**National Lifelong Learning Strategies (NLLS) -Transversal programme**

**Key Activity 1: Policy Cooperation and Innovation**



# EFELSE - Evaluation Framework for the Evolution of LLL Strategies in Europe

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# INSIGHT INTO DEMAND FOR LEARNING

Report

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# SUMMARY

This document provides an overview of the EFELSE evaluation parameter *Demand for Learning* from a European perspective. In this report *Insight into Demand for Learning* ist defined as *the identification of learning needs in accordance with existing expectations of the level of skills and competences which learners, organisations, society and the labour market want or need to develop.*

The report takes into accout European publications on the issue of *Demand for Learning*, and focuses on the learning needs of three main target groups and markets: (1) Specific key comptetences for lifelong learning required by (potential) learners are described, (2) the future demand of skills, competences and qualifications of employers, small and medium sized enterprises, and the labour market is reported (3) and the required key competences and qualifications of learning facilitators (e.g. teachers and trainers) are considered in the context of lifelong learning provision.

Furthermore, a balanced scorecard approach is introduced as a tool for the EFELSE partners to analyse the *Demands for Learning* in a national context. This includes the suggestion of two *Demand for Learning* aspects: (a) participation in lifelong learning, (b) and outcomes of lifelong learning. A specification of related indicators is provided additionally. They are the basis for retreiving data and monitoring the actual development of *Demand for Learning* related to country specific objectives, benchmarks and policies of LLL strategy implementation.

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# 1. EFELSE – Insight into Demand for Learning

The Commission Communication "Making a European Area of Lifelong Learning a Reality" (European Commission, 2001) is one of the basic papers on the implementation Lifelong Learning (LLL) strategies in European countries. It contains a suggestion of **six building blocks** for comprehensive and coherent Lifelong Learning (LLL) strategies which focus on the following basic factors:

Coherence factors

- *Partnership working across the learning spectrum:* collaboration between all stakeholders

- *Creating a learning culture:* increasing learning opportunities and motivation

- *Striving for excellence:* quality assurance measures

Comprehensiveness factors

- ***Insight into Demand for Learning***: needs of the learner & learning needs of organisations, society and labour market

- *Adequate resourcing:* financing and allocation of resources

- *Facilitating access to learning opportunities:* anyone, anywhere, anytime

The focus of this paper is on *Insight into Demand for Learning.* However, it has to be noted, that a clear differentiation between the six building blocks is not possible and also not sensible. The six factors are interlinked with each other (see European Commission, 2001) and facilitating progress with respect to one parameter needs to take into account the conditions and requirements of other parameters as well.

## *Definition: Demand for Learning*

This report looks into the details of the building block "*Insight into Demand for Learning*", which is mainly based on the factors "needs of the learner and learning needs of organisations, society and labour market". The European Commission (2001) mainly suggests concrete focus areas for work activities aimed at considering *Demand for Learning* in LLL strategy implementation (see below); however, a clear definition of *Demand for Learning* is not provided and the following related terms are used inconsistently in the commission communication: demand/needs for learning, learning needs of organisations, society, and labour market, needs of the learners.

The following review of education science and sociological literature, and policy and strategy papers is the basis for the definition of *Demand for Learning* proposed below; however the exact term *Demand for Learning* was rarely found during the research and the related term *educational demand* was therefore considered as well.

An idea paper by Howard (2001) on stimulating the *Demand for Learning* in the post-16 education system in the United Kingdom and a related international literature review on attracting new learners by Hillage and Aston (2001) refer to the exact term *Demand for Learning*. In these two reports the focus is on the need for initiatives to increase participation rates and sustaining the interest in learning (e.g. through educational marketing, financing structures, guidance systems, provision structures, addressing needs and interests of individuals and special target groups, skills initiatives, learning at work).

Publications on educational demand mainly provide information on educational behaviour of individuals or households as a basis for educational planning. Socio-economic, demographic and policy factors which influence the educational decisions are discussed; supply and demand mechanisms in the educational system and related to the labour market are described by economic models and human capital theory (e.g. Altonji, 1993; Becker, 1993; for the German educational system: Helberger & Palamidis, 1989; 1992).

However, according to Berger (1969) the term educational demand has two notions: the educational demand of individuals and households (e.g. the demand for formal educational offers and services), and the

educational demand of the labour market (e.g. the demand for specifically qualified employees) which should be named labour demand actually. This second notion is relevant in the European Commission's understanding of *Demand for Learning*. In accordance with the European Commission (2001) the factors that constitute *Demand for Learning* are the concrete *learning needs* of the labour market, and the learners, organisations, and society, additionally.

McKillip (1987) provides in his book on research methods for needs analysis in the context of education the following definition of need: "A need is the value judgement that *some group has a problem that can be solved*" (p. 10). He further specifies the need definition by stating that, "[…] people with different values will recognize different needs. Further, the person seeing the need and the person experiencing the need may differ. […] A need is possessed by a particular group of people in a certain set of circumstances. [...]" (p.10). Additionally, "a problem is an inadequate outcome, an outcome that violates expectations. […] A problem can also be indicated by inadequate process, if there is the expectation that, without action, inadequate outcomes will develop. Recognition of a need involves a judgement that a solution exists for a problem. [...]" (p.10). In distinction, the term *need* is rather used by planners and researchers – is often recognized by observers and "has a more dispassionate quality than a demand" (p. 17). The term *demand* is often used in a political context, and it originates from and is presented by the group of people that has the demand.

For the identification of needs it is necessary to recognize a problem by comparing outcomes and expectations. In this context, McKillip (1987) differentiates between three types of problems and according to Bradshaw (1972) four types of need result from differences in peoples expectations:

Types of problems

- *Discrepancies* are problems with outcomes below an expected level or exceeding expectations.

- Further, being *at-risk* of developing poor outcomes is a problem. Certain characteristics (e.g. social indicators) allow for the prediction of poor outcomes of at-risk groups.

- *Maintenance* need (Scriven & Roth, 1978) is the third type of problem which develops poor outcomes as consequence of the revocation of services available to a certain group.

Types of need

- *Normative need* – based on expectations provided by experts

- *Felt need* – based on expectations formulated by a group for their own outcomes

- *Expressed need* – based on expectations that can be deduced from the behaviour of a group

- *Comparative need* – based on expectations that result from the outcomes of a group other than the group having the need

The term *need* can be further differentiated in the context of education.

