



Application of learning outcomes approaches across Europe

A COMPARATIVE STUDY

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Please cite this publication as:

Cedefop (2016). *Application of learning outcomes approaches across Europe: a comparative study*.

Luxembourg: Publications Office. Cedefop reference series;

No 105. <http://dx.doi.org/10.2801/735711>

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Luxembourg:

Publications Office of the European Union, 2016

ISBN: 978-92-896-2212-7

ISSN: 2363-216X

doi:10.2801/735711

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Designed by adam@artdirector.gr

Printed in the European Union

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of Vocational Training (Cedefop)** is the European Union's

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We provide information on and analyses of vocational
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Cedefop was established in 1975
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Foreword

The learning outcomes approach has changed the way we design qualifications. Focusing on what a learner is expected to know, be able to do and understand at the end of a programme or course, outcomes-based qualifications provide students, teachers and labour market stakeholders with a common reference point, potentially allowing for improved and active learning processes, better quality teaching and more relevant qualifications.

In 2009, Cedefop published its first comprehensive comparative study on the application of learning outcomes in European education and training systems. The study demonstrated that learning outcomes approaches are increasingly influencing policies and practices across Europe, particularly by supporting curriculum reform, including the design of qualifications. While acknowledging significant progress, the study also pointed to expected differences between countries and education and training subsystems in terms of implementation and inclusion of this approach in defining qualifications. The current study provides a comprehensive overview of developments since 2009 and shows that learning outcomes approaches are now firmly embedded in most European national systems and education and training policies, enabling qualifications to be comparable and transparent. Based on analysis of developments in 33 European countries, and supported by 10 case studies focusing on application of the learning outcomes perspective in the initial education of teachers, the study seeks answers to the following two key questions:

- (a) to what extent, and how, is the shift to learning outcomes influencing national education and training policies?
- (b) to what extent, and how, is political priority given to learning outcomes influencing the institutions and practices of teaching and training professionals?

Although progress in learning outcomes approaches has been registered in vocational education and training and in higher education, as in 2009, general education, in particular at upper secondary level, is still behind in implementing such approaches. The study shows that significant progress has been made at policy level, notably through administrative and legal reforms promoting and aiding the shift to learning outcomes. These reforms have been promoted and partly triggered by European initiatives, notably the European qualifications framework and the Bologna process. While these 'top-down' processes have

created a favourable context for progress, the study makes it clear that success equally depends on ‘bottom-up’ processes involving stakeholders on the ground, notably teacher training institutions, teachers and trainers, school directors and principals of vocational colleges. The case-studies, covering teacher and training institutions, show that, while progress is being made, the shift to learning outcomes requires long-term, continuous work and development of implementation capacities. Training teachers to use the learning outcomes approach is an essential step in sustaining this important process.

The study is undertaken within the overall work of Cedefop to support Member States and the European Commission. Cedefop is using the findings to provide practical support to stakeholders involved in the application of learning outcome approaches at European, national and sectoral level; approaches include exchange of experiences, such as Cedefop’s policy learning forums, and the systematic strengthening of policies and practices through publications and other online outreach activities.

The future role of the learning outcomes perspective largely depends on two major factors: the first is reform in teacher training institutions to support this process; and the second is our ability to support citizens – pupils, students, parents, workers or employers – to apply the learning outcomes approach as a means of achieving higher relevance of qualifications, to grow as lifelong learners and employable individuals. End-users will find it easier to plan their education and employment careers, teachers and trainers to facilitate the learning process, and labour market stakeholders to articulate qualifications needs that match acquired knowledge, skills and competence with occupational standards.

I hope that this study will also act as a catalyst to more aggressive VET reform in schools and colleges across Member States where learning outcomes are used to improve relevance and quality of education and training programmes and their provision. More discussion and further research on achieved reform systems will enable us to revisit the dynamics of this process, refine it and make it more consonant with attraction to lifelong learning. This study is particularly important from a vocational education and training perspective as it illustrates how learning outcomes approaches can promote dialogue and interaction between education and employment. For Cedefop this is of particular importance, an issue to be addressed in the years to come, in cooperation with education and training institutions and labour market stakeholders.

Joachim James Calleja
Cedefop Director

This publication was produced by Cedefop, Department for systems and institutions, under the supervision of Loukas Zahilas. Cedefop experts Jens Bjørnåvold and Slava Pevec Grm were responsible for the publication and research conducted under the *Learning outcomes* project.

Acknowledgements

This publication is a result of a team effort. It was peer-reviewed by Anastasia Pouliou, Cedefop support expert, who provided valuable comments.

Cedefop would like to thank the research consortium led by ECORYS Polska ⁽¹⁾, the European Institute of Education and Social Policy (EIESP) and WYG PSDB for conducting the research and fieldwork and drafting the initial report.

Cedefop is also grateful to the 272 persons (ministry officials, national experts, teachers and students) interviewed in the countries studied.

⁽¹⁾ Work was carried out under Cedefop's service contract
No 2013-0096/AO/ECVL/JB-SPEV/LearningOutcomes/004/13

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Executive summary

Cedefop's comparative study *The application of learning outcomes approaches across Europe* demonstrates that, in recent years, European countries have made significant progress in the shift to learning outcomes at national policy level and, increasingly, at institution level.

Departing from the findings of the 2009 Cedefop study *The shift to learning outcomes: policies and practices in Europe* (Cedefop, 2009), the current study provides an updated overview over the role played by learning outcomes in European education and training policies and practices. While providing an overview of changes across education and training, specific developments in the main subsystems of education and training – general, vocational, adult and higher education – are addressed. The following two broad questions are asked:

- (a) to what extent and how is the shift to learning outcomes influencing education and training policies at national level?
- (b) to what extent and how is political priority given to learning outcomes influencing the institutions and practices of teaching and training professionals?

The study was conducted to gain better understanding of the conditions – and obstacles – to implementation of learning outcomes, in particular the interaction between top-down interventions at national (and European) level and bottom-up developments pursued at the local and institution level, by education and training institutions and teachers and trainers.

Methods

The research was conducted in two stages.

First, 33 country overviews ⁽²⁾ were drafted, based on desk research and interviews with national stakeholders and experts. Policy and strategy issues, implementation of the strategies and system-level developments are the overall focus of the overviews while a range of related documents, including legislation and recent reforms, were taken into account. In an effort to validate

⁽²⁾ Covering the 28 Member States plus Iceland, Liechtenstein, Norway, Switzerland and Turkey.

the findings and provide additional understanding, in-depth interviews with at least four experts per country were carried out.

Second, the comparative country overviews and analyses are supported by in-depth case studies addressing how learning outcomes approaches are reflected and embedded in programmes, curricula and practical arrangements for initial education and training of teachers. A total of 10 case studies in nine countries ⁽³⁾ were prepared from study visits, focus groups and observations. These case studies aimed for more detailed analysis and empirical research on how learning outcomes approaches are applied by institutions designing and providing initial education and training for teachers, as well as how this is perceived by those enrolled in these programmes.

Study findings

In recent years, countries in Europe have made significant progress in the shift to learning outcomes, both at national policy level and – increasingly – in terms of practices at local and institution level. Practically all European countries have introduced new policies, many of them defining new qualifications and curriculum standards and activating support mechanisms to promote the use of learning outcomes approaches in some or all subsystems of education. The shift to outcomes-based teaching and learning has become visible in an increasing number of education and training institutions. While a few years ago the shift was most visible in vocational education and training (VET) and adult education subsystems, now it is also visible in higher education in almost all countries. Developments can also be observed – although to a lesser extent – in primary and secondary education.

A main driver of progress has been the emergence of comprehensive, learning-outcomes-based national qualifications frameworks, including explicit learning-outcomes-based levels (in line with the European qualifications framework (EQF)). The process of developing national qualifications frameworks has increased the awareness of key actors (including policy-makers, curriculum and programme developers, evaluation and assessment experts, teaching practitioners, employers and other social partners) about learning outcomes approaches and the interrelations among the subsystems of education and training. In most countries, the existence of, and the recent

⁽³⁾ Germany, Estonia, Ireland, Hungary, Austria, Poland (two case studies: Poznan and Warszawa), Slovenia, Finland and the United Kingdom.

revisions to, national lifelong learning strategies have created a favourable policy environment for this process.

As might be expected given the scale and complexity of change, countries take forward learning outcomes at different speeds and from very different starting points. This unevenness is not surprising, given that the shift to using learning outcomes approaches at institution level requires fundamental changes in the behaviour of individuals and institutions. The spread at micro level, including school – and classroom – teaching, learning and assessment practices, occurs through complex processes of individual and collective learning and adaptation, requiring time and sustained policy support.

The study has demonstrated the complexity of implementation of learning outcomes approaches, with continuing tensions and challenges. These tensions are partly the result of a lack of conceptual clarity in terms and concepts. For example, the terms ‘learning outcomes’ and ‘competence’ – or their equivalent in the language of each country – are frequently used interchangeably. Another and perhaps deeper source of confusion is that both learning outcomes and competence-based approaches have been influenced by behaviourist and constructivist learning theories, which are very different schools of thought. The different theoretical and conceptual approaches directly influence the design and application of learning outcomes for different purposes and in different contexts. The study concludes that further clarification of underlying concepts and taxonomies, and their influence on how learning outcomes are designed and applied, is needed.

Learning outcomes as catalysts for systemic reform

Evidence collected for this study shows that most European countries refer explicitly to learning outcomes either in legislative texts or in policy, strategy or curriculum documents, and a sound knowledge base for these policies and practices has emerged. Recent policies relating to learning outcomes are frequently influenced by work deriving from the national strategies on lifelong learning and on developing comprehensive national qualifications frameworks (NQFs). This process has become more pronounced in recent years, given the larger number of countries involved in building and implementing comprehensive NQFs and referencing to EQF. The evolving relationships among lifelong learning strategies, qualification reform and learning outcomes approaches are configured in different ways depending on the country. While it would be difficult, if not impossible, to establish linear causality between learning outcomes, qualifications frameworks and lifelong learning strategies, these tend to reinforce each other over time. In some cases the use of a

learning outcomes approach, for example in higher education (HE) or vocational education and training (VET), has positive results for establishing lifelong learning strategies and practices. In others, the development of a comprehensive NQF has been a significant contributing factor in evolving a strategy for lifelong learning and defining learning outcomes.

All 33 countries examined for this study demonstrate a range of strategies at system and subsystem level: stakeholder consultations, collaboration and partnerships; initiating programmes for professional development of teaching staff; developing support mechanisms and incentives; and monitoring implementation. Collaboration between and among the many stakeholders – the social dimension – is considered vital for policy learning and implementation of learning outcomes approaches.

Learning outcomes in general, vocational, higher and adult education and training

The impetus for a shift towards learning outcomes approaches, both in national systems and in subsystems, came at different points in time depending on the country and/or subsystem:

- (a) while no country has made a complete shift toward outcomes-based general education, a shift towards learning outcomes can be seen in most European countries. The outcome focus provided by the programme for international student assessment (PISA) and other international comparisons played a role in this. Developments are less pronounced in upper secondary education, confirming findings from the 2009 study (Cedefop, 2009);
- (b) for vocational education and training, the strong position of learning outcomes and competence-based approaches noted in 2009 remains and has been strengthened. Trends and reforms over recent years are focused on aspects such as improving labour market relevance, quality and transparency of vocational qualifications and better access to qualifications for learners of all ages. One major instrument high on national policy agendas is development of comprehensive NQFs, with VET being an integral part. Countries are developing and renewing occupational and qualifications standards and aligning them with NQF level descriptors. Stakeholder involvement is important in a subsystem in which the relationship between education and training and the labour market is crucial. Skills councils, though different across countries, have been established in almost all countries to ensure that stakeholder needs are taken into account in designing qualifications;

- (c) significant developments have taken place in higher education, reflecting the increased priority given to learning outcomes, both in policies and practices. The Bologna process ⁽⁴⁾ and the development of qualifications frameworks have informed changes in higher education policy in most countries examined, though progress is uneven across countries. The use of development interventions and pilot projects has been an important implementation tool in many countries, especially in those that receive substantial support from EU structural funds. Quality assurance procedures, especially accreditation, seem to have played a powerful role in this process;
- (d) in adult education and training, the shift to learning outcomes is dependent on trends in the overall system and in the other subsystems, notably VET. The three main factors in putting learning outcomes into practice are the existence of national lifelong learning strategies, the development of comprehensive national qualifications frameworks and the establishment of mechanisms for validating non-formal and informal learning and experience. From the data gathered in the study, the reference to learning outcomes is progressing in systems where these three aspects are well linked and are producing synergy.

Practice and implementation

Shifting to learning outcomes approaches is complex and requires significant implementation capacities. Evidence shows that national authorities are using various instruments as incentives and enablers to support implementation at institution level: redefinition of programmes; professional development programmes for teachers and trainers; guidelines or handbooks; and targeted development interventions addressing special stakeholder groups. The findings suggest that development interventions or pilots might be particularly powerful tools. They are usually targeted at a limited number of institutions that have volunteered to become part of a project/programme. When they produce successful outcomes, these can be disseminated and shared with a larger number of institutions. The creation of platforms encouraging interaction between stakeholders from the various subsystems of education and supporting mutual learning can support implementation of learning outcomes approaches throughout the entire education system.

The findings show that successful use of learning-outcomes-oriented policies requires a combination of top-down and bottom up strategies. The

(4) The Bologna process and the European higher education area. <http://www.ehea.info/>

use of top-down approaches, without initiatives at institution and classroom level, may not only produce formal structures without real changes in institutional practices but may also have detrimental effects. Implementation of learning outcomes approaches in education systems is typically non-linear and involves different levels and a broad range of stakeholders. According to interviews with national experts, allocation of appropriate time seems to be a key component of implementation success. Stakeholders are involved through successive stages. First, policy interventions create outcomes, which feed into the next stage and become a new environment for new policy intervention. Positive feedback loops emerge: smaller implementation successes can create favourable environments for more advanced implementation steps, and the latter are taken when the more favourable environments have emerged.

Countries implementing learning outcomes approaches seem to differ, both in their commitment and in their implementation capacities. Findings seem to suggest that some of them are strongly committed but they are less able to mobilise the appropriate tools and to create synergies between them. They have difficulty in motivating key actors, creating enabling forces and/or removing obstacles. Others seem to be better prepared in this respect.

Learning outcomes in teacher education and training

The Cedefop study *The shift to learning outcomes: policies and practices in Europe* concluded that considerable efforts and some progress were being made in promoting 'effective teaching and successful learning (including assessment) as learning outcomes are given a stronger role' (Cedefop, 2009, p. 154). Teachers and trainers were identified as key agents of change. If teacher trainers and future teachers acquire a deep and operational understanding of learning outcomes approaches, and if they are able to make informed decisions on using them, a solid basis will be created for this approach to be embedded in the whole education and training system.

To provide some insights into how learning outcomes approaches are applied by institutions designing and providing initial education and training for teachers, 10 case studies were carried out for this study. The interviews with teaching staff and future teachers, as well as observations of teaching practice, provide some evidence that teacher education institutions (faculties) have used the Bologna process as an opportunity to initiate institution level discussions on the nature of learning, the roles of future teachers, forms and instruments of assessments, and adequate definition of intended learning outcomes of initial teacher education.

Practical experience and training in schools is a critical part of initial teacher education, as is reflection and metacognitive awareness of one's own learning. Learning outcomes for initial teacher education programmes should be designed and formulated to take into account that completion of this phase of training opens a gateway to further and continuing professional development. A coherent and stable legislative framework concerning the requirements for initial education programmes and those entering the teaching profession are important in providing a stable basis for step-by-step implementation, monitoring, feedback loops and corrections. It was stressed that reform of school education, especially introducing learning outcomes approaches, should be coordinated with changes in initial (and in-service) teacher education programmes. The implementation of the learning outcomes approach is an incremental learning process and its internalisation takes time, so it is vital to allow the opportunity for these changes to emerge.

Influence of learning outcomes on European education and training policies

1.1. European policy context and study purpose

This comparative study analyses how learning outcomes approaches are currently influencing education and training policies and practices at national and European level. It aims to gather evidence on developments since 2009 and the impact of these on lifelong and life-wide learning.

Building on the agreed definition (2008 EQF recommendation, European Parliament and Council of the European Union, 2008, p. 4) of learning outcomes as ‘statements of what a learner knows, is able to do and understands following completion of learning’, the study is firmly embedded in European level policy developments seeking to reduce geographic and institution barriers to learning and mobility – as illustrated by the Copenhagen ⁽⁵⁾ and Bologna processes, the *Education and training 2020* programme ⁽⁶⁾ and the *Skills agenda* ⁽⁷⁾.

The learning outcomes principle can be understood as the ‘glue’ binding together a wide range of tools and initiatives emerging from these policy initiatives and cooperation processes. The European qualifications framework (EQF) ⁽⁸⁾, the European credit systems for VET and higher education (ECVET) ⁽⁹⁾ and the European credit transfer and accumulation system (ECTS) ⁽¹⁰⁾, Europass ⁽¹¹⁾, European initiatives on quality assurance for VET and higher

⁽⁵⁾ The Copenhagen process: enhanced European cooperation in vocational education and training. <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=URISERV%3Aef0018>

⁽⁶⁾ Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training (ET 2020). [http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XG0528\(01\)](http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XG0528(01))

⁽⁷⁾ http://europa.eu/rapid/press-release_IP-16-2039_en.htm

⁽⁸⁾ https://ec.europa.eu/ploteus/search/site?f%5B0%5D=im_field_entity_type%3A97

⁽⁹⁾ http://ec.europa.eu/education/policy/vocational-policy/ecvet_en.htm

⁽¹⁰⁾ http://ec.europa.eu/education/ects/ects_en.htm

⁽¹¹⁾ <https://europass.cedefop.europa.eu/en/home>

educations, such as the EQAVET ⁽¹²⁾ and the ESG ⁽¹³⁾, and the European standard taxonomy for skills, competences, qualifications and occupations (ESCO) ⁽¹⁴⁾ all rely on learning outcomes as a key to improving transparency, comparability, transferability and recognition of competences and/or qualifications, between different countries and at different levels (Copenhagen declaration, 29 and 30 November 2002) ⁽¹⁵⁾. The same applies for initiatives on key competences and validation of non-formal and informal learning.

The EQF process is by far the most important EU instrument in the move towards the use of learning outcomes. The EQF has acted as an important trigger for development of learning-outcomes-based national qualifications frameworks in Europe. While only four countries had set up NQFs prior to adoption of the EQF in 2008, a total of 39 countries covering 42 different NQFs are now (2016) taking part in the EQF cooperation process (Cedefop, 2016). European developments in this area build on extensive exchange of experiences. In most cases referring to the ‘open method of coordination’ ⁽¹⁶⁾, all initiatives have been built on cooperation (peer learning) involving national policy-makers and experts. European developments have thus not only been informed by national developments but have, in several cases, had direct impact on national solutions and approaches, as illustrated by the development of national qualifications frameworks. Some Member States have also been using European social funds to support developments in the use of learning outcomes approaches, such as defining standards, developing new curricula, implementing innovative learning environments or improving assessment mechanisms.

While the learning outcomes are not new, the high priority given to this principle at European level is more recent. European policies and the body of research work on learning outcomes have furthered understanding of this approach but the focus of this study is on the latest developments across

⁽¹²⁾ European quality assurance in vocational education and training (EQAVET).

<http://www.eqavet.eu/gns/home.aspx>

⁽¹³⁾ Standards and guidelines for quality assurance in the European higher education area (ESG).

<http://www.enqa.eu/index.php/home/esg/>

⁽¹⁴⁾ <https://ec.europa.eu/esco/portal/home>

⁽¹⁵⁾ The Copenhagen declaration: declaration of the European ministers of vocational education and training and the European Commission, convened in Copenhagen on 29 and 30 November 2002, on enhanced cooperation in vocational education and training.

http://ec.europa.eu/education/policy/vocational-policy/doc/copenhagen-declaration_en.pdf

⁽¹⁶⁾ Expert groups 2011-13 (http://ec.europa.eu/education/policy/strategic-framework/archive/index_en.htm) and ET 2020 working groups (http://ec.europa.eu/education/policy/strategic-framework/expert-groups_en.htm)

countries, building on and expanding the previous work undertaken by Cedefop.

1.2. Lines of research

This report seeks to shed light on the political support and technical work on developing and implementing learning outcomes since 2009. At that time, while the shift to learning outcomes was well under way in vocational as well as in higher education, this was not so much the case for general – particularly upper-secondary – education. Learning outcomes were increasingly being used to define and design qualification levels, qualification standards and courses, programmes and curricula, but the impact on assessment and teaching and training practices was less pronounced. The 2009 Cedefop study on the shift to learning outcomes (Cedefop, 2009), underlined the complex conceptual, technical and practical nature of this process, notably that learning outcomes are required to perform multiple functions in national education and training systems. The challenges involved in using them for qualifications frameworks are different from those encountered when writing curricula, carrying out assessments and when informing the teaching and training process. The need for learning outcomes to be fit for purpose and sensitive to the context they are used in is essential as, according to the study, they ‘[...] have profound implications for making systems more learner-centred, for the organisation of institutions, for the curriculum and for the role and training of teachers’ (Cedefop, 2009).

The present study covers 33 countries⁽¹⁷⁾ and provides an updated picture of developments since the last study was published. First, evidence is collected on the development of national policies on learning outcomes. This part of the study aims to describe the objectives of these interventions, the form they take and their focus and coverage. It is necessary to understand whether policies in this area are comprehensive or whether they are limited to particular areas, such as subsystems of education and training (general, vocational, higher education, adult learning). There is an effort to address the extent to which policies are accompanied by a concrete strategy for implementation and to what degree initiatives seek to bridge the different subsystems.

⁽¹⁷⁾ The countries covered are the 28 Member States of the EU, Iceland, Lichtenstein, Norway, Switzerland and Turkey.

Second, evidence is collected on how the learning outcomes approaches influence education and training practices. Given the complexity of this area, and the impossibility of covering all countries and subsystems, case studies from selected countries illustrate relevant challenges. The role of teachers is generally considered critical, and the case studies focus on how the learning outcomes approaches are applied by institutions designing and providing initial education and training for teachers, as well as how this is perceived by those enrolled in these programmes.

The study aims to develop a robust analytical framework to collect evidence on how learning outcomes have been applied and promoted in different contexts in recent years and under which conditions political and practical success can be recorded.

1.3. Outline of the report

The report is structured to explore how learning outcomes are reflected in national education and training policies and institutional practice. It analyses the extent to which learning outcomes approaches can and do (or not) catalyse policy reforms and practical reforms in the delivery of initial teaching education programmes and curricula. After a brief introduction to the European policy context and the purpose of the study in Chapter 1, Chapter 2 presents the scope and methodology used to carry out the research as well as the challenges and limitations encountered in the effort to conduct such a comparative analysis and synthesis. Chapter 3 draws on recent literature and sets out the key concepts and analytical issues underlying learning outcomes approaches. Chapter 4 describes the users and uses of learning outcomes while Chapter 5 synthesises data from 33 country overviews, focusing on systemic policy reforms. The strategies and progress made in the four subsystems are examined in Chapter 6 and the focus on implementation strategies is explored in Chapter 7. Chapter 8 analyses findings of the 10 case studies on initial teacher education programmes. The chapters conclude with key findings, with overall conclusions and emerging issues for policy-makers and practitioners at national and European levels presented in Chapter 9.

Study scope and methodology

2.1. Research questions

The overarching aim of the study is to map and analyse how learning outcomes approaches are influencing European education and training policies and practices, potentially as a key lever for change and reform. The study addresses the following two questions:

- (a) to what extent and how is the shift to learning outcomes influencing education and training policies at national level?
- (b) to what extent and how is political priority given to learning outcomes influencing the institutions and practices of teaching and training professionals?

These questions have been expanded into two sets of more detailed research questions.

The first set refers to learning outcomes as a catalyst for policy reforms. To what extent and how is the implementation of learning outcomes approaches influencing national education and training policies and institutional practices? To what extent and how are particular subsystems of education and training (notably in vocational education and training, higher education, general education, adult education) influenced by learning outcomes approaches? To what extent are the objectives of lifelong and life-wide learning being addressed by policies on learning outcomes? What are the main drivers behind these policies, and the characteristics of these institutional practices that are emerging? What are the factors that either support or hinder implementation of these policies?

The second set of questions focuses on how the learning outcomes approaches are applied by institutions designing and providing initial education and training for teachers, as well as how this is perceived by those enrolled in the programmes. How and to what extent do initial teaching education programmes, curricula and methodologies reflect learning outcomes approaches? How is a learning outcomes perspective perceived by those enrolled in these programmes?

This report aims to gain better understanding of the interaction between top-down interventions made at national (and European) level and the bottom-

up developments pursued at the level of education and training institutions providing initial education for teachers.

2.2. Methodology of the study

A number of methodological tools were developed and improved throughout the research process to tackle the questions behind this study. These tools have been developed through collective work and numerous consultations among senior experts, advisers, researchers, and practitioners.

2.2.1. Literature review

The literature review has been used as a basis for addressing analytical and conceptual issues of the shift to learning outcomes and as a context for interpretation, allowing a deepening of analyses in the empirical chapters of the study. The review uses research at national, EU and international level, plus policy documents.

2.2.2. Country overviews

Data have been gathered through the preparation of 33 country overviews, following a common protocol. The country overviews ⁽¹⁸⁾ map and analyse objectives, focus, coverage and concepts underpinning policy interventions using learning outcomes approaches. They further aim to gather evidence on progress made from 2009 onward, and on how comprehensive and successful these policies have been in addressing challenges of lifelong and life-wide learning. The desk research systematically addressed and analysed several aspects: conceptual approaches to learning outcomes; issues of overall policy and strategy; implementation of the strategies and information on institutional practice; and systemic-level developments with a focus on NQF development and implementation, the European higher education area (EHEA), main areas of progress since 2009 and major issues to be resolved.

Different types of document were used in collecting data: legislation and policy on the education system and relevant recent reforms; curriculum documents; NQF referencing reports; public programmes supporting education reforms; websites of agencies responsible for major aspects of the education system or implementing programmes and providing information;

⁽¹⁸⁾ Cedefop plans to publish extracts of these overviews on its website.

manuals and supporting materials; and Cedefop country reports and studies. National experts conducted four to five individual, in-depth interviews per country, while a total of 159 interviews, either in person or via telephone, were carried out with ministry officials, experts from national agencies, VET and secondary head teachers, researchers, university professors related to the four education subsystems. The aim was to validate and complete findings from the desk research, and to provide additional understanding and insights from actors in the system.

2.2.3. Case studies

The comparative country overview and analysis is supported by case studies addressing how learning outcomes approaches are reflected and embedded in programmes, curricula and practical arrangements for initial education and training of teachers. A total of 10 case studies in nine selected countries ⁽¹⁹⁾ were prepared from study visits, focus groups and classroom observations. These case studies allow for more detailed analysis and empirical research on how learning outcomes approaches are applied by institutions designing and providing initial education and training for teachers, as well as how this is perceived by those enrolled in such programmes.

The case studies are based on review of relevant documents: the curriculum/programme (overall programme and subject syllabuses); strategic documents defining the objectives and structure of the institution; university regulations, manuals and other documents defining the use of learning outcomes in programme design and assessment; and quality assurance documents. A central part of each case study was the interviews with academic staff members. A total of 31 teacher educators were interviewed and one focus group per case study was organised with approximately six to eight student teachers per session: a total of 82 student teachers were interviewed. An observation was made of a teaching/learning session per case study, in a workshop or seminar, rather than a large lecture.

Selection of the case studies was a challenging task. The team aimed at having a diverse pool of examples to obtain a broad overview of current developments, being at the same time fully aware of the limitations of this approach. Such a small sample, in comparison to the 33 countries covered

⁽¹⁹⁾ The case studies were carried out in the following institutions: University of Heidelberg (Germany), University of Estonia (Tallinn), National University of Ireland, Maynooth (Ireland), Eötvös Loránd University in Budapest (Hungary), University of Innsbruck (Austria), Adam Mickiewicz University in Poznań and University of Warsaw, (Poland), University of Ljubljana (Slovenia), University of Jyväskylä (Finland), University of Glasgow (United Kingdom, Scotland).

by the study, could only illustrate a number of interesting trends in the field, but could not lead to any wider general conclusions or reliable comparisons at international level. An important aspect taken into account in the selection process of the case studies was the existence of clearly articulated learning outcomes approaches as a priority for curriculum reform in school education in a given country.

2.3. Research challenges and limitations

The main challenges and limitations of the study are difficulties in interpreting the findings in a comparative and representative way. The first challenge arises from the fact that, in some domains (such as the impact of the uses of learning outcomes approaches on micro-level pedagogic practices), there is still a lack of appropriate knowledge drawn from practice evidence. While such approaches can contribute to the quality, effectiveness and relevance of education and training, lack of appropriate conceptualisation (and awareness) and implementation of the approach make it difficult to pin-point impacts. All findings, irrespective of source, must be interpreted in a comparative way, considering the different national implementation contexts. This challenge can only be partly solved through careful consideration of the particularity of each national system, and national education values, or even the fragmentation and diversity within national systems.

The study aims to reveal the high-level complexity of implementing learning-outcomes-centred policies and developing appropriate strategies at both systemic and subsystems levels. Policies in this area are generally characterised by mutual interdependences and limited predictability, making the process of achieving balanced and coherent frameworks continuously challenging. The shift to learning outcomes approaches also has major implications for assessment and, some countries have innovative assessment approaches, such as use of portfolios. However, alignment of assessment practices with intended learning outcomes remains a significant challenge in most countries.

Analytical and conceptual issues

3.1. Introduction

The recent literature on learning outcomes points to a number of challenges in understanding the learning outcomes concept (Allais, 2012; 2014; Lassnigg, 2012; Souto-Outero, 2012; Wheelahan, 2011a; 2011b; Young and Allais, 2009; Hussey and Smith, 2003; 2008). The learning outcomes concept (and the closely related concept of competence) is broadly rooted in behaviourist and constructivist theories of learning, two very different schools of thought (Cedefop, 2010; Keevy and Chakroun, 2015). This chapter seeks to clarify this conceptual basis and support a more consistent application of learning outcomes in policies and practices.

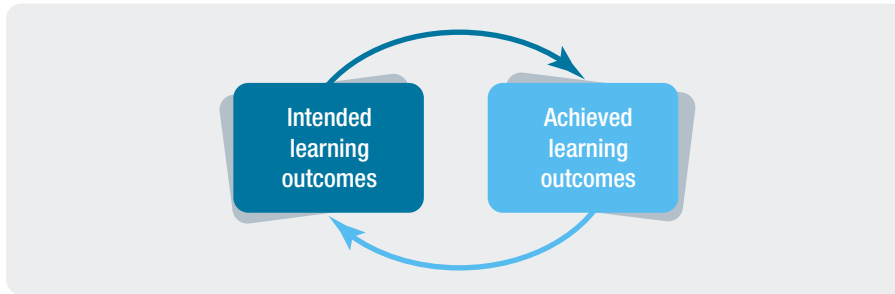
3.2. What are learning outcomes?

Throughout Europe, the term 'learning outcomes' is increasingly embedded in the vocabulary of education and training policies (Prøitz, 2014). Cedefop provides two interrelated definitions of this concept:

- (a) learning outcomes are defined as 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence';
- (b) learning outcomes are defined as 'sets of knowledge, skills and/or competences an individual has acquired and/or is able to demonstrate after completion of a learning process, either formal, non-formal or informal' (Cedefop, 2014a, pp. 164-165).

The relationship between these two definitions can be understood as the relationship – or feedback-loop – between intended and actually achieved learning outcomes.

Figure 1. **Relationship between intended and achieved learning outcomes**



Source: Cedefop.

The definitions and descriptions of learning outcomes as used in qualifications frameworks, qualification standards and curricula are statements and expressions of intentions or goals. They are not outcomes of learning, but desired targets. Achieved learning outcomes can only be identified following the learning process, through assessments and demonstration of achieved learning in real life, for example at work. Consistent application of learning outcomes requires continuous dialogue between intended and actual outcomes, seeking to improve stated expectations (intended learning outcomes) based on the actually achieved outcomes. This explains why the learning outcomes approach is seen as important for strengthening accountability of education and training systems. The increasing importance attributed to large-scale international assessments like PISA, the programme for the international assessment of adult competences (PIAAC) and the international comparative assessment of student achievements in mathematics and science (TIMSS) can be explained through this learning outcomes feed-back loop; assessing the actual outcomes of learning provides a basis for improvement and development of institutions and policies. Further, intense dialogue between the world of education and work is crucial to successful implementation of the learning outcomes approach; it allows substantial feedback loops on both sides. The focus on actually achieved learning outcomes brings us to the concept of competence, which is defined by Cedefop as follows:

Competence is defined as the ‘ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development)’ (Cedefop, 2014a, p. 47).

Competence can be understood as actually achieved learning outcomes, validated through the ability of the learner autonomously to apply knowledge and skills in practice, in society and at work. Learning outcomes are validated by their relationship to competences (Cedefop, 2012, p. 35).

3.3. Conceptual roots

Both learning outcomes and competence-based approaches have been influenced by constructivist and behaviourist theories of learning ⁽²⁰⁾. The definition of competence as offered by Hoskins and Deakin Crick (2010, p. 122) illustrates an explicit constructivist approach: 'Competence is a complex combination of knowledge, skills, understanding, values, attitudes and desire which lead to effective, embodied human action in the world in a particular domain. One's achievement at work, in personal relationships or in civil society are not based simply on the accumulation of knowledge stored as data, but as a combination of this knowledge with skills, values, attitudes, desires and motivation and its application in a particular human setting at a particular point in a trajectory in time. Competence implies a sense of agency, action and value'.

