Learning outcomes in validation and credit systems

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SUMMARY

Instruments and arrangements supporting transfer and accumulation of learning outcomes, such as validation and credit systems, form an important part of European and national lifelong learning strategies. Debate has largely focused on separate initiatives and failed to address how these may interact and could create synergies.

A starting point for the analysis is the continuing shift to learning outcomes taking place in most European education and training systems. This is ex-emplified and supported by the introduction of comprehensive qualifications European (EQF) and national (NQF) frameworks, by increased use of validation of non-formal and informal learning and by the development of credit systems in education and training (ECVET). The article addresses the possible relationships between validation and credit systems, how they may contribute to lifelong learning by aiding recognition of all forms of learning outcomes, irrespective of their origin in formal, non-formal and informal settings. The review on existing patterns and future developments ends by identifying several issues which would need further research and policy-development.

Introduction

Instruments and arrangements supporting transfer and accumulation of learning outcomes – notably validation of non-formal and informal learning and credit systems – form an important part of European and national lifelong learning strategies. They aim to open up, and increase the flexibility of, qualifications systems ([1]) by aiding recognition of learning experiences acquired outside traditional formal education and training. Typical examples are foreign qualifications, qualifications or learning outcomes achieved in another education and training sector, and learning outcomes acquired in the past, at work or in leisure-time settings. The development of validation and credit transfer and accumulation arrangements is an effort to broaden the range of knowledge, skills and competences valued in society and to make it easier for individuals to make progress in learning and work. Consequently, the term 'validation of learning outcomes' is used here to signal the need for greater integration of instruments and initiatives, underlining that all learning experiences – irrespective of their origin in formal, non-formal or informal settings – need to be made visible and valued.

These developments have gained speed in recent years and are now making a real impact on national qualifications systems and individual learning opportunities. A growing number of countries have implemented national systems for validating non-formal and informal learning, opening up opportunities for a wide range of learners and workers. The European credit transfer and accumulation system for higher education (ECTS) has been operational for many years and the new European credit system for vocational education and training (ECVET) is now entering a test phase. These developments can (partly) be explained by the following factors:

- demographic and economic changes are forcing countries to adapt their education and training systems to the reality of lifelong

([1]) In this article, we distinguish between qualification systems and qualification frameworks. The EQF recommendation provides the following definition of these terms. A 'national qualifications system' means all aspects of a Member State's activity related to the recognition of learning and other mechanisms that link education and training to the labour market and civil society. A 'national qualifications framework' means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society.

learning (the population is getting older, changes in occupations are becoming more frequent, labour and learning mobility have increased; Cedefop, 2008a);
- education and training systems have difficulty in meeting the learning needs of parts of the population (the labour market vulnerability of low skilled persons is increasing, the percentage of drop-outs from upper secondary education is causing concern; European Commission, 2008a);
- national lifelong learning policies are increasingly being complemented by a common European approach, notably taken forward through the Bologna process and the Education and training 2010 programme (European initiatives introducing frameworks and common instruments are increasingly acting as catalysts for national developments).
- While developments in recent years point towards more open and flexible qualifications systems, European and national debates have largely focused on separate initiatives and less on how these could interact and create synergies. This is well illustrated by the work on validating non-formal and informal learning and credit systems, where debates and developments have not been systematically linked. Meanwhile the ECVET recommendation (European Parliament, Council 2009) makes explicit references to validating learning outcomes.

This article addresses the relationship – and possible synergies – between arrangements for validating non-formal and informal learning and credit systems. The continuing shift to learning outcomes in most European countries (Cedefop, 2009a) provides an opportunity and to address the relationship between the different instruments and arrangements and how, in combination, they may contribute to the opening up of qualifications systems. This integrated perspective implies that we should start using the term validation of learning outcomes rather than distinguish instruments and initiatives according to particular settings or contexts (formal, non-formal and informal). This signals that all learning outcomes – irrespective of where they were acquired – can in principle be identified, assessed and recognised and can result in a qualification.