At first, *special needs* and requirements for learning of certain groups and societies (e.g. disabled people, older people, immigrants, and development countries) are taken into account in literature and European publications (e.g. Glendening, 2004; OECD, 2000; UNESCO, 2008). Special needs can be considered as part of the needs of learners in general. According to the European Commission (2001), the building blocks "Creating a Learning Culture" and "Facilitating Access to Learning Opportunities" cover these aspects mainly.

Secondly, the term need refers to *learning needs* in terms of skills and competences required by individuals or on the labour market. Knowles (1975) sees the identification of individual learning needs as central to the process of self-directed learning; and in talking about lifelong learning he relates it to "models of competences required for performing live roles" (Knowles, 1991) such as being a learner, friend, citizen, family member, worker, leisure-time user, and being a self (with a unique self-identity). In the context of labour market learning needs, the Commission of the European Communities (2008) and CEDEFOP (various years) discussed the future skills and labour market needs for the year 2020 and how to meet the skill challenge and match it with related labour market needs.

Based on the above considerations, we propose the following definition of *Insight into Demand for Learning* to be used in the context of the EFELSE project:

> *"Insight into Demand for Learning" means the identification of learning needs in accordance with existing expectations of the level of skills and competences which learners, organisations, society and the labour market want or need to develop.*

In the scope of the EFELSE project, the above definition is focused on adult learners aged 25-64 who participate or intend to participate in formal continuing education. Furthermore, in the understanding of the European Commission (2001) *Demand for Learning* refers to lifelong learning (LLL) which includes all *formal*, *non-formal* and *informal learning* throughout the life span and follows four mutually supporting objectives: *active citizenship*, *personal fulfilment*, *social inclusion*, and *employability*. Additionally, lifelong learning is based on three fundamental principles: *centrality of the learner*, *equal opportunities* and *quality and relevance.*

## Demand for Learning of Groups and Markets

The European Commission (2001, p. 12) proposed a work focus for the building block "*Insight into Demand for Learning*". The following targets groups were extracted from the description:

- (Potential) learners, and citizens/groups most alienated from learning
- Learning facilitators (e.g. teachers, trainers, adult educators, guidance workers)
- Employers, SMEs, and the labour market

Below, a short overview about learning needs and related issues in the context of lifelong learning is provided structured by the target groups and markets. The overview is based on and summarised from the following basic EU publications:

>> A Memorandum on Lifelong Learning (European Commission, 2000)

>> Making a European Area of Lifelong Learning a Reality (European Commission, 2001)

>> Council conclusions of 22 May 2008 on adult learning (2008)

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

**Overview about learning needs and related issues in the context of lifelong learning**

(Potential) learners & citizens/groups most alienated from learning

- *Learning needs*: Basic skills and LLL key competences (e.g. literacy, communication in mother tongue and foreign languages numeracy, basic competences in science and technology, technological culture, ICT skills, entrepreneurship, social and civic competences, learning to learn, cultural awareness). The learning needs are a foundation for further learning and a basis for personal fulfilment, active citizenship and employability, particularly given the demands of the developing knowledge-based society. Learning needs can be identified by close exchange of the stakeholders (e.g. education providers, companies and other organisations, etc.).

- *Related issues*: Learner interests need to be researched, also taking into account imbalances in learning participation, e.g. with regard to gender and ICT.

Employers, SMEs & labour market

- *Learning needs*: New basic skills, taking into account implications of the knowledge based society (e.g. entrepreneurship, science and technology)

- *Related issues*: Availability of resources such as time and money for (finding) training; Necessity for motivating employers; Assessment and forecasting of competence needs across European labour markets to avoid shortages and up-skilling those inside the labour market to avoid exclusion

Learning facilitators (e.g. teachers, trainers, adult educators, guidance workers)

- *Learning needs*: Shift from knowledge to competences and from teaching to learning – new roles, learner at the centre; Train the trainers – common reference framework for competences;

- *Related issues*: Addressing the impact of lifelong learning on learning facilitators; Modernise Europe's education and training system according to the demands of a knowledge-based economy and socio-economic and demographic challenges

The related issues described for (potential) learners, employers, SMEs, the labour market, and for learning facilitators can be seen as overarching aspects in the context of the formulated learning needs. They need to be kept in mind in dealing with the demand for learning of the different target groups but are not considered in detail in the scope of this report. They are also interlinked with the remaining five LLL building blocks.

In the context of the EFELSE project the identification of learning needs and related LLL strategy implementation has to be advanced to the national and even local levels of the partner countries (see below).

## *Specific Learning Needs of (Potential) Learners*

A specification of the learning needs described for the target group of **(potential) learners** is provided in the document "Key Competences for Lifelong Learning – A European Framework" (2007). It seems self-evident that each learner should acquire these basic key competences; however, no information on the expected level is provided and it is not considered in how far these competences already exist among learners. Especially for groups with lower education levels the acquisition of these competences might be essential; however, a great deal of learners probably starts lifelong learning activities beyond these key competences, e.g. in the context of specific vocational continuing education.

Key Competences for Lifelong Learning – A European Framework (2007, p. 4-12)**:**

**"Communication in the mother tongue** is the ability to express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing), and to interact linguistically in an appropriate and creative way in a full range of societal and cultural contexts; in education and training, work, home and leisure.

**Communication in foreign languages** broadly shares the main skill dimensions of communication in the mother tongue: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts (in education and training, work, home and leisure) according to one's wants or needs. Communication in foreign languages also calls for skills such as mediation and intercultural understanding. An individual's level of proficiency will vary between the four dimensions (listening, speaking, reading and writing) and between the different languages, and according to that individual's social and cultural background, environment, needs and/or interests.

**Mathematical competence** is the ability to develop and apply mathematical thinking in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought (logical and spatial thinking) and presentation (formulas, models, constructs, graphs, charts).

**Competence in science** refers to the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions. Competence in technology is viewed as the application of that knowledge and methodology in response to perceived human wants or needs. Competence in science and technology involves an understanding of the changes caused by human activity and responsibility as an individual citizen.

**Digital competence** involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet.

**Learning to learn** is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.

**Social and civic competences**: These include personal, interpersonal and intercultural competence and cover all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life, and particularly in increasingly diverse societies, and to resolve conflict where necessary. Civic competence equips individuals to fully participate in civic life, based on knowledge of social and political concepts and structures and a commitment to active and democratic participation.

**Sense of initiative and entrepreneurship** refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance.

**Cultural Awareness**: Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media, including music, performing arts, literature, and the visual arts."

Based on and complementary to these key competences future learning needs are researched and discussed in several publications. Aspects of the labour market development and the issue of addressing skills mismatch (e.g. Commission of the European Communities, 2008; CEDEFOP, various years) are covered as well as the point of view of the learners on lifelong learning (e.g. Chisholm, Larson, Mossoux, 2004). These publications therefore can be seen as additional background information; however, they are not discussed in detail in this report.