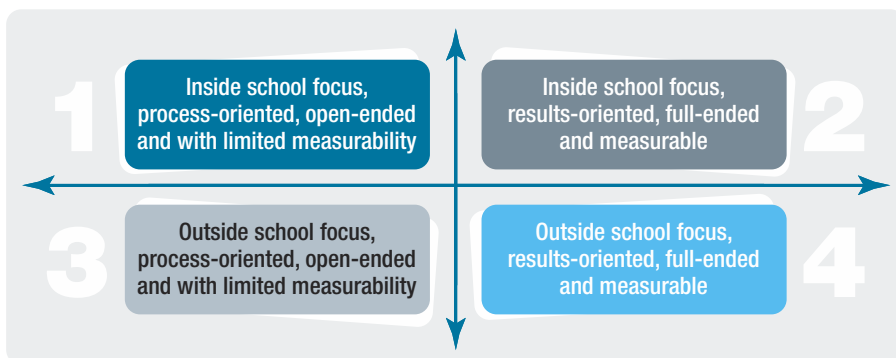
This perspective understands learning as a deeply contextualised activity not to be separated from social identity, values and relationships. It puts the learner at the centre of the learning process, as an active constructor of knowledge and not just a passive receiver, who not only 'assimilates' but also 'accommodates' knowledge, skills and competences based on previous experiences, mental structures and beliefs. A learner is aware of the process of cognition and can regulate or steer learning (self-awareness or metacognitive skills are important elements of constructivism.) Important theories on learning and pedagogy by Piaget and Vygotsky have evolved from this approach, further developed in theories on active and situated learning, for example through contributions of Lave and Wenger (1991). According to this school of thought, knowledge, skills and competences cannot be treated as isolated or decontextualised entities and/or subjects, but need to be addressed in the context where they are situated (Lave and Wenger, 1991). The implication of this for defining and applying the learning outcomes approach is that learning outcomes statements (intended learning outcomes) are descriptive (not prescriptive), holistic and defined from a perspective of

⁽²⁰⁾ For more information on different concepts and approaches to competence(s) consult Cedefop, 2009; 2010; 2015d; Winterton, 2009; Souto-Otero, 2012.

an individual and his/her abilities (Cedefop, 2010; Anthony, 1996). They are process- and context-oriented and avoid a too rigid definition of outcomes. This open-ended approach respects individual diversity and the inherent richness of learning processes, but risks reduced measurability (Prøitz, 2014).

The constructivist approach is contrasted by a behaviourist tradition emphasising the need to focus on outwardly observable ('objective') behaviours as reactions to stimulus. Behaviourism responds to the need for reliable methods allowing for experimental testing. Behaviourists assume the learner to be passive, responding to environmental stimuli (Schuman and Ritchie, 1996). Focusing on the 'conditioning' and 'reinforcement' of individuals, attention is given to the external change in behaviour. The impact of the behaviourist tradition in psychology, pedagogy and human resource management is considerable, seeking and supporting 'scientific' measurement and management of human behaviour. The implication of this perspective for defining, writing and applying learning outcomes is profound: it requires outcomes to be described in specified (as unambiguously as possible), quantifiable, full-ended and measurable terms. The distinction in orientation between the behaviouristic and constructivist approaches is captured by Figure 2.

Figure 2. **The orientation of learning outcomes approaches, inside and outside schools**



Source: Prøitz (2014).

There is tendency, see for example Campbell (2014), to argue against and oppose the shift to learning outcomes due to what is seen as a (negatively perceived) behaviouristic bias. According to this criticism, the learning outcomes approach risks reducing the richness of learning by imposing a

simplistic stimulus-response paradigm of learning where only observable and measurable outcomes count. This, according to the critics, assumes a linear and overly simplistic learning process where complex activity verbs (for example 'understand') should be avoided and replaced by narrower, terms with clear borderlines. Allais (2012; 2014), repeats this criticism with reference to the way knowledge is treated '... as information that can be divided into little bits that can be selected and combined at will' (Allais, 2014, p. 139). This, according to her 'ignores the extent to which educational knowledge is necessarily organised in bodies of hierarchical conceptual relationships, the value of such bodies of knowledge' (idem) and does not respect the necessary conditions in which knowledge is acquired.

Others (Dobbins, 2014), however, argue against the assumption that the shift to learning outcomes by default implies reductionism. Learning outcomes can, to the contrary, focus on a wide range of knowledge, skills and competences and while some of these may be behavioural in character (for example, using a particular tool for a particular purpose), others imply more complex and ambiguous processes (for example, linked to the critical evaluation of arguments supporting a policy decision) (Dobbins, 2014, p. 2). Biggs (1999; 2014) pursues this point and states that in the design of learning outcomes and assessment tasks teachers are free to use open-ended verbs such as 'design', 'create', 'hypothesise', 'reflect' and so on and that this is a way to avoid predetermined or rigid design of teaching and assessment. A key question is how to define and apply learning outcomes in ways which avoid the reductionism attributed to behaviourism. Some guidelines on writing learning outcomes warn against broad terms like 'understand' and 'appreciate' and recommend to replace them with terms like 'describe', 'formulate', and 'identify'. Biggs argues against this advice, stating that at an advanced level appropriate verbs for learning outcomes would include 'hypothesise', 'reflect', and apply to unseen domains or problems. These higher order learning outcomes require open-ended tasks, allowing for emergent and unintended outcomes (Hussey and Smith 2008). Following this, it can be argued that complex verbs like 'understanding' will be at the core of most skills and activities; it forms part of the definitions of learning outcomes cited above. Learning outcomes can help learners to articulate what they will be doing about their understanding, and how this reflects different levels of understanding.

When defining, writing and applying learning outcomes it is essential to be aware of these dilemmas. Two key questions stand out:

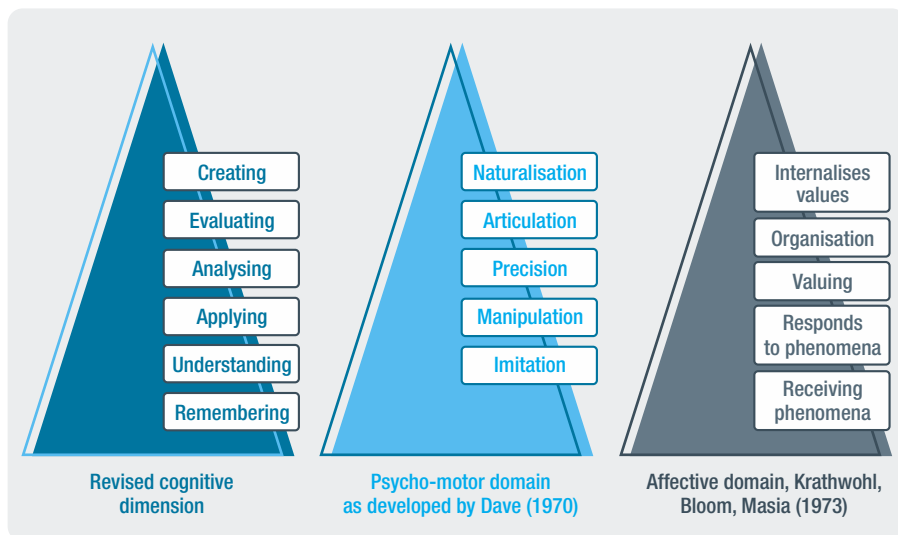
- (a) is it possible to write learning outcomes reflecting the constructivist ambition of holistic and active learning outlined above?
- (b) will we, by striving for clearly defined and observable outcomes of learning, risk focus on isolated and entities of learning poorly reflecting the diversity and richness of learning strived for by policy-makers?

The practical definition and writing of learning outcomes, and how we respond to the dilemma outlined above, is influenced by a limited number of taxonomies seeking to clarify how individuals progress in their learning. Unpacking the way these taxonomies have been constructed and evolved can help us to understand better the conditions for defining and writing learning outcomes fit-for purpose.

3.4. Influential taxonomies defining learning outcomes

Bloom's taxonomy has been cited as one of the most important theoretical influences on thinking about learning outcomes and progression. The earliest iteration of the taxonomy (Bloom et al., 1956) sets out a hierarchical categorisation of cognitive learning, moving from basic (knowledge and comprehension) to increasingly complex skills (application, analysis, synthesis and evaluation of concepts, processes, procedures, and principles). Anderson and Krathwohl (2001) revised the cognitive domain of the taxonomy by changing the nouns used in the original version to verb form (knowledge was changed to remembering; comprehension to understanding) and placing synthesis (creating) above evaluation (evaluating) in the highest order of complexity. A second publication (Bloom et al., 1964) set out a hierarchy of learning for the affective domain, starting with the basic (receiving, responding) and moving to more complex levels (valuing, organisation, characterisation by a value or value complex). A further development introduced a hierarchy describing the psycho-motor domain (skills), starting with imitation and moving via manipulation precision to articulation and naturalisation. The three hierarchies are shown in Figure 3.

Figure 3. **Bloom’s taxonomy: cognitive, psycho-motor and affective domains**



Sources: Bloom et al. (1956); Dave (1970); Anderson and Krathwohl (2001).

Additionally, Anderson and Krathwohl (2001) have created a matrix combining the elements of the hierarchy with levels of knowledge (Figure 4).

Figure 4. **Bloom’s revised taxonomy: the cognitive process dimension and dimensions of knowledge**

The knowledge dimension	Remember	Understand	Apply	Analyse	Evaluate	Create
Factual						
Conceptual						
Procedural						
Metacognitive						

Source: Anderson and Krathwohl (2001).

This approach has been subject to a variety of criticisms. Beretier and Scardamalia (2005) argued that ‘... we need ways to think about knowledge that allow us to be reasonably clear and definite about what we are trying to achieve yet do not require reducing knowledge to itemisable objects in the

mind ...' (21). Depth and coherence of knowledge in the development of expertise, they argue, requires '... getting beneath the surface, making contact with the underlying patterns and principles that give meaning and support intelligent action' (22). This mirrors the criticism of behaviourism discussed above and warns against a reductionist approach narrowing down the scope of expected (and assessed) learning. The inclusion of increasingly complex verbs in the three hierarchies argues against this, and points to more open-ended statements allowing for unintended outcomes.

Blooms taxonomy has (implicitly and explicitly) influenced policies in a number of countries. This is exemplified by Malta and Slovenia (Cedefop, 2009) where the revised version of the taxonomy has directly influenced national approaches. Two alternative taxonomies, with deeper roots in constructivist theories, have emerged in recent years. The first, the Dreyfus taxonomy, describes learner progression from 'novice to expert' (Dreyfus, 1981; Dreyfus and Dreyfus, 1986):

- (a) novice learners have incomplete understanding and approach tasks mechanistically. Novice learners need supervision;
- (b) advanced beginners have a working understanding of concepts. They tend to see actions as a series of steps. Advanced beginners can complete simple tasks without supervision;
- (c) competent learners are able to understand context. They may complete work independently to an acceptable standard;
- (d) proficient learners have deeper understanding and are able to see actions holistically. They are consistently able to achieve a high standard;
- (e) expert learners have an authoritative, deep and holistic understanding. They are able to deal with routine matters 'intuitively', to go beyond existing interpretations. They consistently achieve excellence.

The SOLO taxonomy (Structure of Observed Learning Outcomes) (Biggs and Collis, 1982; Biggs, 1999; 2014) similarly describes progressively complex levels of understanding. Within the SOLO taxonomy, understanding is described as an increase in the number and complexity of connections learners make as they progress from low to high levels of competence. Learning is shaped by prior knowledge, misconceptions, learning intentions and strategies. The focus is on the depth and quality of understanding, rather than the quantity of information.

(21) Ibid. pp. 12-13.

(22) Ibid. p. 10.

Table 1. **The structure of observed learning outcomes (SOLO)**

Levels of understanding displayed	Phase of learning	Indicative verbs
Extended abstract: conceptualises at level extending beyond what has been dealt with in the actual teaching and learning process. Can generalise to new areas.	Qualitative phase	Theorise, generalise, hypothesise, reflect, generate
Relational: indicates orchestration between facts and theory, action and purpose. Understanding of several components which are all integrated conceptually. Can apply the concept to familiar problems and work situations		Compare, contrast, explain causes, integrate, analyse, relate, apply
Multi-structural: indicates understanding of boundaries but not of systems. Understanding of several but discreet components. Disorganised collection of ideas or concepts around an issue. Not relating items in list.		Enumerate, classify, describe, list, combine, do algorithms
Uni-structural: concrete, minimalistic understanding of an area, focuses on one conceptual issue in a complex case		Identify, memorise, do simple procedure
Pre-structural; no understanding demonstrated	Quantitative phase	Misses the point

Source: Adapted from Biggs (1999).

A clear advantage of the SOLO taxonomy is that evidence of learner progress is not based on demonstration of isolated or decontextualised behaviours, but may be derived from a range of learner responses. At the same time, Chan and colleagues (Chan et al., 2002) argue that the SOLO structure is ambiguous and that, for the purposes of assessment, it is difficult to achieve reliable results. These difficulties may be addressed, they suggest, with the addition of more precise sublevels.

3.5. Practical implications of conceptual challenges

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 (Cedefop, 2009).

However, the conceptual basis for the definition of learning outcomes can directly influence the character and quality of the learning process as experienced by the individual learner. The approaches discussed above give different priority to several issues: how to contextualise learning outcomes; how to express progression in learning; how to differentiate between aspects/domains of learning; what counts as observable learning outcomes; and how is the cognitive process of the individual learner balanced with a focus on interactive learning in a social context? Some of these issues are addressed and illustrated in discussing the uses and users of learning outcomes.

Uses and users of learning outcomes

Learning outcomes are used in different contexts and fulfil different purposes. These include qualifications frameworks (regional and national) level descriptors, qualification and education standards, curricula and assessment, and quality assurance. These tools are intended to improve links between education and labour markets and civil society, to promote learner mobility, and to improve the quality of learning. Ideally, learning outcomes approaches also improve transparency and coherence of qualification systems and qualifications. In this section, we describe these various tools and how they may be used to meet these several aims.

4.1. Learning outcomes in qualifications frameworks

As defined in Cedefop's terminology of European education and training policy (Cedefop, 2014a, pp. 207-208), a 'qualifications framework' is an:

- (a) instrument for development and classification of qualifications (at national or sectoral levels) according to a set of criteria (using descriptors) applicable to specified levels of learning outcomes;
- (b) instrument for classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate qualifications subsystems and improve transparency, access, progression and quality of qualifications in relation to the labour market and civil society.

Qualifications frameworks can be used to:

- (a) establish national standards of knowledge, skills and competences;
- (b) promote quality of education;
- (c) provide a system to enable comparison of qualifications by relating qualifications to one another;
- (d) promote access to and progression in learning.

Learning-outcomes-based qualifications frameworks are set out along horizontal and vertical dimensions ⁽²³⁾ (Cedefop, 2014b). The way in which level descriptors are structured along these two dimensions varies across countries and education sectors (Cedefop, 2013). At the same time, Keevy and Chakroun (2015) in the UNESCO study on level setting, hypothesise that Bloom's taxonomy is a common strong influence across countries (whether implicitly or explicitly). They argue that the behaviourist approach of Bloom's taxonomy may result in overly rigid and simplistic applications, and is not equally suited to describing progression in knowledge, skills and competences. Level descriptors, therefore, need to refer to different models. They suggest that the SOLO taxonomy (Biggs, 2014) is most appropriate for describing progression in knowledge and skills (a combination of behaviourist and constructivist approaches). The Dreyfus model (Dreyfus and Dreyfus, 1986) of skills acquisition is most appropriate for describing progression of competence. Neither of these taxonomies is used in any explicit way in existing frameworks.

4.1.1. Where to set levels (the vertical dimension)

Writers of level descriptors make fundamental decisions about where to set targets for learners and/or workers at different ages and stages of learning. The 'functional analysis' of occupations has been used in the UK to develop level descriptors for national vocational qualifications and is an early effort to match education provision and labour market needs. The approach begins with key purposes of a particular occupation being set out; the outcomes that must be achieved to meet these purposes are then defined. These are subsequently clustered into different groups of outcomes for particular vocational qualifications (Young, 2011). This is a strongly behaviourist approach to describing levels and learning.

Germany takes a different approach to defining knowledge, skills and competences. German level descriptors describe progression in the depth

⁽²³⁾ The horizontal dimension includes the domains of learning and the vertical dimension sets out levels for learning, moving from basic to increasingly complex. In the EQF, the horizontal dimension includes knowledge, skills and competence, and the vertical dimension is set out along eight levels, covering the entire span of qualifications in the EQF (from primary to higher education). The descriptors refer to both dimensions, showing domains and progression, with qualifications pegged to particular levels within the framework. Writers of level descriptors need to consider where to set levels and how to describe intended outcomes for different domains and at the appropriate level of detail, also referred to as granularity (the horizontal dimension). They must also address the needs of different users (learners, educators, employers) who may have different views on both horizontal and vertical axes.

and breadth of knowledge, skills (instrumental, but also linked to individual judgement), social competence (communication, ability to work in teams, leadership and engagement) and autonomy (individual responsibility, reflection). Individuals should develop the capacity to apply knowledge, skills and attitudes in a range of settings, both known and unknown (Cedefop, 2013).

Whether countries take a more behaviourist/instrumental or holistic, learner-centred approach, they need to consider whether to set the same levels for all learners to achieve at the same rate. There are tensions between the idea of setting standards for excellence for all students alongside supporting individual differences and interests. These are also fundamental concerns for systems considering how to support both equity and quality (Linn, 1998). Some countries set two levels for learning achievement. For example, Belgium (the Flemish community) has established minimum objectives for knowledge, skills and attitudes to be attained by most pupils. Black (2000) suggests that, ideally, targets and criteria will capture a range of student capabilities, as student attainment at any given age may cover a span of several years.

Individual learners have ‘spikey profiles’, meaning that they may be particularly strong in one aspect of learning, and weak in another. This is particularly true among adult learners, who have very different learning histories and life experiences (Looney, 2008). Given that level descriptors cannot capture these complexities, teachers for learners of all ages need strong skills to diagnose individual learner needs and to scaffold learning appropriately (skills associated with formative assessment, as described below).

4.1.2. Describing intended outcomes for different domains (horizontal dimension)

Definitions and descriptions of learning domains are set out in the horizontal dimension. The way in which learning in different subject domains is structured, the balance between theory and practice, and between knowledge, skills and competences are all vital (Cedefop, 2014b).

Structuring knowledge in the different subject domains to enable effective learning and to spur new insights is a key challenge (Collard and Looney, 2014). Allais (2012), for example, notes that the sciences are typically hierarchically organised, while the social sciences are based on specialised methodologies. The extent to which learners are able to engage in creative problem solving also depends on deep subject knowledge and the capacity

to access and structure that knowledge (Feldhusen and Goh, 1995). The way in which learners develop ‘tacit’ knowledge through everyday experiences (some refer to this as ‘craft’ knowledge) may also vary across domains.

The level of detail in a descriptor depends on the purpose for which and by whom it will be used. Level descriptors need to be sufficiently detailed and multifaceted to capture the institutional complexity of a national qualifications system, and sufficiently general to capture the institutional complexity to accommodate different education and training subsystems (Cedefop, 2013). Overly detailed descriptors in qualifications frameworks will limit institution and teacher autonomy and may narrow learning (Allais, 2012). As Young (2011) argues, specified and tightly defined outcomes may be appropriate for novice learners (so long as goals are achievable), but they underemphasise other skills that learners need (such as critical thinking, creativity) to progress. While efforts to develop precise definitions are linked to the desire to ensure quality across schools and programmes (to improve reliability and standardisation), it is also important to allow teachers sufficient autonomy to exercise their professional judgment so they may respond to the immediate needs of their students (Hussey and Smith, 2008).

Allais (2011) and Young (2011) have both critiqued learning outcomes and standards for vocational education, particularly the focus on a very narrow set of skills that may prevent individuals from advancing to higher levels of education or to better job opportunities. Efforts to introduce broader competences were initiated through the recommendation on key competences for lifelong learning, which was adopted by the European Parliament and the Council in December 2006.

In their international inventory of frameworks, Keevy and Chakroun (2015) found that most countries have set out only very general statements on learner progression; frequently, the conceptual basis for progression in different domains is unclear or completely absent (the inventory covers 18 developed and less-developed countries.). They note, however, that other tools, such as PISA, PIAAC, ISCED and O*NET⁽²⁴⁾ set out clearer levels of progression.

In Europe, the Dublin descriptors for bachelor, master and doctoral levels in the European Higher Education Area set out knowledge and understanding, applying knowledge and understanding, making judgements, communication skills, and learning skills to be obtained by all learners (Bologna Working Group, 2005). The Tuning project⁽²⁵⁾ supports developing study programmes

⁽²⁴⁾ The occupational information network.

⁽²⁵⁾ Tuning educational structures in Europe. <http://www.unideusto.org/tuningeu/>

at institution level (Box 1). Several processes for VET education have been launched to aid cross-country comparison of qualifications: these include the Lisbon process 2000 ⁽²⁶⁾, the Copenhagen process 2002 and continuing work on ECVET and EQAVET.

Box 1. Higher education degrees: ensuring cross-country comparability

The Bologna process was initially a country-led effort, launched with the 1998 Sorbonne joint declaration ⁽²⁷⁾. By 2016, 49 countries ⁽²⁸⁾ had signed up to reforms intended to make higher education in Europe more compatible and comparable across countries. The Bologna declaration has also encouraged policy initiatives to improve links between higher education and the labour market (Huisman and van der Wende, 2004).

The Tuning project, which includes higher education institutions in more than 30 European countries, was launched in 2000 to support implementation of the Bologna declaration. It has introduced methodology for planning, developing and evaluating study programmes at bachelor, master and doctoral study levels and for different academic subject areas. The aims are to develop consensus on concepts and tools, to set out intended learning outcomes in different subject areas, and to develop descriptors while supporting autonomy and flexibility of institutions. This project has focused on formulating descriptors for subject areas and on ensuring comparability of curricula in terms of structures, programmes and teaching across countries. The work of different 'subject area groups' has highlighted important differences in structure and methods across disciplinary domains (Tuning educational structures in Europe). For example, as highlighted in a European Union description, doctoral candidates in healthcare and natural sciences may be expected to address research questions posed by senior researchers, while candidates in the social sciences are expected to define their own research questions and objectives.

Source: Cedefop.

⁽²⁶⁾ Conclusions of the European Council in Lisbon, 23 and 24 March 2000.

http://www.consilium.europa.eu/en/uedocs/cms_data/docs/pressdata/en/ec/00100-r1.en0.htm

⁽²⁷⁾ http://www.ehea.info/uploads/declarations/sorbonne_declaration1.pdf

⁽²⁸⁾ Members of the Bologna process. <http://www.ehea.info/members.aspx>

4.2. Learning outcomes in qualifications and standards

National qualifications frameworks set out standards for learning outcomes to be achieved. Standards set expectations and norms for performance and serve as a reference for the development of qualifications, assessment, curriculum and teaching and learning. There is a general trend towards the more formal use of standards in the design of qualifications as these are seen as the basis of learning-outcome curricula (Cedefop, 2010).

Countries may establish several types of standards, including:

- (a) occupational standards, describing the activities and tasks for a specific job as well as the competences typical of an occupation;
- (b) competence standards, referring to knowledge, skills and/or competences linked to practice of a job or daily life;
- (c) education standards, statements of learning objectives, content of curricula, entry requirements and the resources necessary to attain the learning objectives;
- (d) assessment standards, statements of the learning outcomes to be assessed, as well as the assessment methodology to be used;
- (e) validation standards, statements of the level of achievement to be reached by the person assessed, and the methodology used;
- (f) certification standards, setting out the rules for obtaining a certificate or diploma and the rights conferred.

Adapted from Cedefop (2014a).

For qualifications frameworks to be effective, occupational and educational and training standards must be effectively balanced. Diverse groups of stakeholders – including policy-makers, employers and professional communities and educators – are usually included in the standard setting process. However, employers and educators are typically involved in setting standards in their respective domains, with employers, for example, providing only minimal input into the development of education standards, and vice versa. Yet stakeholder involvement within a sector may also be limited. For example, teachers may have little involvement in setting standards and, therefore, have little ownership or understanding of the meaning behind them.

Both Young (2003) and Allais (2012) have criticised the tendency in many countries to over-specify learning outcomes in standards and level descriptors. Allais (2012) notes that, although these detailed descriptions are intended to ensure consistent interpretation across classrooms and schools, education

providers have very different understandings. Greater reliability in interpretation may be addressed through training and dialogue and discussion, to develop shared understanding (Caldwell et al., 2003).

Lassnigg (2012) observes that empirical research on the impact of standards on learning outcomes and pedagogy is mixed. Stanley (2015) similarly notes the lack of systematic research into how standards expressed as learning outcomes are translated in curriculum planning. More research is needed on how standards should work to promote effective curriculum development and learning.

4.3. Learning outcomes in curricula and classroom teaching and assessment

Curricula set out and structure the learning objectives, content, teaching and assessment methods that teachers are expected to implement in a given unit or course (Cedefop, 2014a). They are aligned with level descriptors and standards set out at national levels.

The way in which curricula are designed has a significant impact on classroom teaching and assessment. For example, whether theory and practical tasks are taught together or separately, whether and how outcomes are connected to content in other parts of the curricula, and the criteria used to assess learner understanding and progress are all important (Cedefop, 2010; 2012; 2015d).

Learning-outcomes-based curricula have sometimes been described as promoting a 'managerial' approach, with learning defined in terms of final outcomes or standards, but teachers are free to decide how to help learners attain these outcomes. At the same time, teacher autonomy and innovation may be constrained by:

- (a) limited investment in training and professional development, including managerial staff;
- (b) overly prescriptive curricula and/or guidelines, or teacher preferences for more structure and less autonomy;
- (c) poor alignment of curricula and textbooks, and limited materials to meet diverse learner needs;
- (d) limited or no access to appropriate facilities, such as laboratories and worksites;
- (e) poor alignment of learning outcomes, curricula and learner assessments; lack of clarity in underlying concepts and theories of learning.

Curricula and supporting materials, tools and exemplars, and effective learning environments are vital and support changes in pedagogies (Cedefop, 2015d). But teachers also need sophisticated pedagogic and subject knowledge. They need good knowledge of the subject area and competences they are teaching, and understanding of learner progression, strategies to diagnose diverse learner needs and a repertoire of strategies to meet those needs. Effective teachers are able to engage in 'contingent' teaching and the ability to guide students engaged in 'open learning' (where there is no specified learning outcome) (Miller, Looney and Siemens, 2011). It is increasingly clear that the quality of relationships between teachers and students is vital to motivation and emotions in learning (Hinton and Fischer, 2010; Immordino-Yang and Damasio, 2007). Effective institution leadership and collaboration with peers are also vital to support such deep changes in teaching knowledge and developing skills and competences. Successful leaders (including department heads) communicate the objectives of curriculum changes and highlight their importance in institution plans. Teachers are involved in planning and have opportunities for training and collaborative learning (Pont et al., 2008). They also receive regular feedback aimed at supporting improvement and professional development and allow sufficient time for teachers to integrate new approaches and to shift their mindset (Santiago et al., 2013).

4.4. Learning outcomes in assessment

Learner attainment of outcomes is measured against standards and criteria. Assessment methods shift from norm-referenced (learner attainment based on ranking within a cohort) to criterion-referenced approaches (learning attainment based on performance relative to set standards and criteria).

In principle, criterion-referenced assessments support greater equity of learner outcomes, as the aim is to help all learners meet intended outcomes. But teachers' success in helping all learners, including the most marginalised, to meet at least minimum standards, will depend on their ability to diagnose the source of misunderstanding and to develop appropriate learning strategies to help learners close the gap. For this they need strong diagnostic skills (Rupp and Lessaux, 2006) and a broad repertoire of teaching strategies to meet diverse learner needs (OECD, 2005).

Assessments also need to be valid and reliable. Validity refers to the degree to which assessments measure what they are intended to measure

(how well they are aligned with learning objectives and curriculum). Reliability refers to the consistency and stability of results across student populations or education institutions. Designing valid and reliable assessments of learners' higher order thinking or capacity to perform complex tasks may be particularly challenging. Traditional tests – particularly the standardised assessments considered as more reliable – focus on independent 'traits' or fragments of knowledge. These assessments, which may include large-scale standardised assessments, university entrance examinations, and some certification examinations or assessment for accountability purposes, yield little insight into learner understanding of interconnections and patterns, or on their learning needs or potential.

Performance-based assessments, rated by juries, allow learners to demonstrate higher-order cognitive skills, ability to perform tasks and solve problems, or to work in collaboration with others. While there are concerns over the reliability of juries' judgements, effective training can improve the reliability of performance-based assessments (Caldwell et al., 2003). For juries awarding certification for non-formal and informal learning it may be impossible to attain full reliability, as each learner's case is very different. Trust in the professional judgment of jury members, and training to ensure understanding of standards and criteria for awarding qualifications, are essential.

Another challenge is to ensure that data gathered through assessments can be used to identify learner needs and areas for improvement (in classrooms, at institution level and at policy level). Data need to be delivered in a timely manner, the level of detail needs to be appropriate for intended uses, and results should be easy to interpret. Alignment of assessments with learning objectives and curriculum is crucial to usability.

Perhaps the most important aspect of ensuring the quality and relevance of assessment in learning-outcomes-based approaches is to develop a full range of assessments to meet different needs. Systems that rely on a range of assessments and which track learner progress over time will provide a better view of what learners know and are able to do. For more information on the strengths and weaknesses of different measurement technologies, see Annex 2.

4.4.1. Classroom-based formative assessment

Classroom-based formative assessment is sometimes referred to as assessment for learning, while summative assessment (tests, examinations) is referred to as assessment of learning.

Black (2004, p. 10) defines formative assessment as: ‘any assessment for which the first priority in its design and practice is to serve the purpose of promoting students’ learning. It thus differs from assessment designed primarily to serve the purposes of accountability, or of ranking, or of certifying competence. An assessment activity can help learning if it provides information that teachers and their students can use as feedback in assessing themselves and one another and in modifying the teaching and learning activities in which they are engaged. Such assessment becomes ‘formative assessment’ when the evidence is actually used to adapt the teaching work to meet learning needs’ (Black et al., 2004).

Formative assessment has its roots in behaviourist theories of learning. Scriven (1967) first suggested that information on classroom teaching could be used to identify areas for improvement and adaptation at successive stages. Bloom (1968) and Bloom, Hastings and Madaus (1971) applied a similar concept to student assessment in their work on ‘mastery learning’, proposing that instruction be broken down into successive phases and students be given a formative assessment at the end of each of these phases. In line with behaviourist theories of learning, students would receive feedback on gaps between their performance and the ‘mastery’ level, and teachers would be able to adjust methods to meet student needs better (Allal and Mottier-Lopez, 2005).

Approaches to formative assessment have evolved: it is now seen as an integral part of the teaching and learning process rather than as a separate activity occurring after a phase of teaching (Allal, 1979; 1988; Audibert, 1980; Perrenoud, 1998). It encompasses classroom interactions, questioning, structured classroom activities, and feedback aimed at helping students to close learning gaps. The quality of formative assessment also partly rests on strategies teachers use to elicit evidence of student learning related to goals, with the appropriate level of detail to shape subsequent teaching and learning (Bell and Cowie, 2001; Heritage, 2010; Herman et al., 2010).

Current interpretations of formative assessment support more constructivist learner-centred approaches, as learners conduct self- and peer-assessment (Sadler, 1989). These include outcomes that do not readily lend themselves to criterion-referenced assessment, such as transversal skills of initiative or constructive management of feelings. They may also be used to judge the quality of creative work products, for which there are no predefined criterion or outcomes (emergent outcomes). Here, assessments that track each learner’s own progress – learner self-referenced assessments – succeed in focusing attention on important learning objectives while respecting

individual needs. These approaches to assessment are also particularly appropriate for informal and non-formal learning contexts.

Formative assessment may also support well-designed, holistic approaches to learning outcomes. Several countries have set out formative assessment as a priority in legislation, and/or developed tools and exemplars to support implementation. Scotland's *Assessment for learning* programme, for example, sets out principles of effective formative assessment and provides exemplars of good practice (Education Scotland) ⁽²⁹⁾. Although little information is available internationally regarding the extent to which learners self-assess (OECD, 2013), there are examples of effective and innovative practice. Learners in Swedish schools are typically involved in setting their own goals for learning and, with teachers, assessing their progress. In the UK, Lucas, Claxton and Spencer (2013) have developed an innovative tool for learners and teachers in secondary schools to track the development of their personal 'habits of mind' which have been identified in the literature as essential for creativity: creative individuals are inquisitive, persistent, imaginative, collaborative and disciplined.

Teacher capacity and autonomy, and learner engagement are the most important elements. These approaches can only work if teachers are able to use their professional judgment and are able to engage in contingent teaching to meet diverse learning needs, and learners are engaged in the learning process.

4.5. Learning outcomes for quality assurance

Quality assurance at both European and national levels is vital to ensuring that qualifications are recognised in the labour market and among education providers. Three important quality assurance measures, as set out by the International Labour Organisation are, the 'validation of qualifications and/or standards; accreditation and audit of education and training institutions; and quality assurance of assessments that lead to the award of qualifications' (ILO, 2007).

Quality assurance is also a powerful tool to reinforce the implementation of learning outcomes approaches; QA agencies may set out expectations that programme designers define and assess learning outcomes. When QA

⁽²⁹⁾ <http://www.educationscotland.gov.uk/learningandteaching/assessment/about/principles/ensuringappropriatesupport.asp>

agencies are focused on improvement, they may also reinforce cultures of institutional self-evaluation, including the use of data to identify areas for improvement (rather than on 'punitive actions') and to shape strategies, including for more learner-centred approaches to teaching and learning.

Quality assurance to support greater academic and labour market mobility is currently promoted at international level through EQAVET, the European standards and guidelines for quality assurance in the higher education area (ESG). Yet there are still barriers and challenges at this level. These programmes are still relatively new, and there is a need to develop shared understanding and vocabulary, and to strengthen the alignment of learning outcomes approaches and quality assurance principles to improve the coherence of implementation across countries.

Box 2. A range of quality assurance frameworks and guidelines

EQAVET ^(a) is firmly established (since 2009) as the European reference framework for quality assurance in vocational education and training. It provides a systematic approach to quality assurance, promoting a culture of continuous improvement by combining internal and external evaluation with the use of indicators and qualitative analysis. The European Commission's recent evaluation report on EQAVET (European Commission, 2014) acknowledges that a closer relationship with NQFs and the EQF is needed, notably to be better able to address the challenges posed by the continuing shift to learning outcomes. Particular attention is drawn the quality assurance in qualification design, assessment and certification, areas where the learning outcomes approach is changing policies as well as practices ^(b).

