

ASSESSMENT BASED ON COMPETENCE (ABC)

<p>IDENTIFYING OF THE MAIN PRINCIPLES UNDERLYING ASSESSMENT BASED ON COMPETENCE AND TAKING STOCK OF PRACTICES IN THE EUROPEAN UNION</p>
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This report is base on the ongoing work on assessment and recognition of formal and non-formal learning in the Member States, in the Cedefop and the Forum on “Transparency of vocational qualifications” (CEDEFOP-Commission). It is also prepared in line with the Communication on lifelong learning and the subsequent Action Plan.

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IDENTIFYING OF THE MAIN PRINCIPLES UNDERLYING ASSESSMENT BASED ON COMPETENCE AND TAKING STOCK OF PRACTICES IN THE EUROPEAN UNION

1. Introduction

Today, globalisation and technological change as well as the wider economic and societal trends including the demographic changes have strong consequences for the development of Europe and its citizens. These changes engender moves towards a knowledge-based society: working life evolves and is largely affected by technology, information technology and new organisational methods. Economic and technological changes have greatly affected the daily working life of people: a lifetime job is unusual; changing jobs and mobility becomes a common feature. The nature of enterprises evolves: still many are very large but the number of small and medium size enterprises is growing, requiring an even more flexible workforce. These trends affect education and training, the level of educational attainment required the quality of the learning as well as the need to implement lifelong learning.

The increase in skills, qualifications, competences is essential in a knowledge-based society: initial education has to provide a strong basis; training and vocational education are no longer acquired once and for all. This underlines both:

- The crucial dimension of lifelong learning policies, and;
- The need to strengthen the links between the world of education and the world of work.

Making lifelong learning a reality

In its recent Communication “ Making a European Area of Lifelong Learning a Reality”, the European Commission (2002) calls for a broad definition of lifelong learning. In the consultation process that lead to the Communication, stakeholders highlighted the objectives of learning: these include active citizenship, personal fulfilment and social inclusion as well as employment related aspects (p.3). Lifelong learning serves more than economic objectives and comprises more than adult education and training. It emphasises learning from pre-school to post-retirement. It should encompass the whole spectrum of types of learning: formal, non-formal and informal¹. Many dimensions of formal learning have been explored. In recent years in the European Union, a lot of the political energy has been devoted to examine, promote, and develop non-formal and informal learning. Still too largely an unknown field, non-formal and informal learning requires more attention to be better

¹ **Formal learning** consists of learning that occurs within an organised and structured context (formal education, in company training, etc), and that is designed as learning. Formal learning may lead to a formal recognition (diploma, certificate).

Non-formal learning consists of learning embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element.

Informal learning is defined as learning resulting from daily life activities related to work, family, or leisure. It is often referred to as experiential learning and can to a certain degree be understood as accidental learning. Definitions in the Cedefop Glossary (2000). More information will be available in the report on “national policies and practices on validation of non-formal and informal learning”, Forum on transparency of vocational qualifications, 2002, forthcoming.

understood and integrated into a lifelong learning reality. This emphasises the centrality of the learner, the importance of equal opportunities, and quality as well as relevance of learning opportunities (p.4).

For the Partners countries and countries in transition, the reform of their education and training system and more generally, the process of value learning, need further analysis and development. The perspective developed by the European Union has several consequences for such further developments:

- The reform of the formal education has to be pursued. Therefore, the reforms of elementary, secondary and tertiary education for young people and adults have to be completed: standards, assessment and quality assurance mechanisms have to be set in place;
- Linkages and pathways between the levels of formal education have to be defined and guidance provided;
- Learning taking place outside the formal setting (at work, in families, or through any other setting) should be integrated in order to capitalise on the knowledge, skills and competences of all individuals in each country. This concerns the recognition of non-formal and informal learning;
- Links between formal, non-formal and informal learning have to be established so that the learner, whatever age, gender, religion, can always see opportunities for learning and for upward mobility.

Strengthening relations between education and work

One of the lessons from the Member states in the last decades is that a fundamental basis of education and training reforms is stronger links between the world of education and the world of work. All countries, industrialised and developing, are looking to strengthen these links. In the Member states of the European Union, one can find many ways to build and define these linkages: France, Germany, United-Kingdom have each their approaches. Also, smaller countries like Denmark, the Scandinavian, the Netherlands and south of Europe have different ways. Though, countries have developed their own and particular methods, these methods have commonalities.

In each case, the relations between school and work are there: the dual system, the “alternance”, the sandwich courses, the modular approaches of NVQs or equivalent emphasise the “school-work” relations. The illusion of the education system running after innovations in technologies or in the work place is no longer there. But, the need for education and employment to closely work together is clearly understood and set in place.

Co-operation with social partners or other relevant stakeholders (chambers of commerce or professional associations, for example) is recognised as central to the development of these relations. Social partners and stakeholders are essential actors in setting standards as they are in assessment and quality procedures. The establishment of connections between the learning types will greatly benefit from their involvement. Until today, the strengthening of school and work relations can be helped by a particular instrument: the

standards. Standards bring together education objectives and requirements of work. The standards have been extensively developed all over Europe and all over the world. The next steps will mostly concentrate on assessment policies and practices.

The report presents an overview of the actual European Union situation and the main lessons to be drawn from policies and practices on assessment of competences. Its conclusions contain the basis for a first draft of concepts and general principles of assessment of competences. The report reviews the following aspects:

- The definitions of the main concepts referred to in the report;
- The emergence of the assessment of competences in the European Union;
- European Union practices and the on-going experience in ABC;
- The assessment of competences and lifelong learning;
- An attempt to identify the main principles for assessment based on competence (including prior or experiential learning).

2. Definitions of concepts

Competence, assessment and standards are some of the principal concepts in this report. As many definitions co-exist, a choice is specified here.

Standards

Recent lessons from European countries underline the role of standards as instruments to help school and work linkages. They are useful not only to teachers and ministries, but to employers, economic planners and politicians; vocational education and training planners, career guidance and counselling; students (young and adults) and parents. The last decade, huge efforts have been made and the standard methodologies are now more coherent, better established, more transparent and comparable. Built on the base of partnership and co-operation between social partners and relevant stakeholders; they should be publicly available and understandable for all users.

There has been considerable improvement in standards setting methodologies in the last decade. The standards usefulness has revealed to be broader and more important. International and European organisations have worked on clarifying the approaches. ETF is one of them. The results of this work on standards methodology is integrated in the present analysis on assessment based-competence. Additional specific information can be found on this work in ETF (volume 1, 1998; volume 2, 1999; volume 3, 2000 and volume 4, 2001).

Without entering into the details, the concepts developed in the standards methodology will be very briefly presented. The various methodologies focus on the ability a person needs to perform certain work activities. Usually, three similar if not identical steps exist in the different standards setting methodologies. In each, the description can be more or less detailed. The three steps are:

- The occupational standards. In the ETF methodology, they are called the “employment specifications”. These standards provide a description of the job (work analysis) and in this case, they concentrate on the dimensions the person has to be able to do to actually perform that job.

- The education standards. In the ETF methodology, they are called the “learning specifications”. These standards describe what the person needs to learn in order to be able to potentially perform the job described in the occupational standards (or employment specifications). Details may be more or less important: it explains the curriculum, which subjects, how much time devoted to each, in which order. Eventually, it can include the plans of the lessons, the entry requirements for the student.
- The assessment standards. In the ETF methodology, they are called the “assessment specifications”. These standards describes the learning to be tested against the objective pursued. They provide information on the examinations, duration, frequency and grading scale. Assessment can be of different types (summative and formative) used at different moment of the education and training process.

Clearly, names of each step may vary, but in general, they can be found in national descriptions used for general and vocational education and training. That structure in “three components” is implicit in the standards methodologies developed by countries and international organisations. The three components are needed: one defines “where to go” (the objective), the second “how to get there” (the learning processes) and the third, “how to ensure one is there” (to check if learning is acquired). In a lifelong learning perspective, these three steps are essential. They will enable countries and institutions to approach both learning in a traditional way (formal learning, as part of an input driven processes) and non-formal (and informal) learning in which, learning is considered as an outcome regardless of the learning process taking place. This means that, depending on the situation, the three components of the standards permit assessment and are a basis for certification and recognition of competences:

- Acquired in formal learning (as in and education and training). In that case, the three steps will be useful for assessment (and further validation).
- Acquired in non-formal learning, regardless of where learning takes place and how it is organised. In that case, steps 1 and 3 will be use for assessment (and further validation).

The work on standard methodologies is a base for the development of lifelong learning policies, for the linkages between formal, non-formal and informal learning. The roles of occupation standards (employment specifications) and assessment standards (assessment specifications) are central. Especially, occupational standards (employment specifications) give a unity on the learning assessed, regardless the way the learning was acquired. The common structure of standards enables to assess learning from the perspective of different learning paths. This open doors for the:

- Recognition of non-formal and informal learning;
- Connections between the various learning.

Competence

Many authors and countries have fashioned their own definition of the concept of competence. As a result, relatively similar, but nevertheless, somewhat different definitions

co-exist. At European level, a Glossary exists based on activities and analyses in various countries of vocational education and training, of changes in work organisation, on adult education and training, etc. Relatively consensual definitions exist, proposed by the Cedefop (2000) and in the framework of this report, it is proposed to refer to these: they are broad enough to include specificities of countries in transition.

The Cedefop Glossary (2000) proposes the following definition of competence: **the proven/demonstrated and individual capacity to use know-how, skills, qualifications or knowledge in order to meet usual and changing occupational situations and requirements.**

The notion of competence may include formal qualification as well as elements such as the capacity to transfer skills and knowledge to a new occupational situation, or capacity to innovate. The level or kind of competence may be assessed by evaluating the individual's ability to use his or her skills. This ability to use skills and knowledge, to apply them in various contexts is central to learning in a life-long and life-wide perspective, or, as it will be developed, in formal, non-formal and informal learning. Competences can be specialised (e.g. the control of computerised processes), methodological (ability to think and decide, capacity to innovate) or social language and communication skills, teamwork) (Cedefop, 2000, p. 208)

Assessment

The Cedefop Glossary (2000) proposes the following definition of assessment: it is a general term embracing all methods used to appraise or judge performance of an individual or a group. Assessment is a form of judgement that may concern either the student or the trainer / teacher, but also the training methods (assessment of training methods is sometimes referred to as evaluation). The related term *test* is normally used to describe an assessment conducted within formal and specified procedures designed to ensure high reliability. The most common related terms are: test, examination, and evaluation.

The concept of "assessment" is usually more easily defined at least in a traditional school setting. It is noteworthy that several concepts are close or related to certain part of an assessment procedure. For example: "identification", "validation", "recognition", "certification", "accreditation" indicate different levels in the legitimacy of an assessment. They provide various levels of answer to the issue on how to ensure the quality of the assessment procedure.

In the framework of lifelong learning and the need to assess competences acquired in formal, non-formal and informal learning, the assessments methods become diverse. In formal learning, a recent trend is the organisation of the education and training (formal learning) by modules. Each module is defined by standards including occupational aspects which enable certain specific competences to be assessed regardless of the ability to fully occupy a particular job. Emphasis is given to the outcomes (the results) of learning, to the competences a person has acquired. The modules are a key element in the assessment of prior learning (APL). APL can be validated and integrated in a "traditional" curriculum, into formal learning.

In non-formal learning, assessment encompasses the validation of competences acquired regardless of any structured education and or training processes. In that case, the assessment consists of a validation of what is described in the employment specifications (or occupational standards). The quality procedures have to be robust to ensure that the competence assessed can actually be transferable into another situation (work, school, any other).

The next section examines the reasons for the emergence of assessment-based competence in the Member states of the European Union.