## *Specific Learning Needs of Employers, SMEs, Labour Market*

The learning needs of the employers, SMEs and labour market overlap with those of the (potential) learners due to the need of workers qualified to meet the challenges of the knowledge based society. According to the European Commission (2000) competences in sciences, digital competences, sense of initiative and entrepreneurship are required, especially.

A more detailed look into the skills needs and supply was accomplished by CEDEFOP – the European Center for the Development of Vocational Training. Results of relevant forecasting surveys on European level were published in two reports. The first report "Skill needs in Europe. Focus on 2020" (CEDEFOP, 2008) analysis the skill requirements and employment needs on a European labour market. It is complemented by the second report "Future skill supply in Europe. Medium-term forecast up to 2020: synthesis report" (CEDEFOP, 2009) with the aim to identify out any imbalance or mismatch in the skills demand and labour supply (e.g. skills shortages and gaps, oversupply and over-qualification).

CEDEFOP (2008) reports a steadily rising need for skills up to 2020 and points out the necessity for policy to focus on this aspect by facilitating education, continuing training and lifelong learning of the workforce. Validation and accreditation of people's skills are an important aspect in this respect for monitoring the actual skills level and support the provision of customised trainings. However, further research in skills forecasting is needed to answer remaining open questions about causes and consequences of demand and supply in the future development of the European labour market. The central results of the European skills demand trends can be summarised as follows:

- Services sector still expanding: "Europe has experienced a general shift away from the primary sector (especially agriculture)and traditional manufacturing industries towards services and the knowledge-intensive economy. The forecast results confirm that this trend is likely to continue as a key feature over the coming decade both nationally and across Europe" (p. 7).

- Around 20 million new jobs by 2020: "The construction sector has experienced positive employment trends in the past decade but tends to stagnate with less than half a million new jobs being created between 2006 and 2020. Distribution, transport, hotels and catering together are projected to see employment grow by more than 4.5 million over the next decade, while non-marketed services are expected to increase by slightly more (4.9 million). Business and miscellaneous services have the best prospects, with more than 14 million additional jobs being created between 2006 and 2020. […].Consequently, almost three quarters of jobs in EU-25+ (EU-25 plus Norway and Switzerland).in 2020 will be in services. The primary sector will decline from almost 8% in 1996 to less than 4% in 2020" (p. 8).

- Workforce shortages in 2020: "In 2020, the total number of jobs in the EU-25 will be 223.6 million […]. Based on demographic developments, the Eurostat baseline scenario estimates that the working age population (15-64 years) for the EU-25 will decline from 308.6 million in 2006 to 302.5 million in 2020 (4). Although the working age population will fall by around 6 million between 2006 and 2020 more than 20 million more new jobs will be created. Consequently, Europe may experience a major workforce shortage in the status quo policy scenario" (p. 9).

- High- and medium-skilled occupations on the rise (figure 1.1): "Currently, almost 40 % of people are employed in higher-level jobs such as management, professional work, or technical jobs. Expansion of high- and medium-level skilled occupations is expected to continue over the next decade. The demand for high- and medium-level skilled workers is also likely to grow, as the analysis of future skills requirements shows. […]Even where employment is expected to fall, replacement demand estimates by occupation clearly indicate a significant number of job openings and demand for adequately trained people" (p.10).

- Polarisation of jobs as high and low-level occupations: "If trends continue, changes will lead to job growth at the higher-level and lower-level (with low pay and poor terms and conditions) of the job spectrum. This polarises in the demand for jobs with the medium-level occupational layer becoming thinner" (p. 11).

- Increase in qualification levels: "In total, the net employment increase in Europe of over 20 million jobs between 2006 and 2020 comprises increases of almost 19.6 million jobs at the highest qualification level (ISCED levels 5 and 6) and almost 13.1 million jobs at medium level (ISCED levels 3 and 4). This is offset by a sharp decline of almost 12.5 million jobs for those with no or low formal qualifications (ISCED levels 0 to 2)" (p. 12)

"The current qualification structure of the workforce needs to change in the coming decade as even more job openings, almost 55 million, are expected to require medium level qualifications (ISCED 3 and 4, which traditionally include vocational qualifications). Less than 10 million jobs will be open for applicants with no or low levels of qualifications" (p. 13; figure 1.2).
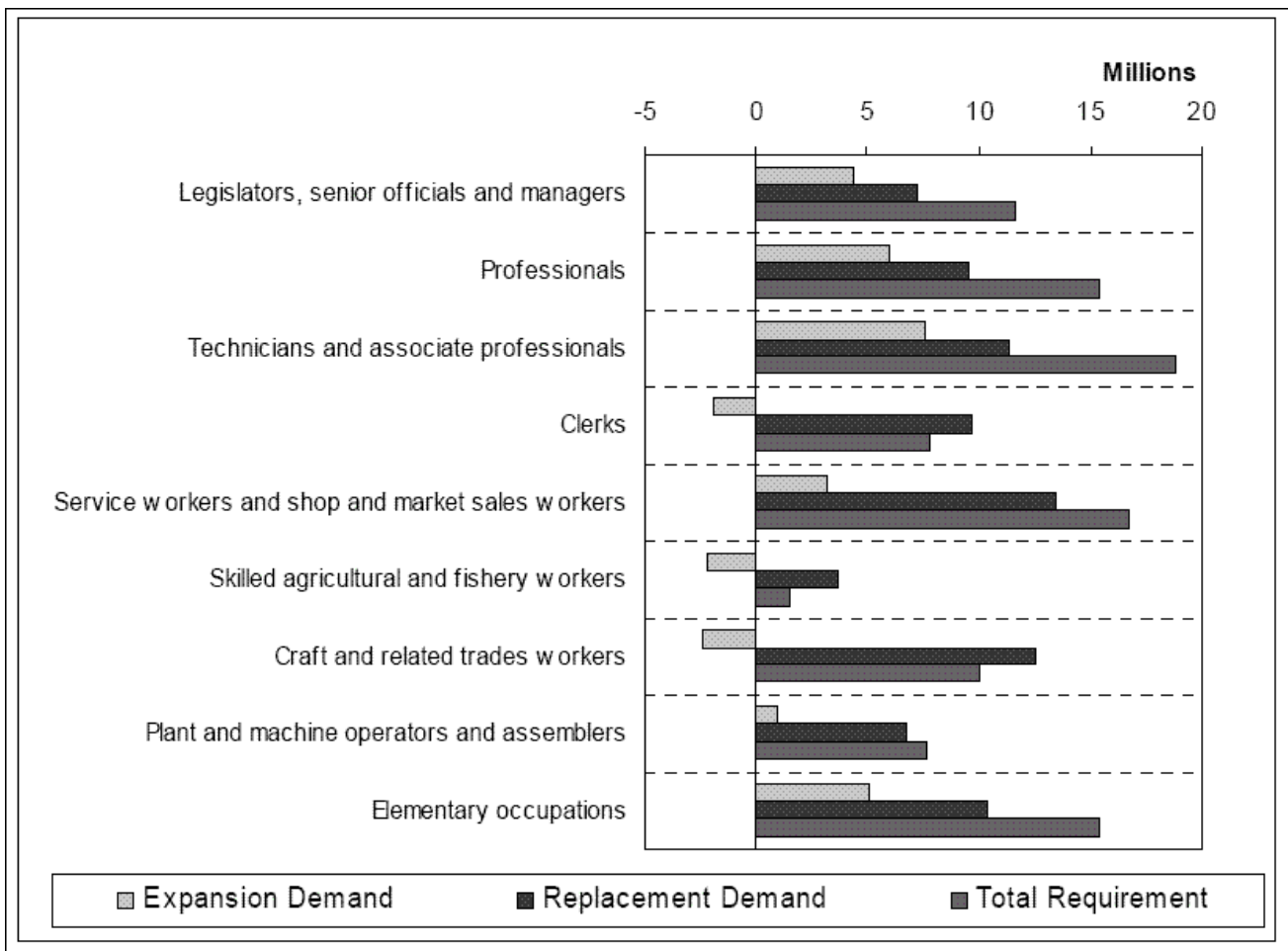