In higher education, the 2005 standards and guidelines for quality assurance in the European higher education area (ESG) ^(c) were revised in 2015 ^(d). These revised guidelines aim to clarify language, to strengthen internal quality assurance of teaching and learning, and to define the relationship of the Bologna Process developments and developments in qualifications frameworks and learning outcomes. A European association for quality assurance in higher education (ENQA) ^(e) was set up in 2000, with the aim of disseminating information, experiences and good practices in quality assurance in higher education ^(e), supported by the European quality assurance register (EQAR) ^(f). Just as in VET, the explicit focus on the certification process and the application of learning outcomes is relatively weakly developed, having entered the discussion only in recent years.



The 2012 Council recommendation on validation of non-formal and informal learning (Council of the European Union, 2012) asks for the implementation of transparent quality assurance measures, in line with existing quality assurance frameworks that are in place to support reliable, valid and credible assessment methodologies and tools. As demonstrated by the 2015 European guidelines on validation of non-formal and informal learning (Cedefop, 2015b), explicit focus on the learning outcomes approach as well as on the different stages of the certification process is essential in this area.

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- (a) EQAVET: <http://www.eqavet.eu/gns/policy-context/european-vet-initiatives/european-qualifications-framework.aspx>
 - (b) See also Cedefop, 2015a.
 - (c) Standards and guidelines for quality assurance in the European higher education area: <http://www.enqa.eu/index.php/home/esg/>
 - (d) European association for quality assurance in higher education (ENQA). <http://www.enqa.eu/>
 - (e) ENQA membership is open to quality assurance agencies in the EHEA Member States, and requires compliance with the ESG. This compliance is checked every five years through independent review. External reviews of ENQA member agencies are considered to play an important role in assuring quality and trustworthiness of quality assurance agencies for higher education in Europe.
 - (f) This maintains a register of those higher education quality assurance agencies that substantially comply with the ESG. Compliance must be demonstrated through an external review by independent experts. The main objective of EQAR is to provide the public with clear and reliable information on quality assurance agencies operating in Europe; the register is web-based and freely accessible. For more information see: <https://eqar.eu/register/map.html>

Source: Cedefop.

4.6. The social dimension: learning outcomes users

The social dimension, which may also be referred to as social capital, includes shared values, motives and efforts (Baker, 2004; Hargreaves, 2003). Souto-Otero (2012) suggests that the usefulness of learning outcomes depends on the extent to which stakeholders are engaged, the way in which learning outcomes approaches are formulated and implemented, and the institutional and cultural context. Institutions and stakeholders (the users of learning outcomes) work together to define and address challenges. The users of learning outcomes include policy-makers in education and training, employers and labour market representatives, educators, learners and their families, and community members. The social dimension is also necessary if systems are

to learn and improve (with improvement being one of the most important uses of learning outcomes).

Cedefop (2012; 2015d) and Stanley (2015) describe the importance of institutions and processes in engaging employers in curriculum design and/or validation of qualifications. In most EU countries, he notes, stakeholder participation has been increased, but this has also involved complex and multistage processes of consultation, negotiation and documentation. The success of these processes depends on the representativeness of stakeholders, expertise and quality of data (for example on labour market needs and/or expertise in a particular domain), resources and the timeline. Raffe (2013) notes, that the most effective NQFs have developed over time, and have supported strong stakeholder communication and the development of communities of trust. This approach also fits well with Snyder's (2013, p. 8) advice for governance in complex education systems: in complex systems, while expertise is important, it is 'not sufficient to solve complex problems'.

In complex systems, collaboration and opportunities for mutual learning are important at both policy and practitioner levels. Peer learning among countries is also an important aspect of learning outcomes approaches. This kind of cooperation provides a forum for sharing insights on the principles of effective practice, and opportunities to develop a shared language. At European level, several expert working groups and other stakeholders are also promoting the development of a shared vocabulary and clarification of concepts underlying different approaches through their cooperation on a range of projects.

Teacher training and professional development are important in all education subsystems. For example, whether learning outcomes are used to improve links between education and employment as well as to support learner mobility depends not only on how well they are formulated, but also on teacher preparation, and on alignment of the approach with their own beliefs and experiences. Are teachers prepared to address both theory and practice in a given discipline or skill area? Are they prepared to assess and help meet a range of learner needs? How are systems balancing tensions between the use of assessment and evaluation data, for improvement and for accountability? How are systems reconciling tensions between intended and achieved learning outcomes? How are they balancing demand for complex skills and competences that are not easily measured in many of the criterion-referenced assessments developed to measure learning outcomes? These questions are critical and there is a clear need for further research.

Teacher collaboration within and among institutions can also strengthen

implementation. Opportunities for teacher collaboration serve as an important form of professional development. Collaboration – along with training and feedback – also provides opportunities for teachers to develop shared understanding and interpretation of learning outcomes and curricular objectives, and may increase implementation reliability. There is evidence that such collaboration may also improve learner outcomes. For example, a large-scale longitudinal study in a US school district found that collective leadership at both the school and district levels were associated with stronger impacts on student achievement (collective leadership refers to the extent of influence of organisational actors) (Seashore et al., 2010). Multilevel and multistage processes and challenges in implementing learning outcomes are elaborated in Chapter 7.

4.7. Overview of learning outcomes users and uses

Learning outcomes approaches are sometimes described as the ‘glue’ holding together a wide range of initiatives at both European and national levels (Cedefop, 2014b). On one side, such approaches are used to promote deep changes in teaching, learning and assessment; on another, they support lifelong and life-wide learning, and improve links to qualifications and the labour market. This is an ambitious range.

Figure 5 and the accompanying stakeholder table (Annex 3) illustrate the range of users and uses for learning outcomes. They also serve to summarise many of the key points of this chapter.

There are a number of important concepts embedded in these two-dimensional representations. In Figure 5 the learner at the centre of the circle represents a shift towards more learner-centred policies and pedagogies, while the learning outcomes bridge the gap between the world of education and the labour market. At policy level, there is a focus on using learning outcomes to improve the transparency of qualifications and opening up clear pathways for personal and professional development. This may include social policies to enable learners with specific challenges (such as disability and child-care needs) to participate. There is also greater emphasis on supporting learners to develop the knowledge, skills and competences relevant to current needs (such as for a specific occupation) as well as for their future development (such as the skills necessary to advance in the workplace or to higher levels of education).

At pedagogy level, learning outcomes support learner-centred approaches, including formative assessment of learner understanding and individualisation to meet learner needs better. Recognition and validation of non-formal and informal learning – the learner’s experiences in work and life – are also an important shift to a learner-centred view.

The right side of the circle includes stakeholders representing the labour market, while those from the education and training sector are on the left. This study concentrates primarily on education and training. Stakeholders from the labour market, as well as from civil society, bring their understanding and experiences regarding the knowledge, skills and competences necessary for work and for daily life. Stakeholders from the education sector bring their understanding and experience of how people learn and develop their capacities. Educators also respond to the needs of the individual learner. The two sides come together to develop learning outcomes, level descriptors and occupational and education standards, with the goal of improving learner preparation for work: this covers both a specific occupation and the skills they will need to advance, professionally as well as to higher levels of education.

Accountability and quality assurance are important to both sides. Employers know the value of qualifications. Educators are focused on the quality of learning and ensuring that all learners, not just the best and the brightest, achieve intended learning outcomes. This quality assurance also supports learner mobility, across employment sectors, toward higher levels of education and across geographic borders.

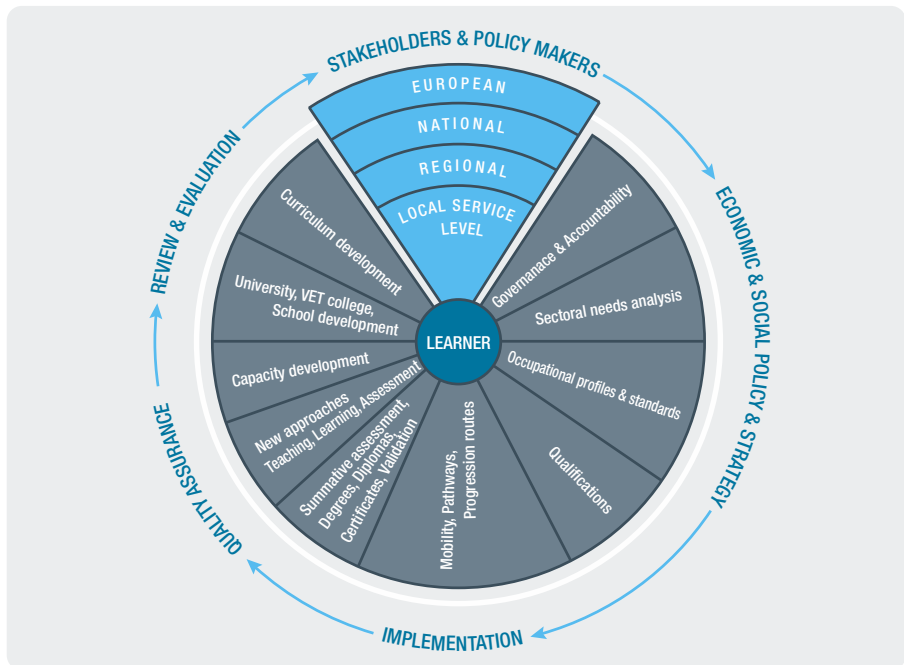
Review and evaluation are seen as being particularly important for generating data that may be used for improvement in policy as well as in practice. These aspects are new in many systems, which have not yet fully developed ‘evaluation cultures’. Teacher appraisal, in particular, is relatively underdeveloped in most countries. Review and evaluation, accountability and quality assurance also contribute to feedback loops and a culture of continuous improvement. Users of data gathered in these processes are able to identify what is working well, what is not, and to develop strategies to close gaps, improve strategies and outcomes. Balanced and coherent systems should also support better engagement and opportunities for shared ‘sense-making’ among these users.

Stakeholder and policy-maker involvement, economic and social policy and strategy development, programme implementation, quality assurance, review and evaluation are represented as a cycle encompassing users and uses. For all these elements, stakeholder engagement and collaboration across sectors (employment, education and learners) requires effective

communication and the capacity to understand different needs and points of view. Opportunities to improve mutual understanding of needs and ways of working are vital for effective collaboration. Another dimension may be added for stakeholders: the time needed to change behaviours and mindsets is absolutely vital.

It is also important to ensure that learning outcomes reflect broader aims for economic and social development and meet the needs of various stakeholders.

Figure 5. **Learning outcomes: users and uses**



Source: Cedefop.

A broad range of stakeholders at different levels involved in defining, applying and reviewing learning outcomes further illustrates the complexity of introducing learning outcomes across systems, as each user adapts learning outcomes to fulfil a specific function or functions. Their involvement is vital to embedding learning outcomes approaches into all aspects illustrated in Figure 5. Further, each stakeholder will respond to the tensions and challenges identified above differently, underscoring the analysis of the 2009 Cedefop

report that ‘there is no single correct or apt way’ of approaching learning outcomes. A stakeholder table with levels, roles and functions can be found in Annex 3.

4.8. Emerging issues

The following emerging issues can be identified:

- (a) learning outcomes and the closely related concepts of skills and competences have roots in behaviourist and constructivist theories of learning, two very different schools of thought. Behaviourist approaches seem to have had a much stronger influence on the definition of learning outcomes, as with EQF and many NQFs. There is a need to clarify concepts and to explore whether and how more recent constructivist taxonomies, such as the SOLO taxonomy (1982; 2014) and the Dreyfus taxonomy (1984) may complement Bloom’s revised taxonomy (2001) to develop learning outcomes for knowledge, skills and competences;
- (b) the combination of different taxonomies that are ‘fit for purpose’ may help to address many of the criticisms aimed at narrow, instrumentalist interpretations of learning outcomes approaches. Their focus is on observable behaviours (in line with the behaviourist school of thought). While these approaches are appropriate for some elements (such as basic knowledge and basic skills), the Dreyfus and SOLO taxonomies can provide better frameworks for guiding learner autonomy, the development of higher order cognitive skills, and/or the ability to address unique and complex problems;
- (c) clarification of underlying concepts may also improve the design of the different tools and technologies of learning outcomes approaches, including qualifications frameworks, level descriptors, standards, curricula and assessment and quality assurance;
- (d) teacher autonomy and capacity to diagnose and respond to individual learner needs are also vital to improving learning outcomes, including for marginalised learners. Formative assessment, contingent teaching responding to emerging learner needs and interests, and the ability to support ‘open learning’ are all vital;
- (e) collaboration between and among the many stakeholders – the social dimension – is vital for policy learning and implementation of learning outcomes approaches. Such collaboration supports policy learning, implementation and review of learning outcomes.

Learning outcomes and systemic policy reform

5.1. Introduction

This chapter examines how the shift to learning outcomes triggers policy reforms at system level in the 33 countries included in the study. All the countries examined are currently moving towards learning outcomes approaches within and across their education and training subsystems, albeit from very different starting points, at different paces and using different methods.

This chapter aims to describe the objectives of these interventions, the form they take and their focus and coverage. It is important to understand whether policies in this area are comprehensive or whether they are limited to particular areas, such as subsystems of education and training (general, vocational, higher education, adult learning). From this, the study is concerned with the extent to which initiatives seek to bridge the different subsystems and how the challenge of lifelong learning is addressed.

The impetus for a shift towards learning outcomes approaches, both in national systems and in subsystems, came at different times depending on the country and/or system. Systems that show more incremental features, such as Scotland or France, have been developing these approaches and policy instruments over a long period, albeit in different ways. In other countries, such as Croatia or Romania, reforms have been stimulated by various factors including EU accession. These points are taken up in Section 5.2. Chapter 6 then examines the progress of learning outcomes use in each of the four subsystems (general education, VET, HE and adult education) and draws on key findings for policy-making at system and subsystem level.

5.2. Learning outcomes stimulus to reform

5.2.1. Lifelong learning strategies, NQFs and learning outcomes

Since the mid to late 1990s, qualification reforms have been an integral part of developing strategies for lifelong learning, the latter as the broader environment of the former. It would be difficult, if not impossible, to establish linear causality between the development of lifelong learning strategies, qualifications reform and the shift to learning outcomes, which are mutually reinforcing over time, each element having an impact on the others. The data collected suggest that, in some countries, the stimulus has come more from one element or another and that the relationship between lifelong learning strategies and learning outcomes approaches is shaped in different ways. In some cases developing learning outcomes approaches, for example in HE or VET, has positive consequences for establishing effective lifelong learning strategies and practices. In others bringing together stakeholders to develop a comprehensive NQF has been a major contributing factor in developing a strategy for lifelong learning cutting across subsystems.

This section presents different patterns of government-led approach:

- (a) adopting a learning outcomes approach supports lifelong and life-wide learning and mobility, e.g. Finland;
- (b) the lifelong learning strategy underpins introducing learning outcomes, e.g. Austria, Estonia, Iceland;
- (c) developing a comprehensive NQF is a major stimulating factor in the shift to learning outcomes, e.g. Bulgaria, Croatia, Denmark, Greece, Iceland;
- (d) a comprehensive NQF is a key factor for lifelong learning, e.g. Ireland, Malta, Austria;
- (e) developing an NQF supported by ESF funding promotes learning outcomes, e.g. Estonia, Hungary, Slovenia.

Even when learning outcomes are not defined in legislation they may play a significant role in change processes. The data for Finland show that adopting a learning outcomes approach, even though it is not in legislation, has been favourable to developing lifelong and life-wide learning and mobility (internationally for study, traineeships and work). The lifelong learning perspective has reinforced the focus on learning outcomes.

Box 3. Finland learning outcomes approach and lifelong/life-wide learning

The principle of lifelong learning in Finland is that everyone has sufficient learning skills and has opportunities to develop their knowledge and skills in different learning environments throughout their lifespan. This viewpoint has been integrated into education policy and other education and training policy sectors. The aim is a coherent policy geared to educational equity and a high level of education among the population as a whole.

The learning outcomes approach favours lifelong and life-wide learning and mobility in education in Finland, as each sublevel in education ensures access to the next level. Recognition of prior learning (formal, non-formal and informal) is applied at all levels of education, especially in vocational education and training. The strength in this respect is the approach of individual study plans, which allow the flexible learning arrangements according to the learners' needs to improve efficiency and effectiveness of education.

Source: Finland country overview.

The process of introducing learning outcomes in Austria has been underpinned by the lifelong learning strategy and the development of an NQF that encourages the use of learning outcomes. The introduction of an outcome-oriented approach has been a key dimension of wider reform and modernisation of education and training since the mid-2000s, but national legislation does not define learning outcomes as most legal documents refer to competences, the basis of VET and general education standards. Stakeholders consider these approaches as a learning outcomes orientation.

Box 4. Austria: progress towards learning outcomes through the NQF

There is a perceived political commitment to learning outcomes orientation and progress is being made through the NQF, though more slowly at practice level. There are hopes that the learning outcomes orientation will help students to retain their learning better (than with input-based approaches) and that it will encourage them to pursue further learning. It is also expected to increase flexibility so that providers



can keep up with changing labour market and social needs. Further, it is hoped that a learning outcomes approach should enable migrants to integrate more quickly into the labour market by recognising their prior learning and meeting the requirements of private sector training, where learners want to know more explicitly what they are paying for in terms of outcomes. Since there is a long tradition in Austria of consulting employers over curriculum development, it is possible to engage them in reflection on learning outcomes.

Source: Austria country overview.

Other countries also demonstrate the importance of having a lifelong learning strategy in place. In Estonia, the main basis of the different development strategies and plans is the *Lifelong learning strategy for 2014-20*; all education policy documents are in turn connected by *Smart and active people (Tark ja Tegus rahvas)*, the development plan of the Estonian Ministry of Education and Research. The importance of setting and assessing learning outcomes is embedded in legislation, regulations and the subframeworks within overarching national qualifications framework⁽³⁰⁾. Iceland provides another example of bridging the different levels of education through an overall goal of lifelong learning: 'The policy behind the new education legislation is the policy of lifelong learning where the education and training system is seen as a whole from preschool to university and adult education'⁽³¹⁾. This has been developed through successive legislation on preschool, compulsory and secondary education, teachers/head teachers and higher education institutions (in 2008) and then adult education in 2010 and 2011.

In several cases, development of a comprehensive NQF is seen to have been (or still is) a major stimulating factor in the shift to learning outcomes and in enhancing lifelong learning.

⁽³⁰⁾ The overarching framework brings together four subframeworks for higher education qualifications, for VET qualifications, for general education qualifications and for occupational qualifications, with specific descriptors and underpinning quality assurance activities.

⁽³¹⁾ Referencing the Icelandic national qualifications framework to the European qualifications framework for lifelong learning, quoted in the country fiche (Ministry of Education, Science and Culture, Iceland, 2014).

Box 5. **Denmark: NQF stimulating the shift to learning outcomes**

The approach to learning outcomes in the Danish national qualifications framework for lifelong learning (NQF) and the qualifications framework for higher education has made a positive contribution to lifelong learning and mobility. The focus on and definition of knowledge, skills and competences is seen to aid comparability between sectors and fields, and also with other European countries, at least in HE. It is less so in VET because the high number of specific professions (over 300) continues to make geographic mobility and changing career difficult.

Source: Denmark country overview.

While the approach was previously taken foreword in a fragmented way in separate systems, the emergence of comprehensive NQFs has given European countries the chance to approach the shift to learning outcomes in a more systematic way. The overarching perspective of comprehensive frameworks is critical for achieving lifelong learning objectives and emphasising learning outcomes. Currently 35 countries are working towards this type of framework (Cedefop, 2016) which bridges the different subsystems, acting as an ‘umbrella’ for many different types of learning and qualifications, as illustrated by Ireland and Malta. In Ireland there is general opinion that the NQF has contributed to lifelong learning, insofar as it was designed to ‘recognise all kinds of learning achievements – formal, informal and non-formal. Formal or certified learning is recognised through the inclusion of as many qualifications as possible in the framework.’ In this way the language of learning outcomes and reference levels create common reference points for identifying and assessing non-formal and informal learning.

Box 6. **Ireland: national qualifications framework (NFQ) supporting reform**

The NFQ has reached advanced operational stage, in particular by promoting more consistent approaches to using learning outcomes across different subsystems, especially in sectors led by the Further Education and Training Awards Council (FETAC) and the Higher Education and Training Award Council (HETAC). In universities and schools, NFQ implementation was by agreement and the impact has been more gradual and incremental.



The process was strongly supported by major stakeholders. The NFQ has become widely known and is used as a tool for supporting other reforms and policy development in education, training and qualifications. Visibility and currency of the NFQ inside and outside the education and training environment has increased (National Qualifications Authority Ireland, 2009). Another review of the NFQ is planned for 2016.

Source: Ireland country overview.

Box 7. Malta: use of level descriptors in qualifications

Level descriptors provide reference points to be used for all qualifications offered by public sector or private education and training providers.

For general education the *National curriculum framework for all* (December 2012) (*) outlines the role of learning outcomes in school education. They aim to ensure that 'by the end of compulsory education learners will have acquired the necessary knowledge, skills, competences, attitudes and values that stimulate them to view lifelong learning as part and parcel of their development as individuals and as citizens of our country, of the European Union and of the world'. It advocates shifting attention 'to what the students need to learn and not to how much must be taught'. The intention is to support this curriculum framework by a learning outcomes framework which, once developed, will be the basis for designing all learning programmes leading to assessment in line with specific learning experiences (KeyCoNet, 2014).

(*) *A national curriculum framework for all* (2012).

<http://education.gov.mt/en/Documents/A%20National%20Curriculum%20Framework%20for%20All%20-%202012.pdf>

Source: Malta country overview.

ESF funding is contributing to the development of NQFs and learning outcomes approaches, as in Hungary. Though the development of the NQF in Hungary is in its early stages, the development of an NQF (HuQF) undertaken within ESF-assisted development programmes has played a decisive role in developing and promoting common understanding of learning outcomes.

Box 8. **Hungary: role of NQF in promoting understanding of learning outcomes**

The term learning outcomes does not appear in legislation nor in sectoral policy documents, but the development of competence-based education, as one of the main policy priorities in the 2000s, was defined in the strategies of general education, VET and lifelong learning and supported by ESF-assisted national development programmes.

Currently the most important developments promoting a learning outcomes approach are linked to NQF development, implemented in three separate projects covering the subsectors of VET and adult training, general education and higher education.

As the first step, the Hungarian NQF will cover all formal qualifications, accredited adult training programmes and training regulated by legislation; however, the objective is also to be able to classify qualifications obtained in non-formal learning in the long term.

Source: Hungary country overview.

Countries are increasingly seeking to establish regulations, mechanisms and provision that build coherence and transparency among the subsystems and aim at underpinning comprehensive strategies for lifelong and life-wide learning. This demands considerable reflection and work, which may give rise to new legislation, policies and arrangements. Evidence suggests that most countries are now using learning outcomes in their education and training policy formulations. At this stage, however, there may still be a gap between the intentions, the formulation of policies and the implementation of strategies in the field to make them a reality.

5.2.2. Defining learning outcomes through legislation, policy and regulation

The shift to learning outcomes in several countries is directly supported by legal reform, normally as part of national policy strategies related to education and training, lifelong learning and/or the labour market. These legal and political initiatives are important in the sense that they clarify the role of the learning outcomes approach in national policies and practices, facilitating implementation at different levels and for different purposes.

Table 2 shows, first, the countries where national legislation refers to the

term ‘learning outcomes’ or to elements directly related to this concept and, second, those countries where the learning outcomes approach forms part of (major) national policy and strategy documents.

Table 2. **Defining learning outcomes**

Level	Countries
Legislation defines learning outcomes or the relevant notion used, e.g. competences	BE-fr, BE-fl, CZ, EL, ES, HR, IS, IE, IT, LI, LT, LU, NL, NO, RO
Learning outcomes (or equivalent notion) are defined in national strategic and policy documents	AT, BG, CY, DE, DK, EE, FI, FR, HU, LV, MT, PL, PT, SE, SI, SK, CH, TR, UK

Source: Cedefop.

These legal and political initiatives may cover all the subsystems or be specific to some of them. The following examples show countries where legislation covers the whole education and training system:

- (a) Lithuania: the 2014 Law on education sets the goals for the system in terms of broad learning outcomes;
- (b) Spain: the Organic Law of Education (2006) established the frame of the Spanish education system, defining lifelong learning as the right of all individuals to follow formal and non-formal education with the objective of acquiring, updating, completing or extending their capacities, knowledge, skills, abilities and competences for personal and professional development. This was confirmed in the 2013 legislation for the improvement of the quality of education;
- (c) Croatia: legislation on the NQF based on learning outcomes has created a common framework for all levels and types of education and training;
- (d) Malta: the MQF has become the ‘bible in relation to Malta’s move towards learning outcomes approaches as it clearly states that all subjects should be defined using learning outcomes approaches’. The framework is seen as a quality assurance tool that formulates learning outcomes in all education subsystems.

In other countries, learning outcomes are referred to in legislation but not necessarily for all subsystems:

- (a) Czech Republic: legislation covering general education and HE refers to learning outcomes but differently for each subsystem;
- (b) Italy: the education and training system has introduced learning outcomes

approaches at national and regional levels, with each subsystem having its own characteristics (see below);

- (c) Netherlands: learning outcomes are in different legislative documents, though most clearly for VET.

Some countries have chosen a step-wise approach, launching (related) legal reforms over several years. This is exemplified by Iceland, where reference to learning outcomes underpins reforms (starting 2006) in all parts of education and training.

For more than half the countries, learning outcomes are found in documents that present major national development strategies, lifelong learning policies and those that tend to cover the development of comprehensive NQFs (Cedefop, 2015a). In the UK, where there is no single definition of learning outcomes common to all subsystems or to the four countries of the UK, the notion of learning outcomes has been strongly linked to developing qualifications frameworks and is present across the board. While it is more widely used in HE with policy documents that are explicit about their use, in Scotland the NQF covers all levels and types of qualifications and is the main instrument through which learning outcomes are expressed. In Slovakia, where legislation does not cover learning outcomes, the shift is being undertaken for general education through standards setting and curriculum reform.

5.2.3. Stakeholder consultations, collaboration and partnerships

Different forms of consultation, collaboration and partnership can support implementation of learning outcomes. From the data collected there appears to be a strong tendency for the ministries of education and/or higher education to take the lead in developing policies and instruments for learning outcomes linked to LLL and NQF strategies. In countries with a federal structure, such as Germany and Spain, regional stakeholders play key roles.

Depending on the country, forms of cooperation involve different stakeholders and social partners along with ministries. For Austria, the introduction of learning outcomes into education standards represents a cultural change. It has involved a collective process of defining vocational qualifications that is shared among employers, trade unions, teachers and craft associations, which is the usual way of working in Austria. The Netherlands provides a well-established example of involving broad partnerships among government, education institutions and their sector organisations and social partner organisations of almost all labour market sectors for VET. They are all interactively involved in the entire process of implementing learning outcomes.

Evidence shows that cross-sectoral working groups and task forces involving a broad range of stakeholders from all parts of education and employment have played an important role during the design and development of a national qualifications framework based on learning outcomes. Comprehensive frameworks have become platforms for dialogue and cooperation and have helped bring together stakeholders from different subsystems not commonly cooperating or speaking to each other. There is increasing establishment of permanent cross-sectoral 'national qualifications councils' dealing with qualifications and learning outcomes. Countries like Croatia, Belgium (fr), Hungary, Montenegro and Sweden have all set up or stated the intention to set up such bodies.

Box 9. **Croatia: stakeholders brought together**

In Croatia, the national council for development of human potential was established in 2014. It comprises 24 representatives of national ministries, regional structures, social partners and national agencies involved in developing and awarding qualifications in different subsystems of education and training. This body oversees policies in education, training, employment and human resource development, and monitors and evaluates the Croatian qualifications framework based on learning outcomes.

Source: Croatia country overview.

Box 10. **Germany: implementation of the German qualifications framework (DQR)**

A coordination point for the DQR was set up in a joint initiative of the Federal Government and the *Länder* in 2013. It has six members, including representatives from the Federal Ministry of Education and Research and Federal Ministry of Economics and Technology, the standing conference of the ministers of education and cultural affairs of the *Länder*, and the conference of ministers of economics of the *Länder*. Its main role is to monitor the allocation of qualifications to ensure consistency of the overall structure of the DQR. The direct involvement of other ministries, social partners, representatives of business organisations and interested associations is ensured, if their field of responsibility is concerned, by the Federal Government/*Länder* coordination point for the German qualifications framework. The German qualifications framework working group (Arbeitskreis DQR) remains active as an advisory body.

Source: Germany country overview.

Box 11. Ireland: creation of Quality and Qualifications Ireland

The National Qualifications Authority of Ireland (NQAI), established in 2001 by the Department of Education and Science and the Department of Enterprise, Trade and Employment (an example of a joint ministry initiative), originally coordinated the development of Ireland's national framework of qualifications.

In 2012 a new agency, Quality and Qualifications Ireland (QQI), was established under the Qualifications and Quality Assurance (Education and Training) Act 2012. It was created through the amalgamation of four bodies that had both awarding and quality assurance responsibilities: the Further Education and Training Awards Council, the Higher Education and Training Awards Council, the National Qualifications Authority of Ireland and the Irish Universities Quality Board (IUQB). The QQI has assumed all functions of the four legacy bodies and has new statutory responsibilities in particular areas.

Source: Ireland country overview.

Experiences to date are positive, as stakeholders from different subsystems in education and from the world of employment, not commonly cooperating with each other, have been brought together. What is to be seen is whether the long-term adoption of the learning outcomes approach will require more active and stronger stakeholder involvement.

5.2.4. Equity, social inclusion and the use of learning outcomes

Within the broader policy agenda, the intentions underpinning the shift to learning outcomes approaches include responding to issues of equity and social inclusion, both for lifelong and life-wide learning and in relationship to the labour market. Though the country reports for this study were not asked to focus on this specific aspect of the European agenda, there are indications of its importance. Finnish government policy aims to support equal opportunity in education, ensuring a solid basis for learning for everyone from early childhood provision through basic education. It includes ensuring that pupils and students with special educational needs and/or at risk of exclusion have access to a diverse range of supportive actions. In contrast, the Swedish report observes that the PISA 2012 results showed a drastic fall in target attainment as well as in equity, with low-achieving students falling behind and the gap between schools increasing. Reforms are expected in the near future.

One of the most relevant and impressive strategies in recent years has

been the *New opportunities initiative* (NOI) in Portugal. It was designed as a national strategic plan to speed up the pace of secondary-level achievement in the Portuguese population to catch up with European averages more quickly. It aimed to raise national awareness about lifelong learning strategies and was in line with the renewed Lisbon strategy and the European agenda for economic growth and social cohesion.

Box 12. Portugal: *New opportunities* initiative

The NOI aimed to motivate low-skilled adults to go through a system of informal and non-formal skills recognition, accreditation and certification, with complementary training where needed to achieve an education certificate and/or a vocational certification.

It was launched in December 2005, targeting the low-skilled adult population estimated at around 72% of the labour force with below secondary education.

By 2010 there were about 450 new opportunity centres (NOC) which had recorded 1.6 million enrolments and over 430 000 certifications (at ninth and 12th grades).

During 2012-13, major changes were introduced into the system. A total of 450 new opportunities centres in charge of validation and recognition of competences (for people over 18) were replaced by a new network of 214 centres for qualification and vocational training in early 2014. The new network assumes similar functions, but also targets young people (age 15) and provides guidance, counselling and validation activities to low-skilled adults and guides/orients young people completing nine years of basic education.

Source: Portugal country overview.

In several countries the effects of the economic recession on employment are a common driver for change and reforms (including Bulgaria, France, Italy, Lithuania, Spain). In France, youth unemployment, growing social inequalities in education as documented by PISA 2014, and a sense of dissatisfaction among teachers and parents influence decision-making processes. Currently, the approach is linked to more individualised and active learning by students to reduce grade repetition (*redoublement*) and early school leaving. This approach seeks to increase the flexibility of the procedures through which individuals (both young students and adults) can obtain a formally recognised qualification. Reforms launched in 2012 and 2013 to be implemented for the

school year 2016/17, introduce a new foundation of competences for compulsory education (*socle de compétences*) that will be organised in five domains: languages for thinking and communicating; methods and tools for learning; education of the individual and the citizen; natural and technical systems; and representations of the world and of human activity. In Bulgaria employers are experiencing a skills shortage and report issues of mismatch.

Box 13. **Bulgaria: Updating VET and HE to meet labour market demands**

In the past seven years, due to the financial and economic crisis of 2008, unemployment in Bulgaria rose from 5.8% (2008) to 9.4% in 2015 ⁽³²⁾. The highest percentage of unemployed people is low-skilled: they have either elementary education or have never gone to school. At the same time, employers complain of a significant shortage of qualified and skilled workers and employees. It is widely acknowledged that both vocational and higher education curricula and study programmes do not reflect labour market needs so, in recent years policy-makers and experts have focused mostly on updating and modernising vocational education and higher education systems to bring them in line with labour market demands. Taking into account these adverse developments, it could be said that economic and social conditions not only favour but also foster modernisation of education and training in Bulgaria, as well as quality improvement, including the use of the learning outcomes approach.

Source: Bulgaria country overview.

There is a focus on bringing VET and HE more in line with labour market demands, through a shift to using learning outcomes approaches. A further equity issue is that of regional and geographic discrepancies, shared with other European countries, between pupils' learning outcomes in cities and well-off areas in comparison with those in poor rural schools. These discrepancies were largely explored for all of the EU Member States in the report commissioned by the European Union, *Mind the gap* (European Commission and NESSE, 2012). Spain has high unemployment rates

⁽³²⁾ Unemployment rate, total; Eurostat.
<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsdec450>
[accessed on 28.3.2016].

especially within the NEET population (not in education, employment or training). They were compounded by the tendency for young people to leave education early during the economic growth period, to enter the labour market because employment was readily available. With an early school-leaving rate that was almost 22% in 2014 ⁽³³⁾, there are many young adults who lack both qualifications and experience, making labour market integration difficult. This leads to emphasis on using validation of non-formal and informal learning with reference to learning outcomes, especially in a period when there are significant budget cuts in education and a general perception that education could better respond to the needs of the labour market.

According to stakeholders in Malta, where early school leaving is decreasing but is still over 20% ⁽³⁴⁾, it has become easier for learners to understand what is required of them and what learning objectives they are expected to acquire through the shift to learning outcomes. It has also become easier for employers to identify the skills and competences of specific certificates and to provide feedback on the relevance of courses to the needs of industry. This issue of apparent mismatch is also present in Hungary, where low education levels and weak VET student motivation, as well as evolving demand for competences from employers, have for a long time steered attention towards the renewal of teaching methods, competence development and focusing on outcomes in VET. Further, the increase in higher education participation has led to the observation that student general competences are weaker than before, but academics do not have the necessary pedagogic ability to deal with this. Chapter 7 develops aspects of the dialogue between education and training and the labour market at institution level, and considers the increased efforts and commitments of stakeholders and implementation tools to put learning outcomes into practice.

