

Lifelong Learning is a growing factor in employability

POLICY BRIEF
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IMPRESSUM

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LIFELONG LEARNING AND EMPLOYABILITY ENHANCEMENT

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Structural economic and social changes have given strong impulses to adjustment processes across all EU economies affecting directly individuals and their capacity to maintain or develop personal prospects in satisfactory ways. The personal prospects are most closely linked with capacity to find, maintain or change a job. Being or not being in a working position crucially impacts social standing of an individual.

Evidence suggests strong links between participation in lifelong learning and employability. Hence, what shapes the ability of adults to learn and what hampers them in participating in learning opportunities is of crucial importance to actors at national and European policy levels. Life-long learning has therefore emerged as important inter-connecting element in designing effective policy measures for interconnected policy areas of employability, social inclusion and welfare.

Life-long Learning is a key a driver of enhancing employability

Introduction

Transitions to and between jobs are marked by increasing complexity

In the turmoil of structural and global shifts affecting economies, some European job seekers do not find jobs in long-term. Some do not find jobs at all or get discouraged and give up on job prospects. While in the past initial higher education has been the key entrance ticket to employment, among European job seekers in difficulties are these days also young university graduates. At the same time, European employers face difficulties to fill considerable number of vacant positions. It is evident that labour market transitions are flagged by increased complexity.

Employability is shaped by skills, attitudes and knowledge

Variety of factors combine in channelling individuals towards employments that correspond best to their potential, skills and individual expectations while the individual employment paths are becoming increasingly dynamic. New organisational setups develop and create pressure on individuals and their composition of capacities, knowledge and skills. The restructuring of organisations brings about a more dynamic employment model based on careers with multiple employees rather than a single lifetime employment (de Grip et al, 2004, Kenny et al, 2007, and Clarke, 2008). These trends make career management, and hence employability skills, essential.

Negative demographic change in Europe underlines connections between

In addition to changes implied by structural changes and global liberalisation, limitations introduced by negative demographic trends in EU economies aggravate labour market shifts and create frictions. While ageing population and declining birth rate leads to shortages in skills and labour, the incidence of unemployment persists and signals that labour markets continue to follow worryingly unbalanced paths. At national level actions and solutions are expected from policy makers and employers.

In view of on individuals pressures implied by shifts in the labour and product markets, adjusted capacity of individuals to deal with new types of problems at work and life and to cope with changes towards complexity is required. This capacity and its enhancement is closely linked with the ability and willingness of individuals to learn and to enhance skills through the whole span of their life.

Lifelong learning concept is a natural response to new demands on individual skills as it encompasses life-long and life-wide learning. (Rubenson 2002). As such, lifelong learning is an optimal candidate for interconnecting support element of social policy and in particularly well suited to target enhanced employability.

Key Observations

Employability is closely connected with social inclusion and welfare

The way an individual copes with changing economic and social environment is in major way connected to his or her employments prospects. Employability, the ability to find, keep or change a job position, when an individual needs or wishes to, is determined by combination of his or her attitudes, knowledge and skills. These interact with personal characteristics and background conditions and imply how an individual performs at the labour market.

Prevailing empirical evidence on what and how affects employability is based on analysis of a spectrum of factors and their attribution to the labour market status of an individual.

The employability measured this way therefore refers primarily to the information whether an individual is employed, unemployed or inactive at the time he provided information about his work, skills and education. In LLLight, Babos, Comincini (2015) examine links between education, skills and employability following a different approach. They measure employability using the share of working life an individual has spent in a paid work as a better assessment for one's ability to get and maintain a job during the whole working life.

This allows for a more evidence-based analysis of the effectiveness of different factors that the literature indicates are likely to play a role in shaping one's employability.

The differences in how skills, education and circumstances affect employability depend on the country economic and social structures.

Mainly, the proposed measure provides a "backwards" perspective in terms of the time period when the processes related to individual factors and circumstances potentially influence individual employability are analysed and allows for analysing time effects of longer duration.

The analysis broadly confirms general line of results generated by other employability studies namely that it is a mix of personal capacities and circumstances that play key role in influencing employability.

Firstly, different types of skills contribute to one's employability in various ways. IT and problem solving skills are more significant among the skills spectrum and together with attitudes and non-cognitive skills they increase a person's ability to get and maintain a job.