*Figure 1.1*. Demand by occupation, broad groups, projected change 2006-20 in millions, EU-25+ (CEDEFOP, 2008, p. 10).
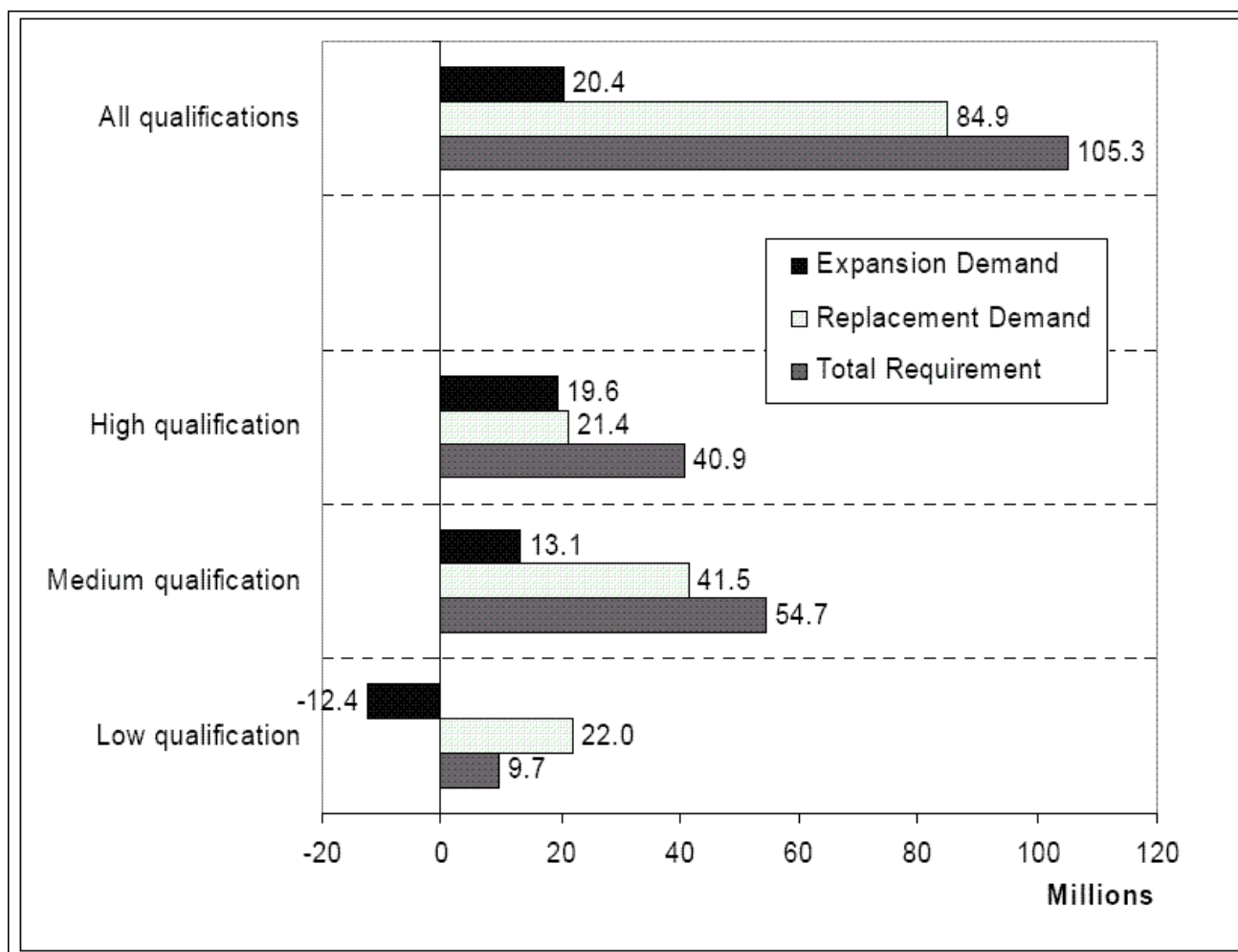
*Figure 1.2.* Total requirement by qualification level, projected change 2006-20, in millions, EU-25+. (CEDEFOP, 2008, p. 13).

Complementary, CEDEFOP (2009) is looking at the supply side of skills and competence (e.g. how many people with different qualifications will be available on the European labour market). The following key findings and trends are reported (pp. 95-96), taking into account estimations and possible scenarios of the future labour market development in Europe.