⁽³³⁾ Education and training monitor (2015).
http://ec.europa.eu/education/tools/docs/2015/monitor2015-spain_en.pdf

⁽³⁴⁾ Education and training monitor (2015).
http://ec.europa.eu/education/tools/docs/2015/monitor2015-malta_en.pdf

Learning outcomes approaches in subsystems

This chapter assesses the extent to which the learning outcomes approach influences particular subsystems of education and training (VET, HE, general education, and adult education), which objectives have been set, what form the initiatives take, and the level of implementation.

6.1. General education

The country data collected for this study show that changes are continuing in general education with an emphasis on learning outcomes as a part of refocusing national or core curricula towards outcomes. This frequently takes place within a set of competences or key competences (or similar), and/or for the purposes of defining the learning outcomes expected in specific teaching and learning settings, though with little indication of major changes in assessment systems, especially at the end of upper secondary school.

In 2009, it was concluded that, while a shift to learning outcomes was taking place in general education, post-compulsory general education was less directly concerned ⁽³⁵⁾ than compulsory education ⁽³⁶⁾. Significant trends in general education are examined in this section as the available information on these is less extensive than that available for VET. One of the drivers for change is the PISA programme; the following section presents some examples of impacts of international testing on national policy.

6.1.1. The impact of PISA

A significant and continuing influence on general education systems since 2000 has been the OECD-led PISA, in particular the scoring and ranking of countries that participate in the exercise. It is also important to situate PISA in

⁽³⁵⁾ It appeared to be the least influenced by reforms referring to learning outcomes, probably mainly due to the importance of its selective function for access to higher education.

⁽³⁶⁾ Though countries differ in the way they define compulsory education, in many it finishes two or three years before the end of full secondary education that leads to diplomas and certificates giving access to HE.

a longer-term process of developing indicators to enable international comparisons of education systems based on outcomes. The first important initiative came with the launch of the INES project (1992) that aimed to develop a set of indicators for comparing the education systems of OECD member countries. A major challenge was to obtain data related to outcomes in terms of knowledge and competences acquired by students ⁽³⁷⁾. In 1997, OECD initiated the DeSeCo (definition and selection of competences) ⁽³⁸⁾ project with the aim of providing a sound conceptual framework to inform the identification of key competences. This project was linked to the design of PISA and acknowledged diversity of values and priorities across countries.

It is important to note that the first round of PISA in 2000 marked an important milestone, testing the ability of 15-year-old students to use academic knowledge to deal with concrete situations in daily life. The first results, released late in 2001 had a significant impact in participating countries, particularly in Germany, where there was a real ‘PISA shock’ (Martens, 2007). To a lesser extent this was also the case in Denmark, Poland and Switzerland.

Box 14. Pisa results across countries

In Denmark, PISA created a ‘shock’ because Scandinavian neighbours, mainly Finland, performed much better in the first round of tests. However substantial changes towards improving national assessment procedures were implemented after an in-depth international review (Egelund, 2008).

Poland did not experience a PISA shock, but its education system has benefitted from PISA, which has been a reliable instrument for measuring the effects of education system reforms (Bialecki and Wisniewski, 2015). The increasing use of tests of the type used by PISA has contributed to the improvement of student performance in Germany and Poland. In Hungary, the PISA survey has influenced decisions to develop a new national system of regular assessment of student performance and had a major impact on designing new curriculum-development interventions, aimed at the development of key competences and at reducing inequities. In Spain, the impact of PISA was more at the level of media and political



⁽³⁷⁾ The only international data available were those collected through IEA and ETS international surveys in reading literacy, maths, foreign languages and civic education but they were deemed inadequate to the real needs of the emerging ‘knowledge society’.

⁽³⁸⁾ For more information, see <http://www.deseco.admin.ch/>. Please note that DeSeCo uses the term ‘competencies’ rather than ‘competences’.

debates, but it gradually started to influence curriculum reform and professional development of teachers (Tiana, 2015). In France, the main impact has concerned the large inequalities in student performance related to their social background and the important rate of 'no' answers to the tests. This is due to the attitude of French teachers who tend to penalise wrong answers in a multiple-choice tests more than 'no' answers. Pilot projects are being organised in France to address these issues (Michel and Mons, 2015).

Source: Cedefop.

The impact of PISA has extended over time to more countries because analyses of results by OECD experts provide examples of good practice and suggestions for reforms to improve student performance and reduce the impact of socio-economic background.

Depending on the countries, impacts respond to the stimulus provided by international comparisons, and involve more attention being paid to support for students and to the professional development of teachers, approaches to and uses of assessment, and curriculum reform. In Europe since 2005, the impacts of PISA have been congruent with recommendations made by the European Commission about introducing key competences and learning outcomes approaches into school curricula. As the PISA results evidence base increases with successive rounds of testing, and analyses of the results take account of aspects such as the effects of social and economic background and the role of schools in contributing to success, countries are increasingly reflecting on whether their education systems and curricula support the outcomes of student learning.

6.1.2. Learning outcomes in general education policy and curriculum

Several trends can be identified across the 33 country overviews in the use of learning outcomes in general education:

- (a) learning outcomes as elements of (key) competences and skills either defined in national curricular documents (as in Flanders) and/or made operational at school level (as in France). They may be part of the taught curriculum based on national goals, interpreted into classroom teaching and learning (as in Scotland);
- (b) establishment of education standards (as in the German-speaking countries) either within the curriculum or goals at the system level;

(c) learning outcomes as a requirement defined through laws and regulations (as in Romania and Poland).

A first trend, already underway when the 2009 report was drafted (Cedefop, 2009) was an increasing reference to competences/key competences (or equivalent) in school curricula. This can be seen as one specific way of situating, applying or using learning outcomes. Both the data collected for this study as well as other recent studies and networking activities suggest that this trend is continuing ⁽³⁹⁾. In certain countries, learning outcomes are defined in national curriculum documents (see Boxes 15 and 16, Flanders and Ireland) while in others they are developed more explicitly at school level for use in the classroom in teaching and learning underpinned by national regulations (see Boxes 17 and 18, France and Scotland).

Box 15. Flanders: learning outcomes in secondary education

Learning outcomes are seen as important in secondary education, which includes VET. They are an integral part of the shift towards competence-based education, which has undergone further changes since 2013.

According to the masterplan published by the Flemish Parliament in 2013, all learning outcomes or final objectives (*eindtermen*) have to be formulated based on competences (*competentiegericht*) and connected to specific subjects. There will no longer be any interdisciplinary learning outcomes.

These reforms are linked to the implementation of the Flemish qualifications structure, as well as to a perceived need for more coherent and systematic final objectives. This led to the development of a framework for a competence-based formulation of final objectives, based on the European key competences framework, which can be used at all levels from preschool upwards, including adult education.

Source: Flanders country overview.

In Estonia, the national curriculum also sets out the goals and objectives with the related learning outcomes linked to the comprehensive Estonian qualifications framework and the specific subframework for general education. The same happens in Ireland.

⁽³⁹⁾ See European Commission and CASE (2009) and <http://keyconet.eun.org/project-results>

Box 16. Ireland: introduction of key skills

Ireland is an example of an incremental, national reform introducing key skills into the curriculum for all levels of primary and secondary education, with learning outcomes as a component of the key skills.

The National Council for Curriculum Assessment (NCCA) has developed a key skills framework (*) for the different levels and stages of education. The work has been in process for about a decade, working first on the upper secondary level and now on post-primary (the first cycle of secondary education).

Each key skill (information processing, critical and creative thinking, communicating, working with others and being personally effective) is broken down into essential elements and the intended learning outcomes. The latter indicate what learners should be able to do as a result of developing each element of the key skill. They are based on the European framework for key competences, but adapted to suit the Irish context. Assessment is being reviewed at all levels in line with these reforms.

(*) See the KeyCoNet case study on the introduction of key skills to the junior secondary cycle in Ireland http://keyconet.eun.org/c/document_library/get_file?uuid=c415fa33-6269-46c0-8292-52b8c0cec2d5&groupId=11028

Source: Ireland country overview.

This is also the case in Lithuania, where, since 2013, the *General teaching plan for the primary education curriculum* is based on a notion of ‘learning results’ which are formulated within general competences (*bendrosios kompetencijos*) and subject-related competences (*dalykinės kompetencijos*) according to the EU framework but taking account of the needs of the country.

In both the French-speaking community of Belgium and in France, compulsory education is structured around a foundation (*socle*) of key competences.

Box 17. France: the foundation of competences for compulsory education

The *socle* was introduced through legislation in France in 2006 to define the set of knowledge, competences, values and attitudes required to succeed in school and in life; it includes seven of the eight key competences in the European framework.



However, for several years implementation measures were limited. Significant work is now under way to develop the necessary teaching and assessment practices and materials for 6- to 15-year-olds.

This shift is still predominantly for compulsory education. Though the vocational *baccalauréat* curricula have, in practice, used learning outcomes since the 1990s, the move towards restructuring curricula based on competences started only recently for the technological *baccalauréat* and has not yet affected the curricula and assessment for the general *baccalauréat*.

Source: France country overview.

The UK, like Ireland, refers to key skills though they are not identical in the four countries of the UK. Learning outcomes are not part of policy documents for schools in England, but the inspection agency (Ofsted) ⁽⁴⁰⁾ focuses strongly on the need to observe the quality of learners' outcomes in terms of individual progress. Here learning outcomes are linked to the assessment of the individual learner that needs to be taken into account by teachers.

Box 18. **Scotland: curriculum for excellence**

There has been a move to expressing the school curriculum in relation to experiences and outcomes in the *Curriculum for excellence*. This aims to provide a coherent, more flexible and enriched curriculum from age 3 to 18, using eight broad curriculum areas and four capacities identified for a young person to become: a successful learner, confident individual, responsible citizen and effective contributor. In this case the learning outcomes are linked to teaching practice and are within each school's curriculum.

Source: Scotland country overview.

A second trend found in some countries is the establishment of education standards which include the learning outcomes to be attained. This can be illustrated by Austria, Germany and Switzerland with complementary but slightly different approaches.

⁽⁴⁰⁾ Ofsted is the Office for Standards in Education, Children's Services and Skills.
<https://www.gov.uk/government/organisations/ofsted>

Table 3. Examples of education standards and learning outcomes to be attained

Austria	Learning outcomes are defined in the curriculum; standards define the competences, behaviours and observable activities.
Germany	<p>Learning outcomes are integrated as goals of teaching and learning defined through reference to education standards (<i>Bildungsstandards</i>).</p> <p>They are subject-specific and define specific competences that students should develop in different subject areas by significant stages in their education.</p> <p>The notion of learning outcomes plays a role in curriculum development and the design of student assessment.</p>
Switzerland	<p>Cantons adopted a set of national education standards (<i>Bildungsstandards</i>) in July 2011. These inform the development of new curricula for mathematics, languages and natural sciences for primary and lower secondary education.</p> <p>The official documents do not refer to the notion of learning outcomes (or an equivalent) but are formulated as ‘can do statements’, each one accompanied by performance criteria and examples of assessment tasks. In upper secondary general education, however, curricula are mainly based on learning objectives.</p>

Source: Austria, Germany and Switzerland country overviews.

The third trend illustrated by Romania and Poland is to define learning outcomes as requirements through legislation. In Romanian general education, learning outcomes have followed the EU definition since 2011. The aim is to assess learning results in final exams, reflect the eight key competences of the EU framework and move towards coherence with the NQF. This notion of learning outcomes as requirements is also part of the new core curriculum in Poland, which is subject-based focusing on specific, subject-related outcomes but also includes more general learning outcomes and educational objectives defined for each level.

PISA and other international comparisons, as well as major challenges such as increasing the percentage of young adults who progress to HE and obtain an HE degree, addressing issues of early school leaving and youth unemployment, provide powerful drivers for reviewing general education. While no country has made a complete shift toward outcomes-based or competence-based general education, there has been regular progress across Europe in recent years, though this remains less evident in upper secondary general education and for assessment. Defining and making operational learning outcomes in general education is frequently undertaken

within policies relating to competence- and outcomes-based approaches. Depending on the country, the learning outcomes may take different forms: be explicitly expressed in national curriculum documents; be part of the taught curriculum (what happens in the classroom) expressing and expanding on national goals through activities and pedagogic materials; be developed at school level; or be an integral part of developing standards for education or as a specific requirement.

6.2. Vocational education and training

This section aims to provide an overview of current trends in VET in the use of learning outcomes. Trends in VET subsystems, already present five to six years ago, have continued and have been amplified. They have several aims: to make initial VET a more attractive choice for students; create better progression routes and pathways to higher levels of qualifications, including into HE; improve labour market relevance and the quality assurance of provision and qualifications; and improve the transparency of qualifications both within countries and across Europe to support mobility (geographic and vertical). In some countries, such as the Netherlands, France and the UK, where VET has been competence-based for about two decades, there is now a more explicit reference to learning outcomes, for example in curriculum and assessment.

This section will look at key trends in policies and the types of strategy developed. Since 2009, labour market relevance, quality and transparency have remained key objectives in all VET systems.

6.2.1. Trends in policies

In the countries that had already an NQF or register of qualifications (such as France) by the mid-2000s, there are no major changes in overall orientation; instruments in place have continued to expand to include more qualifications. In Malta, attention has been paid to recognising learning at the lowest level on the framework ⁽⁴¹⁾.

For countries whose policies have been competence-based for VET and

⁽⁴¹⁾ The 2015 referencing report updates the MQF with the introduction of two additional levels covering learning below level 1: introductory level A and introductory level B. These new levels have been introduced to recognise any learning that has taken place, as well as to serve as a stepping stone towards level 1 and further learning, and for employment purposes.

adult learning for a long time (France, Ireland, the Netherlands and the UK), the characteristics of the systems have not shifted fundamentally. One change in policy in France since the mid-2000s, gradually becoming operational, is the introduction of validation of non-formal and informal learning and experience that has been enabled by the longstanding competence-based approach to VET. This is a good example of a system where the term 'learning outcomes' has not existed in legislation until recently, but has nevertheless become a building block of VET practice. VET in Romania is the only subsystem that has been explicitly and coherently structured around competences and learning outcomes since the Phare supported reforms in the late 1990s/early 2000s. EU processes and instruments have played a key role in stimulating reform at national level, particularly in new Member States.

The increase in the number of comprehensive NQFs – VET being an integral part – that are now being implemented and have been referenced to EQF is shifting the focus more specifically towards a competence-based approach referring explicitly to learning outcomes. Recently, formal requirements for VET qualifications have introduced or reinforced the use of competences and learning outcomes adapted to the national context in a number of countries. This is the case in Bulgaria, Croatia and Iceland (Boxes 19, 20 and 22) and Slovakia, where the provisions also apply to adults who are acquiring formal education awards. In Slovakia an ESF project, *Development of the national qualifications system*, was launched in 2013 to develop new qualification standards for a range of qualifications. These standards are to be based on learning outcomes and reflect the occupational standards developed under the supervision of the Ministry of Labour, Social Affairs and Family.

Box 19. **Bulgaria: reference to learning outcomes in VET**

Since 2012 the term 'learning outcomes', as well as statements about knowledge, skills, attitudes and personal qualities are explicitly referred to in State educational requirements for acquiring vocational qualifications. Learning outcomes is mostly used in VET and the *National strategy for lifelong learning (2014-20)*; legislation presented to the parliament in 2013, introduced the notion of learning outcomes. The draft *Operational programme for science and education for smart growth 2014-20* includes in its objectives the need to meet the demand for more jobs and growth, higher education standards and better learning outcomes.

Box 20. Iceland: reference to learning outcomes in VET

VET comes mainly under the same legislation and regulations as the upper secondary school system, while informal and non-formal education falls under the Adult Education Act (2010). Since 2010 reference to learning outcomes (*lærdómsviðmið* or learning criteria) is made for VET in defining knowledge, skills and competence. The legal framework is in place and, together with the Icelandic national qualifications framework (ISQF), is guiding the work on implementing learning outcomes in VET. It is considered that learning outcomes have introduced a new philosophy into VET which calls for new way of thinking and working.

Source: Iceland country overview.

Developing a comprehensive NQF and referencing it to the EQF while retaining critical characteristics of the national system is well illustrated in Germany, where the qualifications framework (DQR) has been under development since 2007 and is being now implemented. Though the overall goal is to develop a framework that covers all qualifications acquired through the formal system, the current version includes VET and HE qualifications. General education and qualifications obtained through non-formal and informal routes will be gradually integrated. The concept of competence forms an umbrella in the DQR and is understood as the comprehensive ability to act in professional and personal situations.

Box 21. Germany: what ‘competence’ includes

Competence describes the ability and readiness to use knowledge, skills and personal, social and/or methodological abilities in work or study situations and in professional and personal development. Knowledge and skills are therefore represented as aspects of professional competence. Skills can, as in the EQF, be practical or cognitive in nature. Social competence and autonomy are also included. Systemic (creative) abilities are included alongside instrumental ones (German EQF referencing report, 2013).

Source: Germany country overview.

In Croatia, where VET qualifications have referred to competences for about a decade, the NQF provides formalisation (Box 22). The shift has been specific in Hungary with the introduction of a competence-based, modular system for VET; the adult learning sector is linked to it through accreditation. In Poland, recent reforms have introduced detailed descriptions of learning outcomes, though better linkage to the general vocational objectives is needed.

Box 22. **Croatia: learning outcomes and the NQF**

Since 2010 legislation, learning outcomes are a part of VET curricula defined by the Ministry of Science, Education and Sport. The *Strategy for VET in Croatia (2008-13)* includes the need for mechanisms for matching labour market needs and learning outcomes with VET curricula. Under this strategy, the Agency for Vocational Education and Training and Adult Education (ASOO) has responsibility for developing qualifications based on competences and learning outcomes. ASOO is supported by IPA projects (*) that initiated the pilot process of establishing methodology and development of occupational standards, qualifications and curricula for the acquisition of certain qualifications in vocational education during the school year 2013/14.

The Croatian qualifications framework (CROQF) focuses on competence development. This is based on: verifiable learning outcomes and emphasising better coordinated planning to ensure common education values, principles and objectives of the various education levels and types; better consistency across curriculum concepts, competence and especially educational outcomes and student achievement; a consistent methodological approach to curriculum design and determining educational outcomes; and a coherent system of monitoring and evaluation.

(*) These projects started before Croatia joined the EU in 2013.

Source: Croatia country overview.

More implicit links are found in countries like Latvia. Here the VET sector is said to be based on learning outcomes because VET courses are carried out according to education standards and include professional competences to be attained by the end of studies. The amended Law on VET (in force since April 2015) includes more explicit reference to learning outcomes and the

Latvian qualifications framework (LQF). Similarly, in Lithuania, although there is no direct reference to learning outcomes in VET policy documents, VET standards include training objectives and occupational competences.

Standards are another way in which education and training policy links learning outcomes for VET to NQFs. Following recent development in Estonia, VET education standards are now linked to the EstQF, ensuring the reference to learning outcomes.

Box 23. Estonia: education standards and the EstQF

The occupational qualifications system in Estonia, developed and administered by the Estonian Qualifications Authority, is seen as an interface between the labour market and the lifelong learning system, aiding the development, assessment and recognition of occupational competence. The vocational education standards set requirements and standards (including learning outcomes) and the link with valid qualifications framework for vocational education and training qualifications.

Vocational education is closely linked to occupational standards and profiles, agreed by the relevant sectors and used in curriculum development. However, the importance of the role of sectoral bodies varies among sectors and across regions. Reform of the vocational education curriculum, carried out in 2013-14, was expected to stimulate involvement of sectoral bodies in curriculum-development.

Source: Estonia country overview.

Some countries that did not previously have sectoral councils have established them or are in the process of doing so, as in Portugal and Latvia. Sector qualifications councils (SQC) have been established in Portugal to ensure that stakeholder needs are taken into account in the development of the national qualifications catalogue (NQC) which is regularly updated.

Box 24. Portugal: sector qualifications councils (SQC)

There are currently 16 sector qualifications councils (SQCs) to cover all education and training needs in different sectors of activity. They are composed of representatives of social partners; training providers from the national qualifications



system (schools, professional training centres certified training entities); bodies responsible for the regulation of professions; public structures that oversee business sectors; technology and innovation centres; and companies that are both users of competences and suppliers of competences and learning contexts. The SQCs also act as drivers of a collaborative network that extends to other important bodies in each business sector.

Source: Portugal country overview.

Box 25. **Latvia: occupational standards**

The focus is on occupational standards and the work of developing them is well advanced. Some standards have been developed under the ESF-supported project, *Development of sectoral qualifications system and increasing the efficiency and quality of vocational education*. They are designed to improve the relationship between 12 employment fields and vocational education. Occupational standards refer to learning outcomes that should be achieved in each of the subjects taught.

This project was implemented from 2012-14 by the State Education Development Agency in cooperation with four partners (Free Trade Union Confederation of Latvia, Employers' Confederation of Latvia, National centre for Education, and State Service of Education Quality). Activities have focused on sectoral research and developing sectoral professional qualifications frameworks, as well as developing or improving 80 occupational standards in basic professions, and reforming some initial and continuing vocational education programmes. One result of this project is a website of sectoral expert councils (*).

(*) See <http://www.nozaruekspertupadomes.lv>

Source: Latvia country overview.

6.2.2. Trends in VET strategies

In the VET subsystem, strategies continue to focus on approaches and mechanisms that have been under way in many countries since the 1990s and, in some cases, earlier. They include the following approaches which may be combined:

(a) government- and ministry-led strategies and their implementation;

- (b) mechanisms through which ministries bring together stakeholders and social partners, usually in a consultative role;
- (c) independent social partner and sector bodies with specific responsibilities.

Norway is an example of a government-led strategy in which each level has a specific role, with the ministry responsible for ensuring that this is carried out coherently. Training establishments organise education and training so that students can achieve the learning outcomes set out in the curricula. The focus of the work tends to be on establishing or revising vocational profiles and different forms of occupational and training standards, supervising accreditation and implementation by institutions as well as quality frameworks and/or processes.

In both France and the Netherlands, the well-established practice of social partnership provides the main strategic instrument in shifting to learning outcomes approaches. In the Netherlands, most information on learning outcomes and competence-based education concerns VET, and adult education and training. The legal framework and funding comes from the ministries, while the management of the new qualification structure is undertaken in cooperation with VET and labour market sectors that come together in the umbrella organisation S-BB (formerly Colo). The VET sector organisation (MBO-Raad) is responsible for managing implementation. The Netherlands Association of VET Colleges represents all government-funded colleges for secondary vocational education and training and adult education. It plays a major role in the remodelling of vocational education to be competence-based. Sharing responsibilities among different ministries and stakeholders is common for VET, though the characteristics differ.

In France, the *commissions professionnelles consultatives* (CPC) group includes representatives of employers, trade unions, teachers, inspectors and other specialists; they are consulted on the creation or revision of diplomas and curricula in line with the development of competence requirements on the labour market. In Spain, the point of reference is job competences.

Box 26. Spain: occupational profiles and the labour market

The national catalogue of qualifications registers VET qualifications. Occupational profiles have to reflect the needs of the labour market on which the description of job competences are based. They include general competences (*competencia general*) required; the units of competence establish the behaviour expected by the



person and the desired outcomes. Underpinning knowledge or social competences are defined by VET centres. A large-scale reorganisation of VET has been legislated for, placing emphasis on a competence approach to VET teaching and learning aiming to bring VET closer to the labour market. The General Council for Vocational Training (Consejo General de Formación Profesional, CGFP), set up by legislation in 2006 as a tripartite body, is composed of employer and employee organisations, as well as by the national government and the autonomous regional communities. Relevant actors are involved through the governing body for the National Institute of Qualifications (Instituto Nacional de Cualificaciones, Incul), and which develops and accredits vocational qualifications.

Source: Spain country overview.

Since 2010, a procedure regarding the establishment and funding of central and sectoral professional committees and their objectives and functions has been adopted in Lithuania. VET standards are endorsed by industry-led bodies equally representing employers, trade unions and education providers. A central professional committee coordinates strategic issues on the formation of the qualifications system. Social partners participate in shaping the content of new qualifications, qualification standards and VET programmes, by assessing that VET programmes correspond to labour market needs and in organising practical training.

In the UK, with administration devolved to four constituent countries (England, Northern Ireland, Scotland and Wales), creating coherence and transparency is challenging. The QCF, regulated by the office for qualifications in England (Ofqual) and its partner regulators in Wales and Northern Ireland, is an umbrella framework for creating and accrediting vocational qualifications, in addition to that of each devolved framework. However, the Scottish credit and qualifications framework (SCQF) is distinct. It is a broad partnership of stakeholder organisations and manages a forum that brings together the partners with sectors and employers. Currently the characteristics of the UK strategy on occupational standards might raise issues about ensuring a balance between the needs of employers and those of students.

Box 27. UK: the role of sector skills councils

National occupational standards are developed by sector skills councils that are independent and employer-led. The instrument that structures the design of standards, qualifications and the accreditation and provision of courses is the qualifications and credit framework (QCF) designed to include a wide range of vocational and other qualifications. In December 2014, a decision was published to remove the QCF rules so that 'high quality vocational qualifications can be designed around the needs of employers, rather than the prescriptive set of QCF rules' (*).

This example illustrates the debates about the different aspects and uses of learning outcomes related to the labour market, sectoral needs and to learners' immediate and longer-term needs. It brings into play the issue of balance between short-term and longer-term labour market needs, as represented in the characteristics of qualifications, and the need for learners to acquire qualifications that will give them the grounding on which to build throughout their working life.

(*) UK Government, Further education and skills – consultation outcome: withdrawing QCF regulatory arrangements: <https://www.gov.uk/government/consultations/withdrawing-qcf-regulatory-arrangements>.

Source: UK country overview.

Other strategies focus on providing support, for example through the national centre for VET and LLL support in Poland ⁽⁴²⁾. This provides a detailed description of the core curriculum for each vocational field, sample teaching plans and sample education programmes based on the core curriculum. Vocational schools are no longer bound by centrally approved programmes, but are free to use a programme designed by KOWEZiU or design one themselves, as long as it complies with the core curriculum. In practice approximately 98% of VET schools use the KOWEZiU but the degree to which they modify them is not known. KOWEZiU also provides supporting publications for schools that wish to design their own programmes, advising that programme design should be based on a description of the intended learning outcomes. They advise schools to reflect on how to individualise the programme, adapting it to learners in each school. KOWEZiU subject-based

⁽⁴²⁾ Such as the Polish national centre for supporting vocational and continuing education (KOWEZiU): a central, public, national institution providing professional development services for teachers, and the Center for Vocational Education and Training of the Republic of Slovenia (CPI).

and module-based programmes describe precisely both learning outcomes and taught content.

Trends over recent years have focused on supporting major VET goals related, among others, to labour market relevance, transparency of qualifications and better access to qualifications for learners of all ages. One major instrument is national qualifications frameworks in which the levels refer to learning outcomes and those are being referenced to EQF. The use of skills councils, though varying across countries, is increasing along with the development of occupational standards, also with reference to learning outcomes and competences. Stakeholder involvement is important in a subsystem in which the relationship between education and training and the labour market is crucial. Depending on the country this creates different patterns of roles and types of responsibilities at different levels (including geographic) in the system. For some countries the comprehensive NQF – VET being an integral part – is a process of formalising reforms, for example through legislation, where the system has been moving towards competence-based VET and learning outcomes under way for a number of years.

6.3. Higher education

While the 2009 Cedefop learning outcomes study (Cedefop, 2009) found that the shift towards the learning outcomes approaches was lagging in higher education – especially when compared to VET – analysis of both the country overviews and the teacher education case studies undertaken for this study tends to show that there has been remarkable progress. It appears that implementation of the European higher education area (Bologna process) is increasingly reaching the level of institutions. In many countries the definition of learning outcomes has become a general policy expectation and also a normal daily practice in higher education study programmes, even if there are huge differences between institutions or disciplinary areas.

Most countries have developed some form of framework for the orientation of higher education qualifications in line with the Bologna process and with the higher education modernisation programme of the European Union. They have been directly influenced by the qualifications framework for the European higher education area (QF-EHEA) adopted by education ministers during the Bergen Bologna meeting in May 2005 and by the ‘Dublin descriptors’ on which the QF-EHEA was based. This was reinforced by the parallel process of the comprehensive European qualifications framework adopted by the Council

and the Parliament of the European Union in 2008. Since the earlier higher education framework is fully compatible with the EQF for lifelong learning, a new push for the process started in the middle of the past decade.

The establishment of qualifications frameworks appears to have played a key role in promoting the shift towards learning outcomes approaches in higher education, together with the parallel development of quality approaches which defined the formulation of intended learning outcomes as one of the key quality criteria of HE programmes. This is reflected in the *Standards and guidelines for quality assurance in the European higher education area* (ESG) published by ENQA in 2009 (and updated in 2015) ⁽⁴³⁾. This document stated explicitly that quality assurance of programmes ‘are designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes’; and ‘the assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved’ (ENQA, 2015, pp. 11-12). The formulation of intended learning outcomes in study programmes and demonstration of the alignment of teaching and assessment methods with them became accreditation criteria in an increasing number of countries.

This process has been reinforced by an emerging policy orientation towards promoting ‘quality teaching’ and creating a better balance between research and teaching functions in higher education. In several countries this has led to the development of national initiatives to promote quality teaching, often encouraging the use of learning outcomes in study programme design and implementation. This has recently been promoted by the recommendation of the high level group on the modernisation of higher education (European Commission, 2013). The national authorities or relevant higher education steering agencies of many countries have published various legal, quasi-legal and professional documents (guidelines, handbooks, codes, manuals, and methodological booklets) to orientate the development and the evaluation of higher education study programmes. Institutions have been obliged or invited to revise their study programmes, taking these legal and other documents into account.

One illustration of this trend is the Lithuanian 2009 Law on higher education and research (introducing the notion of learning outcomes in the definition of study programmes) accompanied by the definition of ‘general requirements’ for both first and second cycle programmes and the related

⁽⁴³⁾ <http://www.enqa.eu/index.php/home/esg/>

publication of a *Methodology for evaluation of higher education new study programmes*. This type of 'package', similarly observable in other countries, shows the clear commitment of most European governments to promoting the shift towards learning outcomes approaches in higher education. This process is clearly linked with reform of national qualifications systems (triggered by the adoption of the European qualifications framework in 2008).

Progress, however, is uneven. Although in most countries learning outcomes approaches have reached the HE subsystem, in some this has not yet happened. Evidence from the Slovakian country overview seems to suggest that higher education has not yet been influenced by the learning-outcomes-based philosophy. While the shift to the learning outcomes approaches in higher education seems to lag in this country, higher education institutions were required to describe a graduate's profile when applying for accreditation so this can be seen as a major step towards defining learning outcomes in accordance with the European mainstream.

While the Dutch education system was already familiar with the concept of learning outcomes and the transition to education with learning outcomes went smoothly, measures were taken to improve the quality of education, and the focus changed from competence-based education towards knowledge-based. This case illustrates that quality goals, especially when they are strongly related with research excellence and less with labour market relevance, may come into conflict with the move towards the learning outcomes approaches and may even turn back progress. There is further reference to the education for teacher training as a clear example where learning outcomes are formulated in the form of competences, a term preferred in the Netherlands where they are understood as being broader than learning outcomes and generally defined as a combination of knowledge, skills and attitudes.

Some disciplinary fields also show greater progress than others and the commitment of some institutions to application of learning outcomes approaches is stronger than that of others. There is also a significant difference between countries in acceptance of learning outcomes approaches by the academic community. In some, university staff are still reluctant, or even resistant, especially in the traditional university sector. As data from several country overviews demonstrate, active participation in the Tuning programme might have significantly increased the capacity and willingness of institution-level HE actors to adopt learning outcomes approaches (as in Hungary and Slovenia), even if this has not received appropriate support from State authorities (as in the Czech Republic). Differences between disciplinary fields

can also be influenced by policies at EU level. For example, community-level efforts to define teacher competences, in the framework of the ET 2010 programme, have had repercussions at Member State level. In Hungary, for instance, the definition of learning outcomes in teacher education has been much more advanced than in other disciplinary or professional fields, and this has had a direct impact on the way teacher education programmes are designed at institution level. The particular openness of teacher education to the learning outcomes approaches has been directly influenced by the European programmes aimed at defining teaching competences.

As discussed in the following chapter, the shift towards learning outcomes approaches appears not only in policy declarations, higher education development strategies and related basic legislative actions, but also in the growing use of various implementation instruments, which create synergies and show a relatively strong commitment on the part of national governments to making this process operational. Some of those instruments originate at European level, such as the use of ECTS or quality assurance guidelines. Others are nationally created but still often influenced by European processes. The most important set of implementation tools – and also the richest implementation environment – is that provided by the development of national qualifications frameworks. The greatest difference between the previous Cedefop learning outcomes study and the current one is that the latter is being conducted a few years after the adoption of the recommendation on EQF and, therefore, can already reflect the impact of its implementation in the member countries.

Quality assurance procedures, especially accreditation, also appear to have played a powerful role. National higher education authorities are now expecting study programme designers to define learning outcomes and to prove that those intended are taken as the basis when specifying learning environments and establishing assessment procedures.

The increasing openness of study programmes – such as making programme designs public through university websites – seems to play a strong role in the shift towards learning outcomes approaches; programme designs without a clear presentation of intended learning outcomes are increasingly seen by the public as inadequate, as they do not provide sufficient information to potential ‘customers’. However, it is worth mentioning that the lack of that relevant culture among consumers might also impede the understanding and publication of intended learning outcomes. This is the case when students are more interested in what will be taught rather than what kind of competences they will have developed after the completion of a specific

course or programme. For instance, a distinctive feature of the Polish system is the lack of systematic use of the term learning outcomes when describing courses offered in HEI units. Given the diversity of HE learning programmes, the process of deciding on outcomes for HE continues to be quite challenging.