Validating non-formal and informal learning

The development of systems for validating non-formal and informal learning can be explained by the wish to make visible the learning outcomes acquired outside formal education and training institutions, for example at work, in voluntary activities and during leisure time. Many countries emphasise (Cedefop, 2009a) that these learning outcomes and experiences should be valued in the same way as formal learning and should, in principle, provide the basis for awarding a qualification. Validation is gaining ground (Souto Outero et al., 2008; Cedefop, 2008b; European Commission DG EAC and Cedefop, 2009a; Cedefop, 2009a) and is moving up on the policy agenda.

Yet, the development of validation in Europe is a multispeed process where countries are at different stages of practical implementation and overall acceptance. Some countries, for example Denmark, France, the Netherlands, Norway and Portugal, use validation as an integrated part of their qualifications systems. Although many European countries have yet to reach this stage, this 'mainstreaming' of validation seems to be on the agenda of an increasing number. Cedefop (2008b) distinguished between three groups of countries: those countries where validation has become part of learners' reality; countries where validation was emerging; and countries where validation was being considered with some scepticism and as a new feature of the qualifications systems.

While most activity has been at national, sectoral and local levels, European initiatives play a part. A particularly important contribution has been made by EU education and training programmes (notably Leonardo da Vinci, Socrates and Grundtvig) providing financial and institutional support for extensive experimentation and testing since the early 1990s. This means that most national actions have reference to European and international developments. The adoption in May 2004 of the principles on identification and validation of non-formal and informal learning (Council of the European Union, 2004) reflects this extensive cooperation and is an important step towards positioning validation in the political context of lifelong learning. The aim of these principles was to establish a common (minimum) basis for strengthening cross-border comparability, compatibility and transparency of validation processes. These principles are presented in Figure 1.

Figure 1. **Common European principles on validation of non-formal and informal learning**

1. Validation must be voluntary.
2. The privacy of individuals should be respected.
3. Equal access and fair treatment should be guaranteed.
4. Stakeholders should be involved in establishing validation systems.
5. Systems should contain mechanisms for individual guidance and counselling.
6. Systems should be underpinned by quality assurance.
7. The process, procedures and criteria for validation must be fair, transparent and underpinned by quality assurance.
8. Systems should respect the legitimate interests of stakeholders and seek balanced participation.
9. Validation must be impartial and avoid conflicts of interest.
10. The professional competences of those who carry out assessments must be assured.

Source: European Commission DG EAC and Cedefop, 2009a.

National developments after 2004 show that these general principles are considered useful and have made an impact on national developments. An example of this is the Netherlands where the principles provided input to the quality code for the system of *Erkennen van Verworven Competenties* ([2]). However, it was clear already from the beginning that these principles only provide a starting point. Consequently, and following intensive cooperation between Member States during the period 2006-08 ([3]), a set of detailed European guidelines for validating non-formal and informal learning, building on common principles, were developed. These guidelines are important as they try to clarify how validation of non-formal and informal learning is (and could be) linked and aligned to the formal qualifications system. The following schematic diagram (Figure 2) identifies the different stages of the validation process. Its major contribution is to focus on validation as an integral part of existing qualifications systems. According to this perspective, qualifications can be awarded in two main ways:
• using processes designed for the formal education and training system, addressing whole cohorts of candidates (see upper part of Figure 2);
• using processes designed to be responsive to individual candidates learning in non-formal and informal settings (see lower part of Figure 2).

([2]) Accreditation of prior learning.
([3]) In the context of the Education and training 2010 programme and its cluster on recognition of learning outcomes.