- Number of people with formal qualification is rising steadily

- Proportion of people with higher-level qualifications have risen significantly

- Number of people with low-level or no qualification have fallen steadily

- General trend towards a highly-educated labour force, as younger cohorts are increasingly better qualified than older ones

- The trends are common for men and women; however the increase in formal qualification levels of women will continue to rise significantly above that of men

It has to be noted, that these results vary between countries due to historical development and influences, and different starting points. Furthermore, the available data sets in some countries do not meet the desirable quality as compared to other countries. Therefore, country workbooks (available for members of the Cedefop Skillsnet network) were prepared with detailed country-specific estimations. However, figure 1.3 shows an overview about the estimated future development of qualifications by age and gender on European level.
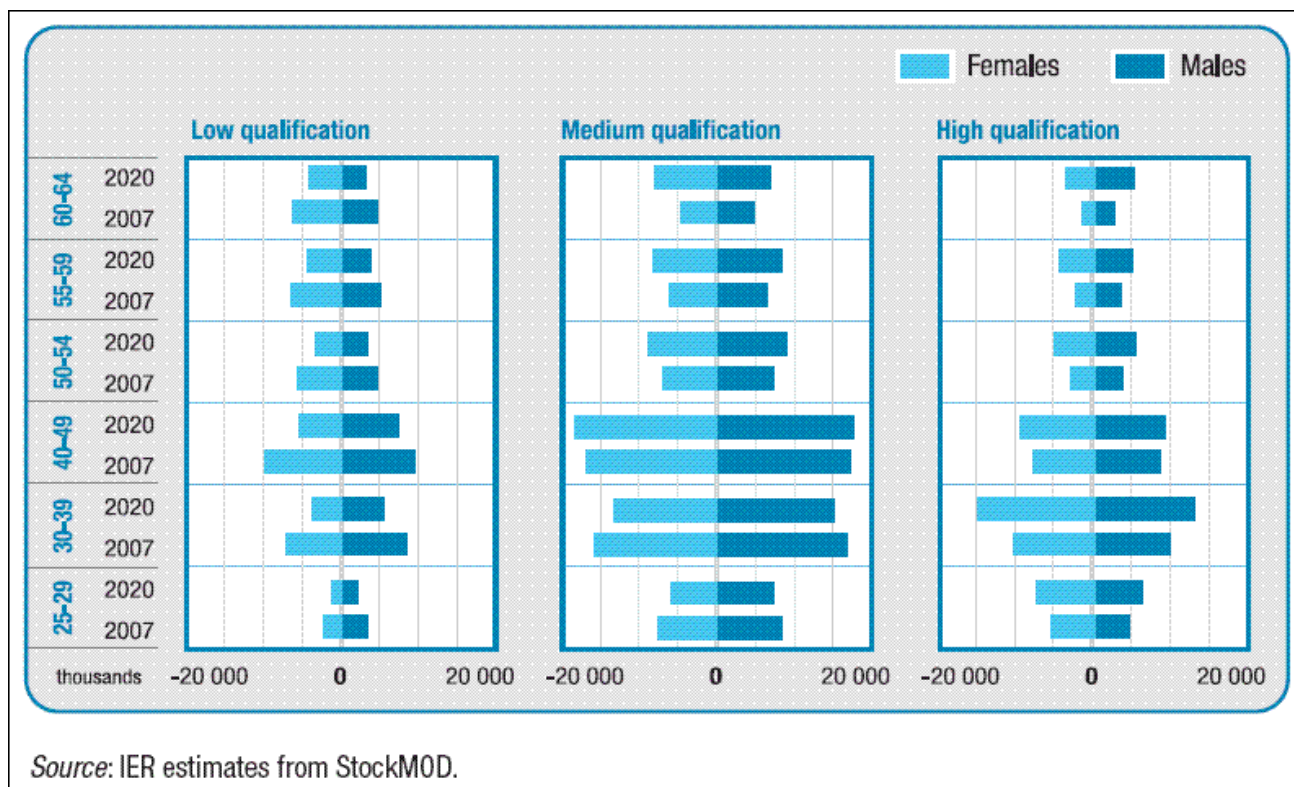
*Figure 1.3*. Population by age, gender and qualifications, in thousands 2007 and 2020, EU-25 (excluding Bulgaria, Malta and Romania, but including Norway).  (CEDEFOP, 2009, p. 49).

A comparison between the supply-side analysis with the above reported results of the demand-side has to take into account that one job opening could be filled with employees with quite different educational background. This has to be considered in further research on the identification of possible demand-supply mismatches on the labour market.

## *Specific Learning Needs of Learning Facilitators*

Additionally learning needs for learning facilitators were formulated above, again on a rather unspecific level. However, in the report "Common European Principles for Teacher Competences and Qualifications" (European Commission, 2005), the following key competences were formulated for teachers in general, including teachers/ trainers for adult learners (p. 4-5):

"**Work with knowledge, technology and information**: they need to be able to work with a variety of types of knowledge. Their education should equip them to access, analyse, validate, reflect on and transmit knowledge, making effective use of technology where this is appropriate. Their pedagogic skills should allow them to build and manage learning environments and retain the intellectual freedom to make choices over the delivery of education. These skills also allow for innovation and creativity. Their confidence in the use of ICT should allow them to integrate it effectively into learning and teaching. They should be able to guide and support learners in the networks in which information can be found and built. They should have a high level of knowledge and understanding of their subject matter and view learning as a lifelong journey. Their practical and theoretical skills should also allow them to learn from their own experiences and match a wide range of teaching and learning strategies to the needs of learners.

**Work with fellow human beings**: they work in a profession which should be based on the values of social inclusion and nurturing the potential of every learner. They need to have knowledge of human growth and development and demonstrate self-confidence when engaging with others. They need to be able to work with learners as individuals and support them to develop into fully participating and active members of society. They should also prepare and develop collaborative activities which increase the collective intelligence of learners and co-operate and collaborate with colleagues to enhance their own learning and teaching.

**Work with and in society**: they contribute to preparing learners for their role as EU citizens and help to ensure that learners understand the importance of lifelong learning. They should be able to promote mobility and co-operation in Europe, and encourage intercultural respect and understanding. They also need to know the contribution that education makes to developing cohesive societies. They should have an understanding of the balance between respecting and being aware of the diversity of learners' cultures and identifying common values. They also need to understand the factors that create social cohesion and exclusion in society and be aware of the ethical dimensions of the knowledge society. They should be able to work effectively with the local community, partners and stakeholders in education – parents, teacher education institutions, and representative groups. They should be aware that good education provides learners with more and diverse employment opportunities. Their experience and expertise should also enable them to contribute to systems of quality assurance."

Especially the key competences of teachers concerning the educational use of information and communication technology (ICT) is further specified in the current discussion, e.g. in the eLearning Competences Framework for Teachers and Trainers of the European Institute for eLearning (EIfeL, 2006) or the document on ICT Competencies Standards produced by UNESCO (2008). However, going into detail on these competences would go beyond the scope of this report and therefore, we consider these specific competences as integrated into the above learning need of "work with knowledge, technology and information".