6.4. Adult education and training

Adult education ⁽⁴⁴⁾ covers a broad range of courses, programmes and awards from basic and life skills levels to higher education degrees. This makes it both very diverse and also linked in diverse ways to policies and strategies established for and by other subsystems. This section focuses on policies and strategies for adult education and training in the study countries, illustrating different characteristics:

- (a) adult education and training as part of VET; same legislation and/or regulations, as in Ireland and the UK;
- (b) adult education and training explicitly covered by the same legislation as for the overall education system with provision covering the different stages (primary, secondary and so on), as in Bulgaria, Slovenia and Poland;
- (c) no specific regulations for adult education, which may be market led, as in Slovakia.

Since the 1980s, adult education and training across Europe has had to respond to many difficult and recurring challenges frequently formulated in response to major labour market issues: long-term unemployment, particularly of the active population with low skills; the need for workers to reskill, upskill and adapt to new labour market needs; and the needs of specific groups at a disadvantage in the labour market such as minorities (Roma), women returning to employment, people with disability, unemployed youth, particularly young people who left formal education with no (or low-level) qualifications. Especially in recent years, young adults coming into the labour market with higher education degrees have also found themselves seeking complementary

⁽⁴⁴⁾ Adult education activities as defined by PIAAC (Desjardins, 2015):

- formal education programmes undertaken by non-traditional students; this includes second chance education for any adult to attain a secondary qualification or lower (i.e. ISCED 3 or lower), and adults 25 years or older to attain a post-secondary qualification (i.e. ISCED 4 or higher);
- non-formal education activities undertaken by any adult aged 16 to 65 with four distinct types (open or distance education, on-the-job training, seminars or workshops and courses or private lessons).

training. Responses to these shared challenges have included a range of measures to go beyond fragmented responses and establish lifelong and life-wide strategies and mechanisms: improving pathways to qualifications, access to learning and to its recognition and validation, within a framework promoting transparency among different education and training subsystems and economic sectors, supporting mobility. Establishing NQFs, educational and occupational standards, competence-based and learning outcomes approaches for all age groups are important implementation tools. Data gathered for this study show that these challenges are far from being satisfactorily met.

The programme for the international assessment of adult competences (PIAAC) is a new skills survey which will increasingly provide detailed data on the effectiveness of adult education and training systems to support skills development. The results of the first round were released in 2013 and the second round is under way. As yet there is little information on real impacts in participating countries, but the overall shape of the survey and the analysis of the first round results have some interesting pointers for this study, in line with European instruments for transparency of qualifications and for validation of non-formal and informal learning.

Box 28. PIAAC

PIAAC is a survey of adult skills and how they are used at home, in the workplace and in the community; how they are developed, maintained and lost over a lifetime. It also looks at how these skills relate to labour market participation, income, health and social and political engagement. For the first round, around 166 000 adults aged 16 to 65 were surveyed in 24 countries and subnational regions in the six months between August 2011 and March 2012. In round two, a total of nine countries carried out the survey for which results were recently published (*).

The focus of PIAAC is literacy, numeracy and problem-solving skills identified as key information-processing competences; it specifically looks at using the skills in real and varying contexts including accessing and making use of information through computers and computer networks. It aims to identify policy levers to reduce deficiencies in key competences.

(*) http://www.oecd-ilibrary.org/education/skills-matter/overview-why-skills-matter_9789264258051-4-en;jsessionid=ulypm12gyith.x-oecd-live-03

The country data gathered for this study show different trends in policies and strategies across countries:

- (a) a shift to using learning outcomes;
- (b) adult education sector aligned to the VET sector;
- (c) competence-based approaches;
- (d) validation of non-formal and informal learning.

These are illustrated below.

6.4.1. A shift to using learning outcomes

Because of the multiple settings and different types of regulation governing adult education and training in the countries in this study, the reference to learning outcomes is not systematic. An exception is the policy document on lifelong learning in Spain that makes clear reference to the notion of learning outcomes as a way of promoting lifelong learning. In some countries the shift may be in progress, as is the case in Austria and Sweden.

Box 29. Austria: shift to learning outcomes in adult education

Learning outcome approaches in adult education vary across different types of provision. Some curricula have been reviewed to reflect this approach. In the past two years, government ministries have made a commitment to apply learning outcomes approaches in adult education; in some fields they have already been drafted. In 2011, guidelines became available on a learning outcomes orientation in adult education, as part of the development of the NQF.

The 2012-14 initiative for adult education gives accreditation to institutions offering free basic skills courses that fulfil consistent quality guidelines, including a learning outcomes orientation and a focus on the needs of target groups wishing to complete or continue their education. It aims to overcome the challenges of basic skills course costs and the confusing array of options. Following positive evaluation, the programme is set to continue into 2015-17. A recent project, *You are competent (Du kannst was)* focused on learning outcomes and is aimed at recognising migrants' education and training from their home country.

Source: Austria country overview.

In Sweden, between 2010 and 2012, the National Agency for Education was commissioned by the government to carry out activities to further implementation of new education legislation, which included introducing a

learning-outcomes-based approach in adult education. Using the key competence standards for basic and secondary education levels, which are structured around learning outcomes (knowledge, skills and attitudes), is another type of approach, adopted in Poland. Adult education in Portugal covers three types of learning (adult education and training courses (AET), recognition, validation and certification of competences processes (RVCC), and modular training courses (*Formações Modulares Certificadas*) aiming to improve the general and specific competences of the employed and unemployed) all of which refer to key competence standards and learning outcomes.

6.4.2. Adult education aligned to VET

In the countries that provide illustrations for this section, there are no specific policy or strategy measures addressing adult education and training separately from VET, though provision takes account of the different needs of adults and young learners. In France, curricula for vocationally oriented adult education and training leading to a certificate or diploma are competence-based, insofar as they are identical with curricula in initial VET and general education or are registered in the national qualifications framework: the register of professional certificates, managed by the Commission Nationale de la Certification Professionnelle (CNCP).

Box 30. Ireland: shared strategies for VET and adult education

Strategies for learning outcomes are shared by both the adult education and training and VET. Accreditation of courses designed for adult learners comes under the umbrella of the NQF across the level descriptors that are broad descriptions of learning outcomes. Accreditation of qualifications aims to provide a route to progress to further training and education, building on existing skills and qualifications.

Source: Ireland country overview.

The UK is comparable to Ireland in this respect. Malta does not have separate policy or strategy documents for adult learning which is embedded within their overarching VET strategy, so, training providers must use learning outcomes in designing qualifications to be placed at the MQF levels. In Slovakia it is the responsibility of providers of adult learning to agree on the delivery of appropriate learning opportunities but continuing VET varies in the

extent to which programmes integrate learning outcomes, some remaining input-based.

6.4.3. Competence-based approaches

In some countries a well-embedded competence-based approach is moving towards integrating learning outcomes (Hungary). In others, while systems are competence-based, the shift to learning outcomes has not yet started (Lithuania).

Box 31. Hungary: competence-based approach in adult education

A competence-based approach has been present in adult training since the Adult Training Act of 2001, which required the specification of obtainable competences in curricula to be designed with a modular structure and developed by providers. A recent review of accredited training programmes has found that using the learning outcomes language (definition of training objectives and obtainable competences) in sentences using active verbs is quite common in adult training. The Adult Training Act of 2013 replaced institution and programme accreditation with a new system in which a permit of operation is issued. It has also introduced programme requirements for publicly supported vocational and foreign language courses which define outcome standards. The recently published guidelines on developing vocational programme requirements prescribe the use of learning outcome terminology and NQF descriptors to define outcome standards for each module of the training programme.

Source: Hungary country overview.

Box 32. Lithuania: sets of competences in the strategy for lifelong learning

There is currently no national strategic document on learning outcomes in adult education, though a new version of the Law on non-formal adult education is under preparation and is expected to link non-formal adult education better to learning outcomes. The Lithuanian strategy for securing lifelong learning has two sets of competences, general (*bendriejigeb jimai*) and civic (*pilietiniaigeb jimai*):



- general competences are those needed by all individuals for personal fulfilment and development, active citizenship, social inclusion and employment. They include communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competence, learning to learn, social and civic competences, sense of initiative and entrepreneurship, as well as cultural awareness and expression; these are the eight key competences of the EU framework;
- civic competences are based on knowledge of democracy, citizens' rights, and skills for participation in public life and critical and creative thinking skills.

Source: Lithuania country overview.

A competence-based approach may also be used to target a specific need or population, as in France where, under the provision of the 2009 legislation on lifelong vocational training, the government has set up a programme for developing key competences, particularly targeting the unemployed, 16- to 25-year-olds without qualifications, and low-skilled workers. Key competence courses (literacy, basic IT skills) are provided free of charge as an entitlement. About 800 municipalities offer such courses and, in 2010, there were about 45 800 trainees.

6.4.4. Validation of non-formal and informal learning

Validation and recognition of knowledge, skills and competences acquired in non-formal and informal learning contexts is an important policy objective in many Member States ⁽⁴⁵⁾. National strategies are typically integrated within broader education strategies and policies, as in Luxembourg, Poland and Finland; in the Czech Republic, France, Portugal, Italy, Norway and Spain the strategy for validation is outlined in legislation. Evidence collected for the European inventory on validation of non-formal and informal learning 2014 (European Commission, Cedefop and ICF International, 2014) and information in country overviews for this study show that there has been clear progress with regards to the introduction of national validation policies and

⁽⁴⁵⁾ The 2012 Council recommendation on the validation of non-formal and informal learning calls for 'Member States to put in place by 2018, arrangements to enable individuals to have their knowledge, skills and competences acquired via non-formal and informal learning validated, and to be able to obtain a full qualification or where applicable, part qualification on the basis of validated non-formal and informal learning experiences' (Council of the European Union, 2012).

frameworks in past five years, although progress in implementation has been more modest and is uneven across countries. Only three countries already have a comprehensive strategy in place: Spain, France and Finland.

In France, implementation is in progress, with 64 000 candidates per year applying for validation of their acquired learning and experience to obtain part of a qualification.

Box 33. **France: validation of prior non-formal and informal learning**

An important strategy relating to learning outcomes approaches is the increasing use of validation of prior non-formal and informal learning (*validation des acquis*), initially through experience at work, then extended from 2003 to include a range of relevant life experiences (such as volunteering). Though legislation was passed over a decade ago, the system is complex, so it has taken a number of years for individuals and sectors to be able to use it. One key aspect of this type of validation system is the use of professional and expert juries to assess and validate requests for accreditation.

The recent Law on vocational training (2014) established an individual training account (*crédit personnel de formation*) for all individuals over the age of 16, whether employed or job seekers. This strengthens the possibility of obtaining a qualification through successive steps using recognition of learning outcomes.

Source: France country overview.

The shift to learning outcomes in adult education and training is dependent on trends in the overall system and in the other subsystems. The three main factors supporting the implementation of learning outcomes are the existence of comprehensive national lifelong learning strategies, the development of comprehensive national qualifications frameworks and establishing mechanisms for validation of non-formal and informal learning and experience. From the data gathered, the reference to learning outcomes is progressing in countries where these three aspects are well linked and producing synergy. However PIAAC results show that developing a comprehensive strategy for validating non-formal and informal learning and experience is not, in itself, sufficient to raise participation rates in adult learning (OECD, 2013). One prominent aspect of reform in VET and adult education and training during the 1990s was the idea that it should be possible to identify outcomes that would be applicable to different groups of learners. In practice, however,

stakeholders frequently highlighted the difficulty this raised for reflecting the diverse and rich experience of adult life and work experiences. They also indicated the existence of what are often referred to as ‘spikey profiles’, demonstrating different levels of learning outcomes for different aspects of a qualification. The need to address such issues of diversity is not reflected in the data gathered for this study and is certainly underdeveloped.

6.5. Emerging issues

The analysis of policy developments across European countries as explored in Chapters 5 and 6, allows the following conclusions to be drawn:

- (a) most European countries are referring explicitly to learning outcomes either in legislative texts or in policy or curriculum documents. Recent policies relating to learning outcomes are frequently influenced by work deriving from the national strategy on lifelong learning and on developing an NQF and referencing it to EQF, which may reveal internal challenges for the national system. This process has become more pronounced since the 2009 report given the larger number of countries involved in building NQFs and referencing to EQF, with some countries moving towards a comprehensive framework through subsystem frameworks. Depending on the country and subsystem, the roles of social partners and other stakeholders may have been modified and expanded;
- (b) evolving relationships among lifelong learning strategies, qualification reform and learning outcomes approaches are configured in different ways depending on the country. While it would be difficult, if not impossible, to establish linear causality among developments in the three components, the effects tend to be mutually reinforcing over time, each element having a positive impact on the others. In some cases the use of a learning outcomes approach, for example in HE or VET, has positive results for establishing lifelong learning strategies and practices; in others, the development of an NQF has been a significant contributing factor in progressing a strategy for lifelong learning and defining learning outcomes;
- (c) improving equity is a key driver, with an important focus on the possibility that a learning outcomes approach offers for effective validation and recognition of prior learning and experience of different types. In these contexts, the reference to learning outcomes is intended to make it possible to offer a broader range of progression pathways to adult learners

or young people who have left initial education and training without or with low-level formal qualifications;

- (d) drivers for change in a number of countries are strongly related to finding better responses to the continuing challenges of long-term and youth unemployment. The impetus for a shift towards learning outcomes approaches, both in national systems and in subsystems, came at different times depending on the country and/or system. Systems that show more incremental features have been developing these approaches and policy instruments over a long period, albeit in different ways. In other countries reforms have been stimulated partly by EU accession and cooperation. In higher education, which appeared to be lagging behind in 2009, analysis of the country reports for this study suggests that there has been remarkable progress. Changes in higher education policy in most of the countries examined have been informed by the Bologna process and the development of qualifications frameworks. However, progress remains uneven across countries. In VET, trends over recent years have focused on supporting major goals related to labour market relevance, transparency of qualifications, and better access to qualifications for learners of all ages. A key instrument for VET is NQFs in which the levels refer to learning outcomes and that are being referenced to EQF. Most European countries are developing comprehensive NQFs that address all subsystems. The use of skills councils, though different across countries, is increasing, along with the development of occupational standards with reference to learning outcomes as well as competences. Stakeholder involvement is an important asset in a subsystem in which the relationship between education and training and the labour market is crucial;
- (e) in adult education and training the shift to learning outcomes is dependent on trends in the system and in the other subsystems. The three main factors supporting implementation of learning outcomes are the existence of national lifelong learning strategies, the development of national qualifications frameworks, and mechanisms for the validation of non-formal and informal learning and experience. From the data gathered, the reference to learning outcomes is progressing in systems where these three aspects are well linked and producing synergy;
- (f) in general education, PISA and other international comparisons, as well as major ongoing challenges such as increasing the percentage of young adults who access and obtain an HE degree, addressing issues of early school leaving and youth unemployment provide powerful drivers for reviewing general education systems. While no country has made a

- complete shift toward outcomes-based or competence-based general education, there has been constant progress across Europe in recent years, though this remains less evident at the post-compulsory level of general education and for assessment. Defining and making operational learning outcomes in general education is frequently undertaken within policies relating to competence- and outcomes-based approaches;
- (g) the country reports demonstrate a range of strategies at system and subsystem level. While embeddedness of learning outcomes in legal instruments and strategies is important, and is now common across European countries, implementation requires support, capacity building and time, as shown in Chapters 7 and 8.

Policy and strategy in practice

This chapter focuses on how policies aimed at increasing the uses of learning outcomes in European education and training have been implemented. It also addresses to what extent policies are accompanied by a practical strategy for implementation, and how this is defined in terms of timelines and supported by resources. The chapter is based mainly on analysis of country overviews but also relies on information gained from the teacher education case studies. A key aim is to discuss the relationship between policy interventions at macro-level (national and ministerial initiatives) and implementation at micro-level (in institutions and by teachers and trainers). This relationship is assumed to go both ways and the chapter will explore this aspect.

7.1. Implementing learning outcomes at system level

Evidence from the 33 country overviews suggests that most European countries have made significant progress in defining and integrating learning outcomes based on knowledge, skills and competences in their national curriculum standards and assessment frameworks across the four subsystems. Countries are aligning national curriculum documents and assessment frameworks with competence-based standards ⁽⁴⁶⁾ and many have produced guidelines and other tools to support teachers in developing and using learning outcomes approaches. Some countries (e.g. Spain, Croatia, Hungary, Portugal, Romania,) also launched new quality assurance measures or programmes supporting learning outcomes approaches. In most countries explicit new efforts have been made to strengthen both alignment between national curricula and assessment systems, and the skills needs in the world of work. Although this process is still fragmented, some strengthening of links across subsystems is observable.

When countries are committed to supporting the shift towards learning outcomes they typically include this as a goal in their national education and

⁽⁴⁶⁾ Competence-based standards: knowledge, skills and/or competences required for a job or in daily life. Adapted from Cedefop, 2014a.

training strategies and regulations. However, the shift towards learning outcomes approaches appears not only in national policy declarations, development strategies and related basic legislative actions, but also in the growing use of various implementation instruments, which show a commitment on the part of most national governments to make this process operational in the daily practice of institutions. The findings show that many varied instruments are used as incentives or enablers to support changes of behaviour at institution level: setting new inspection standards to be applied by national inspectorates, redefining programme accreditation standards to be applied by accreditation agencies; running capacity-building and various teacher professional development programmes; and launching targeted development interventions to reach special groups of local actors. Using such implementation instruments seems to create synergies as they tend to reinforce each other. Some originate at European level, such as the use of ECTS or the European quality assurance guidelines in higher education. Others are nationally created, but still often influenced by European initiatives and policies.

As explored in this chapter, countries implementing learning outcomes approaches seem to differ both in their commitment and implementation capacities. Findings seem to suggest that some are committed but they are not able to mobilise the appropriate tools, to create synergies between them, to raise the motivation of key actors, to create enabling forces and to remove obstacles. Others seem to be better prepared in this respect.

7.1.1. National processes and qualification standards

Country responses are influenced by the European initiatives, which directly or indirectly support national-level actions. In Chapter 1, a wide range of parallel European-level initiatives, which have been stimulating country-level actions for many years, were listed. They have created a favourable policy environment for national actors committed to the use of learning outcomes approaches in the various subsystems. Many countries have established lifelong learning strategies, adapting common EU level goals and priorities to their own national context, including those connected with the uses of learning outcomes approaches. The priority governments give to skills in their economic strategy and their commitment to developing advanced lifelong learning systems (including efforts to make learning visible through establishing outcomes-based qualifications and to recognising competences acquired through non-formal and informal learning) is a key indicator of policies supporting the use of learning outcomes approaches.

Redefining standards in national curriculum documents is still seen as the most important tool at system level; regulations and the definition of national qualifications standards are also frequently used in higher education. The most important set of tools – and also the richest implementation environment – is provided by the development of national qualifications frameworks. However, it is difficult to make a distinction between national qualifications frameworks and policies aimed at enhancing the use of learning outcomes. In most countries these can be described as two aspects of the same policy and process.

National processes, especially the revision of national curriculum documents and assessment frameworks are particularly important in primary and secondary education, where institution-level teaching and learning processes are more regulated than in higher education. Although the use of the term learning outcomes is less common in this subsystem, the idea of shifting from a content-defined approach to a results-oriented one seems to be generally recognised. At the same time, the focus on learning processes and the active role of the learner is being promoted.

Although the impact of the development of qualifications frameworks is more visible in vocational, higher and adult education than in primary and general secondary, the involvement of curriculum developers of the latter may also lead to substantial changes, if there is political support, towards competence-based education. As the Hungarian country overview and interviews with experts reveal, priorities can change over time. When the Hungarian national agency responsible for curricula had to apply the common framework to analyse the various disciplinary areas of the national school curriculum document, it was accepted that definition of knowledge, skills and competence outcomes was advanced in some areas and poor in others. Logically this should have led to strengthening the internal coherence of the national school curriculum document along learning outcomes lines but, following a change of government, the commitment to move towards competence-based education disappeared and learning outcomes approaches were no longer applied to national curriculum revision.

7.1.2. Using assessment and quality assurance

One of the most powerful instruments used to promote learning outcomes approaches, especially in higher education but also in the other subsystems, is the evaluation and assessment frameworks supported by assurance and accreditation systems. These devices exercise a strong influence on the behaviour of institution-level actors, especially in the field of curriculum design

and delivery in most countries. This influence may be very direct: for example, when the formulation of intended learning outcomes becomes a formal requirement for programme accreditation.

7.1.2.1. *Assessment and measurement systems*

An increasing number of countries now have student performance measurement systems; where they do not reach every school and pupil they are in a representative sample. Such measurement systems use standardised tests based on assessment frameworks specifying measurable learning outcomes and they are increasingly going beyond simple knowledge testing. They are formulated in terms of competences and complex cognitive skills. However, large-scale standardised tests are still limited in terms of their ability to measure students' capacity to demonstrate their reasoning processes and connect disparate ideas.

When achieved learning outcomes are systematically measured and results are fed back to schools and teachers in a timely manner, this may have impact on pedagogic practices, including institution-level curriculum design and delivery. It can strengthen, but also counterbalance, the impact of standards defined in national curriculum documents: the example of Hungary illustrates the second.

Box 34. **Hungary: impact of standards defined in national curriculum documents**

The shift back to input and process regulation of content has been in parallel with the continuation of the annual national assessment of basic competences. The content framework of this assessment, published in an annex of a ministerial decree, defines the examined content areas and cognitive operations, and their ratios in the test series for each grade. The tests of this measurement, assessing the reading comprehension and mathematical competences of all students in grades 6, 8 and 10, follow those used in the PISA surveys; they do not measure the extent to which curricular content has been memorised but the extent to which students can apply the knowledge and skills they have obtained in solving problems in everyday life.

Source: Hungary country overview.

The renewal of assessment systems seems to be one of the most effective instruments supporting the shift to learning outcomes approaches in the

school subsystem; it has been used in many countries. In Germany, for example, the national education standards established by the Standing Conference of Education Ministers, which supports competence-based orientation, has been completed with 'exemplary assessment questions'. In Finland, common objectives and assessment criteria for all subjects are developed for the so-called linkage phases (transition from grade 2 to 3, from grade 6 to 7 and at the end of compulsory education, in grade 9). In Spain, assessment criteria have been defined for each education cycle, in accordance with the standards of the curriculum. In the Czech Republic, the notion of learning outcomes is used in the development of national assessment on many levels and in many forms; pilot testing of attained knowledge and skills of all pupils at the end of fifth and ninth grade was carried out. Most of these initiatives aim not only to evaluate the performance of the national school system but also to orient school-level assessment practices. Revision of secondary school leaving examinations in several countries led to the strengthening of the competence orientation. For example, in Poland, the general upper secondary education examination (*matura*) standards are expressed in terms of learning outcomes (what the learner knows or can do), even though the term 'learning outcomes' is not used explicitly.

New assessment instruments in higher education might also support the move towards learning outcomes approaches. Measuring student competences in higher education has become a strategy goal in a number of countries, sometimes supported by the AHELO programme of the OECD⁽⁴⁷⁾. In Finland, this project is considered important in raising the approach of learning outcomes in the education policy discussion on higher education. Another illustration is the new higher education development strategy of the Hungarian government, which encourages higher education institutions to establish student performance measurement systems⁽⁴⁸⁾.

Those responsible for developing assessment instruments try to strengthen alignment and coherence with the new competence-based standards (as in Germany and Poland). The focus is no longer on identifying who will succeed (norm-referenced approach) but on how to help all learners

⁽⁴⁷⁾ Assessment of higher education learning outcomes: the AHELO assessment aims to be direct evaluation of student performance at the global level and valid across diverse cultures, languages and different types of institutions. <http://www.oecd.org/edu/skills-beyond-school/testingstudentanduniversityperformancegloballyoecdshelo.htm>

⁽⁴⁸⁾ According to a recent strategy document, 'the level of competences of students has to be assessed at the beginning and at the end of studies so that the contribution of the given programme to the development of knowledge and skills of students could be judged' (Hungarian Government, 2015).

meet learning goals (criterion-referenced approach). New instruments are being developed and introduced in many countries to ensure the assessment of more complex competences at classroom level. However, more research is needed to develop reliable large-scale assessments that can measure higher order thinking effectively. Few country overviews mentioned policies or tools to support classroom-based formative assessment, which would allow closer monitoring of learner progress toward competence-based standards through scaffolding, encouraging classroom interactions and structured classroom activities, adjusting teaching and learning strategies, based on feedback, to help students to close learning (Looney, 2011).

7.1.2.2. *Quality assurance procedures and tools*

Quality assurance procedures and accreditation also play a powerful role, especially in higher education. National higher education authorities are increasingly prescribing that study programmes are based on the formulation of intended learning outcomes; programme designers have to demonstrate, at least at the level of programme documentation, that the intended learning outcomes are taken into account when learning environments and assessment procedures are designed. National quality assurance and accreditation agencies also often provide advice to programme developers. External evaluation of how learning outcomes are used in new degree programmes has become daily practice in several countries, with accreditation agencies forming expert opinions on whether the definition of intended learning outcome is appropriately done in a programme submitted for accreditation. In some countries, the refusal of programme accreditation, when the learning outcomes approaches are missing or inappropriate in programme documentation, is quite frequent. This has a particularly strong influence on the practice of higher education institutions and on their willingness or openness towards learning outcomes approaches in curriculum design, demonstrated, for example, by an analysis of the use of the learning outcomes approaches in external quality assurance in the Nordic countries (Hansen et al., 2013).

Quality assurance and accreditation agencies often require universities to publish the details of their study programmes either in brochures or on websites. This might significantly improve the shift towards the use of learning outcomes approaches if students and other clients increase their interest in the competences to be developed by the study programmes they chose. The publication of intended learning outcomes can also be seen as the sign of more advanced pedagogy, with a stronger focus on the learner. This is one of

those areas where positive feedback loops can support implementation: the publication of learning outcomes may raise interest in this type of information among clients and, if this interest already exists, this pushes programme managers, especially when they consider marketing aspects, to make learning outcomes even more visible and comprehensible.

Quality assurance is also used by State authorities to promote the learning outcomes approaches in VET and adult learning.

Box 35. **Slovenia: quality assurance in adult education**

The Institute for Adult Education (IAE) developed *Offering quality education to adults* (OQEA) to help education organisations develop their capacity for self-evaluation and quality improvements. OQEA provides a variety of tools, manuals, and online databases and support. Planning and implementing the educational process is a key component in the OQEA quality model, including the definition of intended learning outcomes. In 2007, the Institute for Adult Education in Slovenia also led a pilot project on quality counsellors to provide guidance for learners. There is now a network of 20 trained quality counsellors. The IAE is also piloting external evaluations for adult education providers, with the aim of providing feedback on specific areas and recommendations for further development. SIAE has also developed awards for high-quality providers (the green quality logo and the SIAE award for quality development in adult education).

Source: Slovenia country overview.

Quality assurance and accreditation procedures may also have a negative impact on the move towards authentic – rather than only formal or superficial – use of learning outcomes approaches. In Spain, accreditation might be too strict or too bureaucratic, possibly limiting the capacities of universities to be creative in curriculum design and establishing specificities that may differentiate their programmes. If defining learning outcomes becomes too standardised, it might prevent the creation of innovative learning environments as well as the accomplishment of individual learning outcomes.

7.1.3. National support mechanisms

National authorities in many countries are using various support mechanisms to support the learning of institutional actors. The shift to the use of learning outcomes in curriculum design and delivery requires institution-level

adaptation and deep understanding of the logic of the new paradigm among stakeholder groups. Proli and Dondi (2011) characterise this process as demanding, since it requires effort in changing practices (and mindset) and restructuring the institutions' didactics. In Italy, the 'cultural shift' itself to learning outcomes approaches is also characterised by high-level complexity, requiring significant learning among relevant actors, especially teachers, without which implementation remains formal and does not become sustainable.

Tools that support communication and stakeholder learning are among those used at system level those. They have appeared in most countries but some seem to have higher-level understanding of their importance and also more skilful or more extensive use. In Iceland, for example, support activities for teachers are offered through workshops aimed at deepening discussions, getting the views of teachers, and introducing the new focus on learning outcomes in the context of assessment. Efforts have been made to help parents and other stakeholders to understand the changes and gain their support.

Austria provides targeted continuous professional development programmes for teachers, special websites, roadshows and seminars for target groups on 'learning outcome orientation'. In Italy, schools have been offered the opportunity to participate in 'experimental initiatives'; in France, practical training sessions were organised for teachers on how to define criteria for abilities and attitudes related to certain competence domains. In Hungary, development interventions aimed at supporting the shift towards competence-based education included training programmes for teachers and components of organisational and leadership development

7.1.3.1. *Supporting stakeholder learning*

Stakeholder learning has been significantly supported by the various European level initiatives;

- (a) international programmes (such as the Tuning programme): this supports institution-level actors in understanding the importance of defining learning outcomes and improving their capacity to design study programmes based on the definition of intended learning outcomes. A wide range of development projects ⁽⁴⁹⁾ looking into different curriculum development components, jointly financed in the framework of the lifelong learning programme have played a similar role;

⁽⁴⁹⁾ Such as projects funded under the lifelong learning action programme.
http://eacea.ec.europa.eu/LLp/index_en.php

- (b) model programmes: one of the instruments that national ministries can use to help introduce learning outcomes into higher education institutions is the publication of model programmes in specific disciplinary fields which show how learning outcomes can be defined in specific study programmes. In Poland, the national ministry issued 'model learning outcomes descriptions' for some degree courses;
- (c) guidelines or handbooks at national level: these seem to be one of the key implementation instruments for the institutions and users of learning outcomes (such as those involved in programme design, programme evaluation or quality assurance). The function of guidelines is not only to guide the behaviour of these users but also to enhance dialogue between stakeholders, especially the representatives of the professions and training providers. They are also described as part of the intermediary level of implementation between the macro and the micro level (Cedefop, 2014).

The publication of model programmes or handbooks with models that are too specific, however, is a 'double edged' implementation tool because it can weaken ownership and prompt simple duplication by enabling institution-level programme developers simply to copy the model into their programme instead of developing their own creative solutions.

7.1.3.2. *Acceptance of learning outcomes*

There are major differences in the practice of using learning outcomes, not only among countries but also in disciplinary fields or institutional profiles (Gallavara et al., 2008). Acceptance of the learning outcomes by the academic community is particularly uneven: in some countries academic staff show reluctance or even resistance, especially in the traditional university sector. Sometimes this resistance is based on conscious deliberation (the definition of standard learning outcomes is seen as detrimental for authentic – that is 'real' or 'deep' – learning); sometimes this is simply based on inherited attitudes. In some cases the reason is not the lack of openness among those involved to the world of work but, on the contrary, recognition that workplace-related skills might be too complex and too fast-changing to make them standardised. In Finland, a standardised learning outcomes definition is not expected from higher education programme designers in the accreditation process. While the use of learning outcomes became an accreditation criterion in other Nordic countries, the Finnish Higher Education Evaluation Council has not so far used them in evaluation criteria (Gallavara et al., 2008). This is the consequence of strong support for flexible and individualised learning

solutions, which is not possible with definition of learning outcomes in a standard and generalised way intended to be valid for everybody (Hansen et al., 2013).

7.1.3.3. *Implementation timing*

Time deserves special attention from the implementation perspective. Some of the issues that emerge from the country overviews and discussion with the national experts included:

- (a) Germany: the paradigm shift takes time at teaching level as teachers have to familiarise themselves with new contents, methodologies and assessment methods which might imply experimentation with innovative teaching formats and peer-to-peer learning activities;
- (b) Sweden: reforms take time to be fully implemented; they have happened gradually, building on what was already working;
- (c) Poland: a change of attitude takes more time;
- (d) Romania: many teachers have been introduced to the competence-based paradigm shift, but not all teachers were able to process the real change it required. Such a change takes longer, and rebound time is needed;
- (e) Hungary: there is no time for organic development, the internalisation of the concept and approach by all actors;
- (f) Austria: schools were given time to prepare and train teachers to become familiar with the new curricula and learning outcomes, before being legally obliged to deliver them;
- (g) Ireland: learning outcomes have cascaded down into pedagogic practice, which was a time-consuming process;
- (h) Netherlands: changes were time consuming, as they needed to be formulated in joint committees of social partners;
- (i) Romania: time is particularly important when faculty members have little information and experience in using a competence-based model in designing curricular materials, learning resources or assessment tools.

The allocation of appropriate time for stakeholder learning seems to be a key element. Time might also be needed for stakeholder groups to reach agreement or common understanding. Several country reports have noted the importance of open debate and discussion to allow stakeholders to make sense of new approaches and the time to make them their own (as in the Czech Republic, Ireland, Latvia). Normally the slower pace of change due to the time-consuming nature of stakeholder consultations turns into an advantage (for example in Switzerland). Where sufficient time was devoted to mutual learning and adaptation, the changes could be more 'gradual and

incremental' (Ireland); when this was the case implementation was apparently more effective and seemed to be more sustainable.

Time is important when successful implementation is achieved through positive feedback loops, when the first policy interventions create outcomes, which then become a new environment for new interventions. This can also be described as 'iterative alignment', which can unfold only in time (Allais et al., 2009). Stakeholder involvement is typically developed through successive stages, building on the outcomes of a previous stage. When employers realise that study programmes are increasingly based on defining learning outcomes reflecting the competence needs of occupations they become more motivated to communicate competence needs to programme designers, who are then in a better position to formulate appropriate intended learning outcomes. These are self-generating processes, which can unfold only over time. Neglecting the time factor, and assuming a high level of employer engagement at the beginning of the process, might lead to unrealistic expectations and implementation failure. Given the pedagogic complexity created by the shift to the use of learning outcomes at institution and local level, and complexity of the adaptation process itself, a contributor to successful change is the management and innovation capacities of institutions and their staff. It is also important that national policies support developing institution-level change management and innovation capacities. Those countries which are successful in strengthening these capacities at institution level seem to have a much better chance of managing the shift to the use of the learning outcomes approaches than those which go little beyond setting national standards through legal regulations.

7.1.4. Development interventions for implementation of learning outcomes

The use of development interventions and pilot programmes to promote implementation of learning outcomes has been important in many countries, especially those that receive substantial support from EU development or structural funds. The specific nature of development interventions and pilot programmes is that those participating in them typically do it on a voluntary basis; they can identify themselves easily with the programme goals and have strong commitment to achieving these goals. These interventions can be used by national authorities to communicate policy goals and to share the responsibility of implementation with institutional players. Also, given the voluntary participation of institutions, such approaches support gradual or incremental implementation of learning outcomes. Given the fact that the shift

to the use of the learning outcomes approaches requires significant behavioural change in individuals and institutions, in both attitudes and practices, this seems to be an ideal way to promote the learning outcomes approaches.

