achieve at the end of a phase or of compulsory schooling, signalling a move away from narrow, statutory targets.

Source: The country profiles (see footnote 15).

We can identify several different forms that this shift towards learning outcomes is taking in Europe, differentiating between three types in use. In the first, the school curriculum is already defined and its content, and perhaps textbooks, are prescribed in regulations. Narrow and subject-based targets are attached to the curriculum. In the second model, a core curriculum is identified along with learning outcomes that are expected. These include outcomes that do not lie in the domain of a single subject, such as key competences. In the third model, holistic concepts of the learning outcomes that should be achieved for the young person to be successful and equipped to respond to the challenges of adulthood are identified and the curriculum is expected to respond to these expectations. In these cases the actors are encouraged to make expectations of learning outcomes shape the curriculum.

6.2.1. Type 1: narrow targets circumscribed by the subjects in the curriculum

Luxembourg provides a clear example. Seen from most angles, the current system in Luxembourg is not based on learning outcomes, although far reaching reforms intend a strong shift in this direction. General secondary education qualifications follow the traditional French model closely. This means that the curriculum comprises subjects with detailed specifications describing exactly and in detail the content that the teacher is to teach and the

learner is to learn. This indicates what students are expected to learn, based largely on mastery of content and directly associated skills, and clear rules of combination for different subjects. Reform plans in Luxembourg have the objective of leading to a competence-based approach to defining the school curriculum, rather than a content-based approach.

In Poland, central educational policy documents specify learning outcomes as listings of specific skills to be achieved. Core curricula for individual subjects, for example, are formulated in terms of educational objectives, school tasks, content, and achievements in terms of the skills a pupil is expected to acquire by learning the specific subject. Greece is contemplating reform of a traditionally centralised and detailed curriculum. The national pedagogical institute has been developing a new cross-curricular/thematic framework for the general education curriculum, intended to link subjects horizontally, and this would appear to open the way for a learning outcomes approach that crosses subject boundaries.

6.2.2 Type 2: core curriculum with learning outcomes in a prominent position

The report has already made reference to the *Bildungsstandard* in Germany and Austria and has described the introduction of the *socle commun* in France. All three are introducing ideas of basic and transferable skills and learning outcomes, based on subject learning but not limited to specific subject skills and knowledge. Portugal is taking a similar direction. The *National curriculum for basic education: essential competences*, is a national reference document for the planning and development of the curriculum at both school and class level. It includes general as well as specific competences which pupils are expected to develop at compulsory education level. For each subject or subject area the document identifies and defines the respective profile of competences (in terms of attitudes, skills and knowledge) that all pupils should have developed by the end of each cycle, or for the whole of the three cycles of compulsory education, as well as the learning experiences to be provided throughout each cycle.

Because Finland is consistently successful in international surveys of learner achievement such as the PISA survey ([39]), the combination of learning outcomes, lighter curriculum content and clearly specified subjects and teaching hours in the Finnish core curriculum merits consideration. In practice,

([39]) The PISA 2006 results are available from www.oecd.org

Finland like many other countries has reformed over a long period from a detailed, prescribed, content-driven curriculum, to a more goals and outcome oriented approach.

Table 24. **Finland's core curriculum**

In general education there is a national core curriculum, with broad objectives and subject hours also identified. It is subject-based and includes a wide range of subjects drawn from the main learning domains. Students have individualised learning plans. An example for mother-tongue teaching and learning is provided here.

The mother-tongue curriculum emphasises the development of students' cultural identity and appreciation of other cultures, basic knowledge of Finnish/Swedish/Sami/sign language, strong self-esteem, the desire and courage to express themselves both orally and by writing and to communicate skilfully in various situations. Students are expected to develop into good readers and writers and to master the skills needed in information and communication technology as well. Students should be able to understand, read and write different types of texts: to select a strategy of reading and writing suitable for the text, task and situation and to evaluate and enhance their own skills. By reading literature, students should also develop their emotional life, view of the world, knowledge about human experiences, language and culture, in particular the Finnish culture.

Mother-tongue learning and teaching is strongly integrated, particularly at lower secondary level. Reading literacy is often connected with writing, language usage, communication skills and literature and culture. Basic reading techniques and comprehension are emphasises at the primary level but reading is also often integrated with drama, drawing and story writing. Both at primary and secondary levels, a desire to read and an interest in reading and literature are explicitly expressed as aims. The role of the reader is mainly that of an active learner. In addition, the students' mother-tongue skills are also supposed to develop while he/she is studying other subjects (Framework curriculum 1994). In practice every teacher is also a mother-tongue teacher.

Source: Finland profile.

6.2.3. Type 3: curriculum led by holistic concepts of learning outcomes

Each of the models illustrated above begins with the school curriculum and its subjects or subject areas, and then shifts attention to the learner, focusing on intended outcomes or learning outcomes, whether in a narrow or broader sense. Type 3 begins with the learner – albeit a rather idealised learner – and starts by asking the questions that can identify the range of skills, knowledge, attitudes, aptitudes, however expressed, that the learner is intended to achieve by the end of a year, phase or school career. Then – and only then

– can an appropriate curriculum or programme of studies be designed.

In a few cases this approach begins by asking what the young citizen emerging from the world of schooling should be equipped to know, understand and do, or even to be. This is the approach being taken to current curriculum reform in the UK. The overall aim of the Northern Ireland curriculum is that it should empower young people to achieve their potential and to make informed and responsible decisions throughout their lives. Learning outcomes are identified commensurate with this aim, expressed as cross-curricular skills, thinking skills and personal capabilities, and also in terms of fostering a range of attitudes and dispositions. Then the appropriate areas of learning are specified, as curriculum inputs. The areas of learning outcomes are linked to two components: learning experiences (learning activity, pedagogy) and appropriate forms of assessment.

If this description of a learning outcomes approach is successful in practice, it will be associated with effective provision and some satisfactory form of quality assurance. In any case, this marks a strong departure from the traditional, input-led models, even where they allow some space for learning outcomes. The new curriculum in England has a similar holistic focus; its aims and values are summarised below:

Table 25. **New secondary curriculum in England**

Aims of the curriculum

Education influences and reflects the values of society, and the kind of society we want to be. It is important, therefore, to recognise a broad set of common purposes, values and aims that underpin the school curriculum and the work of schools.

Clear aims that focus on the qualities and skills learners need to succeed in school and beyond should be the starting point for the curriculum. These aims should inform all aspects of curriculum planning and teaching and learning at whole-school and subject levels. The curriculum should enable all young people to become:

- successful learners who enjoy learning, make progress and achieve,
- confident individuals who are able to live safe, healthy and fulfilling lives,
- responsible citizens who make a positive contribution to society.

Values underpinning the curriculum

Education should reflect the enduring values that contribute to personal development and equality of opportunity for all, a healthy and just democracy, a productive economy, and sustainable development. These include values relating to:

- the self, recognising that we are unique human beings capable of spiritual, moral, intellectual and physical growth and development;

- relationships as fundamental to the development and fulfilment of ourselves and others, and to the good of the community. We value others for themselves, not only for what they have or what they can do for us;
- the diversity in our society, where truth, freedom, justice, human rights, the rule of law and collective effort are valued for the common good. We value families, including families of different kinds, as sources of love and support for all their members, and as the basis of a society in which people care for others. We also value the contributions made to our society by a diverse range of people, cultures and heritages;
- the environment, both natural and shaped by humanity, as the basis of life and a source of wonder and inspiration which needs to be protected.

At the same time, education must enable us to respond positively to the opportunities and challenges of the rapidly changing world in which we live and work. In particular, we need to be prepared to engage as individuals, parents, workers and citizens with economic, social and cultural change, including the continued globalisation of the economy and society, with new work and leisure patterns and with the rapid expansion of communications technologies.

Source: Qualification and curriculum authority (QCA) *National curriculum*.
See: http://www.nc.uk.net/webdav/harmonise? Page/@id=6016 [cited 3.7.2008].

Sweden aims to achieve a learning outcomes approach, but has chosen a different approach. The introduction to the Curriculum for the compulsory school system, the pre-school class and the leisure-time centre, stresses that activities should be characterised by care for the individual's wellbeing and development and that the curriculum should 'aim to promote pupils' spiritual, moral, social and cultural development', preparing them for opportunities, responsibilities and the experiences of life. The document goes on to identify its approach as centred on achieving goals. Thus, goals have been established for all levels of the system (regulatory, local, institutions) by identifying goals for the development of the school curriculum. These are described as 'goals to be attained' and 'goals to strive towards' (*Skolverket* – Swedish National Agency for Education, 2006).

Table 26. **Sweden – Steering the curriculum through goals to be attained and goals to strive towards**

Sweden has identified the learning outcomes for the school curriculum that should steer the curriculum at the levels of design and implementation.
Some of the 'goals to strive towards' detailed in the curriculum documents require schools to ensure that all pupils:

- develop the ability to form and express ethical viewpoints based on knowledge and personal experiences;
- respect the intrinsic value of other people;
- reject the oppression and abusive treatment of other people and assist in supporting them;
- can empathise with and understand the situations other people are in and can develop the will to act with their best interests at heart;
- show respect for their immediate environment as well as for the environment in its wider perspective;
- develop a sense of curiosity and the desire to learn;
- develop their own individual way of learning;
- develop confidence in their own ability;
- feel a sense of security and learn to consider and show respect in their dealings with others;
- learn to carry out research, and to learn and work independently and together with others;
- acquire good knowledge in school subjects and subject areas to develop themselves and prepare for the future;
- develop a rich and varied language and understand the importance of cultivating this;
- learn to communicate in foreign languages;
- learn to listen, discuss, reason and use their knowledge as a tool to formulate and test assumptions as well as to solve problems;
- reflect on their experiences and critically examine and value statements and relationships;
- acquire sufficient knowledge and experience to be able to make well-considered choices over further education and vocational orientation;
- take personal responsibility for their studies and working environment;
- gradually exercise increasingly greater influence over their education;
- have an understanding of democratic principles and develop their ability to work democratically;
- acquire sufficient knowledge and experience to be able to examine different options and make decisions concerning their own future;
- develop the ability to assess their results themselves.

'Goals to attain' in compulsory schooling include to:

- have mastered Swedish and to be able to listen and read as well as to express ideas and thoughts in spoken and written language;
- have mastered basic mathematical principles and be able to use these in everyday life;
- know and understand basic concepts and contexts within the natural sciences as well as within technical, social and human areas of knowledge;
- have developed the ability to express themselves creatively and be interested in participating in the range of cultural activities that society has to offer;
- be familiar with central parts of the Swedish, Nordic and western cultural heritages;
- be aware of the culture, language, religions and history of national minorities;

- be able to develop and use their knowledge and experience in as many different forms of expression as possible covering language, images, music, drama and dance;
- have developed their understanding of other cultures;
- be able to communicate in speech and writing in English;
- know the basis of society's laws and norms as well as their own rights and obligations in school and society;
- be aware of the interdependence of countries and different parts of the world;
- be aware of the requirements for a good environment and understand basic ecological contexts;
- have a basic knowledge of the requirements to maintain good health and to understand the importance of lifestyle for health and the environment;
- have some knowledge of the media and of their role in relation to the media;
- be able to use information technology as a tool in their search for knowledge;
- develop their learning and to acquire deeper knowledge in a number of individually selected subject areas.

Source: Skolverket, 2006.

The Swedish curriculum goals to be achieved and goals to strive for seem to provide a balanced approach to subject skills and learning outcomes. To some extent, subject skills comprise the goals to be achieved and learning outcomes are goals to strive for.

Developments across European countries are diverse but show that learning outcomes are now holding more sway over the definition and reform of the school curriculum than was previously the case. Never the less, a note of caution is needed. The use of learning outcomes as a guiding principle does not mean that other aspects lose importance. The Northern Ireland case shows that agreeing aims and objectives (goals), identification of intended learning outcomes, developing a modern curriculum and associated assessment instruments (inputs), and capacity building for effective pedagogy are all part of the project for modernising schooling.

The case that learning outcomes should not be treated in isolation is strongly made in two of the country profiles. In Luxembourg, the view is shared that it will be more difficult to apply a competence-based approach to general education than to VET. In Slovenia, retaining some traditional kinds of knowledge and good teaching are seen as integral to successful reform of the school curriculum.

6.3. Learning outcomes effect on European VET curriculum

We have already shown how a 'functional' approach to occupational analysis, in its different forms, has a strong influence on the ways in which vocational qualifications are developed in many European countries. In Germany this activity is carried out in partnership: research and policy agencies work with practitioner organisations in higher education and VET through development pilot projects. The view is quite commonly held that a standards or competence-based approach to vocational qualifications is more readily applicable to VET curricula than to general school or to higher education programmes; vocational knowledge and skills (the supply of skills) have a more clearly identifiable reference point in the labour market (the demand for skills) than exists in the general and higher education. Consequently, a learning outcomes approach is being used to define VET curricula in many countries, and reforms to content- or input-driven VET curricula are generally based on a functional, competence or learning outcomes approach.

In Denmark, learning outcomes are given weight in VET in a new approach to personal education plans established through the *Better education: action plan* (Danish Ministry of Education, 2002), which also addresses general education. This has introduced individual competence assessments as a basis for trainees' personal education plans. Trainees draw up a personal education plan with a tutor, describing all their learning objectives and how to attain them. The personal education plan is based on an assessment of trainee competences and outlines an individual pathway through the VET system.

Modularisation or unitisation of the VET curriculum is an approach often taken with the declared intention of making curricula more responsive to identified learning outcomes. Luxembourg is planning a radical shift in vocational curricula design with a curriculum for upper secondary VET based on units of competence taught and learned through a flexible and innovative modular system; in this the combination of content and competences can take a variety of forms in the student's learning programme. In Finland, major curriculum reform has developed a modular approach to upper secondary and higher vocational (and general) education. This leaves students with a good deal of flexibility over the choice, timing and sequencing of their curriculum modules, each of which has a notional learning time and learning outcomes attached. Slovenia has also modularised its vocational curricula, in association with the introduction of specified learning outcomes and an approach based on credit accumulation.

Table 27. **Slovenia: reformed VET curricula, featuring learning outcomes and modularisation**

In 2001 new guidelines for the preparation of educational programmes in secondary vocational and technical education were adopted to achieve better quality outcomes in VET. The objectives include points about social partnership, decentralisation of responsibility for the curriculum to schools, partnerships at local level, work placements, as well as two specific elements:

- modularisation of VET programmes to prepare more flexible and open curricula. This is intended to enable students, especially adults, to undertake step-by-step education and to enter and leave programmes without losing what they have acquired. Combining modules is expected to support the development of individualised learning pathways, and to enable learners to combine knowledge and competences acquired in formal, non-formal and informal settings and to recognise and capitalise on this learning;
- definition of learning outcomes in terms of key and professional competences. Reforms are based on the concept that VET curricula should integrate knowledge and skills acquisition to enable students to develop broad, effective competences. It is intended, to some extent, to give up the model of subject-based curricula, with the aim of creating problem-structured learning situations, in which theoretical and practical knowledge are linked to each other and through which key competences are developed.