3. Emergence of assessment of competence in the European Union

For the last decade, the assessment of competences has assumed more and more importance in the Member states and at European Union level. This section will:

- Examine the qualification levels, proxied by education stock and flows, in the various countries to highlight the issues for initial and secondary education as well as adult education and training;
- Explore how assessment of competences, can contribute to increasing the general education level of the population, its employability and mobility (employment strategy, emphasis on the knowledge society and lifelong learning).

Not enough of the 25-64 year olds have completed upper secondary

Over the last 10 years, the main message for all countries of the EU and OECD has been to increase completion at upper secondary level. What make that message central are the changes and evolutions in the knowledge and information society. Globalisation, demographic trends and impacts of new information technologies make it central for the individual to improve his or her competences and to keep them abreast. In fact, the basis of knowledge, skills and competences the individual possess when leaving school and on which to rely to build his or her future life vary considerably between EU countries. In a country where 77 percent of the 25-64 year olds have achieved at least a lower secondary² (around 9 years of schooling) (Portugal), the competences developed differs from those in which only 15 percent of the labour force stopped school on that level (Germany). The same way, skills and competences available in the labour force (25 to 64 year olds) will be very different in the case where 60 percent ended upper secondary (Austria), compared to 13 percent (Portugal); 27 percent (Greece), 32 percent (Ireland) or 43 percent (France).

This section describes the results of different measures of educational flows and stocks. They indicate skills and competences levels. Three patterns of schooling that emerge will be examined. The implications for assessment based on competence will be debated.

Different measures

Today, the level of competences in the population is recognised as a fundamental element of the social and economic development and well-being. In the last decade, considerable efforts have been devoted, to measure the competences. Several types of

² See definitions page 9.

measures are proposed which give complementary information and indications on the education, qualifications and / or competences of the labour force in the countries. Will be examined here, some data from:

- The programme for international student assessment (Pisa) (see page 8) (OECD, 2002);
- The educational attainments (see pages 10 to 13) (OECD, 2001) and;
- The literacy indicators (see page 13 –14) (OECD, 2001).

Some of the data constitute measures providing information on the flows, others on the stocks.

Information on the **flow** of students leaving the different levels of the education system provides an overview of the general level of skills and competences, mainly in the younger generations. This is fundamental as the level of preparation of young people in initial education and training indicates the basis for the future economic and social developments of a country. It is a crucial foundation on which to build the future of citizens and of a country. Since the 1980s, data show a clear trend in rising levels of skills and competences for younger age groups.

Data on **stocks** of competences available in a country give information on what is possible or not as economic developments; and, how much effort would be required to upgrade the population from 25 to 64 year olds to higher level of education.

In order to have a better grasp, competences have been measured or, more exactly, are proxied, by the highest level of educational attainment reached by individuals (diplomas and certificates). Since 1995, measures of the education attainment of the active labour force (25 to 64 year olds) are annually released by OECD. Data presented below show the percentage of the population in each of four age groups that has completed at least upper secondary education. The last data are from 1999 (OECD, 2001a).

A general upgrading

In the recent decades, the attainment of upper secondary education within the young group age has risen steeply. As shown by OECD survey (2001, p. 138), in two third of the countries for which data are available, the ratio of secondary graduates to the population at the typical age of graduation exceeds 80 per cent (see Table 1, in annex). In several countries, the graduation rate exceeds 90 per cent (Denmark, Germany, Hungary, Japan, Korea, the Netherlands, the Slovak Republic) reality raises several new challenges:

- First, to ensure that the remaining fraction is not left behind with the risk of social exclusion;
- Second, the pathways into tertiary education has to be flexible and secured as in half of the OECD countries, the majority of upper secondary students attend vocational or apprenticeship programmes.

Despite these improvements, the recent survey of Programme for International Student Assessment (PISA) suggest that there may be substantial differences between countries (as well as within countries) with respect to the basic competence acquired by the 15 year olds

(OECD, 2002)³. The PISA 2000 presented students with a range of reading tasks using different text forms and contexts. They reported their skills in retrieving information, interpreting texts and reflection and evaluation on scales in which two-third of students scored within 100 points of a 5000-points average. Results are presented by five levels of proficiency students being assigned to the highest level at which they can be expected to do most of the task. Each level can be described in terms of what students at that level can do (p. 34-35). This survey examines carefully the student performance in reading literacy. In the lowest groups (proficiency at level 1 or below), the students (15 year-olds) have serious difficulties in using reading literacy as an effective tool to advance and extend their knowledge and skills in other areas. This group may, therefore, be at risk not only of difficulties in their initial transition from education to work but also of failure to benefit from further education and learning opportunities throughout life (p. 48).

The conclusions underline that differences between countries in reading literacy are substantial, though differences within countries ones are greater. At the average, 10 per cent of the 15 year-olds reach the highest proficiency level (reading literacy) and 6 per cent do not reach the level 1. Adding to those students not reaching the level 1 those who perform only at level 1, brings the proportion of low performers to an average of 18 per cent across OECD countries (p. 65).

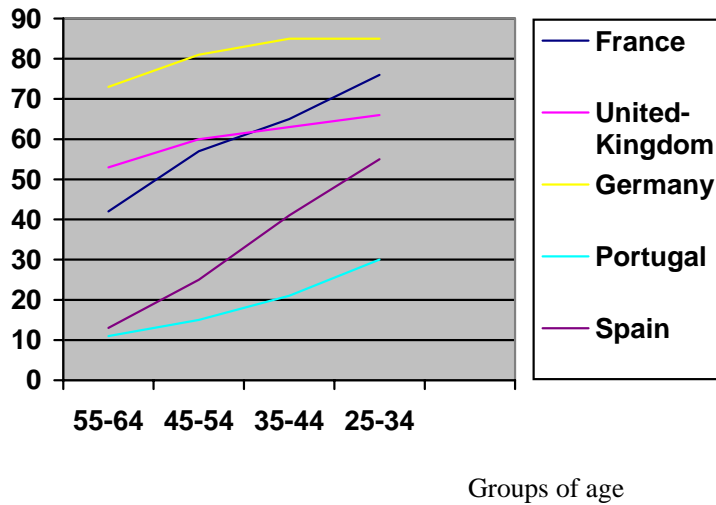
This is especially worrying as these students are at the end of the compulsory schooling and, they obviously lack the foundations (at least in reading literacy) that they will need further in life and for further learning. As, until today, it is a fact that continuing education and training reinforces skill differences resulting from unequal success in initial education, rather than reducing them, these results underline and call the attention to an enormous political challenge for lifelong learning policies (p.65).

For the younger generation, completion rates show substantial increases even if differences between countries remain. Generally, the percentage of the labour force (25 – 64 year olds) that attained upper secondary education has steadily increased to the benefit of the youngest generation. Figure 1 illustrates this for some selected countries. In all countries, the completion rate of upper secondary has increased: some time very strongly, as in Spain (13 to 55) and in France (42 to 76) and sometimes, more steadily as in Germany (73 to 85) where completion of upper secondary was already high for the “older” population (55-64 year olds).

³ In 2000, more than a quarter of a million students, representing almost 17 million 15-year olds enrolled in the schools of 32 participating countries (including 28 OECD Member countries), were assessed.

Figure 1: persons having attained at least upper secondary education by age group for selected countries (in percentage) in 1999.

Percentage of completion



Source: OECD, 2001a.

Three patterns of schooling

Based on the information provided by the level of educational attainments of the 25-64 year olds (see table 2 and 3 in annex 1), three “patterns” of schooling are distinguished. Their meanings for the issues on assessment-based competences will be discussed. To examine the level of educational attainment, the education system is can split into the:

- Completion of lower secondary. This includes the pre-elementary, elementary and lower secondary. At that point, children have mostly completed compulsory schooling and they around 15/16 year olds;
- Completion of upper secondary. The student have usually completed around 12 years of school;
- Completion of some tertiary education. All tertiary education is considered in the same group (non-university and university at the various levels).

The distribution of educational attainment in the 25 to 64 year olds (OECD, 2001a) follows three distinct patterns:⁴

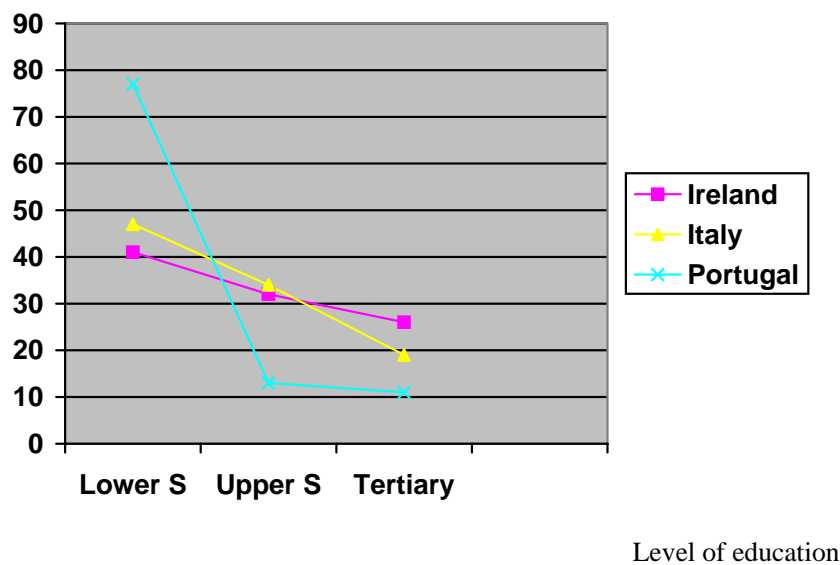
- Pattern 1: completion decreases from lower secondary to tertiary (see figure 2);
- Pattern 2: high completion at lower secondary and tertiary against a low completion at upper secondary (see figure 3);
- Pattern 3: strongest completion at upper secondary (see figure 4).

⁴ In one country, Belgium, the percentages of completion are almost identical in the three levels (respectively: 34,34 and 32).

Pattern 1. From lower secondary to tertiary: completion decreases. This pattern is characterised by the high proportion of the 25-64 year olds who have completed the very first levels of the education system: primary or primary and lower secondary. The extreme situation to be found in Portugal with 64 percent having completed primary and 13 completed lower secondary. At the total, 77 percent of the labour force did receive an education up to the lower secondary level. Ireland, Italy and Portugal follow that pattern.

Figure 2: Educational attainments of the labour force – percentage of completion of lower secondary, upper secondary and tertiary education, in 1999.

Percentage of completion

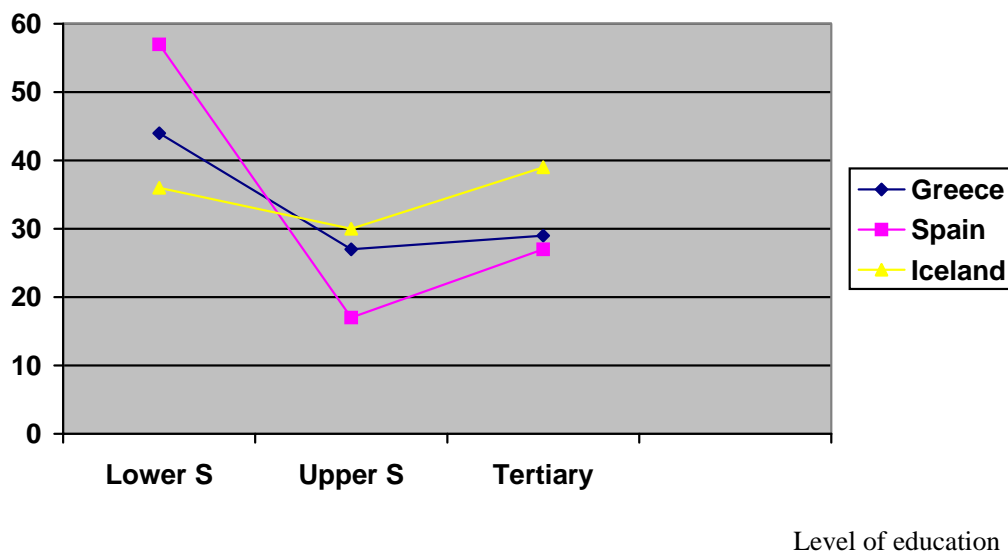


Source: OECD, 2001a.