## 2. Indicators for Demand for Learning

> *An understanding of the needs for learning amongst citizens, communities, wider society and the labour market should be the basis of any strategy for lifelong learning. Such an understanding must be grounded in evidence from the local level. This is a prerequisite for ensuring an effective learner centred approach and equality of opportunity.*
>
> European Commission (2001, p. 12)

The identification of learning needs has to be advanced to the local level, e.g. the national contexts of the partner countries in the EFELSE project. The aim is to gain indicator-based information on the current status of *Demand for Learning* in the context of lifelong learning in the respective countries. Figure 2.1 visualizes the relations of learning needs and related issues in the context of lifelong learning which need to be looked at in detail.
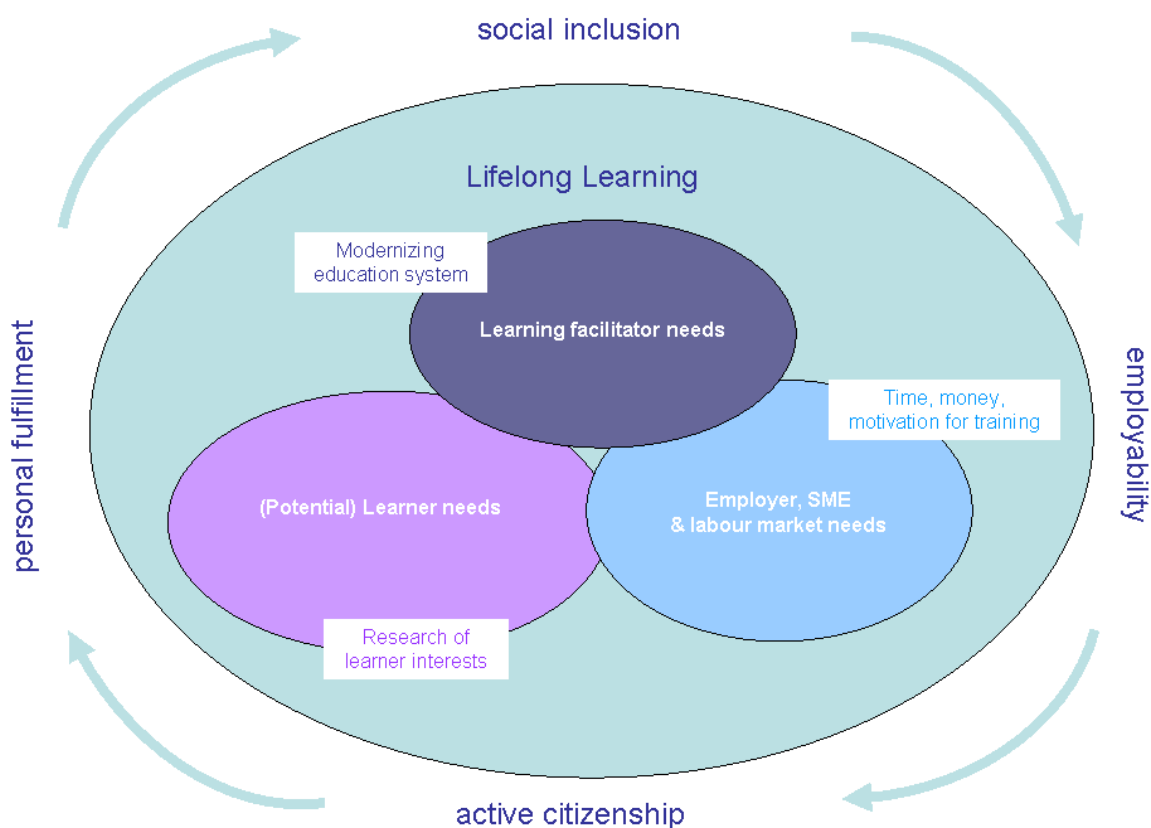


*Figure 2.1.* Lifelong Learning – objectives, learning needs and related issues

*Current situation*: The Universität der Bundeswehr conducted a literature review on European indicators and benchmarks in the context of lifelong learning and adult education. Numerous indicators and benchmarks are available for LLL in general, which are relevant in the context of the EFELSE project (focus on adult learners aged 25-64 who participate or intend to participate in formal continuing education. In the light of this situation and based on the above definition of *Insight into Demand for Learning*, the Universität der Bundeswehr suggests a focus on the following two apectss for monitoring the implementation of a lifelong learning strategy with regard to *Demand for Learning*:

## 1) Participation in LLL

In May 2009, the Council of the European Union (2009, pp. 8-9) introduced eight benchmarks[1] for the measurement of the average European performance level. Two of these benchmarks refer to adult education. The focus is on participation and attainment of adults in LLL and tertiary education in general:

- "With a view to increasing the participation of adults in lifelong learning, particularly that of the low-skilled: ***By 2020, an average of at least 15 % of adults should participate in lifelong learning***,

  i.e. The percentage of the population aged 25-64 participating in education and training during the 4 weeks prior to the survey (Eurostat/Labour Force Survey). Benefit can also be drawn from the information on adult participation in lifelong learning gathered by the Adult Education Survey.

- Given the increasing demand for higher education attainment, and whilst acknowledging the equal importance of vocational education and training: ***By 2020, the share of 30-34 year olds with tertiary educational attainment should be at least 40%***,

  i.e. The percentage of those aged 30-34 who have successfully completed tertiary level education (ISCED levels 5 and 6). (Eurostat, UOE)".

Although these indicators are not related to specific learning needs (e.g. participation in language courses, computer courses, etc.) the information is considered valuable for monitoring the actual development of *Demand for Learning* in a country.

## 2) Outcomes of LLL

As described above, it is "necessary to recognize a problem by comparing outcomes and expectations". In the context of *Demand for Learning*, these outcomes would be the skills and competences of the learners as required by the labour market and society. The current development of the Programme for International Assessment of Adult Competences (PIAAC[2]) addresses the issue of measuring adult competences on an international level and will provide more details on learning needs of adults; however, data is not available yet. Nevertheless, national data sets might be available (e.g. in Germany the Leibniz Institute for Science Education studied the mathematical competences of parents of PISA students[3]).

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[1] The report (Council of the European Communities, 2009) proposes five benchmarks based on the existing EU benchmarks for Lifelong Learning (adult participation in LLL, low achievers in basic skills, tertiary level attainment, early school leavers, early childhood education; see also Commission of the European Communities, 2007, p. 9) and introduces the need for developing three additional benchmarks (mobility, employability and language learning).