Source: National Institute of Vocational Education and Training, 2001.

Countries such as Croatia and Turkey, which are planning reforms, currently have a more traditional, content-led approach until the reforms are implemented.

6.3.1. Technical competences and soft skills

Alongside the shift to what is often called a competence-based approach to VET curricula and learning programmes, the range of skills considered important has been extended. This is recognised in most of the categorisations of learning dealt with in Chapter 3, and is reflected in recent European collaborative work and emphasis on key competences.

The shift from a predominant emphasis on technical skills, which characterised traditional apprenticeships, is evident in the way in which the approach to *Kompetenz* has developed over several years in Germany's *Dualsystem*. Strong emphasis is still placed on the theoretical and practical aspects of technical skill acquisition. At the same time, new approaches to competence acquisition have been added. VET curricula in Germany are now specifically based on the training manuals on *Handlungskompetenz*

(vocational action competence). This is described in terms of a typology of competences: *Fachkompetenz* (subject or technical competence), *Personalkompetenz* (personal) and *Sozialkompetenz* (social). Considerable attention has been paid to the needs of meta-competences, particularly for highly technological manufacturing processes.

As earlier chapters of this report have shown, most countries are adopting categories of learning outcome for VET curricula that incorporate wider key competences, or soft skills. This reflects changes in occupational profiles and workplace organisation, changes that are occurring in shaping general education, and also the career uncertainties that many people face.

6.4. Impact of the Bologna process

In higher education the Bologna process has clearly signposted major changes for curriculum and assessment. Overall, there is work in progress, but at quite early stages of development.

For many observers, the Bologna process represents a potential paradigm change challenging to the traditional Humboltian university model and approaches to teaching, learning and assessment that have dominated much of European higher education. Modernisation of higher education is putting more emphasis on strategic management, competitiveness, market links, performance measurement and alternative funding of teaching and research. It recognises the interlinked roles of education, research and innovation that have been acknowledged not only as a core condition for the success of the broader Lisbon strategy, but also as part of the wider move towards an increasingly global and knowledge-based economy ([40]). The European Commission strongly encourages higher education curriculum reform:

> 'In order to overcome persistent mismatches between graduate qualifications and the needs of the labour market, university programmes should be structured to enhance directly the employability of graduates and to offer broad support to the workforce more generally. Universities should offer innovative curricula, teaching methods and training/ retraining programmes which include broader employment-related skills along with the more discipline-specific skills'
> (European Commission, 2006, Section 4, p. 6).

([40]) For details see: European Commission, 2006a.

The Bologna process has increasingly focused on improving qualifications. Its various structural reforms, together with new recognition and transparency tools, are designed to facilitate bottom-up improvements in teaching, learning and assessment. Further, the 2007 London communiqué for the first time included mention of 'more student-centred, outcome-based learning'. The significance of this endorsement of 'student-centred learning' as opposed to 'teacher-centred teaching' should not be underestimated. It recognises that without such institutional change the Bologna reform process will achieve little. The nature and direction of higher education reforms, and learning outcomes in particular, are clearly laid out. The unknown factor is how long it will take fully to implement them at the level where it counts, the institutional level.

The ministers responsible for implementing Bologna have supported profound changes driven by the adoption of learning outcomes, which are arguably the single most important catalyst for transformation working alongside credits and new style qualifications frameworks. Using learning outcomes at module and programme of learning (qualifications) levels leads to reconsideration of key ideas: who we educate; what we teach; how we learn; where learning takes place, how programmes are delivered, expressed and assessed. The adoption of a learning outcomes approach focuses activity on the learner and away from the teacher. It promotes the idea of the teacher as a facilitator or manager of learning and recognises that much learning takes place outside the classroom without a teacher present. It further involves the idea that students should be actively involved in planning and managing their own learning and should take more responsibility for this, progressively developing as an independent learner. This approach is both a change and a challenge to existing practice in many European higher education institutions. This is particularly true of many central and eastern European countries that have little experience of academic autonomy and traditionally experienced strong, 'paternal' relationships with state ministries.

The pace of higher education reform across Europe is not even, nor is it assured in terms of its successful outcome. However, all the current evidence, as Bologna ministers have acknowledged, is very positive. They have also recognised that the Bologna reforms are more than the sum of their individual parts and should be considered as a whole. The gradual adoption of learning outcomes is, since the London Ministerial meeting, viewed alongside complementary reforms such as qualifications frameworks and the development of modular credit-based institutional frameworks that involve a high degree of choice (multiple study routes) and a clear progression and sequence in the modules offered for study. These flexible systems can offer

students attractive study options and multiple study pathways that are plainly described in terms of learning outcomes.

The Bologna reform model is unambiguous in what it seeks to achieve and the tools and approaches required. It rejects the customary input-focused approaches to presenting the syllabus as a list of contents and abhors any notion of a state-dictated core curriculum. It seeks to encourage more functional qualifications that blend customary academic study with more 'employability' and introduce a bigger emphasis on transferable skills as typified by the work of the Tuning project.

It is generally accepted that student-centred learning necessitates the use of learning outcomes. This should produce an automatic focus on how learners learn and the design of effective learning environments, leading to a cascade effect that links the use of learning outcomes, the selection of appropriate teaching strategies and the development of suitable assessment techniques. This is done within the context of external reference points (qualifications frameworks, qualification descriptors, level descriptors, benchmark statements) which constitute the new Bologna educational infrastructure. The Bologna model seeks to present a single coherent interlocking approach to higher education in which modules are not developed in a vacuum, but within a dynamic environment that directly links the internal, institutional world with the external national qualifications framework and quality assurance system. In practice, however, progress towards this objective is likely to be gradual and, in some cases, is more attractive to the policy-makers than to those involved in practical reforms within universities.

While the Bologna vision is clear, as is the role of learning outcomes within it at national, regional and institutional levels, it will be up to individual countries to ensure that the necessary national and local reforms are implemented. However, there are a number of important yet unresolved technical problems associated with the expression of learning outcomes within the Bologna process. There is no common agreement about the nature and depth of application of learning outcomes:

(a) whether learning outcomes should be written as minimum 'threshold' statements or what a 'best' or 'average' student might be expected to achieve;
(b) the number of actual outcomes and the level of detail for each module or unit of study;
(c) the number of actual outcomes and the level of detail for each qualification (this also links to the development – or not – of national subject/sectoral benchmark statements);

(d) the use of learning outcomes to establish the standard of achievement (assessment criteria) and the relative performance of individuals (grading criteria);
(e) learning outcomes approaches to assessment and grading systems are strongly associated with criterion referencing, yet norm referencing is embedded in many European systems, particularly for general and higher education.

Currently, these matters are unresolved and different countries may well adopt different solutions and approaches, which could cause confusion. There is much good practice and experience that can help resolve such practical and technical problems and it is quite possible that they may well be naturally solved by a combination of market forces, transparency instruments and common approaches to quality assurance. However, their resolution raises the important question of how higher education, VET and general education relate to each other in terms of respective technical practices associated with learning outcomes. The existence of major technical disjunctions in approach would establish national and international barriers to mobility and recognition.

6.5. Learning outcomes in assessment

The country profiles have provided limited information on the ways in which developing learning outcomes approaches in qualifications and the curriculum are impacting on assessment. A survey conducted by the UK Eurydice Unit ([41]) augments this information. It is interesting to trace the impact that learning outcomes reforms to qualifications and curricula are having on three aspects: assessment processes during compulsory schooling; assessment in post-compulsory general qualifications; and assessment in post-compulsory VET assessment.

6.5.1. Learning outcomes, assessment in compulsory schooling

The available evidence suggests that most assessment undertaken is quite closely tied to the subjects of the school curriculum, particularly to the subject areas that are identified as part of a core curriculum. Where countries have introduced external testing regimes, usually towards the end of a cycle or close

([41]) Eurydice, 2008. The following countries responded: Germany, Ireland, Spain, France, Italy, Hungary, the Netherlands, Sweden and the UK (England, Northern Ireland, Scotland and Wales). Here, the information focuses on assessment through compulsory schooling.

to key transitional points in the learner's school career, the main purpose is often summative. The tests are geared towards accountability, quality assurance and raising education standards.

In England ([42]), statutory assessment and testing take place in relation to the national curriculum subject orders, and aim to chart student attainment in those subjects. Although the tests, as opposed to teacher assessment, can cover only a limited range within each subject, they set out to provide a valid assessment of that range. These are, therefore, curriculum-based tests. The purpose is summative: to assess children's achievement. Results from national curriculum tests and teacher assessment are also intended to provide information for parents and the public to help them judge the quality of the education being provided. At the same time, teachers are encouraged (through other levers than assessment) to find links between subjects. There are statutory cross-curricular themes and thinking skills, but these do not comprise explicit assessment constructs in the national tests.

In France, pupil assessment takes different forms. There is summative assessment, i.e. the marks given by teachers to individual pupils and which are on the pupil's report card at the end of each term and/or year, which may be accompanied by more qualitative assessments. Since 1989, obligatory national diagnostic assessments are carried out at the beginning of certain cycles (of two/three years); they take place at the beginning of the school year in the third class of compulsory education and in the first class of the *collège* (junior secondary). The aim is to assess the strong and weak points of each pupil in maths and French. A national diagnostic evaluation is also under trial in the second year of compulsory education to assess pupil difficulties of and provide remediation. The results give national statistical data about pupil acquisition of competences but are not published by school. The assessment also has a clear and summative objective: to compare the results obtained by the educational system with the goals established at important points in the school curriculum. Regular use of such end-of-year sampling provides educational decision-makers with feedback and comparative information over time.

Some countries pay more attention to highlighting the strengths and weaknesses of individual children in key subjects, to help them to achieve intended outcomes by age 18. Sweden is shifting aspects of the qualifications systems or school curricula towards a prominent position for learning

([42]) The information below on England, France, Ireland and Sweden is drawn from the data collated by Eurydice.

outcomes. National testing is compulsory at certain stages of schooling, and voluntary at others. According to a government directive of 2004, the national testing system intends to: contribute to increased attainment by students; exemplify course goals and grading criteria; assist in the process of setting fair and reliable grades (grading assistance); show student strengths and weaknesses; and, by collating results, indicate the extent of overall attainment. The tests are intended to assist teachers in determining the measures required to support individual children in their development and in planning their teaching. Results are intended to highlight individual strengths and weaknesses in the subjects concerned and to provide an indication of an individual child's chances of achieving the objectives on completion of compulsory basic school, age 16. The criterion-referenced tests also facilitate nationwide evaluation of school performance.

These cases illustrate a distinction between external assessment measures, intended as formative for pupil learning or assessment for learning, as the Irish documentation describes it, and external assessment regimes whose main purpose is summative, systemic comparisons. This may aim to compare schools or localities, or a single school or locality over time. While most of these cases have either a summative or a formative emphasis, there is clearly an element of overlap. Never the less, the formative approach to external tests during compulsory schooling has the stronger affinity with learning outcomes approaches; this is not to undermine the importance of evaluating school performance in a wider context.

Countries engaging in external assessment of pupils during compulsory schooling seem to rely on written tests, augmented in some cases by oral assessment or teacher assessments. Numerous European systems do not place reliance on external testing, and rely solely on internal or teacher-led testing or assessment. Overall, there is no obvious pattern of correlation between a learning outcomes approach and the use of one type of assessment system or another. Indeed, the challenge of assessing learning outcomes generally seems to be an area for further development in European countries. Assessing learning outcomes is clearly a more challenging type of construct than testing subject mastery or recall. It includes summative, formative and evaluative purposes. It implies assessing learners when they are ready, rather than on fixed dates on a calendar. Importantly, it involves a wider range of assessment tools than traditional tests and examinations.

6.5.2. Assessment and learning outcomes for upper secondary stage general education and VET

There is a marked trend for traditional written examinations, perhaps with practical work and some research or project work, to continue to dominate upper secondary matriculation systems. These are subject dominated, and on the whole seem to be quite impervious to change. This may be because of their use as a traditional entry or staging post into higher education, a totemic position that societies are reluctant to change.

By contrast, vocational qualifications have tended to embrace wider forms of assessment, many of which are closely related to wider learning outcomes than a subject base provides. France and Finland illustrate this distinction.

Table 28. **Outcomes-based innovations in VET assessment in France and Finland**

Finland

A shift is taking place. Initial VET courses are modular and, traditionally, credits have been gained on completion of a unit for VET qualifications. The emphasis is now shifting to 'demonstration' assessment, meaning that the candidates must show *in situ,* or by some appropriate outcome-based method, what knowledge, skills and competences they have acquired. The aims and assessment criteria of the skills demonstrations are determined in the core curricula issued by the National Board of Education.

VET providers appoint special bodies to plan and set the tests and also appoint the examiners. The qualification committees are responsible for arranging and supervising the competence tests. The National Board of Education appoints the members (maximum of nine) from among experts in each sector. Some are teachers, but the majority are representatives of employees, employers and self-employed people based on a principle of parity. The qualification committees are appointed for a term of three years.

France

The assessment standard for each vocational award contains the overall objective of the assessment, the coefficient for each part of the assessment, what will be assessed for each competence and the same for the part of the course which is not directly vocational, i.e. the general education subjects. These latter subjects are examined on the basis of the programme for the relevant year/class (e.g. last year of the *bac pro*). They are very similar to assessments for general education courses and are based on the methods of analysis and synthesis that the student has learned and the content of the relevant programme.

The vocational part counts for about half of the total mark. Assessment is both continuous and at the end of the course. There are both written and practical assessments. The vocational aspect is defined in terms of expected professional performance, not on academically defined teaching subjects. Work experience averaging 16 weeks over two years

is an integral part of assessment of the student's performance in the *bac pro*. Schools make contracts with companies to provide places, and the teachers, workplace supervisors and students negotiate the objectives of the workplace learning and how these will be assessed. Local businesses and schools make contract agreements to provide and evaluate the work-based learning. Assessment for certification is also innovative.
In practice, there are several examination components: a mix of final written or oral examinations; the presentation and continuous assessment of students' portfolios for some vocational and specialist subjects of the course; and process assessment of the knowledge and skills gained on placement in the specialist work situation.

Source: France profile, supplemented with an adapted excerpt from Leney, 2002.

In Germany, by contrast, while *Dualsystem* qualifications rely on process and outcome assessment for the work-based component, and examinations for the school-based component, upper secondary school students studying for matriculation are subject to a wider range of assessments than in many other countries. Though not evidence of a more expansive approach to learning outcomes, this opens the way to the inclusion of wider skills and areas of competence.