Pattern 2 or the “V” pattern. High completion at lower secondary and tertiary and low completion at upper secondary. This pattern is characterised by high completion of both lower secondary and tertiary education when there is a quite low proportion of persons who completed only upper secondary. Spain is the extreme with 57 for lower secondary, dropping to 17 for upper secondary and increasing to 27 for tertiary. Spain, Greece and Iceland follow that “V” pattern.

Figure 3: Educational attainments of the labour force – percentage of completion of lower secondary, upper secondary and tertiary education, in 1999.

Percentages of completion

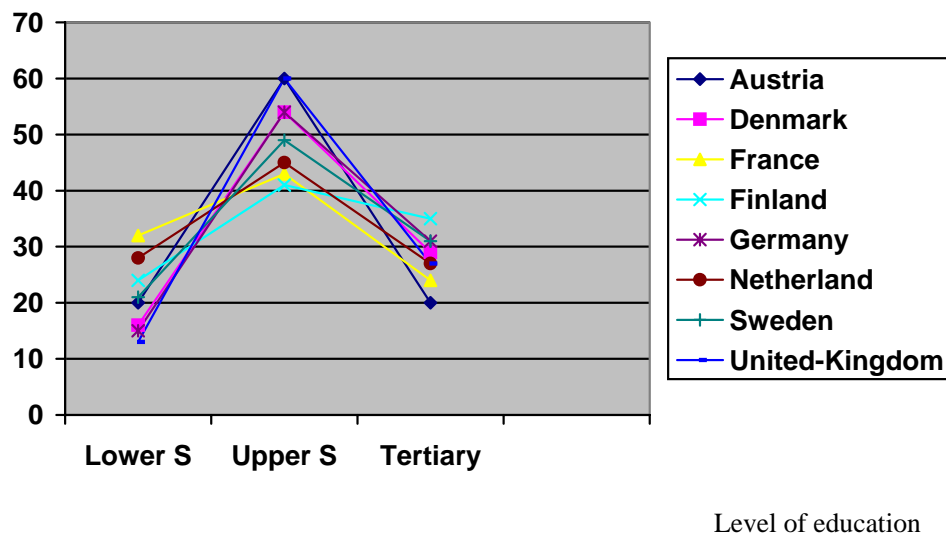


Source: OECD, 2001a.

Pattern 3. High upper secondary completion. This pattern is characterised by a high proportion of the labour force completing upper secondary. Most of the Member states are included in that case even if the completion rates differ strongly. In these countries, from 15 (Germany) to 28 (France) percent of the labour force completed only the lower secondary; while most of the population (from 41 to 60 percent) completed upper secondary. Completion of tertiary goes down. This pattern comprises eight member states: Austria, Denmark, France, Finland, Germany, Netherlands, Sweden and the United-Kingdom.

Figure 4: Educational attainments of the labour force – percentage of completion of lower secondary, upper secondary and tertiary education, in 1999.

Percentages of completion



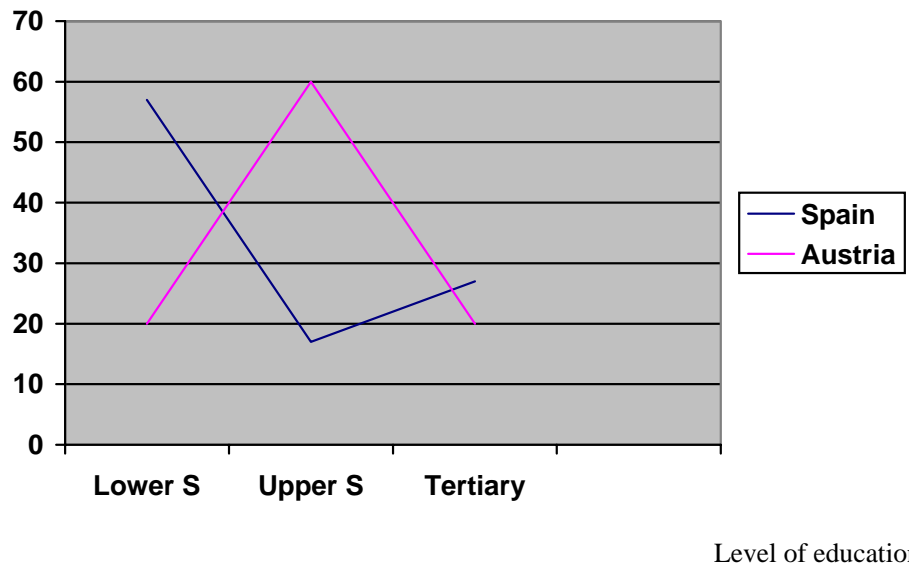
Source: OECD, 2001a.

The differences of educational attainments and, therefore, in the skills and competences of the labour force in countries can be very dramatic as it is illustrated by Austria and Spain (see figure 5). They present “opposite” characteristics except for the tertiary education. More than half of the labour force (25-64 year olds) completed lower secondary in Spain (57 percent) compared to only one person out of five (20 per cent) in Austria. For individuals, consequences in terms of jobs requirements, mobility, and general understanding of changes in society may be far more difficult with a lower lever of educational attainment. The differences are as strong for the upper secondary level: in Spain, 17 percent of the labour force completed and in Austria, 60 percent did.

Many historical elements may explain these contrasts. Nevertheless, present and future economic and social developments are affected. Educational policies have to face that situation. Lifelong learning is part of the answer. Different patterns of attainment are associated with differences across countries with respect to the structure of their economies, productivity levels, income and patterns of employment. But, globalisation and European Union integration is pushing to convergence towards higher levels.

Figure 5: Educational attainments of the labour force – completion at lower secondary, upper secondary and tertiary levels for Austria and Spain (in percentage), in 1999.

Percentages of completion



Source: OECD, 2001a.

Since 1995, new literacy indicators attempt to capture qualitative dimensions of skills and competences (OECD, 1996a; 1997; 2001b). The results reported in 2001 concern 25-64 year olds across 20 countries and they provide similar information to the analysis of the stocks but, probably in a cruder manner, more strongly or dramatically concrete. Findings points to

large differences in the average level and population distribution of literacy skills both within and between countries. The relation between literacy skills and educational attainments is complex. Nevertheless, the results highlights that policies directed towards work place and family settings are needed. Once more, these surveys indicates the difficulties low literacy levels represents for lifelong learning policies: participation being link to higher levels of literacy.

Lessons for educational and training policies

1. Efforts to fill up the gap. For the countries with a high proportion of the labour force having completed school only lower secondary, the effort made between the oldest and the youngest generation was multiplied by two (or even by four as in Spain). For the countries that reached a higher percentage of the population with completion at the upper secondary level, the effort range from 1.1 (Germany), 1.2 (Denmark) to 1.8 (France). This measure cannot be looked upon independently from levels of completion of the two extreme age groups (youngest and older) (See table 4 in annex 1).

In quantitative terms, considerable progress has been made. The recent surveys on adult literacy and on student achievements show that while positive, this quantitative trend will not solve all the questions. Qualitative issues are present in countries with high completion rates: more young pass through the system but with what outcomes? How well are they equipped to face current and future social and economic developments? How can 25-64 year olds face organisational, economical and social changes?

2. Large differences in completion rates remain. Skills and competences of the labour force, 25 to 64 year olds, vary strongly between Member states. In some countries with a long standing tradition of education and training, the older population has already benefited from it. These good results have happen though initial vocational education as in the dual system in Germany or though education of more general nature as in Denmark, Norway, Sweden, United States and Japan. In other countries, many efforts were made in the recent decades to “fill up” the gaps and to enable young people to complete more years of schooling. This educational policy pays off even if very serious inequalities remains between countries (in Germany, 85 percent of the 25-34 year olds finish upper secondary while in Portugal only 30 percent do). Clearly, educational policies can apply a variety of direct tools to improve the situation: some related to the increase of initial general education or vocational education and training, some to stronger relations with enterprises to promote alternating school-enterprise learning.

3. The “second chance” dream did not happen. “Second chance” education was a dream of the 1970s. It was imagined that continuing education, recurrent education or “*éducation permanente*” would help to improve the situation left by initial education; what one could not reach through initial education could perhaps be achieve with a “second chance” in continuing education and training. In the countries mentioned above, most of the good results in initial education and training were reached without continuing education or any strong second chance policies.

In the 1980s, one particular aspect of the “second chance” approach was based on increasing enterprise financial role. In many countries, continuing education and training of

the labour force was under the responsibility of and paid for by enterprises; in some countries, it was regulated by law (as in France). When unemployment rose, the employment public service, usually through ministries for labour and or employment, supplied education and training for adults especially the unemployed. In this aspect, “second chance” has more a meaning of updating skills and competences for the labour market and less for self-development purposes.

In the 1990s, another aspect centred on self-development was the establishment of new ways to enter or “re-enter” education and training programmes at secondary or at tertiary level. The requirement that adults should not learn what they already know and, the idea that people learn in many places, gained influence. It meant to accept that adults learn through their vocational, social, cultural and family experience even if they had few years of formal schooling. In addition, this could well be taken into account in the skills and competences of individuals in a country. Progressively, recognition of competences independent from education and training emerged.

4. Recognition of skills and competences. In the 1990s, it became clear that increase in initial education participation alone would not be enough to face the challenges and in particular, to fill gaps in education and training. Second chance and more especially, recognition of skills and competences acquired in school and outside school, in vocational experience or elsewhere should be seriously look upon as it is a major source of learning for most individuals (in general and in SMEs in particular).

These ideas have evolved considerably even if results cannot always be quantified⁵. As a general comment, quantitative information on continuing education and training as well as on the outcomes of recognition of skills and competences are yet very difficult to assemble. The methodologies for gathering quantitative information are in their early stage, which means that when data exist, they are still difficult to compare. Often, no data collection exist. Most of the time, data on enrolment in an education programme through “prior learning assessment” exist, but there is no information collected on the outcomes. For example, there are few data on the amount of learning that is accredited or the proportion who, having been admitted on the basis of PLA, acquire certificates or diplomas. There are little data on how many individuals enter through recognition of prior learning succeed in getting the award (diploma, certificate). Today, it is virtually impossible to present a proper estimate of the quantitative outcomes of ABC in European Union.

Having in mind certain low completion rates (see figures 1 to 5), how could it be possible to increase access to the initial vocational education and training? How can experience be taken into consideration? How can the system be made more flexible for all individuals regardless of their age, by the creation of “modules” and pathways? How can the coherence of education and training be maintained while recognising that learning taking place for example in enterprises? Could modules be added without additional requirements to reach a diploma?

⁵ Reports on “National policies and practices on validation of non-formal and informal learning” are under preparation in the framework of the Forum on Transparency of Vocational qualifications. One deals with the policies and practices in member States; another concerns policies and practices in the candidate countries (see ETF Note, May 2002).

How can ABC increase the general education level, employability and mobility?