According to this figure, and assuming that arrangements for validation are established as an integrated part of the qualification system, individuals can choose between different routes to qualification. These choices will reflect their background (prior learning), their current life and work situation (in education, at work, unemployed, etc.) and their needs (for initial education and training,

Figure 2. **Routes from learning to certification**
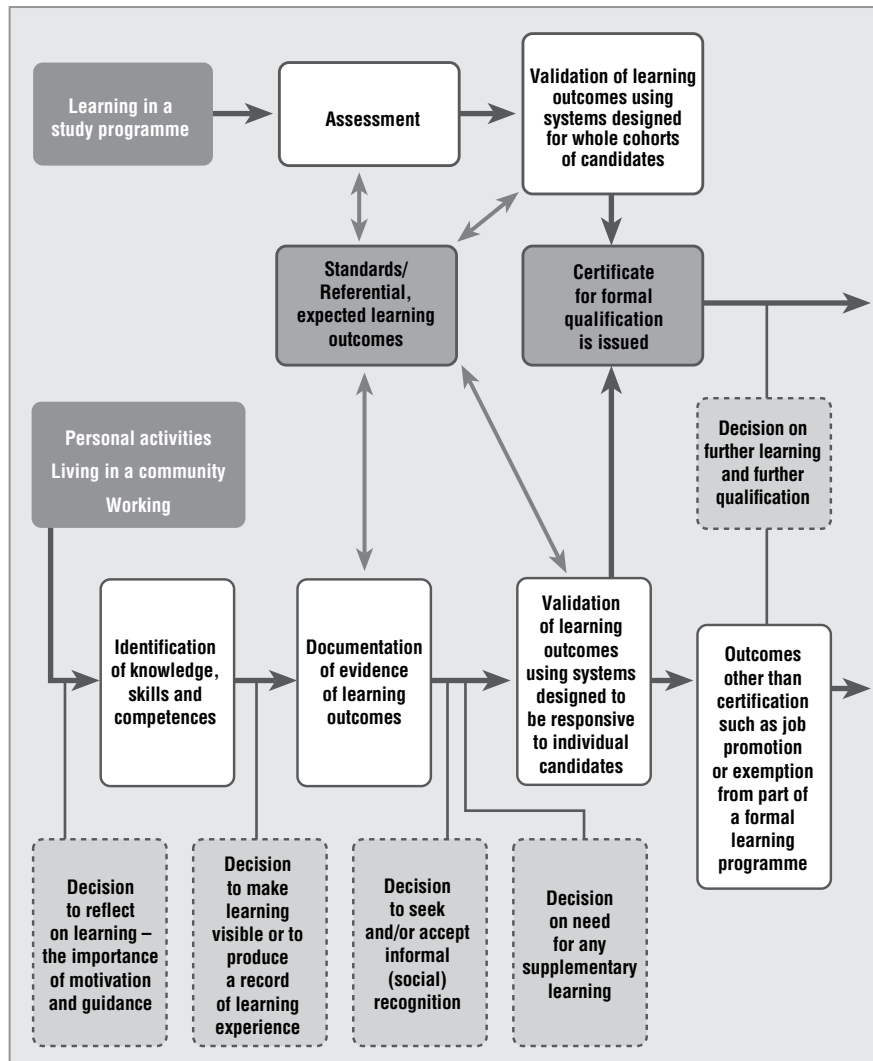
continuing training, career progress, etc.). Generally, validation of non-formal and informal learning presents many more choices for the individual. The process varies according to the purposes and needs of each single candidate; some may be satisfied with identification of prior learning for career development purposes, others may seek a full certificate or diploma. The complexity of the process reflects that individuals have their specific personal learning experiences – there is no standard learning pathway or career – and the methods used to validate need to be sufficiently sophisticated to capture this complexity.

The core element of the diagram, and crucial to an integrated system guaranteeing the recognition of all learning outcomes irrespective of their origin, is the reference to a shared standard for expected learning outcomes. This means that while learning routes may differ, the expected content and level outcomes should be the same. This perspective has been introduced to several national qualifications systems: Finland, France and the UK are good examples. It underlines the need to speak about validating learning outcomes rather than distinguish between certifying formal learning and validating non-formal and informal learning.