Innovative approaches to assessment are found in some countries. An instructive example can be drawn from Victoria, Australia, where the Victorian certificate of applied learning (VCAL) ([43]) has been introduced since 2000 as a new qualification at upper secondary level. Learning outcomes define the curriculum and assessment, without prescribing the content, details or mode. The emphasis is on assessment tasks that are meaningful and linked to authentic tasks and activities, to reflect the identified learning outcomes specified in the framework for the qualification., The student may produce an agreed range of evidence of widely different kinds for assessment – including written projects and papers, products and evidence of process – collected together into portfolios. Drawing again on the new developments in Finland, demonstration assessment operates as follows:

> 'The test for demonstrating professional know-how consists of a work situation or work process, where the students gives proof of their knowledge and the professional skill required by working life, by performing practical work tasks at a workplace or a school. The tests evaluate the professional

([43]) Victorian Curriculum and Assessment Authority (VCAA), 2007; Victorian Qualifications Authority (VQA), 2003.

> know-how defined in the goals of the core curriculum. The tests are planned, implemented and evaluated jointly by the educational institution and working life. The core content of each study entity is tested. The evaluation of the test result is founded on preceding discussions between teacher, student, and on-the-job trainer. The education organisers are required to make the skills tests part of their curricula. The organisers also have to appoint a multimember body to guide and supervise the implementation of the tests. The tests for demonstrating vocational skill occur regularly throughout the student's training, as an integral part of his education and learning a trade or profession. The student, in consequence, takes part in an array of skills tests in the course of his studies'
> (Rakkolainen and Ecclestone, 2008, p. 10).

Such modes of assessment imply a considerable degree of local partnership, with trust in teachers and trainers. They also require an effective combination of an enabling regulatory framework, decentralisation of responsibilities, high levels of mutual trust and a reliable system of quality assurance.

6.6. Conclusions

At some risk of oversimplification, Klarus (1998) has suggested that here are two dominant models for learning and assessment. The traditional learning and assessment model has limited space for identified learning outcomes, except where these are closely allied to curriculum subjects. In contrast, Klarus' new learning and assessment model is open to contextual and social learning, and to more broadly conceived ideas of learning outcomes. The increasing use of learning outcomes in curriculum development has profound implications for making education and training systems more learner-centred.

Recent developments in VET curricula provide strong evidence of the shift towards approaches that are based on learning outcomes. Reforms have the objectives of making the VET curriculum attractive to employers and to learners, and improving links between VET provision and the needs of the labour market.

In contrast, a more traditional, subject-limited approach to learning and learning outcomes still guides the general education curriculum in numerous countries. Among the countries that are now identifying learning outcomes for their school curricula, two approaches are in evidence. Countries such as

Table 29. **Traditional and new models of VET learning and assessment**

Traditional learning and assessment model	New learning and assessment model
Risks lie with the individual: once a dropout, always a dropout	Risks are shared: dropouts can develop further and have recognition for the competences they have acquired elsewhere
Individualisation of isolated learning activities	Authentic, contextual and social learning
Academic learning content, primacy of knowledge	Application of knowledge in realistic circumstances, emphasis on developing competences
Knowledge alongside but often separated from skills	Competences: situation + information + experiences + skills + attitude
Assessment of knowledge aimed at ranking, gate-keeping, exclusion and identification of deficiencies	Assessment aims at validating competences and enhancing learning

Source: Klarus, 1998.

France and Finland identify key competences that are associated with a core curriculum, specifying the kinds and knowledge and skills that all (or almost all) young people should acquire by the end of a stage or phase. Norway, Sweden and the UK, step out of the confines of the classroom and school subjects to identify the broad learning outcomes, including knowledge, skills, attitudes and values, that most young people are expected to gain through their schooling. Notably, the upper secondary phase of general education in many countries is still bound to individualised learning, academic subject knowledge and to assessment that is geared to gate-keeping, for higher education entry in particular.

The Bologna process has identified generic learning outcomes for higher education. However, most universities continue to pay attention to subject- and faculty-specialist knowledge, as they reorganise the structure of higher education courses to fit the Bologna process.

In some countries there is a marked shift towards assessment based on learning outcomes. This is illustrated through case studies showing how

introducing learning outcomes provides an effective way to guide assessment practice, replacing more traditional notions such as course completion and tests to assess mastery of content, which depend for their legitimacy on learning inputs. The report has brought to light several such innovations, such as in Norway for assessment in general education and in Finland for reforms in VET assessment. In Ireland, as Chapter 7 will show, learning outcomes are the constant factor in the newly developed and flexible system for recognising informal and non-formal learning. These approaches to assessment rely strongly on assessment vehicles such as student portfolios, the presentation of projects and assignments that the learner has produced after negotiation or agreement with the teachers or trainers, and the formative assessment of learning experience in the community or workplace.

Never the less, assessment remains mostly attached to traditional, summative approaches; it has diverse purposes. In practice, policy-makers, practitioners and researchers all seek a combination of usefulness, reliability and trust from assessment. Although there may not be a consensus as to where the balance should lie, the identified shift to learning outcomes requires some major changes in well-established testing and assessment practices.

6.6.1. Summary of issues arising

The increasing use of learning outcomes in curriculum development has implications for making education and training systems more learner-centred. This will have profound effects on institutions and the role of teachers.

The more explicit use of learning outcomes in vocational education and training may provide examples of how learning outcomes can be adopted to good purpose in general education. Upper secondary education seems to be most impervious to the adoption of a broader approach based on learning outcomes, other than traditional academic standards.

The external points of reference for VET are clearer than for general and higher education. However, stakeholders in these subsectors of education should be able to identify appropriate sets of learning outcomes.

For teachers and for the management of learning activity, learning outcomes should be given appropriate weighting alongside aims and objectives, curriculum content, pedagogy, assessment and quality assurance.

In general education, a number of countries have advanced their identification of expected learning outcomes for the school curriculum. A key issue now is how to apply these learning outcomes to enhance learners' development and to improve their acquisition of knowledge and skills, and how to assess achievement.

Technical assessment issues arise. Clarity is needed on the formative or summative purposes of assessment tools. Teacher observation and assessment may be the most appropriate form for some purposes, while portfolios, projects, products and other evidence may be most appropriate for others. Traditional forms of assessment (such as written tests and examinations) may still have a role.

Higher education policy has changed but, as yet, a wider approach to learning outcomes has been applied in institutions only to a limited extent.

CHAPTER 7

Learning outcomes in national recognition of informal and non-formal learning

7.1. Introduction

Increasing attention is now being paid in many European countries to recognising informal and non-formal learning, usually as a strand of lifelong learning strategy but sometimes as a way of easing access to qualifications for adults who have experience but little formal qualification. This chapter looks at how learning outcomes are brought to bear in European validation or recognition of informal and non-formal learning.

Analysis if such recognition in European countries has been done in the recent (2007) update of the European inventory on validation of non-formal and informal learning ([44]), which has made the draft country reports contained in the inventory available. The 2007 update of this inventory, initiated by the European Commission and Cedefop in 2004, provides the main source for the table in this chapter and in the relevant section of the country profiles ([45]). The current OECD study of informal and non-formal learning has also provided background information and perspectives.

First, there is a synopsis of the overall picture of recognition as the context for describing how learning outcomes are influential in European recognition systems. The term recognition is used in many different ways. It is helpful to distinguish between recognition for admission to a programme of study, for partial exemption of studies and recognition processes leading to the award of a full diploma or qualification. There is also the recognition of formal certificated learning (for example, when a qualification has been awarded in another country); this process should not be ignored, because the development of systems for credit transfer and accumulation in Europe for VET and for higher education awards is increasingly based on sets of learning outcomes.

([44]) Available from Internet: http://www.ecotec.com/europeaninventory/2007.html [cited 24.10.2008].
([45]) See footnote 3.

7.2. A provisional synopsis of the current situation

It seems clear from the draft country reports contained in the inventory that the European countries are quite evenly balanced between those who have made progress in taking recognition forward at the level of policy and/or practice and those who are less interested in doing so or who are in the early stages.

These national reports indicate, for example, that Belgium (Wallonia and Flanders), Denmark, Estonia, Finland, France, Iceland, Ireland, the Netherlands Norway, Portugal Romania, Sweden and the UK (England and Northern Ireland, Wales, Scotland) are all using or developing systems for or ways of using recognition, each in their own context. Croatia Germany, Greece, Hungary, Slovakia, Latvia, Liechtenstein, Poland and Turkey are countries where the evidence suggests that recognition is not a dominant policy issue or is at a very early stage of development.

The evidence of the European Inventory suggests that different subsectors are moving at different speeds in developing and implementing procedures for recognition. VET is most active, while higher education is less evenly balanced. Here a few countries have made some progress but there is little evidence that this has led to any significant increase in the volume of recognition of informal/non-formal learning, whether for admission to a course, exemption from courses or to obtain a qualification.

Few countries have a systemic approach to using recognition as a tool for supporting lifelong learning.

7.3. Learning outcomes in approaches to recognition

This section indicates whether, and if so, how learning outcomes approaches are being adopted by countries improving their mechanisms for recognition. The variables that distinguish different approaches are:

(a) whether the regulations have a legislative underpinning or depend on agreements or local initiative;
(b) the types of procedures and methodologies put in place;
(c) the awards targeted;
(d) the subsectors of education and training targeted;
(e) the actors involved in designing and implanting the provision for recognition;

(f) the degree to which there are clearly defined criteria to guide adjudicators in determining equivalence.

The next section considers the countries that have made recognising informal and non-formal learning a policy priority, before looking at decentralised approaches and then those emphasising VET and adult learning in particular. This is followed by higher education and, finally, examples from the countries in which approaches are national and systemic.

How are learning outcomes defined in systems of recognition of informal and non-formal learning, or in planned reforms? Documentation and discussion concentrates largely on the processes and procedures for recognition (the question how?) rather than the identification and description of the knowledge, skills, etc. (the question what?) that can be included for recognition. Often it is left to adjudicators to decide what counts for outcomes or equivalences. In higher education, recognition is often at the discretion of particular institutions, and methods such as portfolio and/or interview achieve a proxy that is not based on clear learning outcomes criteria. This is understandable as many higher education institutions enjoy a large degree of academic autonomy and the majority are at relatively early stages in expressing academic programmes in terms of learning outcomes. How recognition is to take place is explicit, yet the character of the knowledge and skills being sought is frequently tacit.

This is less the case where occupational levels and competences are defined in terms of outcomes that recognise experience gained in the workplace. Here, the clearer definition of professional knowledge and skill helps to identify occupational standards and associated competences, in terms of learning or performance outcomes.

7.3.1. Decentralised national approaches to recognition, based on learning outcomes

Recent developments in both Denmark and the Netherlands place emphasis on the importance of recognising skills gained through informal and non-formal learning. Both countries have, at least for now, decided against legislating for a single or unified approach, wanting to encourage social partners to adopt a range of approaches for the purposes of localisation and experimentation.

In the Netherlands, EVC (*erkennung vervorven competenties*), or the recognition of acquired skills, has been a policy priority since the early 1990s. The government established an expert centre to analyse the policy and practical issues, and to encourage decentralised pilots and developments.

The emphasis has been on various results for learners: new career opportunities, exemptions for access to formal education or training, and for status or salary considerations within specific labour agreements. Here the learning outcomes connection is explicit, and is closely linked to developing competence-based approaches to VET learning and to human resource management in the organisation of the workplace. In the Dutch case, though decentralised, the procedure generally consists of five phases, each of which has a specific individual or organisational focus on learning outcomes.

Table 30. **Stages in the decentralised, competence-based approach to EVC in the Netherlands**

Stage 1	Commitment on the part of the organisation and individual to the value of competences. In practical terms, this involves identifying personal goals and development plans.
Stage 2	Collecting evidence for the recognition of competences. This involves assembling a portfolio of authentic evidence of acquired competences. The evidence can take a variety of forms, including descriptions of experience, employer references, photographs and other physical and recorded evidence.
Stage 3	Competence assessment. This can take various forms: interview, test, demonstration, presentation, observation while working.
Stage 4	Guidance, and further competence development. A personal development plan is agreed, offering insight into areas of strength and identifying areas for further development.
Stage 5	Embedding competence-based development into a personal or organisational policy. This phase completes the cycle, by building the competence-based approach into the training and the human capital element into the firm or organisation's strategy for lifelong learning.

Source: Adapted from the European inventory on validation of non-formal and informal learning 2007, report on the Netherlands. Available from Internet: www.ecotec.com/europeaninventory/2007.html [cited 3.7.2008].

In view of the localised development, strong emphasis is placed on the quality assurance in EVC procedures. This is to ensure that the recognition of the achievement of learning outcomes is valid and open to evaluation. As other countries have also found, this type of process is time consuming and, therefore, expensive.

In some respects, a parallel situation exists in Denmark. The qualification system is increasingly moving to a learning-outcomes or competence basis, and the introduction of credits is intended to give greater emphasis to recognising informal and non-formal learning. There is considerable experience of a variety of localised tools for recognition, in the light of which legislation has now been adopted to give the individual the right to competence assessment. To date, widespread practice and experimentation has taken place and this, rather than a single and unified scheme, has been the national approach. The Danish policy emphasises guidance and clarification, collection of evidence and competence-based assessment. In these respects there is also a strong similarity with the developments in the Netherlands. The arrangements are intended to formalise and extend recognition procedures, without imposing a single national scheme.

7.3.2. Learning outcomes recognition systems for vocational or adult learning

Romania and Finland have both developed a single, clear national system for recognising skills gained through practical experience in working life.

A striking initiative has been taken in Romania. While VET is moving gradually (but significantly) towards a learning-outcomes basis, other parts of the education system are shifting more slowly. To recognise formally the skills that adults have acquired informally through their experience in the workplace and more widely, Romania has now established a National Adult Training Board (NATB) system of certification. Building on Romania's strong traditions of adult education, a particular drive in the years leading up to EU entry was to establish recognition of adult skills through a network of centres, developed in cooperation between the education and labour ministries, sectoral committees and donor activity. At the same time a gradual but clear development in VET provision is a shift towards learning outcomes (competence) approaches. The NATB recognition system is based on three key elements: the developing national standards for VET, assessment through the recognised assessment centres established by NATB, and recognition through a national certification process.

Table 31. **The NATB recognition process in Romania**

The National Adult Training Board (NATB) issues certificates that take into consideration learning gained outside formal education. This is an integral element of the Romanian national adult training and learning system. The key elements are:

- national standards for occupations, against which assessment can take place;
- assessment, which offers the chance for recognition of informally acquired skills;
- certification, which provides recognition of informally acquired knowledge, skills and competences through the national certification process.

Certification is a collaborative process between the NATB and accredited assessment centres. All centres must meet clear criteria, must have accredited and experienced assessors and be expert organisations in their specialist areas. There are two types of assessment centres: open centres offering assessment services to anybody, and closed centres providing services to selected groups, for example a business or enterprise.

The assessment process has several different components. It starts with an enquiry from a candidate, a review of available information between the candidate and assessor, followed by the candidate's preparation for the enrolment. An agreement between the applicant and the assessor on the assessment plan follows. The recorded assessment results include information on whether the individual meets all the occupation requirements or whether she/he needs to undertake training or develop specific competence areas. A process of internal verification follows, and the applicant has a right of appeal. The results are sent to the NATB, which awards certificates to successful candidates.

Source: Adapted from the European inventory on validation of non-formal and informal learning (2007), national report on Romania. Available from Internet: http://www.ecotec.com/ europeaninventory/2007.html [cited 3.7.2008].