How can the assessment based on competence contribute to an increase in the general level of education of the population? How can it help employability and mobility? In the framework of lifelong learning, assessment based on competence can contribute by setting in place different principles:

- Centrality of the learner;
- Modules and pathways for coherence and transparency;
- Non-formal learning should be recognised and certify (for example, adults should not learn what they already know);

Centrality of the learner

Since the 1970s, the emphasis on adult education has been strong. Often, adult education was considered as an incubator for innovations to be proposed to initial education and training. As a fact, education and training provision grew outside formal education and training: the private sector, enterprises, commercial providers, and professional associations. When the participation rate increased, the institutions delivering education and training diversified. General vocation education and training was in search of a new balance and, lifelong learning of growing importance. For many years, a major issue was “how could formal education system evolve by taking the results of that outside education and training into account”? The integration of innovations into the formal initial education and training system raised the issues of the assessments. If learning processes are different, do assessments have to be different too? If so, can the school system (formal system) integrate these assessments into its own system, its own criteria, and its own value?

In the 1990s, evolution like the knowledge based economy; new technologies; growing speed of technological changes and globalisation are some of the elements influencing the needs for improving skills and competences of the population. Lifelong learning has been emphasised as a major element enabling economic competitiveness, employability, and individual fulfilment and self-development (OECD, 2001c, European Union, 2002). The development of lifelong learning takes the form of greater participation in education and training programmes. It means learning elsewhere, outside public educational and training setting and even outside structure and organised learning situations. Progressively, it became obvious that a part of the concept behind the “second chance” project had to remain: *people should not have to learn in a formal setting what they already know regardless of where or how it was learned, and this in whatever situation they learned it.*

The approach “Do not learn what you already know” has two consequences:

- It means one has to assess what has already been learned so that the individual can “skip” that part of an eventual education or training programme;
- It applies regardless of where the learning took place: one had to be able to assess learning that has occurred in other school or training setting (this is relatively easy) as well as in any un-structured situations and contexts. The latter becomes more complex.

What counts is the learning taking place and not the learning setting in which the learner is place. As a result, learning is viewed as independent from settings, age and

duration. This represents a major and substantial breakthrough for adults. The questions raised then were:

- How exactly are these competences acquired if there is no education or training? How can they be defined and specified?
- How can these competences be assessed? Against which standards should these competences be assessed? Assessed by “whom”, by what authority with which legitimacy?
- Should (could) the educational system be flexible and coherent enough to accept these competences once assessed? Should there be a broader “Lifelong Learning Framework”?

In the 1990s, diversity appeared in certification. The diversity showed up with mechanisms centred on the individuals (check-up of competences, prior learning assessment; portfolios, passports) and on institutions (pathways and modules that were parts of national frame defined by standards).

Modules and pathways for coherence and transparency

In the early 1990s, “modules”, “pathways” and the issue of transparency grew: how could an individual, educated and trained in various settings, be sure that his or her learning would transfer from one system to another, and accumulate or “build on blocks of learning”? How could one ensure that training in one enterprise would be portable to another enterprise or into a higher education programme? How could the newly acquired skills and competences be made visible and be recognised by social partners, and therefore, ultimately, be taken into consideration in collective bargaining agreements? How can transparency be ensured from one country to another?

A major difficulty could be characterised as the tension between flexibility and coherence of the formal education and training system. It seems that an increase of one is at the cost of the other. Some countries have very flexible systems, but lacked coherence. Other countries with strong national standards usually have education and training systems extremely coherent but, to schematise, with criteria for access and certification that are quite rigid. Countries and experts have struggled to reach a balance. Today, the tension between coherence and flexibility seems essentially to be an issue of political will and of time needed to establish national standards.

Non-formal learning should be recognised and certified

By the middle of the 1990s, new steps were taken. It was widely recognised that some skills and competences remained invisible, at least in theoretical terms. The individual became central to lifelong learning: wasn't he/she learning? Wasn't he or she learning in different setting? Wasn't he or she learning here and there, in school, in training, but also at home, in social life and at work.

The diversity of learning settings and variety of actors and stakeholders involved meant that some forms of learning risked staying invisible. It was acknowledged, in the mid-1990s, that individual learning needed to be recognised in ways that captured its lifelong and life-wide nature. This was manifested in the European Union White paper on “Teaching and Learning” (1995) and in the OECD Ministerial (OECD, 1996b). Moreover, 1996 was the year

of lifelong learning and several of the major international organisations hold conferences and devoted resources to examining the issue (Unesco, 1996; European Commission, 1995; OECD, 1996b).

In its White Paper on “Teaching and Learning, towards the learning society” (1995), the first objective proposed by the European Commission was to encourage the acquisition of new knowledge: to “build the learning society”. The recognition of skills appeared as the first element implying the cooperation all European players concerned (p. 34). It was stated that “in parallel with a “paper qualification” [formal qualification], we need to make the best use of skills and abilities irrespective of how they were obtained and to enhance everyone’s potential by catering more closely for the need of the individual, business and industry. What is needed is a more open and flexible approach. Such an approach should also encourage lifelong learning by allowing for and encouraging a continuing process of skill acquisition.” (p. 15). The White Paper suggested a way forward that did not detract from the “paper qualification”, but on the contrary, helped to maintain its quality and to recognised partial skills on the basis of a reliable accreditation system (p.16). It was argued that voluntary adopting of such an accreditation system in Europe, involving universities, chambers of commerce and specific business sectors, would complement the formal qualification system and would in no way be a replacement” (p. 20).

Very similar concerns were expressed at the Meeting of the Education committee at ministerial level (OECD, 1996b). Three major objectives were emphasised: to reinforce basic knowledge; to improve transitions and pathways between education and employment, and to clarify the roles and responsibilities all actors, public authorities, social partners, families and learners themselves. The linkages between schools, work, training and continuing education considered to be too rigid. Ministers agreed that these aspects would need careful attention in the future. It was recommended that steps needed to be taken to improve mechanisms to assess and validate knowledge and competences of individuals, acquired through formal or informal learning (OECD, 1996b, European Commission, 2002, p. 21).

Provisional questions

Recent experience in assessment based on competence, in assessment of competences, in assessment of non-formal and informal learning has raised some other issues:

- Could there be certification of competences independently of the certification provided traditionally by the education and training public authorities? Could several certification systems co-exist? With a status (a legitimacy) equal to the one of the formal education systems?
- What kind of quality assurance would apply to such certification systems?
- Can “independent” systems acquired the necessary quality and legitimacy? Would they increase the possibilities for the individual to build easily pathways from one recognition of learning to another?

This brief overview on recent trends identifies several issues to be debated in countries and steps to be taken to ensure the integration of the assessment based on competence in lifelong learning policies. Today, some issues remain still quite untouched: for example, the status of non-formal and informal learning or, the involvement of new actors and stakeholders. These issues will lead to a new sharing of roles and responsibility in standards setting, the provision of education and training and in certification of competences.

4. European Union policies and on-going practice in ABC

This section will present:

- **An overview of experiments in EU countries.** The experiments reviewed range from National Vocational Qualifications (NVQs) to more recent Prior Learning Assessment (PLA) approaches in the continental Europe, check-up of competences⁶ as well as certifications based on European and ISO norms in occupational and professional domains.
- **The conclusions will stress the elements that must be present** in the countries developing “assessment of competences” (and recognition of non-formal and informal learning). In particular, two dimensions will be emphasised: the standards and the modularisation of education and training.

Overview of national policies

In several countries, attempts and experimentation in ABC⁷ are frame in law. At the origin, one finds a shortage of certain level of workers (craftsman or engineers) which could possibly be tackled by a recognition of experience or learning through adulthood. The issue of recognition of competences “acquired outside the school programmes” is not fully new or recent. Attempts and legislations were promoted already many years ago and, in fact, as far as half a century in the case of the GI Bill in the United States.

Old attempts

Presented by chronological order, these attempts were proposed in the 1930s, 1950s and 1970s.

A French legislation, passed in 1934, makes it possible to award an engineer title on the basis of professional experience. Individual above 35 year olds with at least 5 years of professional experience in the area of engineering can be awarded the title of “Engineer graduated by the State”. The procedure includes an interview based on the past accomplishments of the candidate followed by the oral presentation of a written report on the main activities for which they are likely to have responsibility for as engineer. For each specific Title, a particular engineer school is concerned.

The Norwegian Act on vocational training enacted in 1952, authorises individuals to take the crafts examination based on the practical work experience. It stipulates that the craft examination may be taken without any contract of apprenticeship by those who have not less than 25 per cent longer practice in the craft than the period of apprenticeship. Since 1990, this became a very popular scheme (Bjornavold, 2000). The Norwegian Adult Education Act of 1976, promoted the right to have competences acquired outside the formal education and training system formally certified. Nevertheless, this has not been widely used.

⁶ Use for “bilan de competences” which could also be translated by “Inventory of competences”.

⁷ ABC includes assessment of non-formal and informal learning.

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The authorisation given by the State to develop these certificates was released at the end of the 1980s. The Branch or professional sectors are in charge to define, organise and certify. These certifications, valid for a branch (or sector), are not national. These certifications are under the responsibility of professional sectors (or branches) and social partners have full responsibility.

Some certification or “qualification recognised in a sectorial collective agreement” also exist. The strong involvement of the social partners is clear and, in that case, the collective agreement would include an explicit reference to that certification. The social and professional value goes with the coverage of the collective agreement.

Next to these several certifications and mainly under the pressure of proposing a better recognition system for adults learning on a non-formal basis, several innovations and experimentations are taking place since several years. It has to be mentioned that individual can access to a “diplomas” through the “validation des acquis professionnels” (VAP) or the prior learning assessment. Under certain conditions, working experience will be recognised as providing identical learning outcomes as certain components of a diploma. The Ministry of Education has established a process of assessment since 1992. Nevertheless, for the question examined here, namely, the role of the social partners, this VAP does not change anything. Therefore, the VAP is mentioned under “established complementary certificates” and not under “innovations and experiments”.

In 1958, Belgium passed legislation, modernised in 1998, to promote access to self-employment to start a business. For certain occupations, the certificate required to start a business can be obtained through central examinations (federal ministry of self-employment) or recognition of relevant experience, if a candidate prove that he or she has worked at least 5 years during the last 15 years in that specific occupation. In addition, in case of the death of a self-employed, the surviving partner can continue the business if he/she can prove having lived for three years with the deceased person who had worked as a self-employed person running a SME.

In 1974, in Germany, the “*bildungspass-qualifizierungspass*”, a sort of portfolio was created in which, a person voluntarily documents experiences and practices as well as education and training to provide a more complete picture of skills and competences. It was never a success. From 1974 to 1993, 340.000 of these portfolios were completed (Colardyn 1996, p. 90).

Recent developments

The Member states can be grouped based on pattern concerning the rate of completion in lower, upper and tertiary education (see section 1). Within a pattern, Member states develop similar national policies. These policies are more or less extensively complemented by practices launched by sectors, enterprises, NGOs or other stakeholders. The assessments lead to recognition tools that have a legal value more or less widespread.

In countries with high rates of completion of upper secondary education, recent laws or experiments complement the formal system. This is the case in Denmark, France, Germany and the United-Kingdom. Ireland and Italy, which still have lower rates of completion of upper secondary education, have devoted energy to re-designing a comprehensive system. Recent experience is presented below.

High upper secondary completion.

For several countries in that situation, policies are proposed to get even higher completion rate or to increase the general level of the labour force.

Sweden

The “*Kunskapslyftet*” makes it possible for the communities to offer education to upper secondary level (general and vocational). It is financed by the state. An individual can validate what he or she has learned by different means to avoid a situation where the training given does not fit the needs of the individual learner. This possibility has obviously opened up for many activities of assessment and validation. According to a survey, almost 8000 individuals (300 with foreign background) were “validated” during the year 2000. The total time spent is estimated to match around 70.000 weeks of study corresponding roughly to a mean of 9 weeks per head. Of course, there is a lot of variation, but these figures give an impression of a new and growing phenomenon in Sweden.