The emerging policy of promoting quality teaching in higher education has resulted in policy actions and development programmes in a number of countries aiming at enhancing the identification and the spreading of good pedagogic practice (Hénard, 2010; European Commission, 2013). This has encouraged modern higher education pedagogic thinking (often making reference to the influential work of John Biggs). A good example is the German NEXUS programme (*Konzepte und gute Praxis für Studium und Lehre*) of the German Rector's Conference and funded by the German Ministry of Education and Research.

Box 36. German NEXUS programme

One of the goals of this initiative is to collect concepts and good practices for high-quality teaching for higher education and facilitate peer-to-peer learning. Another German example is *Quality pact teaching (Qualitätspakt Lehre)*, a EUR 2 billion programme also funded by the Federal Ministry of Education and Research. This programme funds qualification measures for higher education staff relating to teaching, student support and advice, as well as innovative projects focused on the development of teaching quality and professionalisation of the teaching body. This includes, for example, experimenting with innovative teaching formats and peer-to-peer learning activities.

Source: Germany country overview.

In several countries the most important source of development interventions and pilot programmes is the European Social Fund. The impact of ESF-funded interventions seems to be greatest in the 'new' Member States, which joined the European Union in 2004 or later.

Lithuanian is considered a good example of designing and implementing curricula based on learning outcomes jointly financed by the ESF.

Box 37. Lithuania: European Social Fund promoting use of learning outcomes

The most important initiative supporting learning outcomes approaches in higher education was the project *Preparation of the national concept of the European credit transfer and accumulation system (ECTS): credit reconciliation and design, and implementation of curriculum methodologies based on learning outcomes* coordinated by Vilnius University. A key goal of this project was to create preconditions for the creation of student-centred and outcomes-based curricula on the basis of a new study credits system. As with several other projects in this study, efforts were made to create institutional capacities for change.

Source: Lithuania country overview.

In the Czech Republic, ESF funding is considered a major incentive for developing the lifelong learning system; in Estonia, the next ESF programming period is expected to address different topics that are closely related to learning outcomes. In Slovakia, an ESF project was run in the university in Nitra and aimed at developing and piloting an assessment system of programmes based on learning outcomes. Similarly, in Slovenia, implementation of the Slovenian qualifications framework project was funded by the ESF and the State budget. In Poland, ESF-supported capacity-building programmes and publications have significantly contributed to the implementation of the learning outcomes approaches in institutions and familiarisation of the key actors with it. In the case of Hungary, apart from one vocational school development programme, all national development programmes described in this country report were co-financed by ESF.

In many of the ESF recipient countries, a number of important development actions have been, or are currently, supporting the shift to learning outcomes approaches; sometimes this is directly, sometimes indirectly. These actions often support the development of new study programmes, the modernisation of evaluation and assessment systems and various pedagogic innovations aimed at improving competence development, or promoting competence-based education, including transversal skills such as critical thinking. In Hungary, some ESF-funded programmes have directly and explicitly supported the application of learning-outcomes-based

programme design at institution and programme level ⁽⁵⁰⁾ while in Malta, ESF funding has been used directly to support the development of learning outcomes approaches.

In several central and eastern Europe countries, curriculum and assessment reforms or reform components even in general primary and secondary education, are funded through ESF interventions, which are normally oriented towards lifelong learning objectives. As a consequence, funding general primary and secondary education curriculum development interventions through ESF is typically shifting curricular approaches in these subsystems towards broader competence development goals, including the development of European competences for lifelong learning.

7.1.5. Monitoring and evaluating learning outcomes implementation

Evaluation of the impact of measures promoting learning outcomes approaches is challenging. Monitoring and evaluating the implementation process, however, is a powerful implementation tool, used at a certain level in most of the countries examined. Ex-ante and ex-post impact evaluations are routinely undertaken for EU-funded development interventions, though evaluation of purely national policy interventions is uneven.

Sometimes decision-makers and other stakeholders think that it is 'too early' to evaluate the impact of learning-outcomes-oriented policies (as in Austria) and often the evaluation or monitoring of these policies is embedded into larger routine evaluation exercises undertaken by national inspectorates (as in France). Some countries recognise their weaknesses in policy impact evaluation, including policies on learning outcomes approaches (Slovakia). Some evaluations have been made in Nordic countries in the framework of regional cooperation (see Gallavara et al., 2008). In those countries which have a well-established practice of analysing the impact of policies the question is whether the actions supporting the uses of the learning outcomes approaches are conceived as separated, well-distinguished policies or as part of broader interventions (such as curriculum or qualifications reforms).

Most monitoring and evaluating of learning-outcomes-oriented policies has been done in the framework of European or broader international projects.

⁽⁵⁰⁾ One Hungarian project, for example, supported five higher education programme areas from five different disciplinary fields to restructure programmes so that they become learning-outcomes-based. Although this intervention only reached five programme areas directly, the presence of advanced programme design approaches created by this intervention in the participating universities had a catalysing impact on other disciplinary or programme areas.

Many have been directly linked with broader policy areas or policy interventions, such as the implementation of the Bologna process, the European recommendation on key competences or that of national qualifications frameworks. International measurements, such as PISA or the survey of adult skills (PIAAC) of OECD may also play a key role in monitoring relevant policy outcomes.

7.1.6. Linking the different subsystems of learning

Strengthening the linkages between education subsystems is an explicit policy goal at European level and also in many Member States. This is an important component of the European lifelong learning strategy, supported by European qualifications reform. This study demonstrates that strengthening the linkages between the different subsystems of learning is not only a goal or an outcome but can also be used to reach other goals, including promoting the use of learning outcomes approaches. When one subsystem is ahead of another in using learning outcomes approaches, connecting it with other subsystems might help transfer the advanced models and practices to the subsystem that is lagging.

The development of national qualifications frameworks, as part of the implementation of the EQF recommendation, has created a favourable policy environment in most countries for cooperation, communication and mutual learning between the four formal subsystems and also between the formal system and non-formal or informal learning environments. In theory, learning outcomes should strengthen links and pathways across the subsystems (including non-formal and informal learning) and improve student mobility: the overarching national qualifications frameworks have been bringing together the subsystems of education and training. Looking across the full set of subsystems, in most countries we see, however, that they are developing independently, at an uneven rate, involve different sets of stakeholders, and use different vocabularies and concepts. Most countries appear to have focused on alignment within subsystems (to ensure standards are met throughout them), or between one subsystem and the labour market (most notably with VET but also, to varying extents, with general, adult and higher education) rather than across the education and training system as a whole. European programmes targeted at specific subsystems may have been reinforcing these divisions (as with the Bologna process and Dublin descriptors for higher education, and separate strategies for general education reform).

A good illustration of establishing stronger linkages is found in Estonia and Iceland, which have taken a more centralised approach to introducing and

integrating learning outcomes across the subsystems, and which seem to have developed stronger systemic alignment. In Estonia, the eight-level comprehensive qualifications framework was established in 2008. Within the overall framework, there are also frameworks for each of the subsystems. The aim is to integrate lifelong learning policies with goals for social, economic and community development.

7.1.7. Learning outcomes and validation of informal and non-formal learning

The shift towards learning outcomes approaches is supported by programmes that aim to link formal education better with non-formal and informal learning. Promoting the recognition of competences acquired through non-formal and informal learning helps spread the learning outcomes approaches and increase the effectiveness of recognition policies. Many countries have recognised that learning outcomes are an ideal platform for further developing the recognition of prior learning (RPL), on the one hand and competences acquired through non-formal and informal learning (RNFIL) on the other. These systems can improve learner mobility from non- or informal learning to formal learning, across subsystems (such as from VET to higher education) or between education and the labour market. In Estonia, for example, the Professional Higher Education Act and the Universities Act both regulate recognition of prior study and work experience. Both Finland and Iceland are focusing on recognition of knowledge, skills and competences developed in the workplace, aiding mobility within companies.

Countries facing skills shortages challenges, such as Germany, can prioritise the recognition of learning and experience. The *Recognition in Germany (Anerkennung in Deutschland)* initiative is a comprehensive information portal underpinned by legal procedures for accrediting prior learning and experience. The *Externenprüfung* instrument allows people with sufficient work experience to acquire professional qualifications. There is also a BMBF (Federal Ministry of Education and Research) working group exploring the recognition of informal learning in the context of the development of the NQF. In recent years, German higher education institutions have been increasingly open to accepting individuals with vocational qualifications and work experience.

In Lithuania, legislation in 2012 granted 18 social partner organisations (including private companies) the right to administer RNFIL assessments. Spain adopted a RNFIL system in 2009, while Greece is in the early stages of developing its own approach in parallel to the development of the national

qualifications framework, which will be based on a mapping of all qualifications offered in education and training. The UK has a well-developed system of RPL in VET.

7.2. Institutional practices

System-level policies do not necessarily reach the grassroots and when they do they are often reinterpreted by grassroots-level players and adapted to specific institutional contexts. As stressed by a recent Cedefop study (Cedefop, 2015b) – in connection with quality assurance in VET certification – what is regulated at top level (e.g. regulations concerning certification processes) is not necessarily implemented automatically at lower levels (e.g. VET providers). This is why it is crucial to look at all levels including the macro, the meso and the micro levels (Cedefop, 2015b) ⁽⁵¹⁾. Translating learning-outcomes-related general policy goals expressed in national strategies, legislation or standards defining national curriculum documents and assessment frameworks into the reality of classroom level pedagogic practices, requires advanced implementation and change management tools and capacities, both at national and institution level.

System-level and institution-level processes are strongly interlinked, and disentangling them is not always easy. Not only are institution-level practices of using learning outcomes approaches determined by system-level tools; the reverse is also true. They also determine what kind of tools can be used effectively at system level. This creates dynamic interdependences between the macro and the micro level. It is important to stress that solutions applied at micro level are often more advanced than those promoted by national policies. An implication is that the micro level should be seen not only as the 'place' where policies initiated at macro level are implemented but also as inspiration for system-level policy-makers.

7.2.1. Diversity in implementation

Data collected by country overviews and discussions with national experts and the analysis of country practices reveal significant diversities at the level of individual institutions, especially in higher education where individual

⁽⁵¹⁾ Cedefop (2015b) presents the institution level as 'meso' and the classroom level as 'micro'. Although in this study we include both in the category of 'micro', we also see the distinction between the institution and the classroom level as important, especially in the higher education subsystem, where the distance between these two levels is particularly great.

universities have more autonomy to define their own curriculum and programme. While some have hardly been touched by the learning outcomes approaches, others have developed advanced implementation instruments to make department-level programme designers adapt to learning outcomes approaches.

In the UK, several universities have published internal guidelines for programme designers or programme directors on how to formulate intended learning outcomes and how to align learning environments and assessment methods with them. But there are many other examples.

Box 38. **Malta: guidelines for writing learning outcomes**

The University of Malta established a special unit to provide support for academic staff to design new or existing programmes based on quality and standards. This unit has created a set of guidelines for writing effective learning outcomes so that new study units or programmes follow similar standards. These guidelines are now adopted as a model for writing learning outcomes for all higher education degrees awarded by this university.

Source: Malta country overview.

Another example from the HE subsystem is that of the University of Ankara (Turkey) which – similar to several other Turkish universities – has opened a coordination office to promote learning outcomes approaches (as part of the Bologna reform) and to aid implementation within the university.

Box 39. **Turkey: a coordination office promoting learning outcomes**

This coordination office has been providing specialised training for programme developers and also created a general scheme to be followed when developing and updating curricula. They are advised to:

- describe goals of the module;
- develop learning outcomes in accordance with standards;
- develop learning strategies that lead learners to learning outcomes;
- design evaluation method to check learning outcomes;
- update module based on feedbacks.

Source: Turkey country overview.

The behaviour of individual higher education institutions has, in some cases, been influenced by participation in various European-level collaboration programmes, many directly supporting the use of learning outcomes approaches in curriculum design and delivery. Those participating, for example, in the Tuning programme or involved in other European projects, soon became familiar with the learning outcomes approaches and often became models for other institutions in their country.

Although this type of institutional practice might be encouraged by national policies, its presence in individual institutions depends on factors such as institution strategic priorities, the commitment of institution leaders to improving the quality of teaching and learning, or their capacities to manage complex institutional change. Differences in implementation at micro level seem to be unavoidable given the organisational conditions of 'deep implementation'. The learning outcomes approaches can only penetrate into daily institution practices in schools and universities where the organisational climate is supportive for innovative pedagogies. According to a recent empirical study on the impact mechanisms of ESF-funded development interventions supporting competence-based education, the impact of these interventions is largely determined by the organisational culture and the knowledge management capacities of the 'receiving' institutions (Fazekas, 2014).

The teacher education programme case studies also demonstrated the importance of institution-level strategies and actions. In most of the teacher training higher education institutions examined, advanced internal strategic efforts can be traced by university leaders to promoting learning outcomes approaches, accompanied by specific operational measures.

In the University of Ljubjana, in Slovenia, a methodology for the development and evaluation of study programmes, which would support the use of learning outcomes, was being prepared. In the Scottish case, the university surveyed has developed guidelines for programme and course design and review, which give very specific and detailed orientations on how to use learning outcomes approaches in planning and delivering study programmes. A competence-oriented model of teacher education was developed in Austria. In Ireland, there was a reference to the development of a university level teaching and learning strategy which covers curriculum design, including how study programmes should be planned and how they can achieve their objectives. The Hungarian case study shows the development action of one university where the employers of teachers were asked about competence needs; the outcomes of this survey have been fed

back into the design of the teacher-education programme of the university.

Local or institution level differences might be related to time lags in implementation. In Ireland, every school is now supposed to revise its own curriculum and the delay between macro- and micro-level processes seems to be accepted as normal; in Iceland, it was observed that different schools and different study programmes were at various stages of revision and implementation of learning objects. The Icelandic approach supports making a clear distinction between macro- and micro-level implementation and avoids creating the illusion that learning outcomes are used as soon as they appear in national curriculum documents. This might also be seen as an illustration of the intelligent use of time through sequencing the progress of implementation and building new institutional routines incrementally ⁽⁵²⁾.

7.2.2. Deep versus surface implementation

Data collected through the country overviews and discussions with the national experts suggest that, in several countries, adapting to learning outcomes approaches has remained at a formal or superficial level. The ‘depth’ in the uses of learning outcomes approaches is a major difference not only between countries but also between particular institutions; implementation is uneven between institutions even within countries where it seems to be progressing well nationally. This is particularly true in countries and subsystems where institutions enjoy more autonomy and, therefore, some of them may achieve remarkable progress, especially when supported by targeted development interventions, while others remain practically intact.

Implementation at macro level (such as including intended learning outcomes in national curriculum documents) does not necessarily mean that the approaches are effectively applied at school or classroom level. This is particularly the case when ‘teachers may use ready designed programmes’ ⁽⁵³⁾ as in Poland.

The real implementation challenge is not to be positively predisposed towards this approach but actually influence the teaching practices and the professional behaviour and beliefs of teachers. In several countries, this issue seems to have received quite a lot of attention. In Portugal and Poland, respondents report that the learning outcomes approaches have been

⁽⁵²⁾ Scotland, where ‘the introduction of a “learning-outcomes” language and the adaptation of educational forms and practice to this language’ took several decades, is another, well-known example of this intelligent incrementalism (Raffe, 2007).

⁽⁵³⁾ Poland country overview.

implemented primarily from a formal point of view. This means that the NQF was developed using learning outcomes approaches, but the approach has not yet been internalised by all educational institutions. In Italy, the focus on learning outcomes has been an important part of national implementation of the Bologna process but more formally, the changes in practice are lagging behind. Similarly in Austria, implementation in higher education is presented as being seen as a change in formal documentation of courses rather than a paradigm shift in the culture of learning.

7.2.3. Autonomy of institutions

Institution-level implementation of learning outcomes is partly determined by the willingness and the capacity of institutions to renew their curricula and teaching/assessment methods. Most such institutions have sufficient autonomy to make some degree of movement towards more learner-centred approaches and to improve alignment between intended learning outcomes, classroom-level teaching practices and assessment methods used. The level of institutional autonomy is, however, different in the different subsystems.

Responsibility for institution-level programme development (including alignment of learning experiences and assessment with learning goals) and delivery is stronger at higher education levels and outside formal education than at lower levels and within formal education. The level of responsibility for defining curriculum goals in the various subsystems varies greatly by country: in many countries, programmes – even for VET and adult education – are planned at national or sectoral level; definition of learning outcomes and alignment of student experiences and assessment with them is done above the level of institutions. This might give the impression in these countries that implementation of learning outcomes has been accomplished when the focus shifts from the content to be taught to the competences learners have to possess. However, this is not necessarily the case, if the focus on learning outcomes and their alignment with actual learning experiences and assessment approaches are not interiorised at institution level. In such cases the distinction between national/subsystem and institution-level implementation is particularly important, the latter being much more difficult to grasp than the former.

Recent studies have provided abundant evidence of relevant institution- and classroom-level processes of translating learning outcomes into learning activities, especially in VET. A Cedefop study (Cedefop, 2015d), based on classroom observations in training institutions in two different sectors – service and production – has revealed the shift of teaching in the classroom away from the traditional emphasis on teacher, textbook and blackboard, including

the growing use of hybrid environments, a recognition of the different ways in which the workplace learning can be used in IVET, and a growing understanding of the possibilities of ICT and virtual environments.

The increasing use of innovative pedagogic practices in the VET subsystem might be explained by the frequent interaction of VET institutions with companies pursuing advanced human resource development practices. The innovative solutions used in some company-level learning systems, especially in high technology industries and in the service sector, can easily infiltrate into the daily practice of VET institutions operating within the formal school system, especially when this is explicitly supported by national strategic frameworks and local partnership arrangements ⁽⁵⁴⁾.

7.2.4. Opportunities and barriers and their impact at micro-level

Institution-level implementation depends on the existence of system-level instruments used as incentives and enablers to support behavioural changes at institution level. Implementation in the various subsystems might be influenced by different facilitating and impeding factors: it is crucial to identify the drivers of changes and the factors that might block them.

In countries where, for example, national inspectorates apply standards that do not make reference to learning outcomes, and inspection is less interested in pedagogic content than in formal legal compliance, the institutional shift towards using learning outcomes might be weaker than in countries where national inspections support school-level programme designs based on learning outcomes. Institution-level behaviour might be influenced by incentives, as in Poland where higher education institutions present their best programmes of degree courses implementing the new qualifications framework and where considerable financial support was awarded for the best programmes.

In Belgium, competition between schools is seen as encouraging reform in addition to school-level (bottom-up) innovations supported by school networks. However, the 'fragmented character' of Belgian (Flemish) education is an obstacle to moving towards an education system based on defining learning outcomes.

Some country overviews make reference to financial difficulties caused by the 2008 financial and economic crisis and ensuing austerity measures.

⁽⁵⁴⁾ The German ReferNet report *Skills and competences development and innovative pedagogy* mentions that 'a methodological change in company learning cultures towards self-organised and experience-oriented learning is currently in evidence'. (Cedefop and ReferNet Germany, 2008, p. 16).

For example, information obtained from Spain suggests that the financial constraints have limited the capacities of universities to develop new courses based on learning outcomes. Financial constraints may become an important impeding factor also because learning-outcomes-based teaching and learning typically require more resources than traditional forms. In Poland for instance, the new learning-outcomes-based core curriculum ‘requires teachers to do more in less time’ and, as ‘teachers feel that they have to “rush with the curriculum” they have little possibility to innovate, or to individualise the learning process’ which ‘may limit teachers’ ability to adopt a broader learning outcomes perspective, to emphasise broader, cross curricular learning outcomes’. The same applies also for assessment, since checking whether learning outcomes have really been achieved by the learner would require carrying out real tasks during practical examinations but, given the expensive nature of competence assessment providing high-level validity, the latter often allows only ‘a description of unperformed tasks’ because of ‘economic reasons’⁽⁵⁵⁾.

The capacity and willingness of institution-level actors to react to incentives created by national-level policies might be very uneven. This depends on whether local or institutional actors are accustomed to the system-level uses of incentives and on the level of autonomy they have to adapt their behaviour and their capacities. In countries where improving teaching and learning is seen as part of institution-level leadership responsibilities, changes in national frameworks, including using learning outcomes in curriculum standards and assessment frameworks or development interventions promoting learning outcomes approaches, have a higher chance of generating appropriate institution-level reactions. A good illustration is Norway, where a leadership training and development programme was introduced which provides training to school leaders with content focusing covering students learning outcomes and learning environment and also cooperation and organisational development; development and change. Programmes like these can contribute significantly to institution-level capacities to react appropriately to enabling national implementation tools.

Since micro-level solutions are often more advanced than those promoted by national regulations, horizontal experience sharing at micro level may play a key role in helping spread learning outcomes approaches. Networks operating as communities of practice, where practitioners can acquire and

⁽⁵⁵⁾ Poland country overview.

share knowledge about ‘what works’, seem particularly effective. This is illustrated by a Hungarian project, in which five higher education institutions, with advanced practices of using the learning outcomes approach were selected as ‘reference institutes’⁽⁵⁶⁾. The Tuning project generated similar bottom-up processes, since participants defining discipline-specific competences were typically institution-level actors (teachers involved in or responsible for study programme design) who, in their home institutions started translating the common competence definitions into learning outcomes for specific study programmes. The national authorities sometimes noticed their activity only when the implementation of national learning-outcomes-oriented policies started and they realised that the practice of these local actors could be used by them as convincing good examples.

7.2.5. Supportive actions promoting learning outcomes

Institutions are not only using the various forms of external support created by national authorities but they are also creating internal support mechanisms. These are seen most often in higher education institutions, but can also be found in other subsystems.

The provision of model programmes by national authorities or development agencies through traditional printed materials or through web-based knowledge exchange platforms is a major tool to support local implementation. This has been the case in Hungary.

Box 40. Hungary: development of competence-based programme packages

EU funds have been used to develop new competence-based programme packages for school education and many schools and teachers have been trained to apply them through special professional development programmes. These innovative programme packages have been designed so that programme descriptions defined learning outcomes. They contained a toolkit consisting of methodological ideas for organising classroom activities and specific assessment tools: alignment of learning



⁽⁵⁶⁾ The Hungarian referencing report describes a number of workshops that were organised with the participation of stakeholders: ‘a representative of each reference institution regularly participated’ in these workshops’. This helped the stakeholders ‘not only to understand the qualifications frameworks, validation and learning outcomes, but also made them committed to the use of these tools for a better teaching and learning quality’ (Derényi et al., 2015, p. 39).

outcomes, learning environments and assessment practices was one of their key features. Implementation of competence-based education was assisted by the development, piloting and adaptation of competence-based 'programme packages' (*) and training programmes for teacher training institutes to adapt their programmes and methods to the needs of competence-based teaching. Hungary has also developed an online database of pedagogic innovations and good practices.

(*) These packages involve teaching and learning materials, assessment tools, related teacher training programmes and a support system.

Source: Hungary country overview.

The adoption of a competence-based approach has reached several hundred schools; many went through major changes as far as their pedagogic practice is concerned. Online sharing of advanced teaching material in Poland has also supported school-level implementation of competence-based education. The existence of such supporting instruments helps spread learner-centred approaches in pedagogic practice but, in many countries, this has not yet reached critical mass or sufficient depth.

One of the most important forms of support given to local implementers is capacity development. Higher education institutions help their staff to acquire the skills needed for learning-outcomes-based programme design and support changes of attitudes. Similar processes exist in basic compulsory education. In Iceland, for example, where every school is supposed to write learning-outcomes-based curricula, the national ministry and local municipalities have been organising workshops for teachers about the new curriculum and learning outcomes. The goal of these workshops has been to deepen discussions, get the views of teachers, and to introduce the new focus on learning outcomes in the context of assessment in primary schools. In the same vein, in Finland, education providers draw up their own curricula within the framework of the national core curriculum so there is more space for local actors to create support mechanisms in the school subsystem.

7.2.6. Involving external partners at institution level

A further driver of learning outcomes approaches at institution level is the involvement of external partners, especially representatives of the world of work, in programme design, in the creation of appropriate learning

environments, and in assessment. In those countries and subsystems where this has become an institution-level process, the shift towards learning outcomes approaches often became more apparent.

The overall implementation environment is greatly influenced by the existence or the activity of employer organisations or sector skills bodies. These may have a mandate to analyse and anticipate the skills needs of specific sectors and make efforts to define occupational standards, which can be translated into learning-outcomes-based qualifications. For instance, the UK has national occupational standards developed by the 18 sector skills councils (SSCs) and five sector skills bodies (SSBs) ⁽⁵⁷⁾ which are independent. The existence of employer-led agencies representing the skills needs of sectors, and the existence of occupational profiles developed by them, have a major impact not only on the way qualifications are defined but also on their capacity to influence university- or school-level programme planning. In an increasing number of countries, employers' skills needs have a significant influence on quality assurance and programme accreditation bodies and, through this, they can make use of learning outcomes approaches an important criterion for programme evaluation.

The involvement of the representatives of the world of work appears in several country overviews and also at institution level. Another example is provided by Luxembourg, where curriculum development teams are responsible for developing programmes which align the training in a company and the school-based training; such teams include representatives from the labour market (training companies) and from education (VET colleges). In Germany, there is a strong tradition of involving social partners in programme development and assessment in vocational education: this does not just happen at national level. In the Netherlands, employers must be expressly involved in restructuring the range of courses in higher education at institution level. In one university of applied sciences (in Groningen) there were agreements based on consultations with private and public employers, government bodies, students and employees of the institution about the focus on education and practice-oriented research. In Finland, tripartite

⁽⁵⁷⁾ SSCs are independent, employer-led, UK-wide organisations that are licensed by the government through the UK Commission for Employment and Skills (UKCES). There are also a small number of sector skills bodies that are not licensed SSCs. There are currently 18 sector skills councils and five sector skills bodies who work with over 550 000 employers to define skills needs and skills standards in their industry. They are supported by the Federation for Industry Sector Skills and Standards.

representation (employee, employer, government) in the assessment board for competence-based examination is considered a prerequisite at VET institution level. Employers are directly involved in practical training in higher education colleges of Slovenia, while in Latvia, employer organisations seem to be particularly active not only in national-level programme accreditation processes but also in institution-level programme design.

Involving the representatives of the world of work in curriculum design and delivery frequently produces positive feedback loops and self-generating processes leading to more effective implementation. When, for example, study programmes include formulation of intended learning outcomes, and these are based on analysis of occupations, employers are more motivated to become partners in designing and delivering study programmes. And, if they become partners, this encourages those responsible for programme design and delivery to move further towards using the learning outcomes approaches in their own practice.

7.2.7. Institutional evaluation

The extent to which evaluation is used and there is a culture of quality at institution level is a major factor determining the attitude and behaviour of institutions towards the application of learning outcomes approaches. The focus on learning outcomes is pushing institutions towards giving more attention to evaluating their achievements; the development of regular evaluation regimes might have a positive effect on attitudes and behaviour towards defining and using learning outcomes.

In the Netherlands, defining attainment targets was a national policy orientation in the school sector as early as the early 1990s. In primary and secondary education, schools monitor pupils and register their progress; this favours an outcomes-focused approach. A high-level assessment and evaluation culture such as this can give the impression that learning outcomes approaches become less important, with their use having become such a part of the routine that there is no need to put special stress on it.

Germany provides a contrast with the Netherlands as there seems to be a lack of 'evaluation literacy' amongst teachers, head teachers and also school inspectorates, which implies that feedback on education standards has limited relevance and is not used extensively for quality development at school level. It seems that it is not enough to develop an outcomes-based assessment system at national level and put it into operation, as happened in Germany following the 2001 'PISA shock', but there is also a need to develop a strong evaluation culture among individual institutions. One of the functions of the exemplary assessment

questions linked with the new national standards, is to support the development of an assessment and evaluation culture at school level.

Institution-level quality culture influences whether implementation of learning outcomes approaches remains at the surface or reaches the deeper layers of classroom pedagogy and teacher behaviour. Certain quality models (especially those emphasising legal compliance and formal organisational processes) may create an appearance of the learning outcomes approaches being deeply embedded in institutional practices (for example, each description of BA and MA study programmes starting with a list of intended learning outcomes) but closer observation of daily teacher-student interactions or assessment methods used by teachers might reveal that learning outcomes approaches are not in daily practice. Some of the teacher education case studies illustrate this: even in those universities where there is a high level of commitment both to quality and to learning outcomes approaches in curriculum design, in particular, previous daily student-teacher interactions and assessment practices might remain intact at department level where the real responsibility for programme implementation lies. The quality approach of those Nordic countries where higher education quality awards are connected to the use of innovative and effective teaching and learning also seems to be relevant from the perspective of implementing the learning outcomes approaches in higher education.

7.2.8. The role of innovation

Innovation seems to be a major driver for the shift towards the use of learning outcomes approaches, which often requires significant cultural and behavioural changes. Innovations may occur in programme design, in the creation of learning environments or organising student experiences and in assessment methods and procedures. The Hungarian competence-based programme packages illustrate this in programme design and learning environments. This is a kind of 'product innovation' resulting in teaching materials that help schools and teachers make their shift towards a competence-based approach in their daily pedagogic practice. The use of such innovative programme packages has required serious adaptive capacities at school level, which had to be supported by professional development programmes.

An important condition for such innovation when transferred to institution level is the adaptive and change management capacity of institutions and individuals working in them. System-level innovations may generate new institution-level innovations. In Slovenia, the introduction of portfolio

assessment in vocational training has led to a number of innovative practices, such as the competition for the most original learning achievement portfolios (Cedefop ReferNet Slovenia, 2014).

In some countries there are explicit national strategies supporting institution-level pedagogic innovation which can also play a powerful role in promoting use of learning outcomes approaches, especially when supported by institutional leaders. One example of this is the national association of Irish university leaders (IUA), which supports the establishment and operation of centres for innovation and excellence in teaching and learning in each university. The level of change management and innovation capacities of institutions is a major factor determining their capacity to integrate learning outcomes approaches into their daily pedagogic practice. A good illustration is the activity of the Slovenian National School for Leadership in Education.

Box 41. **Slovenia: innovation capacity of institutions**

The Slovenian National School for Leadership in Education trains head teachers and other workers in kindergartens and schools in innovative approaches, effective leadership and development of quality as well as organisational efficiency using innovative professional development methods, such as supporting learning in professional networks.

Source: Slovenia country overview.

Another example is provided in Netherlands, where explicit efforts have been made to improve the implementation process through developing a shared vision within a team and/or education institution.

Many universities and schools seem to lack the approaches needed: working together in professional teams on the definition of intended learning outcomes in partnership with external partners; designing innovative learning environments to provide appropriate learning experiences for students; and adapting assessment methods to learning outcomes defined in terms of complex competences. In those institutions where teaching communities are not used to thinking systematically about the outcomes of learning and about the way these outcomes can be assessed, and where learning environments are shaped by routines and by compliance with regulation, the shift to learning outcomes and learner-centred pedagogies requires major changes in institutional routines.

These changes can only occur if change and innovation management capacities are present at institution level; this has been consciously developed in some countries. This is evident in the Academic Development Unit of the Learning and Teaching Centre of the University of Glasgow, which operates a learning and teaching development fund to support staff innovation in learning and teaching.

7.3. Emerging issues

The analysis undertaken allows the following conclusions to be drawn:

- (a) the simultaneous and parallel use of macro and micro perspectives is an important condition for successfully implementing learning-outcomes-oriented policies in education and training systems. Implementation is successful only if it reaches micro level, that is the level of individual institutions, particular study programmes and classrooms;
- (b) in most cases the shift to the use of learning outcomes approaches at institution level requires fundamental changes in the daily behaviour of individuals and institutions. The spread of learning outcomes approaches in education systems occurs through complex processes of individual and collective learning and adaptation, which requires sufficient time, as well as strong and sustained external support;
- (c) policies supporting the use of learning outcomes approaches require significant implementation capacities. The chances of learning outcomes approaches being built into daily institutional practices is significantly higher in countries where institutional actors possess advanced 'implementation intelligence' and where a rich repertoire of implementation tools is used;
- (d) successful implementation of learning-outcomes-oriented policies requires the combination of top-down and bottom up strategies. The exclusive use of top-down approaches, without motivated initiatives at institution and classroom level may not only produce formal structures without real changes in institutional practices but may also have detrimental effects;
- (e) shifting to learning outcomes is complex. Development interventions or pilots are particularly powerful implementation tools. They are usually targeted at a limited number of institutions that have volunteered to become part of this project/programme. When they produce successful outcomes, these can be disseminated and then subsequently spread to a larger number of institutions;

- (f) the creation of platforms, encouraging interaction between stakeholders representing the various subsystems of education and supporting mutual learning, can aid implementation of learning outcomes approaches throughout the education system;
- (g) the implementation of learning outcomes approaches in education systems is typically non-linear. Successful implementation has to be supported by positive feedback loops: smaller implementation successes can create favourable environments for more advanced implementation steps, and the latter are best taken when the more favourable environments have already emerged;
- (h) advanced change management capacities and openness to innovative practices at institution level increase the chance of the shift towards the use of learning outcomes.

Learning outcomes and teacher education

8.1. Introduction

This chapter investigates how institutions in charge of initial education and training of teachers respond to increased focus on learning outcomes, and how learning outcomes act as a catalyst for practical reform at the level of these institutions and teaching/training professionals.

Starting from a description of the regulatory frameworks within which initial teacher education programmes operate, the chapter seeks to identify the main drivers that underpin the introduction and development of learning outcomes approaches in initial teacher education. It discusses the impact of learning-outcomes-based qualifications frameworks (as well as the Bologna and EQF processes in general) on the development of curricula, on collaboration between different faculties and on the implementation of quality assurance procedures at university and faculty level. The chapter presents a number of examples that illustrate continuing discussions on the application of learning outcomes approaches, interpretation of concepts, and changes in the way future teachers are trained and their competences are evaluated. It also elaborates on the role of practical training and its effective organisation and sums up the major findings on students' knowledge and skills required to apply learning outcomes in their future work in schools.