The system began operating in 2004, with a limited take-up. By mid-2007 over 6 000 certificates had been awarded in 34 assessment centres, covering over 80 occupations including tourism, agriculture, telecommunications, management and construction.

The Finnish NOSTE scheme is a national scheme that is developed and administered through local social partner, provider and regional government cooperation. It was originally based on development and adaptation of the UK's approach to competence-based national vocational qualifications (NVQs), and adapted to recognise the skills of working adults who had few formal qualifications. Each candidate has a right to advice and guidance, to a personal learning plan and to supplementary training courses that may be needed. Assessment is conducted with social partner involvement, and the system demands a high degree of local trust and partnership between the

organisations in working life, trainers and local government. Assessment is based on occupational standards and is conducted through demonstration rather than through traditional tests.

7.3.3. Recognition of prior and experiential learning for higher education

The situation in higher education is beginning transformation under the impact of the Bologna process. Improved transparency is being created by the development of qualifications frameworks and expressing the curriculum, credits, cycle and level indicators in terms of learning outcomes. The speedily evolving European higher education environment is becoming more supportive of coordinated international action to boost the introduction of lifelong learning, focusing on recognition of prior certificated learning. RPCL refers to the recognition of learning formally assessed by another body for the purposes of access (credit entry) to a programme, or exemption (credit exemption) from part of a programme of study within the national and/or international context. The other important aspect of higher education recognition is recognition of prior experiential learning (RPEL). This refers to the process whereby an individual's competences (knowledge, skills, attitudes and abilities) gained in non-formal (work-based) and informal (life experience) learning environments are accredited (assessed and recognised). RPEL involves comparing the outcomes of the previous 'experiential' learning against the requirements of existing qualifications for the purposes of credit access and credit exemption. Several countries, including Belgium, Ireland, France, Italy, the Netherlands, Finland and the UK have adopted laws or good practice guidelines to promote RPEL. In 2004 the European Commission published *Common European principles for the validation of non-formal and informal learning* which has been updated and will be published in 2008 ([46]).

Higher education recognition has traditionally employed input-based tools that compare the length of study and syllabus content to help the recognition decision-making process. This is starting to change with the introduction of learning outcomes, which have a profound impact on both RPCL and RPEL. Such changes are associated with the development of national and overarching qualifications frameworks, the shifting roles of universities and the move towards closer university-employer relationships ([47]), and the strong commitment to learning outcomes. It is worth considering the recent Bologna

([46]) See: http://www.ecotec.com/europeaninventory/2007.html

([47]) Typified by the Bonn declaration on university-enterprise cooperation in the context of lifelong learning, June 2007. Available from Internet: http://www.eua.be/fileadmin/user_upload/files/newsletter/ Bonn_Declaration.pdf [cited 3.7.2008].

developments in some detail as they potentially have a considerable impact. The London communiqué issued by higher education ministers at their biennial meeting in May 2007 contains significant references to prior learning and learning outcomes.

Table 32. **Recognition in higher education: extracts from the London communiqué**

2.5 Recognition – Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components of the European Higher Education Area, both internally and in a global context.

2.7 Qualifications frameworks – Qualifications frameworks are important instruments in achieving comparability and transparency within the EHEA and facilitating the movement of learners within, as well as between, higher education systems. They should also help higher education institutions (HEIs) to develop modules and study programmes based on learning outcomes and credits, and improve the recognition of qualifications as well as all forms of prior learning.

2.11 Lifelong learning – The stocktaking report shows that some elements of flexible learning exist in most countries, but a more systematic development of flexible learning paths to support lifelong learning is at an early stage ... Only in a small number of EHEA countries could the recognition of prior learning for access and credits be said to be well developed.

3.7 Stocktaking – With a view to the development of more student-centred, outcome-based learning, the next exercise should also address in an integrated way national qualifications frameworks, learning outcomes and credits, lifelong learning, and the recognition of prior learning.

Source: The 2007 London communiqué, towards a higher education area – responding to challenges in a globalised world. Available from Internet: www.cicic.ca/docs/bologna/ 2007LondonCommunique.en.pdf [cited 7.7.2008].

Ministers in London underlined an unprecedented commitment to change, recognising that the Bologna reform progress had been slow until then in terms of lifelong learning goals and the creation of flexible learning paths. While previous ministerial communiqués contained only brief mentions of prior learning; the London communiqué's multiple mentions shows the importance now attached to it. The commitment to embracing learning outcomes is set to change recognition and strengthen various well-established recognition tools and processes, including the diploma supplement and credits. The precision

offered by the adoption of learning outcomes, coupled with the legal implications of the 1997 Lisbon Convention on the recognition of qualifications concerning the European region binds higher education institutions to make recognition judgements in a reasonable time and to provide evidence of 'significant differences' where recognition is denied (Council of Europe and Unesco, 1997). In higher education the approach is now to seek 'fair recognition' and not exact equivalence in recognition matters, aided by the precision offered by comparisons based on learning outcomes.

However, relatively few European countries have made much progress in recognising prior experiential learning as institutional and national progress in developing and using RPEL techniques has often been localised, isolated in nature and relatively ineffectual. This was confirmed by the Trends IV report in 2005:

> 'Research shows that prior learning is still not perceived as an important topic in many institutions … Only in a minority of countries and HEIs explicit strategies for the recognition of non-formal or non-academic exist, notably in Belgium, France, Ireland, the Netherlands, Switzerland and the UK' (Reichert and Tauch, 2005).

More recently the Trends V report (Crosier et al., 2007) indicated that:

> 'Some institutions suggested that the implementation of Bologna reforms has taken priority over developing lifelong learning strategies, but now consider that the conditions have been created for a more adequate response to be developed' (p. 9).
>
> Among the instruments to support flexibility, transparency, mobility and academic quality are a range of tools and processes to recognise prior learning, including Accreditation of prior learning (APL), Accreditation of prior certificated learning (APCL), Accreditation of prior experiential learning (APEL), and Work-based learning (WBL). In the future, these will surely be combined with ECTS to express learning outcomes of prior learning through credits, and then also linked to the different levels of qualification frameworks. However, such processes are currently only in their early infancy, and institutions need to take responsibility to ensure positive developments' (p. 66).

This situation was confirmed by the 2007 official Bologna stocktaking report that noted slow progress and confusion in the national reports on the subject (DfES, 2007).

7.3.4. Single, national approaches to recognition

Several countries in Europe intend to develop single or unified national approaches to recognising informal and non-formal learning; this can understood as a policy decision to develop an overarching scheme for recognising informal and non-formal learning across the different subsectors of education and training. Two approaches are apparent: either a country identifies a series of learning outcomes that are to be used to guide recognition processes, across the different subsectors of VET, higher education and general education; or, a set of procedures is defined, which the different agencies should use as they become involved in requests to recognise informally acquired knowledge and skills.

Portugal is carrying through reforms of this kind, and two main approaches are now established. The *Sistema Nacional de Reconhecimento, Validação e Certificação de Competências* ([48]) (RVCC system) is a national innovation intended as stimulus and support to demand for certification and new training opportunities. Targeted at adults with low qualification levels, it offers recognition and validation of knowledge, skills and competences acquired in non-formal or informal contexts, based on the government's Key competences frame of reference for adult education and training. This gives access through informal and non-formal learning to secondary, upper secondary and vocational qualifications. Alongside the RVCC system, the *Sistema Nacional de Certificação Profissional* (SNCP) is intended to improve the quality of vocational training through recognition and certification of professional competences and vocational training courses. Portugal's ambition is both to recognise citizens' existing skills and knowledge and to raise national skills levels, though the comprehensive adoption of plans to recognise competences, however acquired.

Both the decentralised approaches of some countries and the subsectoral emphasis seen in others, seem to indicate that approaches to recognising informal and non-formal learning will continue to differ across Europe as approaches to recognition develop and mature. This is as much due to the range of cultural and social approaches, as to the dominance of the economic drivers.

At present, two distinctive unified, systemic approaches are apparent in EU Member States. They are best distinguished in the approaches being taken in Ireland and in France. Ireland's system of recognition is to be based on a national framework of learning outcomes, and enables organisations and

([48]) The source for this information is the Portugal profile.

sectors to tailor recognition systems to their own needs, at the same time as providing individuals with an entitlement. France's system of validation is based on procedures, established through legislation, that give individuals the right to the attainment of the same diplomas and qualifications that have traditionally been acquired through formal education and training, but via the route of validation of their informally acquired, experiential learning. Here, the learning outcomes are manifest, but only to the extent that they are identified in the formally acquired qualification. Scotland's approach is similar to Ireland's while the approaches being taken in the communities in Belgium, and Luxembourg are similar to France.

7.3.5. Ireland: identified learning outcomes and an enabling process for recognition

The accreditation of prior learning has been the subject of major debate across all education sectors in Ireland.

The Measures in the Qualifications (Education and Training) Act 1999 made Ireland one of the first EU Member States to implement national legislation on recognition of prior informal and non-formal learning. Any individual has the right to apply for recognition of prior learning (RPL) for the purpose of gaining 'credit' within the national framework of qualifications (NFQ) or in accessing learning programmes. Even so, the progress towards a national system has been fairly slow (Coughlan, 2005).

The NFQ, launched in October 2003, allows formal, non-formal and informal learning to be recognised within one national structure. It does so by focusing on assigning credit values to specified learning outcomes, providing key benchmarks as identified in the NQF. Criteria are set out for evidence, assessment, quality assurance, etc. Beyond this, organisations, including higher education and vocational awarding bodies, decide on how to apply the criteria. The following applies to recognition of prior learning in vocational education.

Table 33. **Recognition of prior learning (RPL) in Ireland for further education awards**

Stage	Learner	Quality or assessment criteria
1. Identification of appropriate award	• learner identifies a FETAC award. • contact is made with FETAC/provider. • information and guidance provided for the learner.	• appropriate award to match the prior experience of the learner identified. • the award must be listed in the FETAC directory of awards.
2. Matching the experience to standards	• The learner matches his/her acquired knowledge, skills and competences to an existing national standard for an award. • The learner may be supported by a mentor.	The standards for the award must be available and the learner's experience must be clearly documented against the standards.
3. Gathering evidence for assessment	Evidence is gathered to prove the knowledge, skills and competences claimed by the individual to meet the learning outcomes. This evidence will be gathered into a portfolio.	A portfolio of evidence may include: • CV • existing certificates • job description(s) • references/testimonials • products/samples • evidence from courses attended • test results • other.
4. Assessment of evidence	An assessment and verification of the individual's knowledge, skills and competences, conducted against the standards.	• assessment criteria of FETAC must be met. • the portfolio of evidence must be assessed in terms of sufficiency, validity, authenticity, reliability and currency (FETAC criteria). • FETAC external examiner reviewed the evidence against national standards.
5. Recommendation for an award	An outcome is determined on the basis of the evidence presented.	A recommendation is made for an award on the basis of the learner meeting the standards for the award.

Source: European Inventory on validation of non-formal and informal learning, 2007 update. Available from Internet: www.ecotec.com/europeaninventory/2007.html [cited 3.7.2008].

7.3.6. France: validation of experience and other learning for a formal qualification

France now has a national system for validation based on a legal procedure that, without demanding participation in formal education, mirrors the jury process that is used throughout France to adjudicate on formal technical and vocational qualifications.

La validation des acquis de l'expérience (VAE) ([49]) is a national system established by law in 2002, though building on a certain history of recognition. It is a way of obtaining all or part of a qualification based on the individual's experience and of entering a programme of study without having the necessary qualification. The only requirement is that the experience to be assessed must have direct relevance to the content of the award and cover a minimum period of three years. For a vocational qualification, its relevance is assessed in relationship to the work activities described in the assessment standard. It provides a means for people in working life to have their competences recognised. In some cases the person may be asked to demonstrate their capacity in a real or simulated work situation. For a general qualification, the same requirements must be met as for a qualification through formal education; often, learning outcomes are less prominent compared to vocational qualifications. Assessment is on the basis of a portfolio, demonstrating experience.

The stages of the VAE are:

(a) assessment of the validity of the request;
(b) guidance to help the applicant create the dossier of proof (not obligatory);
(c) dossier, tracing precisely the relevant experience;
(d) jury assesses the application, possibility of an interview.

The jury is composed of representatives of the relevant profession/occupation and should try to have balanced representation of men and women. The jury checks whether the applicant possesses the competences, aptitudes and knowledge required to obtain the diploma, 'title' or certificate. They decide whether the individual receives the award or whether further testing is needed or the dossier is not accepted.

([49]) The source for this information is the France profile.

7.4. Conclusion

A growing number of European countries, though not all, sees recognition of informal and non-formal learning as a priority. In countries where recognition is seen as an important tool, there may be different approaches in different subsectors, some focused on learning outcomes, others not.

Approaches based on learning outcomes are most clearly observed where recognition procedures are set up for acquired vocational and professional skills.

With exceptions such as France and Portugal, the country examples seem to place emphasis on recognition in VET rather than on general education. However, quite a few countries, including Estonia and the UK, mention recognition for the purposes of access to higher education. Though clearly defined sets of learning outcomes can be identified – as is the case with the pilot work in the framework of the Bologna process – users may be either reluctant or in some difficulty, when applying the outcomes in their field.

Often, the debate on recognition or validation has, as its prime focus, the procedures for recognition, rather than the learning outcomes to be assessed. No doubt it is easier during the first phase of development to focus on the procedures; aspects of validation in France illustrate this. However, as illustrated in the case of Ireland and Portugal, systemic approaches are likely in the future to give a prominent role to the learning outcomes.

The main conclusions are as follows.

A strong policy interest in recognition is a fairly or very recent development. This is often linked to competences and thus learning outcomes (not inputs such as length of time in a job role). Depending on the country case, some systems emphasise formative approaches that increase learner confidence and motivation, while others concentrate on a summative approach to assessing the knowledge and skills that the learner has attained.

The emphasis is primarily vocational and related to the labour market rather than society more widely, except that several countries emphasise recognition for the purposes of higher education entry.

It is likely that recognition will become a more prominent issue in higher education. This depends on the policy decisions at European level being taken up in national policies and in institutional practice.

Some countries are taking a single, systemic approach and others are taking a diversified approach with local adaptations. This appears to relate to the wider social context for policy development, such as localised and social

partner approaches to policy, as compared to centralised, more directive approaches.

Parity of esteem between formal and informal learning is developing slowly in some systems, insofar as all qualifications can be acquired through recognition of non-formal and informal learning. The principles in use in Ireland place emphasis on learning outcomes rather than process (input) while, in France, the emphasis is on the use of nationally-defined procedures for recognition using the learning outcomes in the qualification standards. This distinction is of considerable relevance to the EU learning outcomes discourse.

There is recognition leading to exemption from course prerequisites and there is recognition leading to qualification. Both, in principle, are reliant on identifying learning outcomes. This is helped when countries have a well-developed procedure for developing and updating qualifications based on national standards, and refer prominently to learning outcomes. In several cases, such as Ireland and Scotland, a national qualifications framework based on learning outcomes and levels helps to clarify the outcomes that are being assessed, irrespective of how the knowledge and skills have been acquired.