Whereas the first route (learning in a study programme) leads to recognition in the form of a certificate 'for formal qualification', the second option (personal activities, living in a community, working) leads either to recognition via award of a formal qualification, or social/peer recognition in the form of job promotion or exemption from training programmes. This underlines the need to distinguish formative from summative validation approaches. The primary objective of summative approaches is to identify and assess a learning experience and outcomes according to set standards and (potentially and eventually) award a certificate or diploma. The core objective of formative approaches is to support the learning process and allow learners to widen and increase their learning. Formative approaches, for instance, provide feedback on weaknesses or strengths as a basis for personal and professional improvement. Figure 3 presents a synopsis of both approaches. It is worth noticing that within the pathways to qualifications, summative and formative functions are not mutually exclusive; the learners' choice might include combining both in the course of their learning pathways.

Figure 3. **Assessment inside the validation process**

	Summative function	Formative function
Learner's objectives	Award of qualifications (certificate, title or diploma)	Widen and deepen own knowledge in the course of personal development projects, career development or human resource development (in enterprises)
Structures	Qualifications and awarding bodies	Diverse
Standards	Certification standards within education and training or the national qualifications framework	Depends upon the objectives

Successful validation of non-formal and informal learning seems to require a double strategy. First, the quality (reliability and validity) of the methods for identifying and assessing non-formally or informally acquired learning outcomes must be guaranteed. The non-standardised character of this learning complicates this 'competence measurement' and priority has to be given to developing and improving tools and methodologies guaranteeing validity and reliability. Second, the relationship between validation arrangements and the national qualifications system needs to be clarified, in particular for referencing to standards and norms. In Figure 2, these standards are seen as common to both the formal and informal routes and as a powerful mechanism for integrating different forms of learning in a learning outcomes perspective. In practice, however, not all European countries have accomplished this integration of validation by shared standards. Validation of non-formal and informal learning – and the change towards validating learning outcomes – is changing continuously. This relates mainly to the development of national qualifications frameworks, responding to the EQF (see also Section 4). Several countries (for example Germany and Austria) are currently considering how to integrate validation of non-formal and informal learning into their (developing) national qualifications frameworks.

Credit systems

Two credit systems have developed in Europe and are applied respectively in vocational education and training (the European credit system for vocational education and training, ECVET) and in higher education (European credit transfer and accumulation system, ECTS). ECTS was introduced following the recommendation by the European Parliament and the Council on 10 July 2001 for students, persons undergoing training, young volunteers, teachers and trainers. The European Parliament and the Council approved the proposal for recommendation on ECVET on 17 April 2009; ECVET aims to aid the transfer, recognition and accumulation of assessed learning outcomes of individuals who want a qualification (European Parliament, Council 2009), promoting learner mobility, lifelong learning, development of mutual trust and cooperation between VET providers in Europe. Both credit systems ([4]) have been evolving over the years following the growing importance of the learning outcomes approach in education and training. Cedefop (2009b) defines a credit system as 'an instrument designed to enable accumulation of learning outcomes gained in formal, non-formal and/or informal settings, and ease their transfer from one setting to another for validation and recognition'. Formal recognition is 'the process of granting official status to learning outcomes either through the award of qualifications (...) or through grant of equivalence, credit units or waivers, validation of gained learning outcomes' Cedefop (2009b). Although in some Member States validation and recognition might be a single process, this definition draws our attention to the fact that validation is part of the recognition process (as far as both are differentiated) and that the ultimate objective is to grant official status to the learning outcomes by qualification award.

The rest of this article will concentrate on the development and implementation of ECVET. While this does not question the importance of ECTS in European higher education, it reflects that ECVET from the very beginning has been based on a learning outcomes perspective and thus provides a good case for analysis ([5]). ECVET development may be viewed from two angles: the general principles established

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[4] For a detailed synopsis of the significance and role of both credit systems (in EQF context), see Dunkel and Le Mouillour, 2008, p. 184-202.

[5] There is a clear need for a systematic debate on the relationship between ECTS and ECVET. Initiatives taken by Cedefop in 2009 support such a debate.

at European level and their actual and practical implementation at national, local and/or sector levels. The ECVET testing phase (2009-12) aims to link European and national levels, establishing a feedback loop between practice, research and policy-making, thus moving from metalevel European principles to concrete local practices. Many countries are looking at ways of introducing credit transfer and accumulation processes (and thus flexibility) into the qualifications systems (European Commission DG EAC and Cedefop, 2009b).