Denmark

The Adult Education Reform undertaken in 2000 includes assessment of competences acquired through work. Initial and adult systems are integrated. The initiative creates no new educational programme, but reorganises existing education programmes. It shares target, level, competence and final exams with the initial vocational education and training. The new law gives a right to credit transfer into a corresponding education or vocational education and training programme. The competences are assessed, including working experiences; the supplementary (residual) education needed to obtain the final exam is defined. In that system, each individual has a personal education plan. The admission requirements are to be at least 25 years of age and to have at least 2 years of relevant work experience as well as theoretical qualifications corresponding to lower secondary education level. The programmes of the ministry for labour give credit transfer into vocational education and training. These modules are expected to make up a major part of recognition in the new adult education.

For the higher education level, the system is not integrated. At advanced levels, the system is a “parallel competence system”. Admission criteria consist of a relevant educational background in combination with at least two years of relevant work experience. The continuing education programmes differ from the “ordinary” programmes as to content, organisation, duration and profile. The work experience is not credited as part of an individual education plan and therefore, it cannot shorten the education programme. The continuing education programmes are based on the interplay between theory and the adults’ experiences (work and elsewhere).

France

Since 1985, a law enables individuals who have stopped studying for at least 2 years and have acquired vocational experience (through work or personal activities), to access a level of higher education. This allows entrance into higher education except for the medical and pharmacology domains. In 1992, the law on *Validation des Acquis Professionnels* (Validation of Prior Occupational Learning) enabled individuals with 5 years of vocational or occupational experience, to be exempted from certain exams leading to a diploma (national certification from the Ministry of Education). Candidates present a “portfolio” describing in details the posts held and the occupational experience (various tasks and functions). This written report is then presented to a panel (Jury) of teachers and professionals of the domain concerned and the jury can give credits for courses belonging to the programme (no examination is then required for these courses). This is applied also to higher education institutions.

These possibilities were expanded in 2001 to certificates delivered by the Ministry of employment (Certificate of Vocational Training delivered by the *Ministry of Employment*, AFPA). Since early 2002, the law on “*modernisation sociale*” regulates the recognised non-formal learning as long as it corresponds to the national standards. As the “*décrets d’application*” were passed in May 2002, this leaves some questions unanswered.

Germany

Since long ago, the dual system represents the most important part of the initial vocational education and training (see table 2 and 3 in annex). For many generations, around 70 percent of young people were trained in the dual system. In terms of amount of certificates, the outcomes are not to be demonstrated. It is important to keep in mind that the dual system was not intended to be a lifelong learning instrument, but an initial training one

(Bjornavold, 2000). The Law on vocational education stipulates that the aim of the final examination is to determine if the applicant has the requisite competences, the practical and theoretical necessary knowledge and is familiar with elements of the curriculum relevant to a particular employment⁸.

The certification in the dual system is a combination of three certificates: one based on a national examination, a certificate from the employer and one from the local school. The three certificates differ insofar as they each are related to different institutional mechanisms. Together, they form a standardised certification that certifies a minimum of competences. In the dual system, part of the certification can be considered as recognition of experience. In fact, the employer certificate that gives information based on long-term observation and assessment in the work situation is a type of assessment based on competence taking place in work setting. In addition, the employer certificate has a legal status as a work reference provided by the employer (not as recognition of competences or as recognition of non-formal learning). The employer certificate follows legal specifications.

The structure of the dual certification is “mixed”: it contains internal and external elements; it assesses qualifications and competences. It answers the objectives and standards proposed by the employers, the unions, the federal and the Landers authorities. The employer and the school certificates are more open while they nevertheless fit into strict national requirements expressed by the national standards. There is a strong combination of work place requirements, occupational and training standards. Co-operation between social partners, federal and regional authorities is very strong and is at the basis of the system.

United-Kingdom

The National Vocational Qualifications (NVQs) was the first extensive national initiative (on the level of a country) to propose a credible alternative to the traditional school-based education and training. It gave the opportunity for recognition of both learning through work experience and to the combination of learning “in and out” of school (or any other formal learning setting). The NVQs are called the “vocational route” and co-exist in “parity of esteem” with the academic and the mixed route (general and vocational qualifications).

The NVQs are job specific vocational qualifications aimed largely at people who left full-time education. The NVQs are part of the national qualification framework and as all the qualifications entered into it, they are submitted to prior accreditation by the Qualification and Curriculum Authority (QCA). The NVQs follows specific criteria more directly related to prior knowledge, attainment or experience. This is more specially the case of the NVQs as candidates do not necessarily have to follow any course or programme of learning. In that sense, the NVQs do not distinguished between formal, non-formal and informal learning.

Completion decreases from lower secondary to tertiary education

Ireland

⁸ Standards are national and a short description of the “training profile” can be found on the web site: www.bibb.de (English and French).

In 1999, the Qualification (education and training) Act provides the framework for accreditation of prior learning. Individuals are allowed to receive academic credit gained from learning achieved through work, leisure activities, and community services. Courses, programmes, apprenticeship, training, employment are recognised as learning opportunities leading to prior learning recognition. Prior competences are assessed and recognised against a national standard, the main element of the national framework. In 2000, the programme for Prosperity and Fairness was agreed between the social partners. In the section on lifelong learning, it stated that one of its objectives is “to promote the quality, responsiveness and relevance of the education and training system, both formal and non-formal, in meeting personal, social and economic needs and in promoting citizenship, social inclusion and community advancement. A key action in the programme is the provision of mechanisms for accreditation of work-based learning and of prior learning”.

Italy

Recently, education legislation and the main collective agreements have introduced important innovations in education and training, in particular with regard to the integration of the systems with the certification and recognition of credits. Such innovations are considered as fundamental to ensuring individuals’ opportunities to access competences throughout working life. Moreover, guaranteeing access is one of the basic elements. These reforms have convinced the institutions and the social partners to set themselves ambitious objectives, such as: extending compulsory schooling and raising the qualifications required to enter the labor market; ensuring the continuity and integration between learning, training and work pathways; and increasing the possibility to actually capitalize work experience and learning. The different social and political institutions have gradually converged towards the redesign of training supply, the aim being to put into place a multiplicity of learning opportunities and places, guaranteeing the equality of the different pathways. This wide reform process with its common and strong principles and also with its institutional governance, can today be considered a national policy that moves in the direction of validation of non-formal and informal learning, even if, for now it still is limited to the aim of access to training.

Other approaches

Assessment can also occur independent of education and training programmes. These assessments are strictly centred on outcomes of learning and not on the search to complement or to open access to formal education. Three approaches exist: the check-up of competence⁹; the certification of competences and the attendance certificates.

The check-up of competences

France

As early as 1986, the Ministry for Employment created the public Assessment centres called: *Centres Interinstitutionnels de bilans de competences* (CIBC). These centres carry out “check-up or inventory of competences” that aim to enable employees to analyse their

⁹ Or inventory of competence.

occupational and personal competences, aptitudes and motivations, to define an occupational plan or a training plan. Today, they are organised in a network (see website): there are around 110 assessment centres all over France. If they wish to, they can associate the social partners or particular actors to their governing board. Private assessment centres also exist. In principle, the check-up of competences¹⁰ provides an exploratory approach to competences: there are no standards against which to assess the competences. The check-up of competences serves as a tool to help the individual to explore his/her potential and develop a personal plan (education, training, career development).

Since 1991, the Law enables individuals with 5 years of work experience (including one year in the present enterprise), to have a 24 hours leave to carry out check-up of competences. Professional as psychologists helps individuals construct their own “life, education or occupation projects. The very positive dimension of this approach has often been underlined for individual in long-term unemployment, for example. The European literature on non-formal learning (CEDEFOP, 2000) views the check-up of competences as a “formative” type of assessment.

Belgium (Fl.)

“*Kompas*” in Leuven and “*Omschakelen*” in Antwerp exist for more than 10 years. *Kompas* started initially with workingwomen, but now both organisations are working with all individuals (employed, unemployed, self-employed, school-leavers) seeking guidance in better combining working life and private life. The result of such a guidance process could be that the individual undertakes a sailing trip in the Pacific, finds a new professional vocation, or goes back to study/learn something different. The methodology is based on different techniques such as self-analysis; self-evaluation in group-sessions; and individual face-to-face talks about ambitions, expectations, (learning to) set personal goals, constructing a portfolio, matching with opportunities in the labour-market. The result is an individual action plan with considerable attention to the “process”. The individual has to pay for the service.

The certification of competences

At European level, the Council resolution of October 28th, 1999 on the role of standardisation confirms that “standardisation is a voluntary, consensus-driven activity, carried out by and for the interested parties themselves, based on openness and transparency, within independent and recognised standards organisations, leading to the adoption of standards compliance with which is voluntary” (article 11). Within the strong European standardisation that has been developed, a European norm on certification of competences of personnel exists since 1989 and has been signed by 18 countries (Council resolution, 28 October 1999 – 2000/c 141/01).

The Norm EN 45013 sets out the criteria for certification bodies that operate certification of personnel. After an audit, accreditation bodies accredit the certification body against this norm. This is an important precondition for mutual recognition. This audit would then attest that the Certification Body operates in accordance with the EN 45013. The certification of conformity is an action by a third party, attesting the fact that an identified product, process or service (what a person does) is in conformity with a specific standard or

¹⁰ It is not an assessment.

other normative document, here the assessment standards (assessment specifications). The European standards specify general criteria that the certification body follows in order to ensure that it is recognised at a national or European level as competent and reliable in the operation of a system of certification of personnel, irrespective of the sector involved (Clause 1 – guidelines on EN 45013, September 1995). This Norm is under scrutiny to be transformed into an ISO norm. It would then be applicable to a larger number of countries including outside Europe.

The EN 45013 stipulates that standards have to be defined and have to include description of the competences and of the assessment procedures and methods. But, it does not define the educational or occupational standards (employment specifications) to assess competences. The standards are approved by a committee or a board including all the interested parties. After acceptance, the assessment (assessment specifications) are published and can be consulted and obtained by all individuals. The assessment standards (assessment specifications) are accessible to all individuals and enterprise. The certification body is responsible for ensuring their regular update.

Implementation of the EN 45013 exists in different countries. For example, in **Belgium**, certification for welders (Belgian Institute For Welding Techniques); in the construction sector (VCA-attest), heat and refrigerating (STEK- certificate); in **France**, the Certificates awarded by the ACVC followed that same European norm. It is to be noted that individuals (not courses) are certified.

A different approach gives a “label” to training programmes: this uses the ISO norms and standards. ISO is the International Organisation for Standardisation. It creates national standards institutes in countries and develops voluntary standards, which are intended to add value to all types of business operations. Published under the designation of International Standards, ISO standards represent an international consensus on the state of the art in a particular technology (which can be education, training and assessment of competences) (ISO, 1998). Many training providers as well as educational institutions (such as higher education institutions) have ISO labels, especially when dealing with foreign countries. The ISO label certifies the training provision, not the individual following the training.

In Ireland, a sector example is given by the Industrial Abattoir Worker – Beef Sector. It attempts to equip trainees with the skills and knowledge which will enable them to carry out their work to the highest international standards of best practice with particular emphasis on food safety and quality. It is targeted to new entrants to the sector as well as existing workers and the partners involved are the representatives of industrial abattoirs in the beef sector and the National Training Agency. The sector provides training of workers as well as access to APL certification. Today, eleven centres have been approved: all are in the process of training employees and no learners have been certified yet. The certification by Further Education and Training Awards Council (FETAC) and the learners will receive the same certification as all learners in Further Education with access, transfer and progression opportunities

Attendance Certificates

Many short education and training programmes only provide the individual with a certificate indicating his or her participation. They, generally have, no value or recognition outside the institution that delivers them. In this case, everything from the standard definition

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to the certificate is left to the local enterprise (in which training takes place) or to the local education and training institution.

Conclusions: a principle and a priority

The short overview of experiences in Member state emphasises two dimensions: a principle which is the existence of a strong link with the national standards; and a priority, that is the modularisation of education and training.