CHAPTER 8

Learning outcomes: fulfilling different purposes

8.1. Introduction

This chapter presents a synthesis of the main issues arising from the different functions and uses of learning outcomes in VET, general education and higher education across Europe. It also draws on the very rich discussions which took place during the conference, 'Rhetoric or reality: the shift towards learning outcomes in European education and training policies and practices', organised by Cedefop in October 2007 in Thessaloniki, Greece. This conference enabled the study team to present and test the results of the investigations and the data collection and analysis over the first nine months and to engage in discussion about them with experts from many European countries and the different subsectors of education and training.

Earlier sections of this study have shown a clear reorientation of European approaches towards acknowledging the place of learning outcomes in education and training policies for all levels and types of learning. Depending on the country, the trend may be recent or may have been continuing for at least two decades. It is important to note that this is not just a European trend, as a preoccupation with charting the outcomes of learning is recognised as critical in many different contexts. Recent evaluation of the progress made on the Millennium development goals (*From schooling access to learning outcomes: an unfinished agenda*), observes that progress can be noted in terms of access to education, but recommends that more attention needs to be paid to the outcomes of the learning ([50]). Whether in developing countries, where achieving the Millennium development goals poses a real challenge, or in the countries of Europe, the observation behind this trend is similar. Developing access is a necessary, but inadequate, response to needs without an accompanying concern for quality and outcomes. In parallel, data for recent years in Europe demonstrates that governments and stakeholders are

([50]) The report is available from Internet: http://web.worldbank.org/WBSITE/EXTERNAL/EXTOED/EXTPRIEDU/0,,contentMDK:21108385~pagePK:64168427~piPK:64168435~theSitePK:2831470,00.html [cited 15.7.2008].

increasingly stating that learning based uniquely on input will not respond adequately to future challenges for individuals, society or the economy.

As shown throughout this study, learning outcomes are defined differently in practice within and between different education systems. They may be based on identifying key competences across the whole school curriculum or, for autonomous higher education institutions, diverse sets of academic subject and general transferable learning outcomes; both of these are increasingly being linked to employment. Alternatively, they may be closely related to occupational standards with a highly focused technical and vocational purpose and/or a prescriptive structure. The alignment of learning outcomes to occupational or to educational standards, or to the curriculum, is also illustrated in the previous chapters, drawing on the data collected for this study. The study has highlighted the rich diversity of policies and implementation rooted in specific national and/or sectoral policies, or the fruit of research undertaken mainly by social scientists working in fields associated with education and work. In addition, for VET and, increasingly, for higher education, the practical experience of employers, managers and people working in different occupations has a formative influence.

A framework will help to take further the analysis of learning outcomes as they are conceptualised, endorsed and implemented in European education systems. This should take into account:

(a) political will (policy, support, funding) to achieve a shift to the use of learning outcomes to further reforms in education and training systems;
(b) system organisational possibilities and constraints;
(c) structural and technical tools.

Insofar as learning outcomes are a tool for structuring and organising the transfer of knowledge, skills and competences, they fall into the category of technical solutions. It is important to emphasise that they are tools or means, not an objective in themselves. Our argument is that political will is crucial in moving from endorsement in policy documents to real implementation supported by a sufficient level of commitment and investment, taking account of the organisational/structural possibilities and constraints of each system. We have used the interplay of this framework in this synthesis chapter because it provides a way of organising the broad range issues that have arisen in our investigations.

As we investigate the data at systemic level, the use of learning outcomes in designing qualifications and the means for their recognition, as well as in curriculum and assessment, an image comes to mind: Russian dolls, where each successive doll is larger, rather than smaller, than the one in which it is

nestling. By this we mean that there is a range of issues specific to each aspect of the learning process (whether formal, non-formal or informal): curriculum design and implementation, assessment, teacher training, etc. Integrating those implications into policy for whole systems will present a substantial challenge for education in Europe.

Researching this study has raised questions about paradigm change and what the notion may imply for education systems in Europe. Is it about moving towards the types of approaches discussed in Section 3.2., the constructivist active learning approaches? As Edwin Webb pointed out in his presentation to the Cedefop conference (mentioned above), all learning is inherently an active process if the individual is to learn anything. Does the move towards an outcomes-based approach constitute a paradigm change in itself, or is it just part of one? Does paradigm change imply something more fundamental that addresses the purposes, principles, values and aims of education systems? The current, complex changes in higher education, typified by the Bologna process, suggest the latter. Investigating the different ways in which countries and subsectors are endorsing and implementing learning outcomes has assembled data that illustrates the directions in which European education systems are moving. The development work currently being carried out in some countries for general education, in particular for compulsory education, is posing fundamental questions about the purposes of education for children and in responding to the challenges of the 21st century. Similarly, this is also true for higher education, where there is an increasingly sharp debate about the role, nature and organisation of the university in the 21st century.

What can be referred to as a traditional 19th century paradigm, developed to respond to the needs of industrial society (learning in one place, for given periods of time, the teacher in front of the class, etc.) is repeatedly called into question, especially given the increasing possibilities for individuals to learn when, where, how and what they wish. Learners increasingly make choices about different modes of delivery, not least through their own initiative in using e-learning facilities ([51]). Over the past two centuries, many thinkers and educationalists have criticised traditional approaches to education, putting forward (and frequently into practice) their ideas and the results of their observations. Whatever the country of origin or the specific background, their recommendations were similar ([52]): highlighting the importance of educating

([50]) Korea provides a clear example of a country in which ICT is being used as the central strategy for driving up standards and for making learning more accessible to all groups in society, and in all settings.

([51]) They would include the 19th century Utopians, John Dewey, Paolo Freire, Ivan Illich, Janusz Korszak, Maria Montessori and many others.

and empowering the whole child, giving children more space to express their diversity and for self-organisation, encouraging them to take responsibility, work in teams helping each other, learn by doing, etc. Debates about where you learn, how, when and for what purpose, are not calling on entirely new concepts or ideas; however, technology, along with the associated changes in communication, acts as a catalyst, making change unavoidable and increasing the pace at which it takes place. Further, what we learn has certainly become more problematic in the late 20th and early 21st centuries as the increasing rate at which knowledge and information are expanding and the resultant escalating pace of curriculum change is forcing us to focus on what should be included and what should be dropped from any syllabi. The move to embrace key competences and learning outcomes could bring more precision and clarity to this selection. This debate is taken up in the European Commission staff working document, *School for the 21st century* put out to consultation during 2007 (European Commission, 2007b).

The influence and consequences of continually evolving ICTs raise challenging questions about our capacity to foresee how the next generations of technologies and interfaces will reshape access to, and delivery of, learning. How will we tackle the different digital divides (e.g. between the 'digital natives', children and young people, and the 'digital immigrants', teachers, parents and employers) and the inevitable consequences for the ways we select, organise and transmit knowledge between generations? Young people's capacity for multitasking with technologies and creating their own networked society does not have to be seen as a threat to classroom discipline, but a real opportunity for creative approaches. As technology-enhanced learning gains credence and ground at all levels, are we ready to deal with the possibility of the primary place of learning moving away from the traditional institutions of education? What will be the future roles of governments, enterprises and civil society in this case ([53])? The important element is not the technology as such, but the broad and deep implications for learning opportunities.

This chapter is organised in two main sections. The first looks at the place of learning outcomes in supporting strategies for lifelong learning. The issue is whether and how learning outcomes, as they are used in current policy, go beyond rhetoric to provide concrete support for lifelong learning. The second section broadens the debate and the source of understanding of learning by introducing into the discussion other types of research, which are increasingly contributing to the development of learning sciences.

([53]) For an exploration of these issues see the *European Journal of Education*, Futures of learning: a compelling agenda, Vol. 42, No 2, June 2007.

8.2. Do learning outcomes contribute to improving opportunities for lifelong learning?

Systems that enable individuals to benefit from lifelong and lifewide learning demonstrate a number of characteristics that include open and flexible access, a capacity to cater for a broad range of needs, the mechanisms for recognising non-formal and informal learning, transparency about provision, the support of guidance systems, financial support for enterprises and individuals, etc. In the following subsections we look at how learning outcomes contribute in terms of the overall issues, recognition, coherence and learning opportunities.

8.2.1. From subsectors to the seamless web

In Chapter 4, we examined the role of learning outcomes in improving the opportunities for lifelong learning at systemic level. Capitalising on the political will and momentum created by the Lisbon strategy, considerable emphasis has been placed by Member States on developing the tools to stimulate and support implementation of the means and mechanisms at systemic level (the technical solutions). In practice this means a multi-activity approach (setting objectives, creating and monitoring benchmarks and other external reference points), bottom-up exchange of expertise through peer clusters and through the lifelong learning programme supporting the diversity of practitioner and sectoral level innovations).

Three general issues arise from that discussion, all of which would benefit from further qualitative research, going behind the policies to understand better the lessons about implementation.

The first question is the extent to which learning outcomes contribute to strengthening the interconnectedness of education and training systems in moving towards lifelong and lifewide learning opportunities. We refer here to the possibility for mobility within and across learning systems without encountering barriers. This is a key policy aim, motivating the development of national qualifications frameworks. The Irish experience of building a single national qualifications framework for all qualifications and types of provision is an example of structural response, in terms of organisation and management, whereas other European countries are continuing to develop each subsector distinctly. However, these policy choices do not necessarily limit access. As the examples from Nordic countries illustrate, other policies than a national qualifications framework can create the conditions for open education systems, flexibility, transparency, etc. Currently, though, it is too early to make

clear statements about the benefits to the end user; the significant factor would appear to be the need for dynamic interplay between the policy framework, the institutions and mechanisms in place, and the tools developed; learning outcomes contribute within a particular policy context.

Second, when we talk about increasing the coherence of systems, this does not entail designing and using the same learning outcomes throughout Rather, the architecture of a national qualifications framework has to be based on criteria that can lead to negotiated judgements about what goes in and what stays outside that brings coherence. This is best illustrated in the observation by David Raffe that the Scottish framework is a communication or enabling framework. It has no regulatory function, but is used by educational providers, stakeholders and learners as a reference point and a tool for rationalising, coordinating and communicating their actions. Also, unlike many NQFs, it is a loose framework; its design rules for the curriculum, for assessment, and for the size and architecture of qualifications are permissive. However, it encompasses tighter sub-frameworks, which have their own more stringent design rules (Raffe, 2007). Another example here would be the French framework, for which part of the coherence comes through the mechanisms and procedures implemented by all ministries and social partners with a responsibility for designing and updating qualifications. In both these cases, appropriately identified learning outcomes have an important role.

Third, there may be a tension between context and international models. In the coming years it will be interesting to follow developments in some of the countries of the western Balkans and in Turkey as NQFs are designed using the EQF levels or adapted versions of them. The issue seems to be whether a balance (rather than a tension) can be reached between suitability of the elements introduced and the structural constraints of the national system, i.e. interpreting the lessons and making sense of them in the local context. It is a matter of harnessing the political will towards formulating tools that respond to national structural possibilities.

The history of European education systems has been one of distinct development among different subsectors; the lack of connectedness and coherence was only recently identified as an issue that needed addressing. The social and economic challenges of the last decades of the 20th century highlighted the dissonances between the different subsectors and the effects on individuals in their life and career paths. A policy will have to be developed to design more encompassing frameworks as well as other structural and technical tools to tackle these dissonances. The adoption of learning outcomes is simultaneously used as a tool in several contexts.

8.2.2. Learning outcomes as a tool for recognition

Growing priority is being given to recognising informal and non-formal learning in a considerable number of (but by no means all) European education and training systems. This is supported both by the increasing use of learning outcomes, and attempts to make qualification systems more coherent and more legible, and more open to learning that occurs outside the formal contexts of schooling and other establishments. Recognition policies aim to make explicit and transferable the skills and knowledge that working people and citizens accumulate through experience. This includes people who had limited or unsuccessful experiences in their earlier learning careers, as well as large numbers of people who have to be (occupationally and geographically) mobile in their working careers. Commonly, recognition policies also aim to encourage and motivate people at work continuously to expand or diversify their skills profiles. This responds to national and international calls for countries to raise the overall skills levels of the population, to improve competitiveness in the global economy. It also responds to a need to ensure that education and training contributes to the social goals of inclusion and social cohesion. In some contexts, recognition policies both give value to the learning outcomes of prior experience and are designed to motivate and empower the learner to engage further.

Successful recognition policies are best underpinned by institutional and qualifications frameworks for education and training. These should be sufficiently clear for learners and other stakeholders to understand and use. A second prerequisite is access to pathways for learning that are sufficiently open for all learners to have points for entry and progression that meet their particular needs. Emphasis on the needs of the learner, rather than the structures of providing institutions, opens up new possibilities for flexible learning, including the opportunities offered through distance and e-learning. Here, the identification of learning outcomes can provide the organising factor to make explicit the achievements of a wide range of learners, irrespective of the types or modes or duration of learning and training that they engage in. Some of the national systems for recognising informal and non-formal learning that are developing in Europe seem to prioritise identifying learning outcomes: Ireland is a clear example. These are then established as a vehicle that can bring coherence to diverse practice, for example in VET and higher education. Other countries, including France, concentrate primarily on the procedures for recognition. Some countries are introducing a single procedure to be used across the subsectors of education and training, while others are working to identify the learning outcomes that can bring coherence to diverse practices

for recognition. In both cases the recognition processes apply at local levels of education and training. The implication is clear: in both cases, a well-developed consensus on the kinds of learning outcomes that are to be recognised is required.

The search for coherence for recognition purposes tends to be quite pragmatic. Improving coherence is also one of the overall declared intentions of NQFs. However, it is currently difficult to find sufficient hard evidence to support such a claim, given how few national overarching frameworks are in place. Further, the creation of NQFs is relatively simple compared to their implementation. It takes time for new frameworks to impact fully on educational systems and practices and properly integrate with other quality assurance mechanisms. Only following this could any use of learning outcomes aid effective recognition. It will take several years before it is possible to assess their contributions of the frameworks planned or under development. There are few single frameworks, such as those found in Ireland or Scotland, which encompass all types and levels of learning. The argument in favour of this type of approach would be that the focus on learning outcomes brings systems closer to the 'seamless web' ideal. Other frameworks focus specifically on technical and vocational qualifications with learning outcomes of a very different type than would be appropriate for general education. The question here is whether coherence derives from the existence of a framework built around learning outcomes or from other factors in a system such as funding mechanisms, strong institutions, or a community of practice that supports lifelong learning.