[2] www.oecd.org/els/employment/piaac; http://www.iea-dpc.de/280.html?&L=1

[3] http://pisa.ipn.uni-kiel.de/eltern/index_eng.html

## *Analysing the Demand for Learning*

In the following, information for EFELSE project partners is provided on how to conduct the research on the current status of *Demand for Learning* in a country.

The parameter *Demand for Learning* is described by two aspects/indicators: P*articipation in LLL* and O*utcomes of LLL*. Partners are asked to provide information on **O**bjectives, **B**enchmarks, **I**ndicators and **P**olicies for both parameter aspects (see figure 2.2). The focus should be on adult education for people aged 25-64.



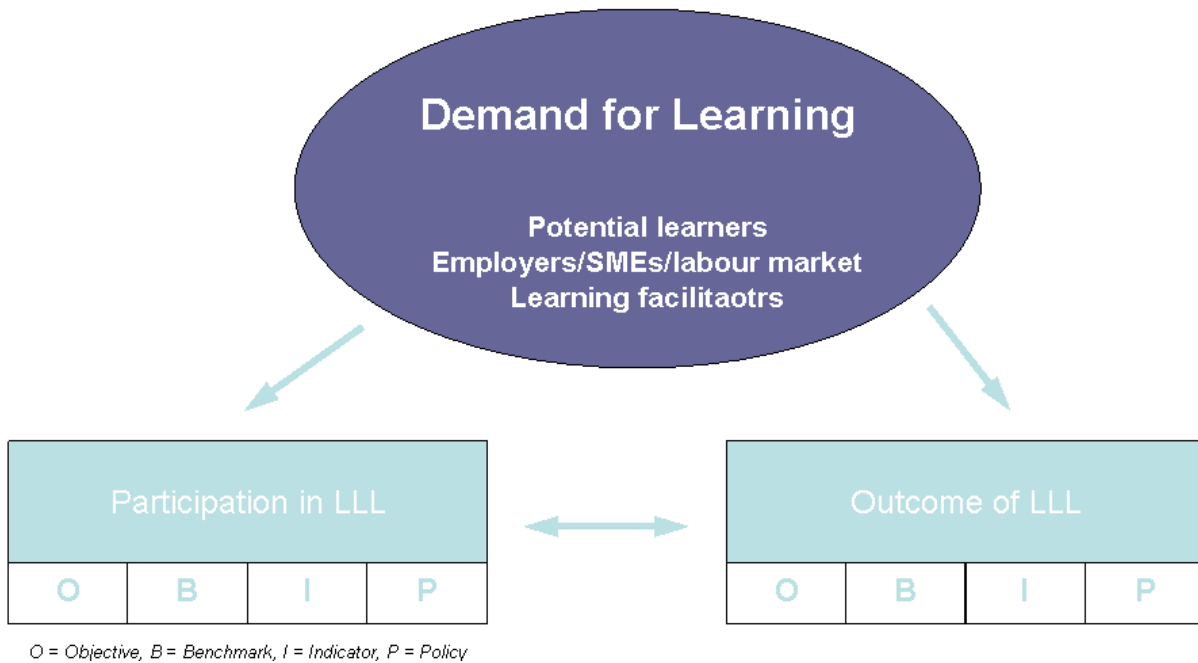O = Objective, B = Benchmark, I = Indicator, P = Policy

*Figure 2.2*. Balanced scorecard approach for analysing the parameter *Demand for Learning*.

**The questions that need to be answered for each of the two aspects of *Demand for Learning* are:**

Which **objectives** for P*articipation in LLL* and *Outcomes of LLL* do exist in your country?

> Example: To raise the participation rate of adults in LLL;
> to raise the literacy level of low skilled adults

Which specific **benchmarks** for *Participation in LLL* and *Outcomes of LLL* do exist in your country?

> Example: X% of the adult population should participate in LLL;
> X% of low skilled adults should reach a certain reading proficiency level

Which specific **indicators** (data) are available for *Participation in LLL* and *Outcomes of LLL* in your country?

| LLL participation indicators | | Suggestion of data sources |
|---|---|---|
| Participation in LLL, population 25-64 | Participation in continuing education of initially low qualified people | UNESCO/OECD/Eurostat (UOE)<br><br>Continuous Vocational Training Survey (CVTS)<br><br>Adult Education Survey (AES)<br><br>Labour Force Survey (LFS)<br><br>Survey on Income and Living Conditions (SILC)<br><br>Eurobarometer, eEurope benchmarking |
| | Share of employees participating in job-related training and continuing education | |
| | Average hours spent on training per employee | |
| | Percentage of working time spent by employees on training per age groups | |
| | Rate of working population trained on job related ICT skills | |
| | Participation in online education/ e-Learning | |
| Participation of teachers/trainers in LLL (Professional development of teachers and trainers) | Percentage of teachers having received training/ who follow continuous professional training | ESS initiatives for the aggregation of national data<br><br>OECD TALIS – Germany did not participate<br><br>Labour Force Survey (LFS)<br><br>Eurobarometer, eEurope benchmarking |
| | Progression in number of applicants for training programmes (teachers and trainers) | |
| | Continuous training of teachers in areas of emerging skills needs | |
| | Share of teachers with IS (Information System) literacy | |

| LLL outcome indicators | | Suggestion of data sources |
|---|---|---|
| Educational attainment rate of adult population | | Eurostat (UOE) |
| | | Labour Force Survey (LFS) |
| | | Survey on Income and Living Conditions (SILC) |
| Impact of educational levels on employment and unemployment | Share of the workforce using computers for work | UNESCO/OECD/Eurostat (UOE) |
| | | Continuous Vocational Training Survey (CVTS) |
| | | Adult Education Survey (AES) |
| | | Labour Force Survey (LFS) |
| | Shortages in ICT occupations and sectors | Survey on Income and Living Conditions (SILC) |
| | | Eurobarometer, eEurope benchmarking |
| | | Eurostat-BASELINE |
| Shortage/surplus of qualified teachers and trainers on the labour market | | ESS initiatives for the aggregation of national data |
| | | OECD TALIS – Germany did not participate |
| | | Labour Force Survey (LFS) |
| | | Eurobarometer, eEurope benchmarking |
| Adult competencies | | Programme for the International Assessment of Adult Competences (PIAAC), planned for 2009 |

These indicators are suggested on the basis of a literature review of existing European indicators conducted by the Universität der Bundeswehr. The available data is expected to differ between countries, e.g. with regard to its details and up-to-dateness. Partners could use the following international data sources; however country specific statistics should be considered as well.

Which **policies** and initiatives aim at improving the current status of *Participation in LLL* and *Outcomes of LLL* in your country?