National standards¹¹

All experiences presented link to national standards either educational and training (learning specifications) or occupational (employment specifications). In fact, education and training standards (learning specifications) derive from occupational standards (employment specifications): they define the education and training process needed to be able to perform the occupation described in the occupational standards (employment specifications). It is because of this relationship between occupational standards (employment specifications) and education standards (learning specifications) that in certain countries (United-kingdom, Ireland), the units of competences that are defined with regard to occupational standards (employment specifications), can also be included as a building “block” into the construction of a qualification.

The links to national standards ensures the principle of unity, coherence and transparency.

Modules

Implementation is based on a priority: to organise education and training into modules. By definition, the competences assessed represent a unit or a module which could (most of the time) otherwise be awarded through an education and training programme. The addition of units of competences (equivalent to modules) can lead to the award of a certificate or diploma (defining a qualification). There are some variations on the principle of adding modules to reach a qualification. The **transfer of credits can be “incomplete”** which means that the sum of all modules acquired by PLA cannot lead the individual to a diploma or to a qualification. The person has to follow at least one course and to pass one examination. The **transfer of credits can be complete** which means that a certain (pre-defined) addition of credits gives a recognised diploma or qualification.

5. Assessment of competences and lifelong learning

This section explores briefly some principles, methods and practices of assessment¹². Once a country has developed national standards and organised modules, then the assessment practices diversify. Mainly, this happens where the completion rate at upper secondary is

¹¹ Only the check-up of competences does not refer to standards and its specificity lies in the openness of the procedure. It helps to design a new career or training prospects; it does not assess the competences against any pre-established standards.

¹² Further developments will be presented in the final report.

high relative to the other sectors of education but it also is occurring in Ireland (which follows the “V” pattern).

Broadly, there are two distinct approaches of assessments practices:

- **Approach 1:** assessment is formative, input-driven, centred on the education and training procedure and link to educational standards (learning specifications);
- **Approach 2:** the assessment is summative, outcome driven, centred on results achieved and link to occupational standards (employment specifications).

Approaches are not “better” one than the other. The choice is not “one or the other” but, “when to refer to one and when to refer to the other”? Each approach has its own objectives and is, therefore, better design to tackle certain purposes. In a country, the two assessments approaches could and probably do (or will in a near future) co-exist for the large benefit of individual. **It also means that the two approaches should co-exist in Member states. Both assessments approaches are competence-based because this depends on the standards see ETF, 1998 to 2001; Deij, 2001) and not on the choice of a formative or a summative assessment.**

The development of lifelong learning policies forces countries to set in place formative assessments and summative assessments; assessment which are input driven as well as assessment which are outcomes driven. In fact, the diversity of learning opportunities to validate increases dramatically with the development of lifelong learning. The assessments have to respond to that diversity: assessing on-the-job acquired competences of the 40 year olds requires a different assessment methodology than assessing competences acquired in a general education programme at lower secondary level for a 12 year olds.

Today, when examining the policies and practices in the various Member states, one can find enough good examples of different assessment practices to considered that technically, the issues are mastered enough to debate these practices in terms of the pillars for the implementation of a lifelong learning policy.

Partners countries apply certain assessment approaches more than other as they are directly relevant to their culture and the education characteristics of their labour force. The development of lifelong learning policies will be a opportunity to develop assessment based-competences with its many aspects: for young and for adults; for initial and for further education and training; for formal and non-formal or informal learning.

Assessment supposes a confrontation to a set of information or to pre-established criteria. Assessment is the confrontation of the actual results or performance to a reference being considered as a “norm” known as the “standard”. By a *legitimation* (legitimacy) process, the standards can have a national recognition. Then, they are “national standards”. Broadly speaking, the standards specify aims to be achieved. It can be the objectives set up for what has to be taught or the outcomes of competences actually used in practice by individuals.

Most of the experiments mentioned above refer to standards (even if they refer to different ones). They refer to national educational standards (learning specifications) or to national occupational standards (employment specifications). The check-up of competences can be treated as guidance and counselling practice rather than as assessment. Nevertheless,

the method use for documenting competences is of interest and will be review later in the section.

Specifying two approaches

The formative and the summative approaches of assessments apply in formal learning. For non-formal and informal learning, as well as for the linkages with formal qualifications (and formal learning), these two approaches could be specified the following way (see Table 5 in annex 1):

1. **Approach 1: Assessment is formative and links to educational standards.** In that situation, the assessment based-competence of non-formal or informal learning concentrates on what is called: “prior learning assessment”. Illustrations are provided with experiences in France and with the dual system in Germany;
2. **Approach 2: Assessment is summative and links to occupational standards (employment specifications).** In that case, the assessment based-competence of non-formal or informal learning concentrates on actual outcomes and is illustrated with the “recognition of experience” as in the NVQs (United-Kingdom) and in the CCE (ACVC in France, ACCP, 1999, Colardyn, 1999, 2001a). Other examples exist in Belgium.

Overview of formative and summative assessments practices

Some examples will be provided for each approach. Sometimes, the examples show strong linkages between formal and non-formal learning (VAP in France; dual system, in Germany), sometimes approaches remain separate (certification of competences). The conclusions will debate **each of these options**.

Approach 1: formative assessments

In the case of formative assessment, the assessment links to educational standards. In non-formal learning, practices of assessment of prior learning emerge and relates strongly to (national) qualifications. Examples can be found in France and Germany.

France

The [diplomas](#) of the [Ministry of Education are based on](#) the national standards composed by:

- The occupational standard (*référentiel d'activités professionnelles*) describes the content and the organisation of tasks and activities, the conditions, aims, objectives aimed at. It groups occupational activities close enough to form an entity;
- The diploma or certification standard (*référentiel de diplôme*) is an inventory of capacities, competences and knowledge requested for the award of the concerned diploma;

- The training standards (*référentiel de formation*) describes the programme and the pedagogical organisation of the education or training programme;
- The assessment standards (assessment specifications) (In France: *référentiel d'évaluation*) specifies by what means the pedagogical objectives will be assessed to ensure that capacities and acquired knowledge has been integrated.

The [social partners](#) (employers and employees) participate in the definition of the standards. For the assessment standards (assessment specifications), their participation is more limited: education authorities are in charge of the definition and the social partners comment it. This work is organised by the Consultative Occupational Committees (*Commission Professionnelles Consultatives*). For the assessment of prior learning (VAP), these standards are identical: only the mode of delivery of the diploma differs. Examples of some recent standards are published on the web site of the Ministry of Education¹³ - ¹⁴.

In the Ministry for Employment, the construction of the standards follow a similar procedure as does the assessment of prior learning. This procedure should expend with the recent Law (2002). After obtaining all the modules through PLA (each module ends with a Certificate of occupational competences), the persons sit for an interview to achieve the certificate (Certification of vocational training). The interviewer is required to ensure the full mastering by the person of the various prescribed "acquis". The jury is composed of professionals of the domain. [This is in an experimental phase and does not yet apply to all possible certificates.](#)

Deleted: 1

Germany

In the dual system, the final certificate certifies that the minimum level of requirements specified in the training standards and in the curriculum is achieved. The training profile comprises four points:

- The designation of the occupation (comprises legal aspects);
- The duration of the training;
- The field of activity: it describes the general context of the occupation and its components;
- The occupational skills describe the competences reached at the end of the training.

For the certification, a federal law defining all rules and procedures regulates certificates have to follow to reach uniformity in the requirements. The final certificate comprises three parts: an employer certificate, a school certificate and a national examination.

The employer certificate

¹³ This approach started in that ministry and has been expanded to several other as Agriculture, Youth and Sports.

¹⁴ **Example of standards:** some of the recent standards are published on the web site of the Ministry of Education. The complete set of standards represents around 50 pages and includes the various standards mentioned above. For more details (in French only), see:

<http://www.enseignement-professionnel.gouv.fr/info-pratiques/index.htm>

Then, select "les programmes et les diplômes (CNDP); then select "Brochures administratives". The standards are organised by level of schools (primary, lower secondary and Lycée) as well as by type of diploma.

This part of the certificate is a summative competence-based assessment based on what the individual did in the work situation; it is related to the occupational standards (employment specifications). It certifies that the achievements of the individual during the working period were in agreement with the specification that the training relates to (input-driven). It gives complementary information based on longer-term observation. Legally, this certificate is considered as a work reference provided by the employer. It follows legal specifications (prescribed by the law on vocational education and training).

The school certificate

This part of the certificate consist of a formative assessment: it is established by the education institution is a local certificate and it represent a “continuous assessment” of the student. Each Lander has its own particularities for this school certificate: it is a school report fundamentally different from the certificate provided by the employer.

The certificate based on the examination.

This part of the certificate consist of a formative assessment: it is a national test, uniform, administered to all individuals applying and aiming to assess minimum competences¹⁵. The enterprise and the school participate in the organisation of that examination. The financing comes from the employers involved in that training. The federal government finance though the participation of teachers in the juries.

The two formative competence-based assessments certify the potential of an individual to perform in particular employment and relates to the educational standards (learning specifications). Individuals have learned all elements necessary to be potentially able to fulfil a job described in the employment specification (occupational standards). For one part, the assessment in the dual system strictly links to national educational standards (the national examination). For another part, the employer certificate, it relates to occupational references. Certification in the dual system presents an interesting combination. **However, the employer certificates does not have a certification value *per se*: its certification value comes with the two other certificates. Nevertheless, the employer certificate has some type of value as such, as it is a legal reference provided by an employer.**

Approach 2: summative assessments

For summative assessments, the assessment links to occupational standards (employment specifications). It has to be remembered that assessment can take place regardless of any education or training. In non-formal learning, assessments of prior learning and assessment of learning from experience (at work and elsewhere) exist. It can be totally independent from formal qualifications and/ or, it can relate to them. Examples can be found in Belgium (Fl), France, Ireland and the United- Kingdom.

Belgium

¹⁵ It is established and administered by the enterprises and schools that give an opinion as to the performance reached.

A methodology used for these assessments is the construction of a portfolio via self-assessment with high attention given to key competences. Examples of assessment can be found in sectors. The certification of welders by the Belgian Institute for Welding Techniques is an example of summative, outcome competence-based assessment in a sector. This association is also very active on European level and in different European projects. Similar approaches are identified in the construction sector (VCA-attest), heating and refrigerating sector (STEK-certificate), metal sector (e.g. corrosion), food and catering sector. A sectorial approach for car-repair (EDUCAM), electricians (VORMELEK) certification exists on two levels. Both the courses and the individual are certified. After examination of the individual the certificate is added to the "sectorial identity-pass". Two sectorial funds for white collar workers in the metal sector (VIBAM in Antwerp and LIMOB in Limburg) are active in guidance and counselling activities based on formal and non-formal learning for human resource development purposes and from a broad concept of competences.

United-Kingdom

The NVQs accredited by the QCA are based on national occupational standards (employment specifications) (similar system exist in Wales, Northern Ireland and Scotland) developed and established with a strong involvement of the employers. NVQs are organised into five levels¹⁶.

As a module, each NVQ is defined by its standards and an assessment methodology. The modules can be combined (added) to form a certificate, also be specified by national standards. The NVQs are made up of a number of units, which set out industry-defined standards of occupational competence. These standards describe the skills and knowledge needs to be able to perform effectively at work. At any level, each NVQ (as for example: administration, level 2) is defined by units (as for example: to use and maintain equipments; to develop efficient working relations, etc.). The units are described by several elements (as for example: to follow instructions and use the equipment; to maintain the equipment clean and functioning; to create and develop efficient working relation with the other members of personnel; to welcome and help visitors; etc.). Furthermore, for each unit and element, performance criteria are defined as well as a variety of situations and knowledge required.