The argument is that overarching national frameworks will add to the interconnectedness of subsystems by creating a coherent foundation against which all learning can be measured. However, in a very interesting recent analysis of the difficulties encountered in the South African NQF, Stephanie Matseleng Allais (2007) draws attention to the dangers to learning outcomes used as the central strategy. She summarises an outcomes-led qualifications framework model as one in which 'educational standards must be nationally "set" by defining learning outcomes and associated assessment criteria. A "standard" is seen as a clear and fixed statement of competence that a learner must achieve, and the basis from which programmes can be designed and content ("inputs"') selected'. She then goes on to quote Alison Wolf in her 1995 publication on competence-based assessment (Wolf, 1995) referring to the 'spirals of specification'. By this Wolf means that 'The more serious and rigorous the attempts to specify the domain being assessed, the narrower and narrower the domain itself becomes, without, in fact, becoming fully

transparent. The attempt to map out free-standing content and standards leads, again and again, to a never-ending spiral of specification'. Allais goes on to observe that the outcome in South Africa has been: that 'the qualifications framework is a castle in cyberspace - a list of qualifications and unit standards with very little relationship with the real world of educational provision'. This suggests that the apparent coherence introduced through the specification of learning outcomes may be counterbalanced by other factors such as the level of specification needed and the relationship to provision. The analysis of Allais, though rooted in the South African context, raises very relevant issues for the European education and training systems developing learning outcomes in the context of moving to an NQF. The implications of her analysis are that the organising and motivating effects for lifelong learning may not necessarily function as optimally as intended. Current educational thinking in Scotland, for example, stresses the need for qualifications design rules to be fit for purpose rather than to impose unnecessary uniformity (Raffe, 2007).

Clearly, various European educational subsystems exhibit disjunctions between general education, VET and HE, based on different historical, conceptual and political realities. The application of a learning outcomes model to these sectors through NQFs and the existence of the meta-EQF and Bologna frameworks, poses interesting questions about the level of political intervention and control in each respective sector. It is evident that in the jealously guarded world of academic autonomy, which characterises European HE, the nature and level of control is different from that of general and vocational education. This may well have implications for the nature and application of learning outcomes in each sector.

In earlier models of frameworks and levels, the unit of recognition tended to be the certificate or diploma; these frameworks and level descriptors were designed specifically for employment purposes to classify levels of occupations, often in salary scales and sectoral agreements ([54]). The more recent frameworks aim to serve a broader range of purposes, including allowing individuals to build pathways and progression, obtain credit, and to assess the quality of qualifications. This last criterion includes ensuring the transparency and 'readability' of the qualifications in the framework, which is also very important for VET and for employability. However, it raises issues of what is meant by 'readability': to whom, and how? There are clearly different

([54]) See Bouder and Kirsch, 2007.

expectations in the business sector and among academics and training specialists. As one employer put it, at the 2007 Cedefop conference on learning outcomes: employers need to know what the learning outcomes for the worker undergoing training will be, so that the person can do in practice what they have received training to do. However, they also know what sort of people they need for the future (which relates to the general education background). This raises many interesting issues such as evolving recruitment practices, what employers look for in applicants, and the role of general education versus highly specialised training.

8.2.3. Learning outcomes to enhance learner opportunities

One of the issues raised in this study, as a result of observing the development of different subsectors of education, is whether systems should be seeking to identify a common set of – or approach to – learning outcomes for all types of learning.

Countries have often sought to achieve statements of learning outcomes that can apply across different subsectors. This has become a generally accepted aspiration over the last two decades and is central to the development of methodologies for producing occupational standards, competence standards and, therefore, learning outcomes for vocational qualifications. One important argument that favours this approach is that building an NQF around a shared set of learning seems to offer enhanced opportunities for lifelong learning. However, bearing in mind that the specific outcomes in general education, higher education and VET vary, the sensible path may be to achieve a common methodological approach to learning outcomes and, at the same time, to recognise the substantive differences between the different sectors of learning. It is worth noting that the countries in which opportunities for lifelong and lifewide learning appear to be the best, such as the Nordic countries, are not traditionally based on either an NQF or a shared set of learning outcomes. However, they demonstrate coherence in the policies implemented to support learning opportunities of many types, for all the population, through access, transfer and progression; they have generated the structures and institutions that deliver them.

Another form of coherence may be ensuring that an approach using learning outcomes is present throughout the system and informs curriculum development, qualification development, funding mechanisms, and staff training.

Strategies for lifelong learning that connect and integrate different types and levels of learning necessitate building trust between the subsectors and,

therefore, finding a common language for communication. A central question of this study is whether the move to learning outcomes will actually make a discernable difference for the individual learner, worker, employer and teacher. Through the links to occupational standards, modularisation, recognition of prior learning and of non-formal and informal learning, will there be an increase in the opportunities for individuals to progress and gain qualifications? There is evidence of increased recognition of informal and non-formal learning in countries such as Ireland, France, Romania and Finland. So far, however, there is little hard evidence that designing the system around learning outcomes enhances opportunities for learning, progression and for obtaining qualifications. It will be some time before the impact of recently established sets of reforms that link NQFs, recognition policies and tools such as learning outcomes can be evaluated.

8.3. Learning outcomes and advances in understanding learning

The analysis of the data consulted for this study suggests that there is an opportunity to bring together the experience accumulated over the last two decades of designing and working with learning outcomes as a technical tool and the reflections on the policy directions and purposes of 21st century education. This is a major concern of the European Union and Member States. Research into how learning takes place from a neuroscience point of view is beginning to contribute to our understanding, in addition to more traditional and established fields of research about learning.

It is important for this type of study to focus not only on what is taking place in the Member States and partner countries in new policy and curriculum development, but also on some of the radical changes in learning that are reshaping our understanding of how learning takes place. The question is whether there are useful lessons for the further development of outcomes-based systems.

We are in the early stages of opening up the black box and understanding more about learning from a neuroscientific perspective. One of the outcomes of recent research has been to demonstrate the validity, using evidence from brain research, of observations some teachers have always held to be true: children who are unhappy or hungry cannot learn as well or as effectively, fear does not stimulate learning, and so on. Thus the accumulated wisdom of educators is, in some cases, being verified.

In 2007, the OECD (2007b) published their second book about brain research and learning, *Understanding the brain: the birth of a learning science*. It is a synthesis of the results of seven years of trans-disciplinary research, studies and seminars led by the Centre for Educational Research and Information (CERI) of the OECD in cooperation with teams of scientists, experts, research centres and ministries from across the world. The project, started in 1999, set out to encourage collaboration between the learning sciences and brain research and also between researchers and policy-makers. The result is a fascinating set of observations, questions and pointers which begin to open up some new areas of reflection for education policy design and practice. It supplies evidence to support some very familiar notions about learning, while neatly refuting others and suggests ways in which neuroscience can contribute to our thinking about education (formal and informal). In contributing to building a real 'learning science', educational neuroscience is both generating new knowledge, and therefore opening up new avenues for research, while it is also building on what we felt we knew already but needed to understand better (moving from correlation to causation) through providing the evidence.

In recent years, brain imaging technologies have made it increasingly possible to observe the working brain. The resulting research provides helpful insights into perceptual, cognitive and emotional functions which contribute to our understanding of the processes of learning and could help in structuring nurturing learning environments for people of all ages. The plasticity of the brain and 'sensitive' (rather than 'critical') periods for learning are two key messages of the research. Plasticity is a core feature of the brain throughout life, as some neuronal connections will be created or strengthened while others are weakened or eliminated as part of adapting to environmental demands and giving the brain flexibility to respond to environmental demands and changes significantly over the lifespan. The degree of modification will depend both on the type of learning taking place and the period in life. Research also shows that, though there are no 'critical' periods for specific types of learning, there are 'sensitive' periods. Scientists have documented sensitive periods for certain types of sensory stimuli such as vision and speech sounds or for emotional and cognitive experiences (e.g. language exposure) but other mental skills, such as vocabulary acquisition, which do not appear to pass through sensitive periods. Another key message is, therefore, that learning really is a lifelong activity and is more effective the more it continues.

The findings suggest that nurturing is crucial to the learning process. They are also beginning to provide indications of appropriate learning environments,

not in the quality of the overall environment but also the importance of focusing on minds and bodies together. Holistic approaches, recognising the close interdependence of physical and intellectual wellbeing and the close interplay of the emotional and the cognitive, enforce the possibilities of taking advantage of the brain's plasticity, facilitating the learning process (OECD, 2007b).

It has long been thought intuitively that emotions have an effect on learning. Brain research is demonstrating that they have a real effect, including on the neural tissue. The power of positive emotions and the pleasure of learning can be seen in imaging that shows that the brain reacts well to the illumination that comes with grasping new concepts. Similarly, managing one's emotions has often been felt to be a key skill for functioning in society. Research shows (something that many teachers observed) that emotions can direct or disrupt psychological processes such as ability to focus, solve problems, etc., and so are one of the key elements in being an effective learner ([55]). In their article, *We feel therefore we learn: the relevance of affective and social neuroscience to education*, Immordino-Yang and Damasio (2007) explore how the connections between emotion, social functioning and decision-making have the potential to 'revolutionize our understanding of the role of affect in education'. The authors emphasise that recent findings underscore 'the critical role of emotion in bringing previously acquired knowledge to inform real-world decision-making in social contexts, they suggest the intriguing possibility that emotional processes are required for the skills and knowledge acquired in school to transfer to novel situations and real life'. They conclude by saying that when 'we educators fail to appreciate the importance of students' emotions, we fail to appreciate a critical force in students' learning'.

What is the relevance of these developments in the emerging trans-disciplinary learning sciences to a comparison of learning outcomes in education policy in European countries?

A first question (raised implicitly in Chapter 3 about the use of research in developing learning outcomes) is the extent to which, if at all, the processes implemented for identifying learning outcomes for education and training can be supported and enhanced by the findings of educational neuroscience.

This research may be useful for reflecting on whether the same learning outcomes are really appropriate for all age groups. This study has shown that there is differentiation for different age groups, phases of learning and for different types of learning (general education, VET, etc.) but which it is possible to recognise in a single framework. The message over recent decades has

([55]) See also Goleman, 1996 and 2007.

been about providing qualifications that are the same for everyone, whatever their age or previous route, constructed on a common set of occupational or competence standards providing a fixed statement of what a learner must achieve. Does recent research encourage us to rethink that wisdom? Should we maintain the idea of common qualifications, but rethink whether or not that necessarily implies common sets of learning outcomes?

If the message about 'sensitive' periods rather than 'critical' periods reinforces the importance of building systems and approaches for lifelong learning, perhaps it also gives weight to the plea of not 'overcrowding' the curriculum for young people. It suggests that learning outcomes for adolescents could focus on the areas of learning that will make young people confident and motivated learners throughout life, including focusing on the learning outcomes for achieving key competences ([56]).

The research encourages holistic approaches to learning and teaching, inevitably raising questions about the type of learning outcomes and how they are used. Again, this is not a new idea; good teachers have always worked in that way, but formal education systems (and also non-formal settings) have not fully explored the real consequences of taking this approach on board: design and implementation of the curriculum (including assessment), organisation of time and space, funding models, teacher education, school leadership, evaluation of the system, biorhythms of children, etc. With increasing evidence of the benefits to individuals, families, communities and society of taking a holistic approach, it may be an opportune moment to move that research and development forward, with the European education systems possibly through a peer learning process. This would contribute to moving from the endorsement of learning outcomes in policy, to ensuring and monitoring their implementation. This would also advance our understanding of the implications for increasing the personalisation of formal education.

([56]) See: European Parliament, 2007.

CHAPTER 9

Further analysis and conclusions

The final chapter synthesises and reaches conclusions on the themes contained in the report, beginning with a summary of the main perspectives that the report has developed. Overwhelmingly, the evidence suggests that learning outcomes now play an important role in developing different aspects of European education and training systems. In key respects, they form part of an innovative approach to learning, which some commentators have identified as part of a new paradigm.

Learning outcomes are best defined as statements of what a learner knows, understands and is able to do after completion of learning. The learning may take place formally through a qualification, or informally through experience gained in the community or workplace. Developing and making appropriate use of learning outcomes is best understood as an approach that is applied in diverse ways in different policy, teaching and learning settings. Learning outcomes are like a set of tools or keys, but loosely linked and useful in different ways according to the context: that are not a single tool or key.

It follows that there is no single correct or apt way to develop and use learning outcomes. As is the case with effective teaching and learning, the level of activity, the context and interaction between the actors are important factors that condition how learning outcomes can be defined and used to best advantage. Like competence or *Kompetenz*, the term can aptly have a range of connotations and denotations, precisely because it is used in different national contexts and localised learning environments. Never the less, a helpful distinction can be made between competence and competences. Competence often (but by no means always) refers to the possession of a wide range of knowledge, skills and attitudes needed to operate effectively in context, while competences may often refer to more specific capabilities. Thus, achieving competence may require the acquisition of a number of more specific competences.

The environment in which learning outcomes are now occupying an increasingly prominent position is the shift in European education and training systems towards lifelong learning frameworks. This gives learning outcomes

a pivotal position in redefining qualifications and the curriculum in VET, general and higher education. This chapter begins with an overview of how this is taking place. The text of each chapter in the report and the accompanying tables provide many examples of developments and reforms, in which the identification of learning outcomes has a central role. Here, therefore, the main developments are identified, adopting a level of generalisation. Country and other cases add a particular emphasis. Then, the chapter links the findings of the research with a more practical concern with moving the agenda forward. Finally, a summary of the conclusions.

Throughout, emphasis is placed on the diversity of the increasingly important role of learning outcomes, in terms of both perspectives and usage.

This concluding chapter is in four sections. The first two sections synthesise and draw out conclusions about the roles of learning outcomes in reform and in lifelong learning strategies. The final sections focus on the roles of the stakeholders in identifying learning outcomes and on some of the practical considerations for making change work.

9.1. Learning outcomes in education and training reform

Learning outcomes have an important role to play in modernising and reforming education and training, in conjunction with other factors. The study has gathered evidence from several sources to gauge the impact of ideas about learning outcomes on Europe's education and training systems. The evidence is that the identification and use of learning outcomes is beginning to occupy a prominent position, particularly where attempts are being made to modernise and reform education and training systems.

Recent developments in France illustrate this trend. At the beginning of the 1990s, the government took a clear decision that learning activities and learning outcomes should be the focus for VET diplomas. The content of the training curriculum, while important, should no longer be the main focus for learning or for assessment. More recently, the introduction of a *socle commun* into compulsory general education in France signalled the importance of introducing learning outcomes that are broader than subject knowledge and skills.

Identifying learning outcomes can provide a guiding focus for effective teaching and learning, and serve to make the curriculum and assessment more transparent. Whether in policy development or implementation, most European countries are planning or making a shift in this direction.

Learning outcomes are also required to perform multiple functions in national education and training systems in European countries. Researchers, policy-makers and practitioners must bear this in mind. While there may be aspects in common, a series of learning outcomes being used to redefine a unit in a higher education programme are not synonymous with the knowledge, skills and competences that may be attached to a professional profile or the learning outcomes for a new VET qualification. Generalised statements that may define learning outcomes at different levels in a national qualifications framework are unlikely to be precisely the same as the more detailed and context-laden outcomes defined in a particular subsector. Similarly, as a national or local education system includes learning outcomes in its quality assurance framework, these will overlap only partly with the learning outcomes that schools and teachers must use as they develop teaching and learning programmes and assess their students. The evidence contained in this report strongly suggests the need to be sensitive to the particular context in which learning outcomes are used. Throughout this study the plurality of solutions adopted in different European countries and across the subsectors of education and training has also been emphasised.