The described ECVET process does not start from scratch but builds on a significant amount of experience gained over many years (also preceding the 2002 Copenhagen declaration launching the initiative). Examples of this are provided by Belgium (Flemish community), Denmark, Spain, Sweden, and Scotland. As the work on ECVET has moved on, further national developments have been triggered, for example in Germany (Decvet) and in Finland (Finecvet). The new qualifications framework for England and Northern Ireland (qualifications and credit framework, QCF) strengthens the role of credit transfer, an approach largely followed by Scotland (Scottish credit and qualifications framework, SCQF) and Wales. Luxembourg, Belgium (Walloon community) and Latvia are updating their national regulations to accommodate credit transfer and accumulation. In total, while only a few Member States have implemented credit transfer mechanisms in VET, this combination of European and national initiatives underlines the increasing importance of the approach. The fact that systems and arrangements are still unfinished can be seen as an opportunity for analysing potential links to, and synergies with, other instruments and initiatives; these include validation or Europass, the single Community framework for the transparency of qualifications and competences.

The core of ECVET is the description of qualifications in terms of learning outcomes, based on the categories set within the EQF (knowledge, skills and competence: KSC). Organised in units, these learning outcomes can be transferred and accumulated towards qualifications. While existing credit systems have largely referred to learning input (duration and workload), ECVET introduces learning outcomes as the exclusive basis for the award of credits and – eventually – for a qualification. For many education and training institutions, this represents a new and innovative approach, forcing them to consider whether alternative learning forms can result in outcomes equivalent (although not similar) to those of their own courses. Transfer and accumulation learning outcomes are presented in the following figure.

Figure 4. **Transfer and accumulation of learning outcomes**
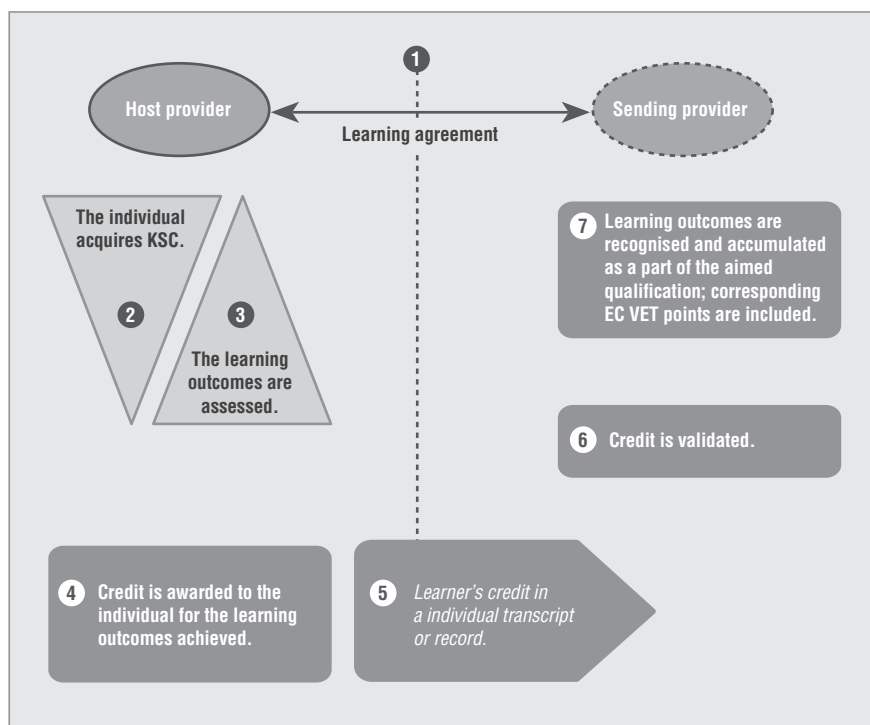
The proposed transfer and accumulation processes rest on two main elements:

- units of learning outcomes. These are the building blocks of a given qualification, a coherent ensemble of knowledge, skills and competences that can be submitted for assessment and validation. A unit can be specific to a single qualification or common to different qualifications. ECVET points provide a numerical symbolic value of the relative weight of units or learning outcomes to the full qualification;

- credits for learning outcomes achieved. These correspond to the assessed learning outcomes acquired by an individual. They can be accumulated towards the award of a qualification or transferred to other learning programmes or qualifications, thus leading to exemption of part of a study programme or grant of equivalences.

Units of learning outcomes refer directly to the validation process as they are 'constructed in a way that enables discrete assessment

and validation of learning outcomes contained in the unit' (European Parliament, 2008, Annex 2; Commission, 2008b, p. 19). For validation and recognition, qualifications need to be expressed in terms of learning outcomes, and units (linked to qualifications) will carry a reference to the qualification according to the EQF level.

It follows that credit systems such as ECVET question the distinction between formal, non-formal and informal learning, the basic assumption being that all learning may lead to qualification. Given that an individual has achieved learning according to a given standard, it should not matter where and how she or he has acquired these outcomes. This, as indicated by Figure 1, underlines the relevance and strength of validation of learning outcomes. We may conclude – at that stage – that ECVET very much pursues the same objectives as those pursued by existing and emerging systems and arrangements for validating non-formal and informal learning. Both instruments open the possibility that learning outcomes acquired outside traditional pathways (abroad during a mobility period or at some time during a professional and occupational career, etc.) result in a qualification.

Validation and learning outcomes-based credit systems

The emerging (and in some cases embryonic) character of validation and credit systems provides a good opportunity to reflect on how to promote links and synergies between them. The fact that both validation and ECVET aim at valuing learning outcomes originating from diverse contexts (non-formal or formal for validation, VET system different to one's own for credit systems) further underlines the opportunity and need for links. We can identify three key areas where the two instruments could interact: assessment methodologies, qualifications standards and qualifications frameworks.

Assessment methodologies

The development of validation of non-formal and informal learning in Europe has gradually refined a range of different tools and methods for assessing learning outcomes (European Commission DG EAC and Cedefop, 2009a, p. 59). These tools capture different aspects of the outcomes in question, reflecting practical skills or theoretical deliberations in varying degrees. As in formal education, the individual specificity of the learning outcomes may require more than one tool,

such as a combination of written tests and practical challenges. These learning outcomes may also require tools able to capture specific elements, through practical demonstration, simulation or gathering of evidence from past practices. A main challenge faced in validating non-formal and informal learning is that it addresses individual learning experiences and thus needs to be sensitive to their specific character. This differs from assessment in formal learning where the tools are applied across a large cohort of students, making them less adaptable to the needs of a subgroup or an individual.

These experiences will be important when ECVET is implemented since ECVET is not a validation process in itself but offers a reference frame for carrying out validation. It has to be completed by adding and making available assessment and validation methodologies relevant for different stages of the ECVET process. As illustrated in Figure 4, ECVET requires validation in two phases of its process: the award of credits in the host country and the validation of the credits in the home country, when it is to be applied in the context of geographical mobility and in formal education and training. The first validation phase is formative and originates from an assessment of the learning experiences and outcomes in the host country and institution. This is recorded in a common – although not formally certified – format (for example Europass mobility). The second phase takes place when the candidate returns to his or her home country. The learning outcomes (recorded by the host institution) are validated according to the relevant formal standard and, if deemed to be at the appropriate level, are recognised against the qualification standards in use in that country. Consequently the learner could be granted, for instance, an exemption from courses or training units. It is very important in terms of quality assurance that the formative evaluation (taking place abroad) is carried out in a transparent way which can be trusted by others.