For the assessment, a number of type of evidence have to be collected from work (or elsewhere) to document the ability to use a competence in real situations. This is defined in a manual for the assessors and verifiers to ensure that all performance criteria are filled up and the variety of situations taken into consideration by the assessment reflect reality. Based on that documentation, a portfolio is established by the candidate to be presented and assessed by the assessor. Then, the portfolio follows a quality procedure and is for example verified by a verifier. In parallel, the NVQs follow an accreditation procedure as well as the centres delivering the certificate.

France

¹⁶ Level 1: foundation; level 2 : basic craft; level 3: advanced craft, technician, supervisor; level 4, higher technician, management; level 5 : professional.

The experiment undertaken by the Association for Certification of Vocational Competences (ACVC)¹⁷ concentrates initially on non-formal learning in work settings (mainly for methodological reasons, see Colardyn, 1999, 2001a). The ACVC, in accordance with the European Norm 45013, created a procedure to define its standards, called “assessment standards” (assessment specifications) which contains the following elements:

- The unit of competences (name of the competences);
- The elements that define the unit of competences;
- The duration of validity;
- Examples of proofs, documentation of evidence;

The competences are defined as the result of processes combining various elements. The characterisation of the competences is based on what can be verified in the daily work or life situation of individuals. The traces of the individual activities are used as evidence of competences¹⁸. To maintain coherence between small units of competences represented by the Certificates of Competences in Enterprise, the “*Répertoire Opérationnel des Métiers et des Emplois*” or ROME (Operational Trades and Employment Register) is used (ROME, 1995). Each unit of competence that can be certified is connected to the (ROME); it indicates the fields of activity and the jobs concerned. This is noted in the assessment standards (assessment specifications) (“links to the ROME” and “Areas of activity and employment”). By nature, the content of such a certificate is narrower than a diploma but it can be meaningful in several jobs. Thus, the ROME (1995) helps to identify the links between the various certificates. Another way to maintain coherence is through the relation with national diplomas: in fact, each unit of competences is articulated to one or several diploma (of the Ministry of Education). This also appears in the description of the “assessment standards” (assessment specifications).

Ireland

Two experiments can be mentioned. One in the construction sector offers certification to people already working in that industry. It targets different groups such as the Tower Crane Drivers; Banks persons, Telescopic Mobile Handlers and Scaffolders. The partners involved are the National Training Body, the Construction Industry Training Committee, and specialist working parties for specific occupational groups. The purpose is to provide new entrants and experienced operatives who have achieved recognised levels of skill and experience with an opportunity to attend training and assessment programmes leading to formal certification (formative assessment) and registration (summative assessment). Certification is provided by the Further Education and Training Awards Council (FETAC). Learners will receive the same certification as all learners in Further Education with access, transfer, and progression opportunities. The registration card is delivered by the national training agency. Up until now, 3056 registration cards have been issued to date.

Another example is the Early Years Training Research Project to establish a mutually recognised system of accreditation for Early Childhood Care and Education and to develop an APL system. The target groups are people working in early childhood care and education.

¹⁷ The ACVC was launched in 1998 by the General Assembly of the Chambers of Commerce and Industry.

¹⁸ These traces or proofs are not to be confused with “observable behaviour”. The traces of the activity of a person drafting an agenda will be the several drafts; the “observable behaviour” would be the person facing a computer and typewriting.

The project provides a core standard for early childhood care and education, and APL system, trained APL mentors and assessors, pilot of the core standard using APL, research on flexible learning models. Up till now, some learners were certified by the Further Education and Training Awards Council (FETAC).

Examples of procedures and documentation in assessments

The documentation of evidences and proofs are collected in a “portfolio”. The portfolio presents a synthesis of the personal, social and occupational experiences to highlight competences, in order to “code” these competences and to bring the proofs to attest their reality in particular for job negotiation (insertion, promotion, career management). The portfolio contains various elements from the CV, relevant information on the career, the education, training and other experience. The assessment is based on evidences collected by the learner and presented in a portfolio. The content of the portfolio will then be judge in quantity and quality by “someone”: an assessor, a jury, a teacher. That (these) person(s) judge(s) if the evidence provide proof that the standard was achieved.

One more time, the assessment is designed to match the nature of the standard: educational or occupational (learning specifications or employment specifications). Therefore, the choice of assessment tools depends on the standards: it can be declarative evidences (oral, written); observation, simulations or evidences of competences “at work” in a working setting (or other setting). Using a portfolio, assessments can lead to a certificate or to a credit of courses that can transfer to formal qualifications. The credit is not a certification: it is subordinate to the more “traditional” recognition through examinations and test. In that case, the transfer of credit is never fully complete.

Some procedures for documenting evidence in assessments will be illustrated. Composed of three parts, the first one will be devoted to the “Check-up of competences” proposed in assessment centres (France). Parts 2 and 3 will give some principles of certification of competences and of prior learning assessments. The final report will explore theses aspects in more details.

Documenting the check-up of competences

Authorised by law (1991), the French check-up of competences is a guidance and counselling tool rather than an assessment. In principle, there are no standards to assess against. The check-up takes place in an assessment centre. The centre helps the candidate to carry out a “self-assessment” (*auto-évaluation*) to build up a new occupational or training plan. Kept broad, this self-exploration is intended to open new possibilities for the career or the training. The check-up of competences permits taking stock of occupational and personal experience; identify acquired knowledge, competences, attitudes related to work, training, social life; disclose unexploited potentialities; collect and arrange elements to define a personal or occupational project; manage personal resources; organise occupational priorities; improve the use of qualities in job negotiations or in career choice.

Usually, the check-up follows a procedure prescribed by law. Three stages can be differentiated:

- The **preliminary phase**: the discussion with the candidate defines needs and expectations and inform about methods and techniques;
- The **investigation phase**: enables the candidate to analyse motivation and occupational interests; to identify competences and occupational aptitudes and, eventually, to assess general knowledge. This information enables the candidate to define the possibilities for mobility.
- **The conclusion phase**: first orally, it gives the candidate the results of the investigations. A Synthesis document ends this conclusion. This document, written by the professional in charge of guiding the candidate, indicates the reasons for the check-up; the competences and aptitudes vis-à-vis the steps envisaged; the several steps to be followed to realise the plan.

This synthesis document is established under the responsibility of the assessment centre. It restricts the information presented to what could be useful for the implementation of the candidates' plan. The candidate owns the Synthesis document. Totally confidential, the information remains the exclusive property of the candidate. The technical tools used are all techniques used by professional for guidance and counselling (psychologists); as well as information on career and on training (trainers, counsellors, specialists in human resources).

The check-up of competences contains elements which have had a decisive impact (at least in France) on the concept of "portfolio":

- The portfolio is voluntary: the individual (the employee) concerned has to agree;
- The synthesis document summarises the results;
- The candidate owns the results and is the only recipient of them;
- The results can be communicated only with the express agreement of the candidate.

The portfolio and the detailed results belong to the candidate and can be use as a complete document or as separate pieces. The individual also has the option to take out pieces or elements and use only some others. These last aspects have been extremely influential since the early 1990s.

Documenting for certification of competence

Several examples of assessment of competences leading to a certification without any reference to a diploma or a qualification were already mentioned (See in Belgium and France). Several principles are followed:

- Independence of training and certification;
- Assessment by third parties;
- Involvement of the interested actors or stakeholders.

Another example, for highly qualified professionals is given by the "Educazione Continua in Medicina" (ECM) in Italy in. The ECM programme and its validation process support updating of competences for the medical staff. It is structured in a validation system that permits recognition of at least 150 points (training credits) in three years. Training credits estimates diligence and time spent by medical staff for continuing updating and for improving the qualitative level of their activities. Training events that provide credits are: congresses, seminars, meeting, vocational courses, stages, distance learning activities. The ECM aims to indicate priority objectives and themes on which concentrate training activities and then to evaluate those training events. The National Commission recognises the training

that can be included in the programme (according to quality indicators, as the importance of training and pedagogical activities, the subjects relevance, the existence of activities evaluation systems by users, the organisation quality).

Certification of competences: the portfolio enables a complete transfer of credits to a formal qualification. Each module is certified. The addition of all the certificates (regardless the way learning took place) can lead to a full recognised qualification. In this case, each module is certified and the addition can lead to new and specific qualifications.

It is the approach taken by the NVQs in the United-Kingdom and also in Ireland under the new Act (1999). In Ireland, the assessment recognised the actual performance of competences in work or in daily life regardless of any education or training. Checking against an occupational standard assesses the competences. Therefore, the units of competences usually “hold by themselves” or have a value by themselves. Occupational standards (employment specifications) are the basis for defining the education and training standards; relationships can be found with the units or modules in education and training programmes.

Documenting for “Prior learning assessment”

The portfolio allows for an incomplete transfer of credits to a formal qualification. A qualification equals the addition of all modules minus at least one module (VAP in France). Modules are not certified: they allow a credit for a course. The principle for credit of courses and transfer of that credit, permits to take the examination only on the courses without credit. The principle is that the candidate receives certain credit for experience that can be substituted for courses leading to a diploma. The candidate cannot be awarded the diploma through the PLA: at least one course and examination has to be presented. This means that even when all diplomas at all levels are accessible through PLA, a diploma can never be achieved entirely through recognition of experience. At one point, the person has to sit to take at least one examination even if everything else is recognised through PLA.

In the French PLA (VAP), the assessment concerns candidates with at least 5 years of occupation or professional experience. The panel is composed of 4 to 5 members, teachers and professionals of the occupational domain concerned. The panel bases its decision to validate learning from experience (meaning to give credit for a course containing these competences) on the individual’s description of his/her occupational activity. Time by candidate varies from 30 minutes to 4 hours. Then, the candidate explains the competences he or she acquired and ask for their validation. The successful candidate does not have to follow the course or to present an examination in the area where experience has been validated. The validation remains valid for 5 years. The help is not compulsory. The process is complex and local special professionals of the Ministry of Education usually help the candidate.

These assessments use portfolio with “declarative evidences” to obtain “credit courses” toward the diplomas (as defined above). The standards are identical and the procedure to design the diploma is the same. It is not created or repeated especially for the non-formal aspects. The non-formal learning is recognised as it fits into the standards defined for formal learning. The PLA changes the delivery mode. The major feature of that type of prior learning assessment is that recognition of learning links to the content of diplomas. Prior learning or experience cannot be recognised (meaning by certified) as such; it is

recognised as a part of a diploma, as a part of an input process leading to formal education degrees or qualification. Adult and experienced workers not interested in passing an additional diploma cannot get their prior learning or experience certified.

6. Conclusions: Identification of main principles for assessment of prior and experiential learning

Recently adopted goals and objectives for Lifelong Learning (indicated below in bold) have number of implications for assessment based-competence:

- **Learning activities and the active role of the individual in learning.** This leads to an emphasis on formal/non-formal and informal learning; the need for an inventory to maintain continuity across diverse learning; the use of portfolio will be highlighted;
- **Identification and recognition of a wide spectrum of learning that takes place life- long and life-wide.** This raises methodological issues (relation to standards; reliability and validity of assessments; links between formal/non-formal and informal.);
- **The identification, the assessment, the recognition of formal and non-formal learning** raises the issue of the legitimacy of the certification process (who is legitimate to certify, why, according to what criteria?). This requires considering the roles of the public authorities at national and other levels, of the social partners as well as of other relevant actors and stakeholders which may vary from one country to the other (for example: professional organisations, Chambers of Commerce; NGOs).

To achieve these objectives, assessment has an important role. Learning taken into consideration gets broader and therefore, the assessment approaches, methods and procedures have to face a variety of situations. Learning at school, at work and in other less formal situations raises questions for the assessment. In this report, it is shown that variations around two assessment approaches have developed recently (last two decades) in Member states of the European Union. One is the formative assessment, based on learning inserted into a education and / or training process; and, the other is the summative assessment, based on certification of competence actually in use. It was underline that, in a country, these two approaches are not to be considered as exclusives: they fulfil different objectives and can well be in function at the same time, even leading to a qualification.