Across the subsystems of general, higher education and VET, the drive to redefine qualifications and curricula using learning outcomes has been most clearly seen in VET. Programmes of study and the mix of school-based and work-based learning are now increasingly focused on the learning outcomes called for in working life. The clear point of reference is the kinds of skills required for successful involvement in working life. A simultaneous shift is taking place to identify the soft or transferable skills that the modern labour market calls for, alongside specialist knowledge and skills. The challenge is to equip the learner with the transferable skills needed for unpredictable working careers, while at the same time meeting the labour market's technical skills needs. Most European countries have developed, or are developing, approaches to VET qualifications that identify learning outcomes based on standards, and which are subject to procedures for validating them, and to governance and quality assurance by recognised national, federal or regional agencies.

Learning outcomes also have an increasingly prominent role in higher education. So far, however, at the European level the Bologna process has concentrated mainly on the mutually agreed developments of new structures. Thus university degrees are being recast as licence, masters and doctorates (LMD). The evidence is that the learning outcomes approach, on which there is broad agreement at European policy level and often in Member States, is

being adopted more slowly in higher education institutions; this is not surprising given the huge amount of work needed to transform the curriculum. The agreed formulations of generic and specialist competences, as they are called, or locally adapted variants, are only gradually being introduced to reformed higher education courses and modules. Even if, as the evidence suggests, learning outcomes are having a limited impact on higher education at present, this is likely to prove a major shift in the reform of higher education teaching and learning in the longer term. The development of learning outcomes in higher education can be described as a slow burning fuse: the agreed formulations for learning outcomes in higher education are having limited impact, but the situation is likely to change in the middle and longer term, with considerable impact on higher education teaching and learning.

Increasingly, learning outcomes are being introduced as a guiding mechanism to inform general education reforms. The emphasis is on defining learning outcomes to shape the learner's experience, rather than give primacy to curriculum subject content. Learning outcomes are being used in a range of countries to point the way to modernising EU schooling systems, thus acting as a renewing and reforming influence at different levels: governance, systemic reform, curriculum, pedagogy and assessment.

The study has identified two different ways in which learning outcomes are given prominence in compulsory schooling in the school curriculum. In one approach, a core of learning outcomes is defined with reference to the school curriculum. The learner is expected to achieve these outcomes through the experience of learning: some of the outcomes are linked to specific subjects within a core curriculum, while others are learned across the whole curriculum, including wider and informal experience. A second approach identifies holistically the learning outcomes that the learner should typically achieve by the end of a phase, or the whole of school education. These are associated with the agreed aims and objectives of the education system. Only then are appropriate subjects and groupings of subjects identified or brought into play. In this case, new possibilities open up to include new ways of thinking about the learning process in the overall planning of learning programmes. We can expect these approaches to open up new challenges for pedagogy and for school organisation.

In both of these approaches the role of learning outcomes is to provide a new organising focus for teaching and learning. This can mark a radical shift from the traditional, subject-dominated approach to the school curriculum and can be referred to as a learner-centred approach. This new thinking is also given encouragement by recent research into the development of the brain

with regard to learning environments; new fields of research emphasise that effective learning is closely associated with holistic, rather than rigidly stratified, approaches. As we understand more about learning processes through research being conducted in fields outside traditional domains, we can expect the results to open up new challenges for pedagogy and school organisation. New approaches to learning outcomes in the school curriculum are also often linked with decentralisation in arrangements for the curriculum; various forms of decentralisation have been a marked trend in most European countries' education systems over two decades.

Growing emphasis on learning outcomes does not mean that the definition or content of the curriculum have become unimportant. Rather, the identification of clear and apt learning outcomes acts as an organising principle for good practice in schools; they take their place alongside the aims, objectives and ethos of the system or institution. They have a direct and formative impact on the curriculum and pedagogy, contributing significantly to what and how young people learn, and should have an impact on how learning is assessed.

Across Europe, the post-compulsory phase of general education is the part that has been least influenced by reforming ideas about learning outcomes. This is largely because the educative function of upper secondary general education can be overshadowed by the selective function. General upper secondary schooling in most European countries is intended primarily to lead to higher education, and access to university is a restricted transition that is intended for only part of each age cohort or generation. A consequence is that general upper secondary education remains closely tied in many cases – though not all – to detailed curriculum or syllabus requirements, often assessed by terminal written examinations. In this case, the learning outcomes are limited by the learning requirements of the groups of subjects followed, often closely monitored by the subject specialists in universities. If learning outcomes begin to have a formative impact on university curricula and pedagogies, this may in due course have a consequential effect on the curriculum, pedagogy and assessment in upper secondary general education.

If the evidence and argument above are accepted, learning outcomes will have an impact on styles of assessment. However, the evidence gathered for this report suggests that learning outcomes currently have a limited impact on the ways in which learning is assessed. This calls for more attention on the part of research, policy-makers and practitioners.

Recent reforms in some countries provide interesting case studies in introducing learning outcomes as an effective way to guide assessment

practice, replacing more traditional notions such as course completion and tests, both of which depend for their legitimacy on learning inputs, to assess mastery of content. The report has highlighted several such innovations. In Norway, the new approach to the school curriculum is built on agreed conceptualisations of learning outcomes, and it is intended that assessment in future will be formative for learners rather than simply summative for quality assurance purposes. In Finland, assessment in VET at all levels is being shifted away from course or unit completion and formal, traditional testing to what is called locally 'demonstration' assessment. This applies in school-based and polytechnic VET qualifications, and also to the recognition of skills acquired informally and non-formally by adults in the workplace. In Ireland, learning outcomes are the constant factor in the newly-developed system intended to provide a flexible framework for recognising informal and non-formal learning, while the Romanian system of recognition centres for adult learning is based firmly on competences, as learning outcomes. These approaches to assessment rely strongly on assessment vehicles such as student portfolios, projects and recorded evidence, products and assignments produced after negotiation with the teachers or trainers, and the formative assessment of learning experience in the community or workplace.

Even if learning outcomes are generally less influential in assessment than in some other aspects of education and training reform, the identification of active learning as a new – or increasingly dominant – paradigm raises the question of what kinds of assessment are appropriate. The solution may be found in linking assessment to the active learning cycle. This strongly implies the need for formative assessment, and to build up a culture of self-assessment as an explicit part of assessment for learning. Traditional, end of qualification examinations may perform a selective function, but they really cannot perform this formative function.

Yet, it must be recognised that assessment legitimately has diverse purposes. In practice, policy-makers, practitioners and researchers all seek a combination of usefulness, reliability and trust from assessment. Although there may not be a consensus as to where the balance should lie, the identified shift to learning outcomes requires some major changes in well established testing and assessment practices ([57]).

Vocational education and training has been the sector where learning outcomes have first been brought most clearly into play. The challenge now

([57]) This paragraph is informed by the Steiner presentation and the contribution of Paul Black to Cedefop's Learning Outcomes conference (Thessaloniki, October 2007).

is to find appropriate descriptors and metaphors that can make the use of learning outcomes fully appropriate to developments, such as national qualifications frameworks, and in subsectors such as general education and higher education. We take up this question in the next section.

9.2. Learning outcomes as a focus of lifelong learning policies

Beyond the reform of particular qualifications, curricula and assessment processes, the report has shown how learning outcomes are prominent in attempts to develop a modern, overarching approach to all aspects of education and training. Lifelong learning policies are intended to help to meet the challenges that modern societies face, including individuals, communities, labour markets and economies.

In Europe, most Member States report ([58]) that developing a coherent lifelong learning policy is a priority, even though few Member States can be considered to be advanced in implementing a lifelong learning strategy. Overall implementation remains patchy, at best. As might be expected from the different geopolitical traditions and approaches to developing social and economic policies across the European Union, the basic motivation behind the development of a lifelong learning strategy varies between countries. Some countries emphasise the social dimension, and the entitlement of all citizens to free access to lifelong learning opportunities on as equal a basis as possible. Others, while not ignoring social inclusion and cohesion, place the primary emphasis on employability and raising skills levels in the workforce. A third group envisages the social and economic priorities as intertwined in developing an approach to lifelong learning, not as separate or alternative strands. In each case, there is a strong tendency to identify generic learning outcomes, to give shape to national policies.

Linking systemic policies for achieving identified learning outcomes and the development of clear strategies for lifelong learning is being attempted in Member States where a national qualifications framework exists or is under development. This is the case, in particular, where efforts are in place to recognise the outcomes of all learning experiences, irrespective of whether the setting is formal or informal, explicit or implicit. Never the less, several of the

([58]) See, for example, European Commission, *Draft 2008 joint progress report on the implementation of the Education and training 2010 work programme*, 2007a.

most successful countries – in terms of their education participation and achievement levels – have not so far operated an NQF.

The report has provided numerous current examples of how learning outcomes can be conceptualised and grouped (see Chapter 3). We have suggested that a particular formulation may be developed through the adoption or use of theories and research into learning outcomes, through negotiation between the stakeholders involved or, simply, through borrowing a formulation in use elsewhere. In practice, the identification of learning outcomes to create levels in a national qualifications framework should probably contain a well-judged mix of these sources. In many cases, the origin of particular formulations of local outcomes and the method for arriving at them are far from clear. This should be more explicit, in developmental work and in international comparative work.

The literature on learning outcomes is rich and also includes distinctive approaches, the usefulness of which must be decided by the relevant actors. The research and development involved in producing a worthwhile statement of learning outcomes and levels to form the structure of a useful and durable qualifications framework is an extensive task. Further, as aspects of research are now beginning to tell us more about the brain and how different approaches can optimise the learning process, received wisdom from the traditional approaches to categorising learning outcomes is not necessarily the best guide to meeting future needs.

The process of developing and maintaining a qualifications framework is an important corollary to the technical specifications. Alone, qualifications frameworks may have little value; their dynamic purpose is to help to resolve challenges in the system that need a strategic approach. In some cases this will be a VET system that is not responsive to the needs of the labour market or work organisations. In other cases, the pressure for wider reform will be to open up access to learning or to further qualification to groups that are blocked from progression, or who face major barriers. Again, the issue may be to bring more coherence to the whole system, where general education, higher education and VET previously existed in sealed compartments, with limited points of contact and transfer. A qualifications framework constitutes, at best, an active networking and a focal point for the stakeholders engaged in the complex task of sustainably reforming major aspects of an education system. Therefore, an NQF development has to be seen as an active tool that engages the main stakeholders in negotiation and, probably, compromise at different levels in the system. This is the idea behind the Scottish credit and qualifications framework (SCQF), which is ‘owned’ by a consortium of

stakeholders, and does not sit inside the government department.

Numerous countries now have their own national qualifications framework, many more are under development. The European qualifications framework has been adopted by the Member States as a mapping device and also provides a point of reference for the partner countries of the EU. The difference between a mapping of qualifications and a qualifications framework is that the former simply describes existing qualifications (often by age, stage and duration), while the latter provides common threads to align the different qualifications or types of qualifications. Generic statements of learning outcomes can link the different qualifications strands, hence the effort to identify such outcomes.

The current influence of the EQF may lead to a common norm of descriptors and levels that look like those contained in the EQF. Chapter 3 explored the basis on which national policy-makers develop more systematic approaches to learning outcomes. Often a combination of three factors is involved: the use of theory and research to predefine the field, the process of negotiation or round table discussion between stakeholders to reach agreement, and the adoption of pre-existing schemes from elsewhere. It is sensible for countries developing their NQF to treat other formulations as part of the research and theoretical background, or the evidence base for developing their own policies. However, national contexts and challenges are specific, and there is clear advantage in each Member State working out carefully its own needs: the challenge is to assist national strategies through the development and use of tailored learning outcomes, now often broadly expressed through a national qualifications framework. International comparability and legibility of qualifications is one purpose of a national qualifications framework, but not the only one. If countries are to develop fit-for-purpose sets of learning outcomes, these must be honed both to the context and to intended strategy. This approach implies policy learning, not policy borrowing; the open method of coordination and peer learning can provide a constructive vehicle for this in Europe.

The development and use of national qualifications frameworks can be summarised in the following way. First, a national qualifications framework comprises, at best, an active partnership engaged in a project intended to make a contribution to resolving key problems in the systems where it is located. Second, this takes time to develop, and a formal and top-down development that uses a formulaic approach is likely to have little impact or, at worst, to be counter-productive. Third, as the Scottish case shows, developing a useful framework is likely to be a gradual process.

Although this report has been informed by different sources of evidence and has covered a range of issues across modern European education and training systems and developments, some aspects call for further research. The research has drawn together the broad picture of the significance of learning outcomes in different settings. Pan-European studies are legitimately conducted to provide reasonable coverage of more than 30 European countries to reach a synopsis and a set of evidence-based conclusions. However, such studies, including this one, can be expected to have difficulty in drilling down to the local level, unless the duration of the study is to be a long one. Further research can now refine and develop understanding of learning outcomes. In particular it should be possible to research further specific aspects through an investigation that focuses more on local and institutional initiatives, and giving more prominence to the perspective of practitioners in education and training.

Two aspects lie outside the scope of this study, and now require research in relation to the developing use of learning outcomes. The first is the training of teachers and trainers. The second is the increasing interest in the use of learning outcomes as part of quality assurance measures within education and training systems and subsystems. Each of these aspects is of great importance and merits further research if, as the report has argued, a shift to the use of learning outcomes marks a quite fundamental change in modern approaches to education and training reform. The next section turns to the role of the stakeholders in developing and working with learning outcomes.

9.3. The stakeholders

The focus for innovation in policy and practice hinges substantially on the ways in which learning outcomes can be used across systems that are now more decentralised and cannot be micro-managed from the centre. It follows that the main stakeholders in education and training all have a role both in forging change and in developing and implementing learning outcomes. The main stakeholders are recalled below, along with aspects of their role in developing and using learning outcomes.

National and local policy-makers now generally operate in a decentralised environment for education and training. This means that good governance increasingly depends on consensus-building agreements involving multiple stakeholders in broad frameworks that set goals and objectives. In some European countries this takes the form of legislation, while others prefer an

approach based on bottom-up, evolutionary change. Learning outcomes are well adapted to an objective-led approach to educational reform, more so than are more traditional approaches based on learning inputs, such as detailed central statements of curriculum, and assessment that tests knowledge of curriculum content.

Policy-makers have to engage in diverse areas of reform, in which the systems they organise evolve through participative processes, rather than through the policy decision of a single, centralised authority. In this situation, the use of learning outcomes is conducive to the emergence of successful policies and to the development of learner-centred practices in teaching and training.