It will be important to see how the experiences from validating non-formal and informal learning can feed into these two stages and to what extent methodologies and approaches can be directly applied. It must be understood that assessment in VET might follow a logic very specific to VET systems, their understanding of qualifications or the objectives linked to education and training programmes. The ECVET 'connexion' study identifies different patterns here; assessment will be differently conceived if programmes are more theoretical or workplace-oriented, if practitioners or teachers are involved in the learning/teaching processes, and if sector representatives are part of assessment processes (Gelibert and Maniak, 2007).

Qualifications standards

Standards will play a key role, as illustrated by Figure 2, in deciding the relationship between validation and credit system. For validation, it is crucial that these standards are formulated in terms of learning outcomes; progress in adopting the outcomes approach by standards is summarised in Figure 5. If they are too closely embedded in particular education and training provision, this may reduce their relevance as reference points for non-formal and informal learning. This issue is partly reflected in the combination of education (learning) and occupational standards in different countries (Cedefop, 2009c, forthcoming).

Figure 5. **Progress in implementing outcome-based qualifications standards**

Qualifications standards are outcome-oriented		Introduction of outcome-oriented standards in process	No formulation of outcome-oriented standards / no information
Belgium	Lithuania	Austria	Cyprus
Denmark	Malta	Bulgaria	Greece
Estonia	Netherlands	Czech Republic	Liechtenstein*
Finland	Norway	Italy	Slovakia
France	Poland	Luxembourg	
Germany	Portugal	Romania	
Hungary	Slovenia	Turkey	
Iceland	Spain		
Ireland	Sweden		
Latvia	Switzerland		
	United Kingdom		

* as far as the national vocational school is concerned, standards are input-oriented.

Source: Cedefop, Study on the dynamics of qualifications – the definition and renewal of occupational and educational standards (2007/08).

The European guidelines for validation distinguish 'occupational' and 'educational' standards. Both are primarily concerned with the content (or knowledge, skills and competence) of learning, although from the different perspectives of education and training and the labour market. In some countries, specific standards for assessment exist (European Commission DG EAC and Cedefop, 2009a, p.35).

Within ECVET, occupational and educational standards are explicitly referred to in the mobility agreement between provider and learner. This makes it possible to identify the learning outcomes forming the core of the mobility project. During the mobility period, the assessment standard in the home country (used on the learner's

return) as well as its counterpart in the host country will be used. In the context of institutionalised/organised mobility, these standards provide important (and existing) reference points ensuring that assessment and recognition of credits can be trusted. ECVET offers an institutional framework and a set of principles which allows these different national standards, and the accompanying assessment methods, to interact. ECVET will thus not seek to develop its own standards and assessment methods; its challenge is rather to make use of and seek to integrate what is already there.

In Member States where validation of non-formal and informal learning is already established as an integral part of the qualification system, credit systems could encounter fewer obstacles. Such integration would be based on an agreement that there is no single route to a qualification and thus be part of a culture change signalling greater tolerance towards non-traditional learning routes and pathways (Fietz et al., 2007). This is exemplified by France, where the incremental development of validation (since the 1980s, and in particular since 2002) implied a broadening and diversification of potential routes to qualifications and the recognition of professional experience as a basis for qualification award (Vanags and Natter, 2007). The same applies in the Nordic countries where most validation is carried out in the education sector and it has been accepted that learning from outside the formal sector might lead to admission to studies and/or to a reduction of the time to achieve formal study qualifications (Hult and Andersson, 2008).

Qualifications frameworks

In the preparatory work to ECVET, it was apparent that a framework is needed to permit reading qualifications and their related units in terms of proficiency acquired by the learners (Cedefop, Coles and Oates, 2005). Assessing non-formally acquired learning outcomes or learning outcomes acquired abroad requires information on levels. This reinforces the added value of qualifications frameworks; transparency for individuals as well as education and training stakeholders. It is also related to the pivotal role played by standards; frameworks will aim to clarify which standards apply and how different forms of learning relate to them.