The capacity to use the two assessment approaches relates to the robustness of their methodologies. In both cases, employment, learning and assessment specifications have to be defined. This means that:

- Standards (employment and learning specifications) pre-exist (or have to be designed);
- The proofs or evidence to collect have to be specify (assessment specifications);
- The procedure to assess has to be defined (quality assurance).

The issues related to the nature of the evidence or proofs are of great importance. The evidences can be of different nature. Basically, five types of evidence can be distinguished:

- *Examination*: the candidate answers questions (oral or written) concerning a domain of study. The questions can concentrate on a strict domain or be of an interdisciplinary

- type. Questions can be open or close (tests, multiple-choice). The assessor is a teacher: it can be on a third parties basis.
- *Declarative*: the candidate declares and justifies (oral and written) that what he/she can do corresponds to certain of the learning taught in the education or training qualification for which he or she would like to get credit. The final judgement is given by a panel (third parties);
 - *Observation*: following certain rules and strict methods, an assessor (third parties) observes a candidate and judges he or she has the competence. Observation is a more demanding exercise than one can imagine. Methodology and training are needed to enable the assessor to collect relevant and reliable observations.
 - *Simulations*: the candidate is placed in a context that present all characteristics of the real work (or other) situation and is then able to demonstrate his/ or her competences. Simulation requires an important amount of studies and job analysis to be prepared properly. Some examples are well known, as aircraft pilot trained partly that way. Third parties judgement exists. The major difficulty consists of the job analysis and studies needed before a simulation can actually be valid and reliable.
 - *Evidence extracted from work (or other) situations*. The candidate collects evidence of competences in his real work situation (or social, family or cultural setting) on the bases of what is described in the assessment standards (assessment specifications). An assessor (third parties) does the judgement.

The issues of collecting evidence underline that assessment based on competence are competence based because of the standards and the assessment can then fulfil criteria related to formal or non-formal and informal learning. Therefore, the methodological elements for a robust process have to be specified. Not only do standards, modules and assessments tools have to be specified, but also, the requirement for the assessment tools such as reliability, validity and quality procedures need to be defined. These methodological aspects will be elaborated in the final report.

The involvement of the social partners and other actors is another dimensions on which deeper considerations will be given: who should be involved, why, where (design of standard; development and application of assessment procedures; quality assurance policy and mechanisms). What the stakeholders represent in the society will establish the legitimacy of the assessment: how well recognised it is. The recognition can be limited to a school, an enterprise, a region, a branch or a sector, a country or it can be broader and reach recognition over the borders. It is not enough to have a well-defined assessment methodology: its legitimacy in the society has to be clear and transparent. This can only be achieve by the participation of the social partners and the other stakeholders interested in the validation process. The stakeholders can vary from country to country.

These issues will be treated in the final report which will propose some principles for assessment based on competence. The report will examine the methodological principles as well as some requirements to ensure quality and relevance in social and economic terms in the countries (partners and members states). Today, some issues remain quite untouched. For example, the involvement of new actors and stakeholders will lead to re-sharing of responsibility including in certification. What will then explain the legitimacy of the certification? Towards what criteria and requirements will this lead? Could we imagine a situation with several kinds of certifications, each with its own legitimacy that would be recognised by others allowing for an integrated system? Could we then see upgrading in

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society as the result of the collective bargaining agreement recognising learning as a “building block strategy”?

Annex 1

Table 1: Upper secondary graduation rates (1999)

Ratio of upper secondary graduates to total population at typical age of graduation (multiplied by 100) in public and private institutions (all programmes)

	Total
Austria	--
Belgium (Fl)	83
Czech Rep.	52
Denmark	90
Finland	89
France	85
Germany	92
Greece	67
Hungary	92
Iceland	82
Ireland	86
Italy	73
Luxembourg	60
Netherlands	92
Portugal	--
Poland	--
Spain	73
Sweden	74
United Kingdom	--
United States	78
Country mean	79

Source: OECD, 2001a. Education at a glance, p.146 (extract), Paris.

Table 2: Educational attainment of the labour force (1999) (in selected countries)

Distribution of the labour force 25 to 64 years of age, by highest level of education attained

	<i>Pre- primary and primary education</i>	<i>Lower secondary education</i>	<i>Upper secondary education</i>	<i>Post- secondary non- tertiary education</i>	<i>Tertiary type B education</i>	<i>Tertiary type A and advanced research programmes</i>	All levels of education	
	<i>ISCED 0/1</i>	<i>ISCED 2</i>	<i>ISCED 3</i>	<i>ISCED 4</i>	<i>ISCED 5B</i>	<i>ISCED 5A/6</i>		
	(1)	(2)	(3)	(4 et 5)	(6)	(7)	(8)	(9)
			<i>3C court</i>	<i>3B/A long</i>				
Austria	X(2)	20	A	60	7	5	8	10C
Belgium	12	22	A	34	X(4)	17	15	10C
Czech Rep.	x(2)	10	X(4)	78	X(5)	X(8)	12	10C
Denmark	n	16	a	54	X(5)	22	7	10C
Finland	X(2)	24	a	41	X(5)	19	16	10C
France	14	18	30	13	n	12	12	10C
Germany	2	13	a	54	5	11	15	10C
Greece	34	10	a	27	6	7	16	10C
Hungary	1	19	a	39	24	X(6,8)	17	10C
Iceland	2	34	7	23	23	11	5	10C
Ireland	16	25	a	32	X(5,7)	13	13	10C
Italy	14	33	1	33	6	X(8)	13	10C
Luxembourg	19	12	6	40	a	8	14	10C
Netherlands	8	20	10	35	X(7,8)	3	24	10C
Portugal	64	13	--	13	--	3	8	101
Poland	X(2)	17	26	41	3	X(8)	13	10C
Spain	32	25	--	17	--	8	19	101
Sweden	9	12	a	49	X(7)	16	15	10C
United Kingdom	X(2)	13	28	32	X(9)	9	18	10C
United States	3	7	X(5)	51	X(5)	9	30	10C
Country mean	13	18	4	38	3	8	16	10C

Source: OECD, 2001a. Education at a glance, p.44, Paris.

Table 3: Population that has attained at least upper secondary education (1999) (in selected countries)

Percentage of the population that has attained at least upper secondary education, by age group

	At least upper secondary education (percentage)				
	25-64	25-34	35-44	45-54	55-64
Austria	74	83	78	69	59
Belgium	57	73	61	50	36
Denmark	80	87	80	79	70
Finland	72	86	82	67	46
France	62	76	65	57	42
Germany	81	85	85	81	73
Greece	50	71	58	42	24
Iceland	56	64	59	53	40
Ireland	51	67	56	41	31
Italy	42	55	50	37	21
Luxembourg	56	61	57	52	41
Netherlands	--	--	--	--	--
Portugal	21	30	21	15	11
Spain	35	55	41	25	13
Sweden	77	87	81	74	61
United-Kingdom	62	66	63	60	53
Country mean	62	72	66	58	45

Source: OECD, 2001a. Education at a glance, p.45, Paris.

Table 4 : Education effort to raise completion at upper secondary level between generations

	Education effort between generations (a)	<i>At least upper secondary education (b) (percentage)</i>	
		<i>25-34 year olds</i>	<i>55-64 year olds</i>
Austria	1.4	83	59
Belgium	2.0	73	36
Denmark	1.2	87	70
Finland	1.8	86	46
France	1.8	76	42
Germany	1.1	85	73
Greece	2.9	71	24
Iceland	1.6	64	40
Ireland	2.1	67	31
Italy	2.6	55	21
Luxembourg	1.4	61	41
Netherlands	--	--	--
Portugal	2.7	30	11
Spain	4.2	55	13
Sweden	1.4	87	61
United- Kingdom	1.2	66	53

Source:

a): Colardyn, D. – the education effort expresses the ration between percentage at at least upper secondary school for the age groups “25-34” and “55-64”.

b): extract from OECD, 2001a. Education at a glance, p.45, Paris.

Table 5: Types of assessments in non-formal (and informal) learning

	Approach 1	Approach 2
Assessment is characterised as:	<ul style="list-style-type: none"> - Assessment is formative - Assessment is input-driven - Assessment concerns the education and training process - Assessment links to national EDUCATION standards (LEARNING specifications) 	<ul style="list-style-type: none"> - Assessment is summative - Assessment is outcome-driven - Assessment concerns results of learning - Assessment links to national OCCUPATIONAL standards (or EMPLOYMENT specifications)
Examples to be found in the following Member states	France Germany Denmark	United-Kingdom Ireland ACVC (France) Belgium
For non-formal learning, the assessment based-competences becomes:	Prior learning assessment (PLA)	Certification of competences

Source: Colardyn, 2002

Annex 2

Glossary

The definitions of the main terms and concepts used in this report are based on the ETF and CEDEFOP glossaries. More of the key terms will be define in the Concept paper on

Concepts	Definition
Assessment	See page 6
Competence	See page 4
Formal learning	See page 2
Non-formal learning	See page 2
Informal learning	See page 2
Standards (and various expressions: occupational standards, employment specifications, education (training) standards, assessment standards, assessment specifications, etc...)	See page 5

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ACCP, 1999. The text (in French) presents in more detail the assessment standards (assessment specifications) and the processes followed in their design and acceptance. More information on the assessment standards (assessment specifications) that exist today can be found on the web site: www.accp.asso.fr

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<http://www.etf.eu.int/etfweb.nsf/pages/downloadstandards>

European Training Foundation (ETF) 1999 to 2001. The four volumes are part of an on-going project on the role of standards in vocational training launched by the European Training Foundation in the framework of the Advisory Forum. They are available to download in English, Russian and French (for the volume 3 only) on the web site:
<http://www.etf.eu.int/etfweb.nsf/pages/downloadstandards>

European Accreditation of Certification (EAC), 1995. Guidelines on the application of European Norm 45013, EAC Secretariat, Sweden. For more information: www.european-accreditation.org

ISO, 1998. For more information: www.iso.ch

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The ROME is the standard system describing and classifying occupations. It proposes a description of the jobs in terms of competences. The ROME goes further than classifying occupations insofar as it presents “mobility zones” which indicate those jobs with which mobility would be feasible (in terms of the cognitive processes involved). It is organised in 465 descriptions of “typical-jobs” giving information on the activities involved, the main functions, the education and training needed, and a number of specifications on competences. The “mobility zones” is an additional part, providing information on mobility between jobs. This ROME was created mid-1980s, under the responsibility on the ANPE, Ministry for Employment and in agreement with the social partners and the regions. It is designed to help unemployed and the Local Employment Agencies to better specify the competences of the seeker; and also to help enterprises to better describe the particular profile they search.

Web sites links

Germany

BIBB: training profiles

www.bibb.de/beruf/profile/f-zahnt.htm

United-Kingdom

Department for education and Employment:

www.dfes.gov.uk

Qualifications and Curriculum Authority (QCA) :

www.qca.org.uk

France: Ministry of Education

Official definitions on standards:

www.enseignement-professionnel.gouv.fr/info-pratiques/vap/definitions.html

Prior learning assessment in France

– definitions (in French only)

see: www.enseignement-professionnel.gouv.fr/info-pratiques/vap/definitions.html

– some results (in French only):

see : www.enseignement-professionnel.gouv.fr/info-pratiques/vap/bilan.htm

ACCP (Association for Certification of Vocational Competences): www.accp.asso.fr

CIBC : Network of Centres for check-up of competences:

www.cibc.net/deferation.htm

Ireland

Department of education

www.gov.ie/educ/

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