> The answer to this question should consider the existing objectives and benchmarks in relation to specific policies. The data retrieved for the indicators of participation and outcomes of lifelong learning is relevant for monitoring the progress of the policy and LLL strategy implementation.

# 3. References

Altonji, J. G: (1993). The Demand for And Return To Education When Outcomes Are Uncertain. *Journal of Labour Economics, 11 (1),* 48-83.

Becker, G. S. (1993). *Human Capital. A Theoretical and Empirical Analysis with Special Reference to Education*. (3rd Ed.). Chicago: University of Chicago Press.

Berger, W. (1969). *Zur Theorie der Bildungsnachfrage. Ein Beitrag zur Identifizierung der Determinanten privater Nachfrage nach formaler Bildung*. Studien und Berichte. Berlin. Institut für Bildungsforschung in der Max-Planck-Gesellschaft.

Bradshaw, J. (1972). The concept of social need. *New Society, 30*, 640-643.

Chisholm, L., Larson, A., Mossoux, A.-F. (2004). Lifelong learning: citizens' views in close-up. Findings from a dedicated Eurobarometer survey. Luxembourg: Office for Official Publications of the European Communities. Retrieved May 8, 2009 from http://www.cedefop.europa.eu/etv/Information_resources/Bookshop/publication_details.asp?pub_id=366.

CEDEFOP. (various years). *CEDEFOP Bookshop. Publications on Skills Needs*. Retrieved May 8, 2009 from http://www.cedefop.europa.eu/etv/Information_resources/Bookshop/publications.asp?section=28.

CEDEFOP. (2008). *Skill needs in Europe. Focus on 2020*. Panorama Series; 160. Luxembourg: Office for Official Publications of the European Communities. Retrieved July 7 2009, from http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/498/5191_en.pdf.

CEDEFOP. (2009). *Future skill supply in Europe. Medium-term-forecast up to 2020: synthesis report*. Luxembourg: Office for Official Publications of the European Communities. Retrieved July 7, 2009, from http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/546/4086_en.pdf.

Commission of the European Communities. (2007). *A coherent framework of indicators and benchmarks for monitoring progress towards the Lisbon objectives in education and training*. Brussels. Retrieved May 25, 2009, from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0061:FIN:EN:PDF.

Commission of the European Communities. (2008). *New Skills for New Jobs. Anticipating and matching labour market and skills needs*. Retrieved May 7, 2009, from http://ec.europa.eu/education/lifelong-learning-policy/doc/com868_en.pdf.

Council conclusions of 22 May 2008 on adult learning. (2008). *Official Journal of the European Union. C 140. 10-14*. Retrieved May 7, 2009, from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:140:0010:0013:EN:PDF.

Council of the European Union (2009, May). *Council Conclusions on a strategic framework for European cooperation in education and training ("ET 2020")*. 2941th Education, Youth and Culture Council meeting Brussels, 12 May 2009. Retrieved June 16, 2009, from http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/educ/107622.pdf

European Institute for eLearning. (EIfeL). (2006). *eLearning Competences Framework for Teachers and Trainers*. Retrieved May 25, 2009, from http://www.eife-l.org/publications/competencies/ttframework/view.

European Commission. (2000). *A Memorandum on Lifelong Learning*. Commission Staff Working Paper. Retrieved May 7, 2009, from http://ec.europa.eu/education/policies/2010/doc/memoen.pdf.

European Commission. (2001). *Making a European Area of Lifelong Learning a Reality*. Communication from the Commission. Retrieved May 7, 2009, from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0678:FIN:EN:PDF.

European Commission. (2005). *Common European Principles for Teacher Competences and Qualifications*. Retrieved May 25, 2009, from http://ec.europa.eu/education/policies/2010/doc/principles_en.pdf.

Glendenning, F. (2004). Education for older adults: lifelong learning, empowerment, and social change. In J.F. Nussbaum & J. Coupland. (Eds), *Handbook of Communication and Aging Research*. Second Edition, pp: 523-543. Mahwah, NJ: Lawrence Erlbaum Associates.

Helberger C. & Palamidis, H. (1989). Der Beitrag der Humankapitaltheorie zur Erklärung der Bildungsnachfrage. In P.A. Döring, H. Weishaupt & M. Weiß (Hrsg.) *Bildung in sozioökonomischer Sicht* (pp. 205-220). Frankfurt/M: Böhlau Verlag.

Helberger C. & Palamidis, H. (1992). D*ie Nachfrage nach Bildung: Theorien und empirische Ergebnisse*. Berlin: Duncker und Humblot.

Hillage, J. & Aston, J. (2001). *Attracting New Learners: A Literature Review*. Learning and Skills Development Agency, London. Retrieved, May 18, 2009, from https://crm.lsnlearning.org.uk/user/order.aspx?code=011079.

Howard, U. (2001). *Stimulating Demand for Learning. An Ideas Paper on Attracting New Learners*. Learning and Skills Development Agency, London. Retrieved, May 18, 2009, from https://crm.lsnlearning.org.uk/user/order.aspx?code=011185.

Key Competences for Lifelong Learning – A European Framework. (2007). Annex of the Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006). *Official Journal of the European Union. L394. 10-18*. Retrieved May 7, 2009, from http://ec.europa.eu/dgs/education_culture/publ/pdf/ll-learning/keycomp_en.pdf.

Knowles, M .S. (1975). *Self-Directed Learning: A Guide for Learners and Teachers*. New York: Association Press.

Knowles, M. S. (1991). Lifelong Learning: A Dream. In D. Dickens (Ed.), *Creating the Future. Perspectives on Educational Change Compiled and Edited by D. Dickens*. Retrieved May 22, 2009, from http://www.newhorizons.org/future/Creating_the_Future/crfut_knowles.html.

McKillip, J. (1987). Need Analysis. Tools for the Homan Services and Education. Newbury Park: Sage Publications.

OECD. (Ed.). (2000). *Special Needs Education. Statistics and Indicators*. Centre for Research and Innovation.

Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006). *Official Journal of the European Union. L394. 10-18*. Retrieved May 7, 2009, from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2007:290:0001:0003:EN:PDF.

Scriven, M. & Roth, J. (1978). Needs assessment. Concept and practice. *New Directions for Programme Evaluation, 1*, 1-11.

UNESCO. (Ed.). (2008). *Education for All – Global Monitoring Report 2009. Overcoming inequality: why governance matters*. Oxford: Universtiy Press. Retrieved, May 18, 2009 from http://unesdoc.unesco.org/images/0017/001776/177683e.pdf.