The work on national qualifications frameworks in response to the EQF (European Commission DG EAC, 2009c) can be seen to respond to the above issues, with the introduction of NQFs intrinsically linked to the shift to learning outcomes. Defining qualifications levels

in this way could open up a broader set of outcomes, including those acquired through learning in non-formal and informal settings, in more European countries. NQFs can be used further to develop explicit and coherent learning outcomes-based standards and references for qualifications that could accommodate outcomes of learning in non-formal and informal settings. It will be crucial that the definition of these national, regional and sectoral standards for learning outcomes takes into account the particular requirements posed by validation of non-formal and informal learning.

The main functions of national qualifications frameworks can be considered the following (according to European Commission DG EAC, 2009c):

- to aid establishment of national standards and references for learning outcomes (competences);
- to relate qualifications to one another and to pursue permeable qualifications systems;
- to promote access to learning, transfer of learning and progression in learning;
- to promote the quality of education, training and learning.

Each of these may be directly related to the further development of methods and systems for validating non-formal and informal learning and credit systems.

A common objective of emerging national qualifications frameworks is to reduce barriers between education and training, promoting access to education and training, and transfer and accumulation of learning outcomes. Validation of non-formal and informal learning and NQFs have a common objective: enable individuals to make progress in their learning careers on the basis of their learning outcomes and competences, not on the basis of the duration and location of a particular learning programme. Access, transfer and progression link directly to the challenge of developing validation and credit transfer and accumulation at national and European levels.

The development and implementation of European and national qualifications frameworks (Cedefop, 2009d) have thus increased focus on integrating ('mainstreaming') validation of non-formal and informal learning in the overall qualifications system. The same trend can be observed for credit systems, although currently less so. There is no doubt, however, that the work on frameworks offers an opportunity to consider how validation and credit transfer and accumulation, can contribute to a more comprehensive strategy on validating learning outcomes.

Perspectives

Validating learning outcomes is becoming more important in European education and training. This incremental development is partly inspired by European initiatives like EQF and ECVET but is primarily a reflection of the need for more flexible and effective lifelong learning approaches. Developments are rapid, potentially turning validation of learning outcomes into a trusted, normal and accepted way of acquiring qualifications. We consider this approach to be important as it stresses the importance of neutral (from particular education and training providers) qualifications levels, opening up a wider range of potential pathways to a certification.

In the feasibility studies on ECVET (2008 ([6]) long-outstanding issues and challenges linked to the coordination and governance of education and training systems are brought to the forefront. Examples are cooperation between stakeholders, lack of transparency, fragmentation and segmentation). Some of these challenges can be met, in ways which are immediately beneficial for individual learners, notably by establishing a closer link between validation and credit system mechanisms within the new context provided by qualifications frameworks. Validating learning outcomes is thus about enabling learners and workers to access education, training and learning when they need and to value the outcomes of this learning in a consistent and fair way.

The purpose of this article has been to open up the debate on the relationship and possible interaction between current different national and European instruments and principles. This is a discussion which needs to be continued, not least by considering the role of other instruments not discussed here (for example ECTS). The following questions may indicate where to start:
- vision and limits: to what extent will lifelong and lifewide learning need to be complemented with lifelong recognition (through validation and credit transfer and accumulation)? What is the balance between costs and benefits of validation and credit systems?
- needs: instruments like validation and credit systems are being developed to serve individual citizens. How can the current diversity

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([6]) Both ECVET Reflector and ECVET Connexion reports are available at http://ec.europa.eu/education/more-information/moreinformation139_en.htm [cited 23.4.2009].

of non-related instruments be turned into a seamless service easily and directly accessible to everybody?

- governance: a seamless structure serving individuals requires a debate on governance and coordination. Can European and national qualifications frameworks establish a political and institutional context allowing a diversity of institutions and stakeholders at different levels to interact according to shared objectives and a common direction?
- standards: will we need to redefine qualifications standards to serve a strategy on validation of learning outcomes? How should standards be designed and described in terms of capturing the highly diverse learning experiences and outcomes of individuals?
- education and training provisions: what kind of flexibility in programmes and teacher and trainer competences are required to deal with different proficiency levels and professional experiences of non-traditional learners?

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