Policy-makers also have to consider the multiple uses of learning outcomes: setting up objectives for lifelong learning; developing a qualifications framework or quality assurance system; or steering the reform of key aspects of qualifications, curriculum or assessment in general or higher education, or VET. The ways in which Germany is approaching the identification of learning outcomes as part of the development of a national qualifications framework provides an example of this plurality. At the development stage, a distinction is being made between generalised statements or a meta-framework of learning outcomes, which can be used to link learning outcomes relating to qualifications across education and training, and the more specific outcomes that characterise the learning context in each of the subsectors ([59]). These have been described as an ideal model of a hierarchy of theoretical outcomes, and a reality model to describe learning outcomes for each one of the main sets of national qualifications. Policy-makers are necessarily using learning outcomes in different ways at different levels of the conceptualisation and reform process.

Policy-makers now have to work with a range of stakeholders. Prominent among these are the social partners, teaching and training professionals, the research communities, learners and the wider community.

Social partners have a prominent role as stakeholders in VET development. Identifying the standards against which the development of qualifications, curricula and assessment can be carried out involves, by definition, the social partners: this should refer both to employer and employee organisations. In effective systems, the social partners are also involved at local level, for example in taking the leading role in apprenticeship, in providing work placements for students and, frequently, in local partnerships that optimise

([59]) This example is quoted with reference to the presentation (at the Cedefop conference on Learning Outcomes, October 2007) of Prof Volker Gehmlich, UAS Osnabrück, Germany.

learning and assessment processes. In some cases employers are reluctant to engage seriously with the further training of their employees. It is often said that employers are more interested in the skills that new recruits bring, rather than the diplomas they have. Similarly, ministries of education and labour may be reluctant or inexperienced in working with stakeholders. If this is the case, the more transparency that diplomas have through the impact of learning outcomes, the better.

The social partners also have a legitimate role in participating as stakeholder in learning-outcomes-led reforms in other parts of the education system. However, employability is not the only value of successful education systems. The role of employment-related skills is critical in the drive for European competitiveness, but this must be balanced against other legitimate specialist and broadly social goals, whether in higher education, general education or VET.

Teaching and training professionals are at the heart of learning-outcomes-led reform, even though shifting to learning outcomes moves away from the dominance of what schools and teachers can provide, to an emphasis on learner needs and the requirements of working life and the wider community. The emphasis is placed on changing and optimising professional practice and teachers and trainers need to be properly prepared for the move away from traditional curricula and assessment.

If learning outcomes are broadly defined, the teacher's role moves towards facilitation. Well-defined learning outcomes require well-thought-through and sensitive pedagogies to facilitate them. Broadly defined and holistic learning outcomes are a key to the changing approach to teaching and learning that, in Chapter 3, we suggested constitutes a fundamental change in approach. Optimally, this involves teachers in planning as well as implementing learning outcomes-led reforms. Often, however, this is not the case. We have indicated that detailed attention to teachers and trainers (including school leaders and those offering information, advice and guidance) lies outside the specification for this study, and these issues call for further research. Such work is already underway elsewhere, in recognition that in many countries and at European level this aspect has received insufficient attention. It is to be expected that the impact of learning outcomes is somewhat different for teachers in the different sectors and phases of education and training.

Research communities can ensure that policy-makers and practitioners base reforms and new practice on sound evidence and can frequently be involved both in trials for new practice and evaluation of the impact of initiatives. Work that relates to learning outcomes is still innovative in terms of common and accepted practice, and this opens up possibilities and

responsibilities for the research communities. There is a need for more comparative work and, in particular, for researchers in a local and national context to inform policy-making and practitioner communities of both the possibilities and shortcomings of initiatives in learning outcomes elsewhere. Education researchers should be encouraged to lead multidisciplinary work to energise ideas and knowledge and communication about learning outcomes. An important part of this is to widen the access to new ideas about learning emanating from research traditions wider than those usually encompassed by education research (see above 8.3).

Logically, learners should be an identified stakeholder, as is now happening in some settings. This is appropriate both to national debate and reform and to local, institutional settings. Involving learners can take active forms, through involvement in planning, or a more limited role, for example through sampling or open response to online questionnaires. We have shown how a shift towards learning outcomes is associated in many settings with a move towards more individualised learning, including the use of individual learning plans. In this case, the learner is, almost by definition, involved in negotiating aspects of their own curriculum through a learning programme, and identifying appropriate forms of review and assessment. This implies engaging the learner as a partner at micro-learning level.

Of course, this summary of stakeholders and their involvement is not exhaustive. Indeed, numerous other stakeholders across civil society, such as community organisations, will expect to have a legitimate voice, whether across the board or in particular circumstances.

9.4. Enabling change

Even though it has not been possible to capture all the examples of interesting development and practice, the report has brought to light many examples of the ways in which learning outcomes are prominent – or becoming prominent – in European systems and reforms. Hence, the report is intended to have a timely impact on practice, as well as making a contribution to ideas and comparative understanding.

The report has covered an aspect of policy in which there is already a considerable, and growing, volume of activity at different levels in the systems, both national and local. This includes:

(a) generalised expressions of learning outcomes for a national qualifications framework;

(b) the identification of appropriate sets of learning outcomes for increasingly decentralised systems that are to be managed through setting objectives, developing trust and accountability, quality assurance, etc.;
(c) the specificity of designing learning programmes and units (whether in higher education, general education or VET) at both system and local levels. Importance is attached to both generic and specialist skills;
(d) changes in effective teaching and successful learning (including assessment) as learning outcomes are given a stronger role.

Policy-makers, school leaders and practitioners should keep in mind that learning outcomes are not 'the only show in town', so to speak. If we take the planned learning experience as the basis of what the report has examined, we can identify a definite shift from content-led curriculum to a learning outcomes approach. The focus changes, but the other components of the process do not disappear. Learning outcomes are the focus, and provide a key role in organising systemic aims, curriculum, pedagogy, assessment and quality assurance. These other factors remain significant in planning and implementation.

Seeking a clear and external point of reference, learning outcomes are often tied to standards and skills in the labour market. This is tempting because skills for employment are important, and because, in many countries, the identification of learning outcomes has begun in the VET sector. However, effective development means taking account of the specificity of the different learning contexts. While it may be possible to reach idealised statements to link the subsectors, in practice the learning outcomes will continue to be diverse, and depend strongly on their context and the purpose for which they are used.

There is a link between learning outcomes prominence and active learning. Active learning necessarily involves elements of memorisation and role learning, but is based on principles such as experimentation, problem-solving, and finding solutions to challenges through group activity. It blurs the distinction between theoretical and practical learning. This is helpful to both policy-makers and practitioners, as they try to integrate different kinds of learning, such as the theoretical and the vocational, and to motivate the whole range of learners. Often, this is associated with making learning programmes modular or with unit-based assessment. This links to attempts at the European and more local levels to develop systems of credit accumulation and transfer. A test of whether learning outcomes can help to unify different approaches should be undertaken in the European context of Education and training 2010. At the Cedefop conference that considered the interim report of this project, there was debate

as to the differing approaches being taken to credit at the European level, in higher education (ECTS, the European credit transfer scheme) and in vocational education and training (ECVET – European credit for vocational education and training). It will be harmful if European higher education and VET specialists cannot agree a common approach. This report has argued for a predominance of learning outcomes, yet has not excluded flexible ways of associating these, whether loosely or in a tight fit, with aspects of learning inputs.

Successfully adopting an approach to governance that links the identification of aims and objectives to new forms of decentralisation and new concepts of learning outcomes, at different levels in the education system, also calls for new forms of partnership. Hence, there is a need for strong stakeholder participation in developments at the system level of, for example, a national or federal authority. The case stated earlier also suggests that developing learning outcomes in relation to national policy development should be a careful and open process, not one owned exclusively by the administration. The identification of learning outcomes has to be a collaborative effort, if it is to be meaningful.

Thus, new forms of local partnership are also called for. Programmes that link theoretical learning with practical experience may demand a dynamic learning partnership involving local consortia of schools, local authorities and employers or community groups. In this case there can be shared ownership of the learning outcomes. Establishing new approaches to the curriculum may involve the active participation of teachers and university researchers to develop and evaluate initiatives. In this case, variants of localised action research become possible.

A basic argument that we have developed is that adopting learning outcomes is an important part of the diverse framework for success – at whatever level in question – in European education and training systems. This involves a culture shift, which cannot be achieved top-down. Therefore, making change happen also means allowing sufficient time and efficient measures for change to emerge.

9.5. Summary of conclusions

The data gathered for this study demonstrates that, in recent years, European governments and stakeholders have become increasingly convinced that learning based uniquely on input will not respond adequately to future challenges for individuals, society or the economy. This trend is recognised as

critical in many different contexts across the world. The implications for learning opportunities offered by rapidly evolving ICTs and the new research about learning deepen the challenges.

The environment in which learning outcomes approaches are now occupying an increasingly prominent position is the shift in European education and training systems towards lifelong learning frameworks. This makes learning outcomes pivotal in the redefinition of qualifications and the curriculum in VET, general and higher education.

In key respects, learning outcomes form part of an innovative approach to teaching and learning, which some commentators have identified as an integral part of a new learning paradigm. There is a growing and dynamic role for learning outcomes in education and training reform, always in conjunction with other factors. They are a tool that provides a guiding focus. Whether at the level of policy development or implementation, most European countries are planning or making a marked shift in this direction; learning outcomes feature as a component of lifelong learning strategies and mechanisms for implementation and provide a key role in organising systemic aims, curriculum, pedagogy, assessment and quality assurance. All these factors together remain significant in planning and implementation. The increasing use of learning outcomes is expected to have profound implications for making systems more learner-centred, for the organisation of institutions, for curriculum and for the role and training of teachers.

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 this report 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 European national education and training systems: recognition of prior learning, the awarding 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.

The emphasis is on defining learning outcomes to shape the learner's experience, rather than giving primacy to the content of the subjects that make up the curriculum. In one approach, a core of learning outcomes is defined with reference to the school curriculum. This does not mean that a growing emphasis on learning outcomes signals that provision for the definition or

content of the curriculum have become unimportant. Rather, identification of clear and apt learning outcomes acts as an organising principle for good practice in schools. They take a prominent place alongside the aims, objectives and ethos of the system or institution. They are intended to have a direct and formative impact on the curriculum and pedagogy, contributing significantly to what and how young people learn, and should have an impact on how learning is assessed.

Across Europe, the post-compulsory phase of general education has been least influenced by reforming ideas about learning outcomes. If they begin to have a formative impact on university curricula and pedagogies, this may in due course have a consequential effect on the curriculum, pedagogy and assessment in upper secondary general education.

It is to be expected that learning outcomes will have an impact on styles of assessment. However, the evidence gathered for this report suggests that learning outcomes currently have a limited impact on the ways in which learning is assessed.

The report has provided numerous examples from current usage of how learning outcomes can be conceptualised and grouped. We have suggested that a particular formulation may be developed through the adoption of theories and research in learning outcomes, through negotiation between the stakeholders involved or, simply, through borrowing a formulation in use elsewhere. In practice, the identification of learning outcomes to create levels in a national qualifications framework should probably contain a well-judged mix of these sources.

A qualifications framework constitutes, at best, an active networking and a focal point for stakeholders engaged in the complex task of sustainably reforming major aspects of an education system. Learning outcomes are very prominent in the development of national qualification frameworks (NQFs) in Europe. Their development has to be planned as an active process that engages the main stakeholders in continuing negotiation and, probably, compromise at different levels in the system. An NQF that is owned by an administration and whose use is limited largely to official publications probably serves little purpose. Here, the identification of learning outcomes can provide the organising factor to make explicit the achievements of a wide range of learners, irrespective of the types or modes or duration of learning and training that they engage in.

Growing priority is being given to the recognition of informal and non-formal learning in a considerable number of (but by no means all) European education and training systems. This is supported both by the increasing use

of learning outcomes, and attempts to make qualification systems more coherent and more legible.

Policy-makers are necessarily using learning outcomes in somewhat different ways at different levels of the conceptualisation and reform process. They now have to work with a range of stakeholders: social partners, teaching and training professionals, research communities, learners and the wider community. While the other partners have been recognised as active stakeholders for some time, learners should now also be an identified stakeholder, as is happening in some settings. The key actors involved in defining learning outcomes are not the same for VET, general and higher education.

The main stakeholders in education and training all have a role both in forging change and in implementing learning outcomes. There is a need for strong stakeholder participation in developments at system level. Identifying learning outcomes in relation to national policy development should be a careful and open process, not one owned exclusively by the administration. The interaction between top-down and bottom-up interventions are vital. If it is to be meaningful, the identification of learning outcomes has to be a collaborative effort.

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List of abbreviations

DGVT	Directors General for Vocational Training
ECTS	European credit transfer and accumulation system
ECVET	European credit system for vocational education and training
EHEA	European higher education area
ENQA	European Association for Quality Assurance in Higher Education
EQF	European qualifications framework
EVC	Recognition of acquired skills (*erkennung vervorven competenties*)
FETAC	Further Education and Training Awards Council
HEI	Higher education institution
NQF	National qualifications frameworks
NVQ	National vocational qualifications
RPCL	Recognition of prior certificated learning
RPEL	Recognition of prior experiential learning
RPL	Recognition of prior learning

Internet references

BMUKK Austrian Federal Ministry for Education, the Arts and Culture
http://www.bmukk.gv.at/enfr/min_en/index.xml

Cedefop is the European Centre for the Development of Vocational Training. It is the European agency that helps promote and develop vocational education and training in the European Union (EU). It is the EU's reference centre for vocational education and training.
http://www.cedefop.europa.eu/

DCSF (Department for Children, Schools and Families), 2007 Bologna process Stocktaking London 2007 DfES/ Socrates.
Available online: www.dfes.gov.uk/londonbologna/

Eurydice is an institutional network for gathering, monitoring, processing and circulating reliable and readily comparable information on education systems and policies throughout Europe.
http://www.eurydice.org/portal/page/portal/Eurydice

NCCA Ireland National Council for Curriculum and Assessment
http://www.ncca.ie

PISA The Programme for International Student Assessment is an internationally standardised assessment that was jointly developed by participating countries and administered to15-year-olds in schools.
http://www.pisa.oecd.org/pages/0,3417,en_32252351_32235907_1_1_1_1_1,00.html

Tuning reports (EU Socrates project)
http://www.relint.deusto.es/TUNINGProject/index.htm

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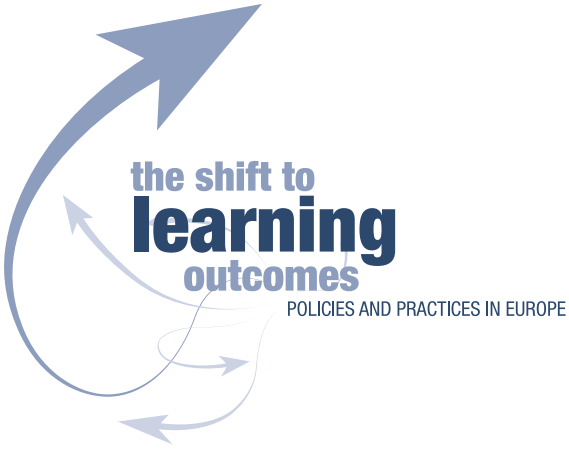

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