The analysis in the chapter is based on 33 country overviews and 10 case studies carried out in nine selected countries ⁽⁵⁸⁾. The case studies build on a diversity of sources ranging from literature review, programme and curriculum analysis to on-site visits, interviews and focus groups. Together this has made

⁽⁵⁸⁾ University of Heidelberg (Germany); National University of Ireland, Maynooth (Ireland); University of Estonia, Tallinn (Estonia); Eötvös Loránd University in Budapest (Hungary); Universität Innsbruck (Austria); Adam Mickiewicz University in Poznań (Poland); University of Warsaw (Poland); University of Ljubljana (Slovenia); University of Jyväskylä (Finland); University of Glasgow (UK, Scotland). These institutions provide general pedagogic education of future teachers at preschool and elementary level and of subject teachers in primary and secondary schools (both general and vocational).

it possible to collect primary and in-depth data on how learning outcomes approaches are used and reflected in programmes/curricula and arrangements for initial education of teachers in selected institutions. Perceptions and views of those involved in designing and delivering initial education of teachers as well as of those enrolled in these programmes are collected and analysed.

The limited scope of this study allowed us to collect opinions (self-reporting) only on the effects of the examined training programmes from a small sample of institutions of initial education of future teachers.

8.2. Regulatory framework of teacher professional preparation

This section, analyses the regulation frameworks within which initial teacher education institutions operate. There are two types of regulation: the first concerns the whole system of higher education, while the second defines specific requirements for the teacher profession.

Learning outcomes approaches in teacher education can be considered and described in a number of ways:

- (a) initial teacher education is part of the higher education system that is shifting to a learning outcomes approach in the context of overall reform within the Bologna process and the implementation of qualifications frameworks (Chapters 3 and 4). In some countries, such as Hungary, thinking in terms of learning outcomes is not a result of the Bologna process but comes from previous times;
- (b) teacher education institutions are 'professional (vocational) schools' responsible for the initial education, training and professional development of qualified staff for the education system. In this context, learning outcomes are linked to qualification standards and the professional profile of teachers;
- (c) teacher education is also an important tool used to make the shift to the learning outcomes approach take place in curriculum reform, methods of assessment and the promotion of learner-centred pedagogy within school education systems.

The function and the programmes of teacher education institutions that provide preparation for the professional qualifications required for teachers are determined by national standards of study programmes (such as in

Poland) and/or by regulations of the teaching profession in force in a given country (such as UK-Scotland). Although they vary among countries, teacher education institutions generally provide access to the profession through different routes that combine the acquisition of pedagogic competences (theoretical and practical skills) for teaching and supporting learning, as well as gaining knowledge related to specific subject domains or professions (as in VET).

According to the Eurydice report *Key data on teachers and school leaders in Europe* (European Commission and Eurydice, 2013) ⁽⁵⁹⁾, the prevailing qualification for schoolteachers across Europe was a bachelor degree, except for upper secondary teachers who, in most countries, had to have a master degree. However, in some countries there is discussion on whether a master degree should be required for all potential teachers. The Belgian (Flanders) country overview indicates that there have been deliberations about whether teachers' qualifications should be situated at level 6 or level 7 of the qualifications framework. This discussion is a part of the broader debate on teacher initial education which should be a balanced combination of professionally oriented training, typical for bachelor programmes (level 6), and academic education focused on advanced knowledge or competences that are needed for independent work, which characterises master programmes.

Sometimes the changes in legislation, shifting to and away from the Bologna two-stage structure of studies, especially the ones that are rapid and of significant scope, can pose challenges to universities which have to adapt their internal – and often highly developed – procedures and approaches to define appropriate learning outcomes. This is illustrated in the case of Hungary.

Box 42. Hungary: application of Bologna structure

The government which came into office in 2010 as part of the 'review' of the Bologna structure restored the undivided (master) programme in the training of general subject teachers starting from the 2013/14 school year. Training of vocational and art teachers may be carried out in both structures: two-tier bachelor/master or one-



⁽⁵⁹⁾ See also the Eurydice report on the teaching profession in Europe (European Commission and Eurydice, 2015).

tier 'long programme'. It also restored the pre-Bologna two-track system where the training of teachers for ISCED 2 and ISCED 3 level education is once again separated: now students participate in the same programme in the first three years after which they have to choose between a 4+1 and a 5+1 year programme. The main differences are that there is no BA exit after the first three years. The new programmes define altogether 100 credits for modules that are not part of subject-specific training (including pedagogy, psychology, subject methodology training and teaching practice). The effect is an emphasis on subject-related studies (which now do not include subject-specific methodology) while pedagogy and psychology are treated more lightly. However, the duration of the school practice has been extended to a whole academic year at an external training site, which goes further in the direction of focusing on practice vis-à-vis theory.

Source: Hungary country overview.

8.3. Requirements for initial teacher education

Authorities setting the requirements for initial teacher education programmes mostly defined the duration of the programme and ECTS points but do not always refer to explicit and clearly defined learning outcomes. In Poland, the Ministry of Science and Higher Education (in agreement with the Ministry of National Education responsible for schools and teachers' profession) adopted the new regulation on teacher education standards in 2012. The standards define general and specific learning outcomes, described in terms of knowledge, skills and social competence (in accordance with the requirements of the new Law on higher education). The new regulation replaced that adopted in 2004, which also defined knowledge and skills the graduates of teacher training programmes should have, but the term 'learning outcomes' was not used. In the new regulation there is no direct reference to the use of learning outcomes by graduates (future teachers) in their school practice but there are references to the core curriculum, which defines general learning outcomes for each level of education (elementary, primary, lower and upper secondary).

The Bulgarian Ministry of Education and Science published on its website in February 2014, a draft of *National strategy on the development of teachers and of other specialists working in the area of education and training 2014-*

20⁽⁶⁰⁾. The strategy acknowledged that Bulgaria is one of a few European countries that do not have standard requirements for teacher training programmes and it provides for the establishment of such standards that would refer to knowledge, skills and competences. The country overview noted that no learning outcomes are presented on the website of teacher education faculties, probably because of the absence of national regulations.

8.3.1. Requirements expressed in standards and professional profiles

In many countries, instead of, or in addition to, national regulations that set requirements for teacher training programmes, the professional profiles of teachers are defined by legislation. The difference in these two approaches is technical: in both cases the learning outcomes are defined. The descriptions of professional profiles refer to the entire career of the teacher and are not limited to requirements for entering the teaching profession. This can be illustrated by the examples of Estonia, where teacher education, as part of the higher education system, is regulated by the Universities Act and the overall standards of HE, which define general academic competence requirements for bachelor, master and PhD programmes. There are also teachers' professional standards and two strategies of teacher education have been adopted: *Estonian teacher education development plan for 2005-10* and *Teacher education strategy for 2009-13*.

Box 43. Estonia: professional standard for teachers

The professional standard for teachers specifies the following six compulsory competences:

- planning of learning and teaching;
- developing the teaching environment;
- supporting learning and development;
- reflection and professional development;
- counselling and mentoring;
- development and research.

Performance indicators are defined for each of these competences.

Source: Estonia country overview.

⁽⁶⁰⁾ Draft of national strategy on the development of teachers and of other specialists working in the area of education and training 2014-20 (*Национална стратегия за развитие на педагогическите кадри 2014-20 година*); the document is available in Bulgarian at: <http://www.mon.bg/?h=downloadFile&fileId=3419>

Another example of how these two approaches (defining requirements for training programmes or defining requirements to enter the profession) can be combined is provided by the Scottish standards for registration defined by the General Teaching Council for Scotland (GTCS) ⁽⁶¹⁾.

There are two lists of standards for registration:

- (a) standard for provisional registration, specifying what is expected of a student teacher at the end of initial teacher education;
- (b) standard for full registration, which is the gateway to the profession and the benchmark of teacher competence for all teachers.

There are also standards for career-long professional development and standards for leadership and management.

As GTCS is also responsible for accreditation of initial teacher education programmes, the provisional registration standards serve in fact as requirements for such courses (programmes).

In Ireland, the Teaching Council, which is the regulator of the teaching profession and promotes professional standards in teaching ⁽⁶²⁾, plays a similar role to GTCS. The council was established under the 2001 Teaching Council Act ⁽⁶³⁾ that stipulates the goals and tasks of the council ⁽⁶⁴⁾ and its functions: to establish and maintain a register of teachers; to establish, publish, review and maintain codes of professional conduct for teachers (including standards of teaching knowledge, skill and competence); and to regulate the teaching profession.

The French Ministry of Education completely reformed initial teacher education in 2013 and published a new professional profile for teachers in general education and VET. This provides the basis for the development of curricula in universities. The competence framework refers clearly to teachers' skills: designing learning programmes and creating situations which foster the learners' competences, including transversal and 'common base' competences for compulsory education.

In Germany, responsibility for teacher education is within the remit of the *Länder*. However, the KMK (the Standing Conference of the Ministers for

⁽⁶¹⁾ <http://www.gtcs.org.uk/standards/standards-for-registration.aspx>

⁽⁶²⁾ <http://www.teachingcouncil.ie/>

⁽⁶³⁾ <http://www.irishstatutebook.ie/eli/2001/act/8/enacted/en/html>

⁽⁶⁴⁾ These goals and tasks are: (a) to regulate the teaching profession and the professional conduct of teachers; (b) to establish and promote the maintenance and improvement of standards of: (i) programmes of teacher education and training; (ii) teaching, knowledge, skill and competence of teachers in recognised primary and post-primary schools; (iii) the professional conduct of teachers; (c) to promote the continuing education and training and professional development of teachers.

Education and Cultural Affairs of the *Länder*), recognising the strategic importance of how teacher education has developed, has adopted several recommendations on standard requirements to be observed across the country. This includes *Recommendations of suitability testing in the first phase of teacher education* (KMK, 2013), which advocates feedback mechanisms and self-reflection on progress and competence development during initial teacher education.

In 2012, the Ministry of Education and Science in Lithuania adopted new regulations on teacher training (Minister for Education and Science of Lithuania, 2012), which extended teachers' competence areas to teaching more than one subject. In the Netherlands, competence requirements have been set for teachers in primary, secondary and vocational education since 2006. Seven broad competences are formulated:

- (a) interpersonal;
- (b) pedagogic;
- (c) content and didactics;
- (d) organisational;
- (e) cooperating with colleagues;
- (f) cooperating with external school partners;
- (g) reflection and development (Staatsblad van het Koninkrijk der Nederlanden, 2005).

These broad competences are included in the definitions of specific learning outcomes. For example, the interpersonal competence of a general education teacher in vocational schools is described by learning outcomes in Box 44.

Box 44. The Netherlands: interpersonal competence of a general education teacher

The teacher:

- is able to perform the following activities: making good contact with students and make them feel comfortable, offering a framework in which students can develop their own learning process, creating a good climate for cooperation with pupils;
- has the following knowledge: is aware of the process of social development of young persons, is familiar with and can apply in practice communication theories, group dynamics, intercultural communication.

8.3.2. Highly regulated labour market environment for teachers

Defining learning outcomes instead of the content of teacher education programmes is in line with the concept of qualifications as currency between education and employment. Employers are generally interested in the skills and competences (based on visible learning outcomes) of (prospective) employees. For many sectors of the economy, the involvement of employers in defining qualification requirements and ensuring transparent and reliable validation and quality assurance procedures contributes to transparency and trust, which is crucial for well-functioning qualification systems.

However, the labour market for teachers is very specific. It is highly regulated by legal acts that define, at the central level, the type of teacher education programmes that have to be completed and also the type of qualifications required to become a teacher. The Eurydice report (European Commission and Eurydice, 2013) indicates that the responsibility for hiring teachers varies among countries, but in most cases it remains at the level of school or local authorities and may also fall within the scope of the Ministry of Education ⁽⁶⁵⁾.

8.4. Learning outcomes in teacher education

Once the national authorities adopted the relevant legislation, universities started to develop and implement their own internal regulations, rules and procedures that define the frameworks for the design of curricula, study programmes and syllabuses. This reflects use of learning outcomes at different levels and the hierarchical structure of regulations and requirements, which in turn reflects the hierarchy of learning outcomes, from very general to more specific. This is depicted in the case of Innsbruck University in Austria, though it does not apply only to Austria but is universal.

⁽⁶⁵⁾ 'In Denmark, Finland, Iceland, Norway (for ISCED 0, 1 and 2) as well as in the Netherlands and the United Kingdom (Scotland), the only employer of teachers working in public schools is the local authority. Schools are exclusively responsible for employing teachers in Bulgaria, Czech Republic, Estonia, Ireland, Croatia, Latvia, Lithuania, Poland, Slovenia, and Slovakia. In three countries, responsibility for employing teachers varies depending on the status (private, public) of the school (Belgium, Sweden, the United Kingdom (England, Wales and Northern Ireland))' (European Commission and Eurydice, 2013).

Box 45. Austria: use of learning outcomes at different levels

- EQF/NQF reference level (*): generic description of the level and continuum of learning outcomes, allowing hierarchical classification of qualifications.
- Qualifications: description of the sum of learning outcomes of an education programme, referring to the NQF descriptors.
- Modules: concrete description of the learning outcome of a module, referring to the learning outcomes of the relevant qualification, as well as those that can be assessed during relevant subjects or courses.
- Courses: detailed description of the expected learning outcomes, taking the form of single statements that can be assessed, with a direct relation to standards.

(*) The Dublin descriptors apply for higher education.

Source: Austria case study.

A similar situation is described in Estonia, where the learning outcomes approach requires coherence at three levels of programme documents: the overall curriculum of the study programme, study modules, and the syllabuses for specific subjects. This relationship is described as follows: ‘the learning outcomes of the whole curriculum should form from the outcomes of the modules and the learning outcomes of the modules should form the learning outcomes of subjects’ (Estonia case study).

8.4.1. Learning outcomes in programming documents

Most universities have adopted detailed procedures for developing and accepting programme documents.

Box 46. Austria: procedures for developing programme documents (Innsbruck University)

In the University of Innsbruck, curriculum changes proposed by faculties have to be accepted by the Senate following agreement of the Rector. The Senate nominates the curriculum commission, composed of experts in the relevant subjects and in education and teaching, including university professors, lecturers and research



assistants, as well as students. The commission is obliged to obtain opinions about the proposal from the University Council, Senate, deans and deans of studies, working group for equality issues, and trade associations.

Source: Austria case study.

Similar procedures apply at the Adam Mickiewicz University in Poznań.

Box 47. Poland: procedures for developing programme documents (Adam Mickiewicz University)

Any new programme for a degree course, including specialisation or any subject or module, should be designed in line with the Law on higher education and the university's detailed procedures. The development of a new programme has to follow the six steps procedure:

- development of the first draft coordinated by the specialisation leader;
- review of the content and the learning outcomes of the proposed programme by the quality assurance team; students contribute to the discussion;
- assessment of formal coherence with university procedures;
- discussion at the Faculty Council;
- evaluation by the University Senate's Commission;
- approval by the Senate.

Source: Poland case study 1.

These procedures, structures and formal requirements are considered as unnecessary constraints by some academics, as reported in the Poznań case study. In the opinion of one academic staff member, 'defining outcomes and relating them to higher-level outcomes was a difficult task, like a puzzle, and sometimes included establishing far-fetched 'relations' ⁽⁶⁶⁾.

The University of Warsaw faced similar difficulties following the introduction of the learning outcomes approach. 'Even the Bologna experts complained about the bureaucracy and technocracy. It is not surprising then that most of the academics did not react positively, when it was announced

⁽⁶⁶⁾ Poland case study 1.

that all teachers have to describe their courses in the “learning outcomes style”. The opposition among teachers was quite strong but finally they had to obey the obligation. The conception of a university is based on the idea of liberal learning, so this situation could not have remained unnoticed’⁽⁶⁷⁾.

The case studies sometimes indicate that the formal requirements defined in national regulations (in line with Bologna principles) are considered as useless and do not bring any added value compared to the ‘traditional’ approach to developing curricula and teaching programmes based on the description of content and time. Changing the mindsets of those ‘conservative’ academics was a challenge for university management and leaders. In this context, the role of the individuals responsible for change cannot be overestimated. An illustration is provided in the report on the Faculty of Education (FEP) of the university in Budapest:

Box 48. Programme directors as promoters of learning outcomes (Eötvös Loránd University in Budapest)

At the Faculty of Education (FEP), the ‘programme directors’ are identified as key players in keeping the programmes up to date. At the university, those responsible for development and coordination of the study programmes do not even have the formal name of ‘director’. But the deputy dean explained that she had been committed to raising the prestige of the programme leaders. Her explicit strategy was to help them form a community of practice to promote the quality of learning and teaching at FEP. In this process, the learning outcomes approaches was found as pivotal in demonstrating how the traditional reactive, mostly administrative, coordinator role can be reshaped to the role of leading agent of strategic change and the continuous development of both the respective programme and the contributing lecturers.

Source: Hungary case study.

8.4.2. Learning outcomes in quality assurance

Quality assurance is a cornerstone of the Bologna approach and is expected to affect the use of learning outcomes greatly. It is therefore evident that learning outcomes should be included in quality assurance of teacher training

⁽⁶⁷⁾ Poland case study 2.

programmes, as they are seen as one way of measuring system performance.

Definition of learning outcomes to be attained at the end of the programme or module would be meaningless if, at the same time, there were no instruments to measure the extent to which such outcomes are actually achieved. Quality assurance systems were operational in all the institutions investigated as case studies. However, evaluations undertaken appear to be more concerned with checking if all procedures were applied, if the intended learning outcomes are defined according to standards, documents, reports, rubrics were properly filled in, rather than demonstrating a concern with the effective learning outcomes demonstrated by students.

The introduction of the Bologna process principles has required the establishment of quality assurance and accreditation agencies. At national level, the quality of higher education institutions is assessed by accreditation bodies. There are various models of accreditation applied in European countries. Two examples which illustrate the impact of accreditation procedures on initial teacher education programmes are presented; the first is provided in the Slovakian country report and describes the lack of coherence between different regulations, which leads to dual standards being applied to different teacher training programmes.

Box 49. **Slovakia: accreditation**

All university programmes (including teacher education) must be accredited by the (State) Accreditation Commission. The exception is for what are called 'complementary pedagogic studies' (CPS), which are only regulated by a decree of the Education Ministry. Such double standards have been criticised by pedagogic faculties; this has resulted in legislative change. Since 1 January 2012, CPS can only be provided in parallel with an accredited teaching programme. However, the universities have become reluctant to offer CPS courses under these new regulations and, as a consequence, vocational schools began to suffer from a shortage of qualified teachers. An amendment to the legislation was adopted in November 2013, abolishing the obligation to apply for accreditation of teaching programmes by the Accreditation Commission. Instead, CPS are the subject of accreditation by the Ministry of Education Accreditation Council for Continuing Training of Pedagogic and Professional Staff (established to accredit in-service teacher education programmes). This decision also created a double standards situation. The author of the country overview sums up the case with this comment: 'Significantly, this



dispute focused on input rather than outcomes. There was no debate on achieving relevant identified learning outcomes'. However, later in the overview there is information that 'the working group has elaborated qualification standards that were published in a draft version and submitted for public discussion. These standards were not accepted either by the pedagogic community or by the Education Ministry'.

Source: Slovakia country overview.

The second example is drawn from the Hungarian country overview. The Hungarian Accreditation Committee (HAC) is the highest level of the quality assurance system of higher education in Hungary. The main purpose of the accreditation process applied by HAC is to assess whether the documents define the curriculum properly, provide information on availability of qualified lecturers needed to deliver the programme, and describe the organisation of the teaching process. The HAC evaluation is more input- than outcomes-based. The case study from Budapest, Hungary, mentions a number of conferences on the role of HAC were organised by the Hungarian academic community while the importance of reflecting on required changes was underlined as follows: 'Although the quality assurance process of HAC has been developed for 20 years, it is often questioned to what extent this process is capable of encouraging change, quality and especially of rejecting the strict input-driven judgements and assessing the role of learning outcomes' ⁽⁶⁸⁾.

At the second level of the quality assurance system are instruments applied by HE institutions: procedures for the approval of study programmes, curricula and syllabuses. The quality of the implementation is assessed through students' feedback on the work of their lecturers, which is the basic (lowest) level of a quality assurance system. However, the potential of this tool has not been fully exploited at Eötvös Loránd University, where there was a limited response from students.

At the University of Glasgow, the process of developing and approving new programmes is multilevel. It starts with consultation involving staff, students and employers and then new programmes are submitted for approval by committees at school, college and university level. In this university, quality assurance instruments are described as 'having rather limited impact on the evaluation of the actual attainment of learning outcomes' ⁽⁶⁹⁾.

⁽⁶⁸⁾ Hungary case study.

⁽⁶⁹⁾ UK, Scotland case study.

A typical description of the procedures and instruments is also provided in the case study of Tallinn University, where quality assurance mechanisms rely on formal requirements and internal monitoring to explore to what extent the declared learning outcomes are achieved. Faculty members noted that the opinion of students is taken into consideration, as if trying to expose the set of values that the university possesses. They recognised some bottlenecks in monitoring whether the declared learning outcomes were achieved ⁽⁷⁰⁾. Another interesting case study is the Slovenian one (Box 50).

Box 50. **Slovenia: quality assurance system (Ljubljana University)**

In Ljubljana University (Slovenia) there is reference to the absence of learning outcomes in the current quality assurance system. Monitoring mechanisms for study programmes emphasise primarily quantitative and input data, including contact hours, workload, student/teacher ratios, mobility data, reward systems, literature used, as well as completion levels and employment of alumni. Learning outcomes are only implicated by the fact that all study programmes must be duly accredited by the Slovenian Quality Assurance Agency, which requires all programmes to determine learning outcomes. Further remarks emphasise the limitations of the student survey. First, the survey measures self-reported student opinions about the study process, programmes, courses and pedagogic work of teachers and staff and does not actually measure student learning. Second, the items that relate to learning outcomes are broad, with little room for qualitative input from the student. Third, low participation rates hinder data reliability.

Source: Slovenia case study.

8.4.3. Cooperation in teacher education programme development

The learning outcomes approach requires cross-department and cross-specialisation collaboration on the development of study programmes and curricula. The cooperation of academic staff is equally important in each of two main models of initial teacher education that can be identified in Europe according to the Eurydice report on teachers (European Commission and Eurydice, 2013). In the concurrent model, the professional (pedagogy) component is provided at the same time as the general component (subject

⁽⁷⁰⁾ Estonia case study.

domain); in the consecutive model, the professional component is provided after the general one. In the concurrent model, students are involved in specific teacher education right from the start of their tertiary education programme, while in the consecutive model this occurs after or close to the end of their degree (European Commission and Eurydice, 2013). In consequence, in the general pedagogy programme a student can be trained to be a teacher with a specialisation in, for example, mathematics, or a student can graduate in mathematics and then take an additional course to obtain a teacher qualification.

The role of 'schools of education' (faculties, institutes or other units, within university structures responsible for teacher education) and the role of subject domain faculties are different in concurrent and consecutive models. Although, in both cases, the overall set of final learning outcomes should cover general pedagogic competences as well as those related to the knowledge and didactic of a given subject domain, the concurrent model requires more intensive cooperation in designing curricula and assessment tools.

This cooperation is not always smooth. The Budapest case report emphasised the meaningful cultural differences between the academics of the education faculty and the academics of the disciplinary subject areas. For the first group of academics, the learning outcomes approach is crucial; for the second group, it is the internal logical structure of the subject that is the most important and they tend to apply content-driven curricula. One professor described the situation in the following words: 'The lecturers in pedagogy are happy about the learning outcomes while the disciplinary people hate them' ⁽⁷¹⁾.

Box 51. **Slovenia: cooperation in teacher education programme development**

In the Slovenian case study, the tensions between various faculties pointing to the fragmentation and existence of strong disciplinary 'learning outcomes' are highlighted. 'Consequently, teachers possess little knowledge of what their colleagues teach, false assumptions are made, and some learning outcomes might be therefore overlooked. Such fragmentation, coupled with everyday pressures of



⁽⁷¹⁾ Hungary case study.

workloads and course design requirements (e.g. ECTS and teaching hour allocation), has thus led to a recognition amongst the Faculty of Education leaders of the importance of working with colleagues, both in the development and delivery of courses and entire study programmes’.

Source: Slovenia case study.

Data gathered through case studies suggest that teacher training institutions need not only to define the intended learning outcomes in the study programmes and curricula (like other higher education institutions and faculties), but they also need to have in-depth understanding of the learning outcomes approaches, as they have to equip future teachers with the skills necessary for the application of this approach in school practice. They also need to collaborate with ‘subject’ faculties on joint teacher training programmes. Such experience deepens the expertise of academic staff in education faculties and enables them to play a role as leaders and promoters of the learning outcomes approach in other departments and throughout the university.

Box 52. Hungary: education faculty role in learning outcomes-related research (Eötvös Loránd University)

Several activities undertaken by the education faculty (FEP) of the Eötvös Loránd University in Budapest were listed in the case study:

- FEP had a key role in the Hungarian learning outcomes-related research and development. FEP surveyed the diffusion of the outcomes-based approach among Hungarian higher education institutions;
- in parallel, there was a ‘reference institution’ project, in which selected HE institutions, including FEP, developed methodology to apply the main principles of NQF, including the application of learning outcomes;
- at the university, there is increasing respect for those who understand learning outcomes approaches. Some faculties initiated cooperation with FEP to train their lecturers to be able to apply learning outcomes approaches.

Source: Hungary case study.

8.5. Learning outcomes in teacher education practice

According to the case studies, a minority of academic staff consider the shift to learning outcomes and the whole ‘shift to Bologna rules’ as a purely bureaucratic burden. Most of the academic community uses the changes promoted within their national policy as a window of opportunity to reflect on their practice and to introduce new methods, organisation of their work, teaching and assessment instruments. At the Faculty of Education of University of Warsaw, some prominent academics were seriously critical of the learning outcomes policy when it was introduced but there were also academics who understood quite well that learning outcomes approaches offer a chance to change education practice at the faculty. Another illustration of the ‘Bologna effect’ is provided in the report on Innsbruck University where ‘the reform of the study plan was implemented as a bottom-up approach (as opposed to top-down implementation as in the case of the Bologna process) with the objectives of teacher education in mind’ ⁽⁷²⁾.

The shift to learning outcomes, initiated and promoted centrally, triggered in many universities in-depth analysis of, and discussions on, the mission of the institution, its general objectives and the professional graduate profile. Such debates, often undertaken with the involvement of external partners, serve as a basis for developing a coherent overall approach to future teacher training.

8.5.1. Understanding the concept of learning outcomes

Various interpretations and perceptions of the concept of learning outcomes are found in the case studies. The term can have a range of connotations because it is used in different contexts. Two opinions of professors from Innsbruck University reflect on this.

Box 53. Austria: ‘Completion of learning’ (Innsbruck University)

Understanding of learning outcomes needs to be seen in the context of successive professionalisation. On the definition of learning outcomes used by Cedefop, one interviewee pointed out that it was not clear what was meant by ‘completion of learning’. When is learning completed? This can be seen during assessments: there



⁽⁷²⁾ Austria case study.

is a difference in the cognitive or operational (application) outcomes of assessment results right after the end of a course or if the learning outcomes are assessed after two years. This is related to the question of sustainability, especially in teacher education where sustainable professionalisation is a core issue.

The other interviewee expressed a similar opinion: 'Learning is never completed (it is also hard to define a beginning). On a formal level (e.g. exams) learning outcomes are assessed (not the learning itself), and the assessment does not put an end to learning. Learning it is a continuum of experience'.

Source: Austria case study.

It follows that there is no single way of approaching learning outcomes. Challenges include the importance of recognising the complexity in measuring learning outcomes and changing the way teaching is conceptualised, as highlighted in the Ireland case study. Learning outcomes are followed at policy level and in practice across the Education Department NUIM while all modules include a series of explicit learning outcomes, but there is disagreement over the use of the word 'outcome' (Box 54).

Box 54. Learning intentions (National University of Ireland, Maynooth)

The preferred term, following considerable dialogue among staff over many years, was learning intention. This term was adopted, because there are issues with the use of the word 'outcome':

'Outcome suggests a requirement that has to be met – a little conceited – I cannot say what the outcomes of my best intentions – I cannot predict – I would prefer goals, aims' – explains one of the interviewees. The second one, in her own observed teaching and learning session, used the term 'learning intention' as opposed to learning outcome. She suggested that whatever the term used, the idea is that the focus is on the learner and that there is an understanding that learning is developmental. When she plans her own learning outcomes for her lectures, she is thinking not only about the learning outcomes of the student teachers in the lecture theatre, but also how they may impact on the learning outcomes of the pupils in classrooms.

Source: Ireland case study.

Similarly, in the Poznań University case study, information can be found on various stakeholder opinions concerning the learning outcomes concept as well as the impact of the individual students' predispositions on the achievement of the desired learning outcomes.

Box 55. Outcomes: predispositions (Poznań University)

There is tension between learning outcomes and predispositions. This can be compared to two recruitment models on the labour market: the sieve model, where people who already have the required competences are recruited, and the human capital model, which allows for continuous development of competences. There are two levels to this dilemma. One is subjective, and concerns the beliefs of the academic staff about student predispositions and whether they can be developed. An approach opting for predispositions would be reluctant to adopt a learning outcomes approach where education would be organised in such a way that all students achieve outcomes. At this level the discussion could include how academic staff perceive the relationship between predispositions and outcomes, and whether they are willing to work as hard as possible, or reproduce a model which supports the 'best and brightest'. The other level is 'objective', and (no matter if the truth about predispositions is debatable), it may be discussed whether there are limits to what the faculty can do to educate a teacher to the expected standards, which is cause for concern, when the staff agree that they want only qualified teachers to work with children.

Source: Poland case study 1.

In this case study it was also pointed out that the discussion about the achievement of learning outcomes revolved around who 'achieves' them: the academic teacher or the student. Such discussion, although it might appear strange, highlighted an important issue: to what extent academic staff could be held accountable for the effects and outcomes of the course or training programme. When the learning outcomes have been defined in programme documents, they are considered as a commitment that students would be able to demonstrate the expected level of competence when they complete the course or module. Such an interpretation of learning outcomes approaches, when teachers feel that only they are responsible for the implementation (or 'realisation', the term often used by Polish education officials) of the programme, could lead to the 'traditional' way of teaching and limited active engagement of the learner.

The report on the Innsbruck case presents this issue from a different angle, highlighting experience as a crucial element of learning.

Box 56. **The role of experience (Innsbruck University)**

Teacher education usually focuses on teaching methods but does not look at the core: that teaching should serve learning. Learning needs to be made visible, as proposed by Hattie (2011) (*). In this sense, learning outcomes are the outcome of certain (learning) experiences. It is expected that through sharing the pupils' learning, students and teachers can learn, extend their knowledge, develop skills. Students who participated in the research project on the phenomenological approach to learning reported that the experience has changed their perspective.

(*) See John Hattie's 'Visible learning' research: <http://visible-learning.org/>

Source: Austria case study.

Joint experiencing improves the sense of trust between teacher and learner. An analysis of these aspects related to learning is provided in the report on Warsaw University.

Box 57. **Student-teacher relations (University of Warsaw)**

The main question raised when thinking about the teaching process from the learning outcomes perspective is what kind of changes we would like to introduce in the relationship between teachers and students; or what we expect to be gained from the educational experience. Accepting learning outcomes as a part of the teaching process leads to a more open and more ethical style of teaching where the teacher-student relationship is based on well-recognised and openly declared detail of what they expect from each other. In practice this means that the teacher does not have to be obsessively focused on the students' behaviour or on their attendance at classes. The students understand that if they want to acquire the described learning outcomes they have to undertake certain activities. They also have the right to learn outside universities and they can prove that they managed to achieve the learning outcomes through validation. Learning outcomes approaches can be very helpful in building an atmosphere of trust and responsibility that is important in teacher training.

Source: Poland case study 2.

The University of Jyväskylä is using the learning outcomes approach in the application of phenomenon-oriented curriculum. The concept is outlined in the case study report.

Box 58. Phenomenon-oriented curriculum (University of Jyväskylä)

The Jyväskylä Department of Teacher Education uses a phenomenon-oriented curriculum: the objective is to try to understand phenomena and problems related to learning. In a phenomenon-based curriculum, learning objectives are described in a real-world context of the phenomena without artificial division into subjects, which supports the integration of different subjects and lessons, as well as systematic use of such methods as inquiry-based learning, problem-based learning, project learning, and portfolios at schools. Phenomenon-oriented learning is a key in utilising a variety of different learning environments

Phenomenon-based learning typically proceeds to problem-solving learning in accordance with the seven-step method. These steps are: conceptualisation → definition of the problem → brainstorming → analysis of the problem → defining learning objectives → self-study → presentation and evaluation.

Source: Finland case study.

8.6. Teachers as key actors in school reform

Another aspect of the application of learning outcomes in the professional development (pre- and in-service teacher education) of education personnel, is important for this study. This is the development of teacher competences needed for the effective implementation of curriculum reform and especially for working with learning outcomes approaches.

The Irish report quoted in the KeyCoNet report (KeyCoNet, 2013, p. 4): ‘the bachelor of science and maths education course in the National University of Ireland, Maynooth runs a 12-week module for student teachers, based on the key skills framework issued by the National Council for Curriculum and Assessment. Students explore pedagogies (including use of ICT) for the development of key skills in a very active and participatory way. They teach using these methodologies and then assess the learning. Student teachers then report on this assessment using identified criteria’.

More information on the learning outcomes for the Master of Education programme can be found in the case study.

Box 59. Master of education (National University of Ireland, Maynooth)

The learning outcomes for the Professional Master of Education, the flagship programme of the Education Department of the National University of Ireland, Maynooth.

According to the learning outcomes, teachers are required to:

- teach their subjects in second level schools to a variety of classes of different levels, and in a range of school settings, demonstrating capacity for teaching, planning, classroom management, inclusive and differentiated teaching, self-evaluation and using assessment to enhance learning;
- select and develop a range of teaching strategies appropriate to their pupils, the subjects and the educational situation, implement those strategies, and evaluate their appropriateness;
- collaborate with colleagues in the design of schemes of work that are appropriate to the pupils and to the national curriculum, take responsibility for the implementation of these schemes, for the design and conduct of appropriate assessment of the learning of pupils, report on such assessments to the relevant groups and prepare pupils for State examinations;
- teach in a professional manner which supports quality learning with due regard to the code of conduct of teachers, the rights of learners and the unique education and development needs of their pupils;
- demonstrate comprehensive personal understanding of the principles underpinning their work, based on critical awareness of the research literature, the major ideas, paradigms and issues in education, enabling them to support their professional judgements and actions with convincing forms of evidence;
- pursue independent research into their practice, engaging with appropriate research sources, and demonstrating capacity for critical analysis of their own practice.

Source: Ireland case study.

In Austria, the *National education report 2012* (Herzog-Punzenberger et al., 2013) calls for changes in initial teacher education that would prepare future teachers for the implementation of quality-oriented school reform. Topics such as how to implement education standards, monitoring and reflection, and how to handle the results of studies, currently receive only marginal attention.

Similarly, in the Czech Republic, the long-term plan for education and the development of the education system in 2011-15 (MŠMT, 2011), envisaged

quality improvement in initial teacher education and training by, among others modifying study programmes to reflect better the changes initiated by curriculum reform, which is based on learning outcomes approaches. In an effort to fulfil the implementation plan of the lifelong learning strategy (MŠMT, 2012), schools of pedagogy were invited to support the curriculum reform, to participate with schools in projects and to organise seminars and other forms of continuing education. All schools of pedagogy declared that conceptual changes were made in the study programmes to respond better to demands from the reform, new subjects were introduced, syllabuses were innovated and changes in practical training were introduced.

8.7. Practical teacher training in schools

Practical training in schools is generally a critical part of initial teacher education programmes. The Eurydice 2013 report noted that practical teacher training in schools shows huge cross-country variations but is usually longer for pre-primary and primary teachers than for higher levels of education. The importance of the practical training of future teachers is highlighted in all case study reports.

The role of practice in gaining the experience needed to attain the intended learning outcomes cannot be overestimated. Good arguments for organising teaching practice at the beginning of the course or programme are given in one interview quoted in the Innsbruck University case study: ‘The awareness [of the students starting their teacher studies] was as follows: ‘I will be a teacher’ rather than ‘as a teacher I will be able to...’ and uncertainty was felt with regard to requirements and challenges of the teaching profession. The early practical training at school allowed students to experience the requirements and how to cope with it during a real situation.’ An interviewee called this stage ‘beginner’s arrogance’ as they think they are competent, since they have experience as pupils themselves. An example of how the teaching practice is structured for Innsbruck University students is provided in Box 60.

Box 60. Austria: structure of the teaching practice

During their first practical years, teachers develop competences in different areas:

- *Unterricht* [teaching; personal style in using teaching methods and didactic];
- *Beurteilung* [assessment; personal assessment concept];
- *Kollegium* [teaching staff; (self-)identity among the teaching staff at school];
- *Professionsspezifisches Selbstverständnis* [professional self-concept and understanding of pedagogic questions, subject-specific aspects and personal limits];
- *Arbeitsorganisation* [organisation of work processes; including time management and the choice of work place and materials].

Source: Austria case study.

Organising teaching practice requires good cooperation with schools; this goes beyond just the technical and organisational issues. School heads and schoolteachers are consulted on the curricula (as in Poznań) and are actively involved in training students, as in Innsbruck where tandem teaching is used. A lecturer and a schoolteacher deliver together (in a tandem) courses during the initial phase of studies.

Nonetheless, cooperation with schools is sometimes complicated, as is illustrated by the case of Poznań.

Box 61. School practice (Poznań University)

It is foreseen in the study programmes of teachers' specialisations that students should perform several tasks during their internships, including actual work with children. But there is specific tension over this matter, revealed in the interviews. Schoolteachers are concerned with students' competences, or even say openly, that students do not have the competences to perform practical tasks. It is affirmed by one of the interviewees that, if the student is to do a piece of work with children, it must be performed in full agreement with the schoolteacher and within the limits set by the teacher.

As a result, students may learn less from practice than they were supposed to. An interviewee says that students complain to the academic staff, but her position is on the side of the schools for two reasons. First, the good of the child is more



important than the internship programme, and no experiments should be made on children. The other argument is maintaining good relations with schools, where the students are guests, and assuring the possibility to organise internships in the future.

Source: Poland case study 1.

8.8. Learning outcomes in assessment

The broad characteristics of learning outcomes in initial teacher education require adequate methods and instruments of assessment. The portfolio method, used in all case studies commissioned for this report, is described in the case study on Innsbruck University as ‘a meta-cognitive method, which provides a “golden thread” throughout the complete study programme and leads to a final study phase with formative assessment character’. The method is adequate for assessment of research competences that are developed through projects on enquiry learning at school and useful for the integration of diversified learning experiences in the polyvalent curriculum (different subjects, subject didactics, pedagogy, practical school training).

The formative dimension of the portfolio method is highlighted as it organises and scaffolds the learning process. As in the Budapest report (Box 62), the portfolio approach is useful for further professional development after completion of initial training.

Box 62. Portfolio evaluation (University in Budapest)

The portfolio is a targeted collection of evidence on a student's work, experiences gained during or before the training programme, completed with the reflections of lecturers, senior teachers, and peer students. The structure and minimal (mainly formal) requirements of the portfolio are regulated by the faculty. In the course of the final State exam, the central role of this portfolio is to demonstrate the students' formal, non-formal and informal learning activities as indirect evidence of the learning outcomes attained.

Source: Hungary case study.

Another method used by the Faculty of Education of the University of Warsaw are 'modular exams', stemming from the modular structure of the study programmes. The teaching methods for modules include lectures, seminars and workshops from various fields of social sciences and the subjects taught in schools. The exam is organised as a form of 'conversation' in which the student receives a problem to be solved. In doing so they are expected to demonstrate their ability to apply knowledge from different social science disciplines and subject domains. The added value of the modular examination method is that it promotes collaboration between academic teachers responsible for different components of the module and so the design of the exam has to be a team effort.

8.9. Use of learning outcomes by future teachers

Observations of training sessions, interviews and focus groups with students were key elements of the case studies. The main purpose of these activities was to find out to what extent students are equipped with the competences needed to apply learning outcomes in their future work as teachers.

In all observed sessions academic teachers used the learning outcomes approach. Even if they did not refer openly to the learning outcomes concept, or if they used other terms, students were able to recognise and understand the objectives of the observed session and the overall goals of the course. However, some case studies indicate that a number of students are not familiar with the term 'learning outcomes'. Students interviewed for case study of the University of Ljubljana, admitted that they had not heard of the term 'learning outcomes' as per its Slovenian translation – *učni izidi/rezultati*. Instead, broader terms – *cilji* (goals) and *kompetence* (competences) appeared to be the basic building blocks with which students worked. However, the interpretation of those terms – according to the case study author – do not fully align with the learning outcomes as they are defined in international forums.

Also in Budapest, during the group interview, students clearly demonstrated that they are not fully acquainted with issues related to learning outcomes. When asked to describe in their own words what the learning outcomes approach was, they were unable to give answers. This does not mean that the Faculty of Education does not teach students what learning outcomes and learning-outcomes-oriented approaches are, but when dealing with these issues other terms (in Hungarian) are used.

The Heidelberg case study suggests that, at the moment, students are not acquainted with the learning outcomes approach and possibilities to use it in terms of teaching, learning, assessment and lesson planning. This has to be interpreted in the context of the ambitious programme of modernisation of teacher education in Heidelberg. The programme is being gradually implemented with support and engagement of the university academic staff. It is reported that 'The faculty staff members showed a deep understanding of the learning outcomes approach and willingness to implement it in practice. It is expected that a real chance for applying learning outcomes in teacher education in Heidelberg will arise when new master modules are introduced at Heidelberg School of Education' (73).

In all sessions observed in the case studies the students were encouraged to be active, to work in teams, and to communicate with peers. The lecturers posed problems and offered only general hints on how they could be solved. This approach stimulated active learning and understanding of the nature of the learning process, which is crucial for the informed application of the learning outcomes approach. Students' reactions to the approach were generally positive. Students were encouraged to rethink the role of teacher in the study process.

Box 63. Estonia: students' observations

Some observations made by students after the session in Tallinn are presented in the report.

- 'The directions can sometimes remain unclear... in the means of what has to be done. Maybe she expects that we would find the solution ourselves'.
- 'It can occur that everybody makes things their own way and differently from everybody else and in the end all the alternatives are right/fitting.'
- 'It might be that we have to find our own path.'
- 'It seems that she (the professor) enjoys when we operate ourselves and she provides support and directions along the way.'

Students acknowledge that there can be a positive side of not being told what to do step by step, as they realise that they have a chance to contribute to a process of designing their own individual teaching and learning styles.

Source: Estonia case study.

(73) Germany case study.

Active learning methods applied by academic teachers bring positive results in terms of creative and innovative approaches to teaching techniques and planning lessons by students. The case study from Glasgow University provides evidence in this context, quoting one student: 'We have learned to be inventive and to find alternative sources. [...] The ability to be innovative and think outside the box. We were given a template at the start of a template lesson plan but then encouraged to figure out how to design a lesson plan that best suits us' ⁽⁷⁴⁾.

The students interpreted the learning outcomes approaches in different ways and, consequently, had different visions of the competences needed for their application. Some considered curriculum development and lesson planning as the most important skills necessary for the approach. One student interviewed for the Slovenian case study stated that 'the [school] curriculum is provided by the state'. This assumption could lead to the conclusion that competences of curriculum planning at school level are irrelevant in light of the existence of the national curriculum.

Similar problems are described in the case study from the university in Budapest; there were discussions on whether teachers should be curriculum developers or not. Some pointed to the very detailed central curriculum regulation which allows schools to determine only 10% of the curriculum content. Their opponents argued that 'the predetermined 90% is wishful thinking' and teachers have to understand that, even if the curriculum content is very precisely determined, appropriate methods are required for it to be delivered effectively. Selecting and adopting instruments and methods to the specific context can be considered as curriculum planning activities.

Interesting observations are made in the case study from the university in Poznań. The students interviewed seemed to consider the national core curriculum as equivalent to teaching programmes. Though the Polish core curriculum is very detailed and defines the expected learning outcomes, there is no description of delivery methods. This aspect is left for schools and teachers to decide, as the Ministry of Education promotes school autonomy.

When the students were asked if they were prepared to use learning outcomes in their future work in schools, they expressed some reservations and doubts. One of the main reasons was the insufficient amount of practice to become fully acquainted with various uses of learning outcomes; this was directly stated in the Slovenian case study. The student focus group indicated

⁽⁷⁴⁾ UK, Scotland case study.

that students still feel unprepared to use different learning and teaching techniques in practice; that their knowledge is rather elementary and often remains theoretical.

The case study from Glasgow University provides information that students are aware of what they are able to do and what is (at the given stage of their training) beyond their competences. The competences development (learning) process is well embedded in the study programme.

Box 64. Scotland: students' competence development (Glasgow University)

Interviewed students, when asked if they would feel equipped to design a curriculum for one of their own subjects, all noted the complexity of this and the need for more time, support and experience. However, they felt competent in planning their own lessons, or working as part of a team in the design of curricula. They felt competent in the area of planning but less so in planning for differentiated learning. Through their school placements they are able to develop their skills in the use and assessment of learning outcomes.

Source: Scotland case study.

At the University of Innsbruck the stress is put on flexibility (needed to respond to the demands of various situations) and individual confidence in own competences (to be able to be really flexible and make informed choices). Confidence is built through practice. The students who were interviewed pointed out that both professional knowledge and experience are required to gain confidence in adapting lesson plans flexibly to the situation in the classroom. Flexibility can only be partly developed during university education. The focus group participants referred to the importance of teaching practice in schools to become confident in acting as a teacher.

8.10. Emerging issues

A small sample of case studies does not allow formulation of broad, general syntheses. However, in all institutions analysed, the focus on the process of learning is strong. This is particularly important because the shift to learning outcomes should be considered as the shift from the assumption that educational outcomes are only the effects of teaching, to recognition of the pivotal role of active learning. There is also no university-wide approach to learning outcomes but a number of initiatives with the learning outcomes discernible.

A lot of professional knowledge is required to apply learning outcomes in all the aspects described; this knowledge can only be gained through practical experience. Practice is a learning process, based on theoretical knowledge necessary for reflection, self-evaluation, communication with peers and drawing conclusions (lessons learned). Based on data and evidence collected in the cases studies, it could be stated that students – future teachers – are well equipped with knowledge and theory on learning outcomes approaches. They are also aware that, at this stage of their professional development, they are not fully prepared to use learning outcomes and need to practice. Since the implementation of the learning outcomes approach is an incremental learning process, its internalisation takes time and requires broader understanding of its use and limitations.

Findings identified in the case studies can be summarised as follows:

- (a) coherence and sustainability of national regulations with regard to the requirements for initial teacher education programmes and for entering the teaching profession. The shift to a learning outcomes approach is often described as a paradigm shift. The case studies illustrate that such changes need time to be implemented and to make a lasting impact. The legislative framework should provide a solid basis for the step-by-step implementation, monitoring, feedback loops and corrections;
- (b) the introduction of national qualifications frameworks and Bologna process principles which both use the 'language' of learning outcomes promote the use of learning outcomes approaches by higher education institutions. However, in some cases, particularly at the initial stage of the implementation, the changes are considered as limited solely to modification of programme documents (curricula, syllabuses). This was considered by some academic staff as an unnecessary bureaucratic burden and so opposed;

- (c) the case studies provide evidence that teacher education institutions (faculties) use the centrally imposed shift to learning outcomes (introduction of Bologna system and principles) as an opportunity to initiate institution-level discussions on the nature of learning, roles of teachers and learners, forms and instruments for assessment, as well as adequate definition of learning outcomes of initial teacher education;
- (d) teacher training institutions are aware that they need not only to define the intended learning outcomes in the study programmes and curricula (like other higher education institutions and faculties), but also that they need to have in-depth understanding of learning outcomes approaches, as they have to equip future teachers with the skills necessary for the application of this approach in school practice;
- (e) effective learning should be connected with experience. Reflection and metacognitive awareness on one's own learning – 'experiencing learning' – should be an important part of the professional preparation of future teachers;
- (f) learning outcomes for initial teacher education programmes should be designed and formulated taking into account that completion of this stage of training only opens a gateway for further professional development; a graduate of an initial teacher education programme is not considered a 'complete' teacher;
- (g) the perspective of continuing professional development should also be reflected in teachers' professional profiles. Such profiles cover both knowledge and other competences such as ability to collaborate and teamwork;
- (h) links to school education reform. Reforms of school education, especially those introducing learning outcomes approaches, should be coordinated with changes in initial (and in-service) teacher education programmes. Well-defined and explained objectives with regard to the shift to learning outcomes in school education provide the base for teachers' necessary competences and guidelines about appropriate modifications of learning outcomes of initial teacher education;
- (i) teacher training institutions and faculties of education often play the role of leaders and change promoters, spreading ideas and good practice within universities (in particular in 'subject domain' faculties collaborating in teacher training) and beyond, through cooperation projects with partner institutions;
- (j) quality assurance instruments tend to focus on declarations, procedures, and questionnaires but not on real, actual outcomes;

- (k) teacher competences have to be developed through acquisition of theoretical knowledge and practical training. The role of teaching practice is crucial;
- (l) the case studies suggest that the portfolio method appears a useful tool for evaluation of interdisciplinary and holistic outcomes of future teachers;
- (m) the learning outcomes approach acknowledges the individualisation of teaching methods, study programmes and syllabuses. A strict, rigidly defined national curriculum is often considered (particularly by young teachers) as a barrier to the development of individual, flexible and innovative approaches;
- (n) students finalising their teacher training programmes are aware that they need years of classroom practice, working in close teams with experienced teachers, to become 'fully qualified teachers'. They feel equipped with the skills needed to enter this professional development route.

Conclusions

9.1. Progress made across countries and subsystems

This study shows that learning outcomes approaches now influence education and training policies and practices in most European countries. The position and visibility of the learning outcomes concept have clearly been strengthened since the publication of the first comparative study by Cedefop in 2009.

Practically all European countries have developed important initiatives, introducing new policies, for example through launching new legislation, development of national qualifications frameworks and revision of qualifications standards. At local and institution level the shift to outcomes-based teaching and learning has become increasingly visible in education and training institutions, notably through revision of curricula and assessment but also through a rethinking of teaching and training practices. While a few years ago the shift was the most visible in the VET and adult education subsystems, now it is also highly visible in higher education in almost all countries and, in several, in primary and secondary education.

A main driver of progress, in all countries and most subsystems, has been the emergence of national qualifications frameworks in line with the recommendations of the European Union on the European qualifications framework. This has triggered rapid development of comprehensive, learning-outcomes-based frameworks supporting the promotion of learning outcomes for a number of purposes. Developing national qualifications frameworks has increased the awareness of key actors (policy-makers, curriculum and programme developers, evaluation and assessment experts, teaching practitioners, employers and other social partners) about the learning outcomes approach. Further, in most countries the existence and the recent revisions of national lifelong learning strategies have created a favourable policy environment for this process.

Evidence suggests that European-level processes have played a key role in inspiring and generating national promotion of learning outcomes approaches. There have been several parallel programmes and actions at European level, which have exerted continuous pressure on national actors,

directly supporting actions to promote the use of learning outcomes approaches in the different subsystems of education and training. The EQF is the most directly targeted European instrument but there are many others: the European-level coordination of national employment and education and training policies through the tools of the open method of coordination; and the instruments of structural and cohesion policies supporting national development interventions, especially in the less developed regions of Europe. The Bologna process has played a key role in promoting learning outcomes approaches in higher education. A similar, although perhaps less apparent, role has been played in the primary/secondary subsystem by the 2006 EU recommendations on European key competences and their implementation in Member States. The increasing interrelatedness of the different subsystems of education and training, supported by comprehensive national qualifications frameworks, has led to increased sharing of experiences in learning-outcomes-oriented policies and practices.

This study points to the need for further reflection on the key practices used for implementation and the impact of learning outcomes approaches. While there is broad agreement on the potential benefits of learning outcomes, weak or missing implementation can prevent these benefits from being realised.

The report demonstrates that the learning outcomes approach can contribute to narrowing the gap between the world of education and that of work. Writing learning outcomes requires schools and universities to reflect more systematically on the relevance of their programmes and qualifications to the world of work. This increased sensitivity, when perceived by the representatives of the world of work, makes the latter more willing to engage in a dialogue as partners with schools and universities. The study has confirmed the view that the uses of the learning outcomes approach can lead to more substantial and intensive communication between the two worlds. However, the capacity of employers to express their skills needs from education in a way that is easily understandable for educators, the level of their motivation and engagement, and also their willingness and capacity to use learning outcomes when hiring candidates, have remained a concern in some countries.

Progress is uneven. While in some countries and in some subsystems the use of learning outcomes approaches has become almost general, acceptance and use is limited in others. Even in countries where clear progress can be observed, country overviews, case studies and interviews with national experts suggest that there are significant differences between

individual institutions. This unevenness of progress seems to be natural, given the fact that the shift to the use of learning outcomes approaches at institution level requires fundamental change in the daily behaviour of individuals and institutions. The spread at micro level, including school and classroom teaching, learning and assessment practices, occurs through complex processes of individual and collective learning and adaptation; these require time and sustained policy support. Successful policies seem to follow incremental and gradual implementation strategies.

9.2. Challenges and possible options

This study has confirmed that the learning outcomes approach, including the development of curricula and study programmes based on the definition of intended learning outcomes, has significant potential to support the shift of focus towards learners and the learning process. It also has the potential to support the changing role of teachers from primarily 'knowledge transmitters' to facilitators of learning and creators of effective learning environments. The shift to the learning outcomes approach has major implications for assessment, and, in some countries, innovative assessment approaches are emerging (such as the use of portfolios or the results of collaborative projects as the basis of assessment). However, the alignment of assessment practices with intended learning outcomes remains a significant challenge in most countries. It is important to stress that the use of innovative assessment approaches, trying to cover broader and more complex competence areas may raise validity and reliability concerns; their quality depends on developing the professional capacities of assessors. Another challenge is how to reconcile complex qualitative assessment approaches with large-scale assessments, and how to reduce the potential of the latter to undermine innovative teaching practices.

The study has revealed the high-level complexity in delivering learning-outcomes-centred policies and developing appropriate strategies at both systemic and subsystem levels. These are policies designed and implemented in a multilevel and multi-actor environment characterised by high-level mutual interdependence and low-level predictability. There are many levels, from European and national (proposing policies and setting standards), through various intermediary bodies (such as accreditation agencies or sectoral consultation bodies), to individual education institutions or training providers and particular study programmes, modules, courses and classroom level

teaching and assessment practices. Similarly, there are many actors, such as European and national decision-makers, developers of curriculum and assessment frameworks, representatives of social partners and parents or groups of teachers and trainers. The results of learning-outcomes-centred policies depend on a multitude of interactions of these actors at each level; the change process unavoidably shows non-linear patterns. This complexity makes the process of achieving balanced and coherent frameworks continuously challenging.

Given the fact that widening the uses of the learning outcomes approach requires significant changes in the daily behaviour of individuals and institutions, progress in the different subsystems, and in particular in institutions or programmes, depends on the change management capacities of institutions and on their openness to innovative practices, including their willingness to tolerate the risks inherent in innovation. Countries supporting the development of institution-level leadership capacities and innovative practices in teaching and learning seem to be more successful in implementing learning-outcomes-centred policies. In several countries institutional and individual capacities to change are still limited.

Development interventions and pilot programmes to promote the use of learning outcomes approaches have become important tools in several countries, especially in those that receive substantial support from EU development or structural funds. Given the complexity in implementation and the unevenness of progress, the use of development interventions, targeted first at a limited number of voluntary institutions, seems particularly powerful. Quality assurance frameworks, including external evaluation through inspection or accreditation and internal institutional quality assurance and quality development processes, also play a strong role.

Since the success of learning-outcomes-centred policies depends directly on the capacity of teachers and trainers to use such approaches in their daily practice, the role of teacher education and professional development, as well as for head teachers and inspectorates or teacher counsellors, in promoting these policies has been recognised both at European and, in several countries, at national levels. The study has demonstrated that the use of the learning outcomes approach has not only grown roots in teacher education in several countries but the teacher education sector may also play the role of forerunner in progress towards learning outcomes approaches. This is an area where mutual, cross-country learning seems to be particularly promising.

The credibility of assessment tools measuring the achievement of learning outcomes among individuals and institutions remains a major challenge, as

does the question of how to strengthen trust in learning outcomes. There is a need for development in all subsystems to adjust assessment approaches to the use of intended learning outcomes and to improve the reliability of these tools. Portfolio assessment seems a promising solution but this requires specific skills from those developing and using it in assessment practice. Active involvement of the stakeholders in assessment seem to be well established in VET in most countries but parallels for this have not always been found in school and higher education.

There is a clear need to continue European-level supportive actions such as development projects or the creation of opportunities for peer learning and cross-national knowledge sharing. Common European projects, such as a follow up of the Tuning project, focusing on the assessment of measuring complex discipline-related competences, could help countries to improve the reliability of assessment tools used by domestic actors. The possibility to initiate European projects, bringing together the representatives of different subsystems (school, higher, vocational and adult education) at European level, could also be explored.

List of abbreviations

AHELO	assessment of higher education learning outcomes
ATEE	Association of Teacher Education in Europe
CET	continuous or continuing education and training
DG EAC	Directorate General Education and Culture
EC	European Community
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
ENTEP	European Network on Teacher Education Policies
EQAVET	European quality assurance in vocational education and training
EQF	European qualifications framework
ESCO	European standard taxonomy for skills, competences, qualifications and occupations
ESF	European Social Fund
EU	European Union
FETAC	Further Education and Training Awards Council
HE	higher education
HETAC	Higher Education and Training Award Council
IQB	Institute for Quality Management in Education
IVET	initial vocational education and training
LLL	lifelong learning
LOs	learning outcomes
LWF	life-wide learning
MOOC	massive open online course

NEET	not in education, employment or training
NQF	national qualifications framework
OECD	Organisation for Economic Cooperation and Development
OMC	open method of coordination
PIAAC	programme for the international assessment of adult competences
PISA	programme for international student assessment
RNFIL	recognition of non-formal and informal learning
RPL	recognition of prior learning
SOLO	structure of observed learning outcomes
TEPE	teacher education policy in Europe
VET	vocational education and training

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- European initiatives on quality assurance for VET (EQAVET):
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Sorbonne joint declaration:

http://www.ehea.info/Uploads/Declarations/SORBONNE_DECLARATION_1.pdf

Standards and guidelines for quality assurance in the European higher education area (ESG): <http://www.enqa.eu/index.php/home/esg/>

Tuning educational structures in Europe.

<http://www.unideusto.org/tuningeu/>

UK government consultations website:

https://www.gov.uk/government/publications?publication_filter_option=consultations

ANNEX 1

List of interviewees

Name	Organisation	Number of interviewees
Austria	The Austrian Federal Institute for Adult Education (Bundesinstitut für Erwachsenenbildung – bifeb)	10
	Austrian Institute for Research on Vocational Training	
	Austrian Working Group on VET Research	
	Institute for Educational Research, Innovation and Development of the Austrian School System	
	Universität Innsbruck	
Belgium	Flemish Agency of Quality Assurance in Education and Training	6
	NVAO	
	CFWB	
	IFAPME	
Bulgaria	Business English School and College Eurostandart	9
	National Agency for Vocational Education and Training	
	Trakia University	
	Burgas Free University	
Croatia	Agency for VET Adult Education	6
	Agency for Science and Higher Education	
	VET institution	
	Adult education institution	
	Higher education institution	
Cyprus	Ministry of Education and Culture	5
	The Human Resource Development Authority of Cyprus (HRDA)	
Czech Republic	Ministry of Education, Youth and Sports	4
	Charles University Prague	
	National Institute for Education	
Denmark	Ministry of Education	4
	The Danish Agency for Higher Education	
	The Danish Evaluation Institute (EVA)	
Estonia	Ministry of Education and Research	16
	Kehra Gymnasium	
	Estonian Qualifications Authority	

Name	Organisation	Number of interviewees
Estonia	Ida-Virumaa Vocational Education Centre	16
	University of Estonia, Tallinn	
Finland	Finnish National Board of Education	12
	University of Jyväskylä	
	Ministry of Education and Culture	
France	Le Ministère du Travail, de l'Emploi, de la Formation professionnelle et du Dialogue social	7
	Le Ministère de l'éducation nationale	
	University of Montpellier	
Germany	Standing Conference of German Cultural Ministers	14
	German Rectors' Conference (HRK), Nexus Project	
	University of the Federal Employment Agency	
	University of Duisburg-Essen	
	Federal Institute for Vocational Education and Training	
University of Heidelberg		
Greece	National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP)	4
	Ministry of Education and Religious Affairs	
	Aristotle University of Thessaloniki	
Hungary	VET institution	18
	Adult education institution	
	General education institution	
	Higher education institution	
	Eötvös Loránd University in Budapest	
Iceland	IDAN vocational learning centre	4
	Education and Training Service Centre	
	Reykjavik University	
	Comprehensive College/Comprehensive Secondary School at Tækniskólinn in Reykjavik	
Ireland	Quality and Qualifications Ireland (QQI)	8
	National Council for Curriculum Assessment (NCCA)	
	SOLAS	
	National University of Ireland, Maynooth	
Italy	INDIRE	6
	INVALSI	
	Research institution	
	ISFOL	
	Ministry of Labour	

Name	Organisation	Number of interviewees
Latvia	Riga Technical University	4
	Academic Information Centre	
	Jelgava Regional Adult Education Centre	
	Research institute	
Liechtenstein	Office for Vocational Training and Career Counselling	5
	Office of Education	
	Foundation for Adult Learning	
	Swiss Coordination Office for Research in Education	
Lithuania	National Agency for School Evaluation	5
	Ministry of Education and Science	
	International School of Management (ISM)	
	Qualifications and Vocational Education and Training Development Centre	
Luxembourg	Ministère de l'Éducation nationale, de l'Enfance et de la Jeunesse	5
	Ministère de l'Enseignement Supérieur et de la Recherche	
Malta	Ministry of Education and Employment	4
	Employment Training Corporation (ETC)	
	Educational Assessment Unit	
Netherlands	MBO Raad	5
	Cinop	
	Ministry of Education	
	NVAO	
Norway	Utdanningsdirektoratet	4
	VOX	
Poland	University of Warsaw	24
	The National Centre for Supporting Vocational and Continuing Education (KOWEZIU)	
	Ministry of Education	
	The Centre for Civic Education (CEO)	
	Adam Mickiewicz University, Poznań	
Portugal	General Directorate of Education	3
	A3ES	
	ANQEP	
Romania	Ministry of Education	8
	VET/ CNDIPT	
	Institute of Education Sciences	
	University of Bucharest	
	ANPCDEFP	
	Romanian Institute for Adult Education (IREA)	

Name	Organisation	Number of interviewees
Slovakia	The Slovak Association of Adult Education Institutions	4
	ESF project	
	Ministry of Education, Science, Research and Sport	
Slovenia	Institute for Vocational Education and Training (CPI)	31
	Institute for General Education	
	University of Ljubljana	
	Slovenian Institute for Adult Education (ACS)	
Spain	Ministry of Education, Culture and Sports (MECD)	4
	CEADE	
	Universidad de Deusto	
	National Institute of Qualifications (INCUAL)	
Sweden	Lund University	5
	Regeringskansliet	
	Linköping University	
	Ministry of Education	
Switzerland	Swiss Coordination Centre for Research in Education	4
	Rectors' Conference of Swiss Universities (CRUS)	
	Swiss Federation of Adult Education	
	Federal State Secretariat for Education, Research and Innovation	
Turkey	Ministry of Development	7
	Middle East Technical University	
	Ministry of National Education	
	Vocational Qualifications Authority	
United Kingdom	The Quality Assurance Agency (QAA) for Higher Education	17
	Qualifications Wales	
	Scottish credit and qualifications framework (the framework)	
	The Council for the Curriculum, Examinations and Assessment (CCEA)	
	Scottish Qualifications Authority (SQA)	
	University of Glasgow	

Assessment types

- Performance-based assessments, which include tasks such as oral presentations, essays and collaborative problem solving are more effective at capturing more complex performance and processes than computer-based assessments. They are frequently used in the VET sector and for certification of non-formal and informal learning. However, the reliability of these assessments is lower. There is evidence that the reliability of human raters may be improved with appropriate training (Caldwell et al., 2003). They are also more expensive to administer and score.
- Rubrics or exemplars outlining criteria and illustrated expected standards of performance at different levels that are clear, but are also broad enough to be used in a variety of situations, including in innovative programmes. When used on a large scale, training may be needed to ensure that judgments are reliable.
- Large-scale multiple-choice assessments are standardised and provide reliable data on student performance. They are machine scored, and are therefore less expensive. Well-designed multiple-choice questions may be used to assess some aspects of higher-order knowledge. They cannot, however, measure skills such as the capacity to develop an argument. If questions are poorly designed, learners may misinterpret them or may make random guesses, resulting in measurement error.
- Computer adaptive tests, as implied by their name, adapt questions for the test-taker. Learners who answer questions correctly are directed to a more difficult question, and those answering incorrectly are directed to an easier question. Since the test is adapted according to each student's responses, no two students take the same test, and it is not possible to compare student performances. Computer-based, adaptive testing (CAT) is generally considered as providing more precise scores of student performance than typical standardised assessments. However, CAT demands a very high number of test questions, which increases development costs. Also, CAT typically draws heavily or solely on multiple-choice formats.
- Computer-based performance assessments may potentially assess more complex performances through simulation, interactivity, collaboration and constructed response formats. Increasingly sophisticated ICT programmes that score 'open-ended performances' may address concerns regarding reliability of human-scored assessments, and validity of multiple-choice assessments that do not effectively measure higher-order skills. More investments in research and development will be needed to support advances in measurement technologies.

Stakeholders: levels, roles and functions

Stakeholders	Roles and functions
Service level: examples of stakeholders:	
<ul style="list-style-type: none"> • Education and training providers (all levels and subsystems) • Public employment services • Careers and learning guidance and counselling • Validation centre • Students and families 	<ul style="list-style-type: none"> • Teaching and training • Guidance and counselling • Consultation • Validations
Local level: examples of stakeholders:	
<ul style="list-style-type: none"> • Local authorities/municipalities • Employers • Employers' organisations • Trade unions • Chambers of commerce, economy, industry • Public employment services • Students and families • Teachers • Early childhood education and care agencies and providers 	<ul style="list-style-type: none"> • Interpreting national and regional policy and strategy (e.g. NQF) • Distribution of resources • Skills needs matching, job search • Identification of local skills, training and qualification needs • Civic engagement • Family health and well-being • Health, literacy and the environment
Regional level: examples of stakeholders:	
<ul style="list-style-type: none"> • Regional economic, social and sustainable development agencies and bodies • Government departments (regional) • Sector skills bodies/councils (regional level) • Social partner organisations (employers and trade unions) • Universities (and other tertiary education and research institutions) • Higher education quality assurance agencies • Regional education and training institutions and organisations • Inter-regional development bodies 	<ul style="list-style-type: none"> • Interpreting national policy and strategy (e.g. NQF) • Regional development strategies • Sector skills and qualification analysis • Labour market needs analysis • Distribution of resources and funding • Teacher and trainer capacity building

Stakeholders	Roles and functions
National level: examples of stakeholders:	
<ul style="list-style-type: none"> • Legislative bodies • Government departments/ministries • National level tripartite social partners' organisations • Tripartite bodies/councils (e.g. qualifications, sector analysis, occupational standards) • Qualifications, curriculum development and assessment bodies, departments, agencies 	<ul style="list-style-type: none"> • Legislation, policy and strategy • Education and training policy • National qualifications framework • Sector skills analysis • Occupational profiles and standards
European level	
	<ul style="list-style-type: none"> • Europe 2020 • ET 2020: policy and strategy instruments, frameworks and tools • Exchange and peer learning (OMC) • Experts: stakeholder participation

Source: Cedefop.

Application of learning outcomes approaches across Europe

A COMPARATIVE STUDY



This Cedefop reference publication maps and analyses the shift to learning outcomes in education and training policies and practices across Europe. Bringing evidence on the development of national policies from 33 countries, the study examines progress made in recent years (2009 onwards) and attempts to capture the character of political reform at national, institution and local levels. Ten case studies in nine countries produce new empirical evidence on the presence of learning outcomes approaches in the design and delivery of programmes and curricula for teacher education programmes.

Based on extensive literature review, interviews conducted with various stakeholders in curriculum policy-making and practice, focus groups and on-site visits, findings show how learning outcomes approaches increasingly feature as catalysts for policy and practical reform, influencing education and training practice. This publication also reveals the diversity of uses of the learning outcomes approaches being applied and highlights the complexity of implementing learning-outcomes-centred policies and developing appropriate strategies at both systemic and subsystemic levels.



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