But different country frameworks decide how education and skills can improve employability while personal factors such as having children can worsen employability.

In some countries family situation may constitute an important barrier for participation in LLL

From the post-communist countries, according to this analysis, the Czech Republic rewards educational level relatively high while there is no evidence that the problem solving skills would be rewarded in terms of employability.

At the same time, having children is a significant barrier, especially for women who have lower employability than men. Effect of educational level on employability is high.

In contrast to this case is the way education and skills interact in countries with high employability like Sweden. In Sweden both education and skills are rewarded with higher employability. Social frameworks and support structures for families are instrumental for employability as family situation or gender do not have any (negative) effects on employability.

Finally, in case of UK as an illustration of an economy with relatively low investment in general education, both education and problem solving skills are relevant for improved employability. However, having children does have a negative effect on employability, though the effect is smaller than in case of the Czech Republic.

This evidence reflects on the links between employability, lifelong learning and social cohesion. Participation in lifelong learning in form of training is highly relevant directly, for improved employability as well as indirectly via contribution to skills upgrade.

Non-formal education is effective and its value is recognized by participants as well as employers

In light of increasing evidence on links between skills and lifelong learning activities on one hand and employability on the other, the insights into what are the factors shaping participation in learning are of high importance.

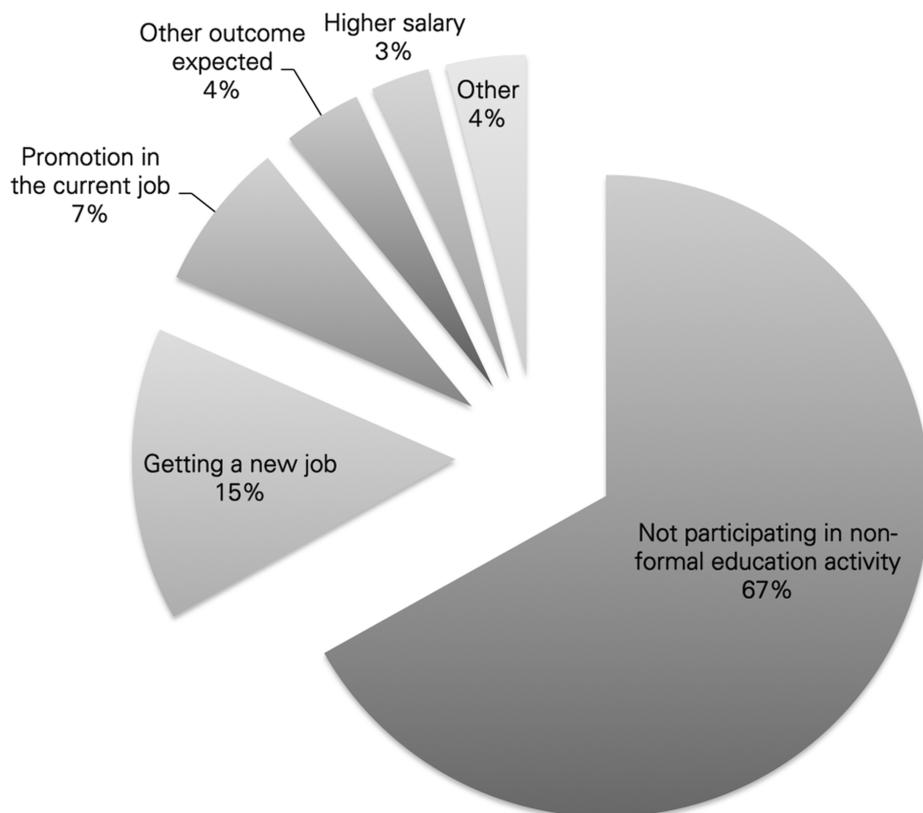
As outlined in other parts of LLLight research, non-formal learning activities are the prevailing practice in lifelong learning as on average one in three adults in EU in 2011 undertook some non-formal learning activity in the span of past 12 months. We also know that major part of this form of learning is funded prevalently by employers.

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Improved employability and participation in lifelong learning are connected

The outcomes of non-formal learning activities reveal that they are well recognized by the participants as to have had positive effects on their employability. In particular, getting a job or finding a new job and get a promotion are leading outcomes of non-formal participation (Figure 1).

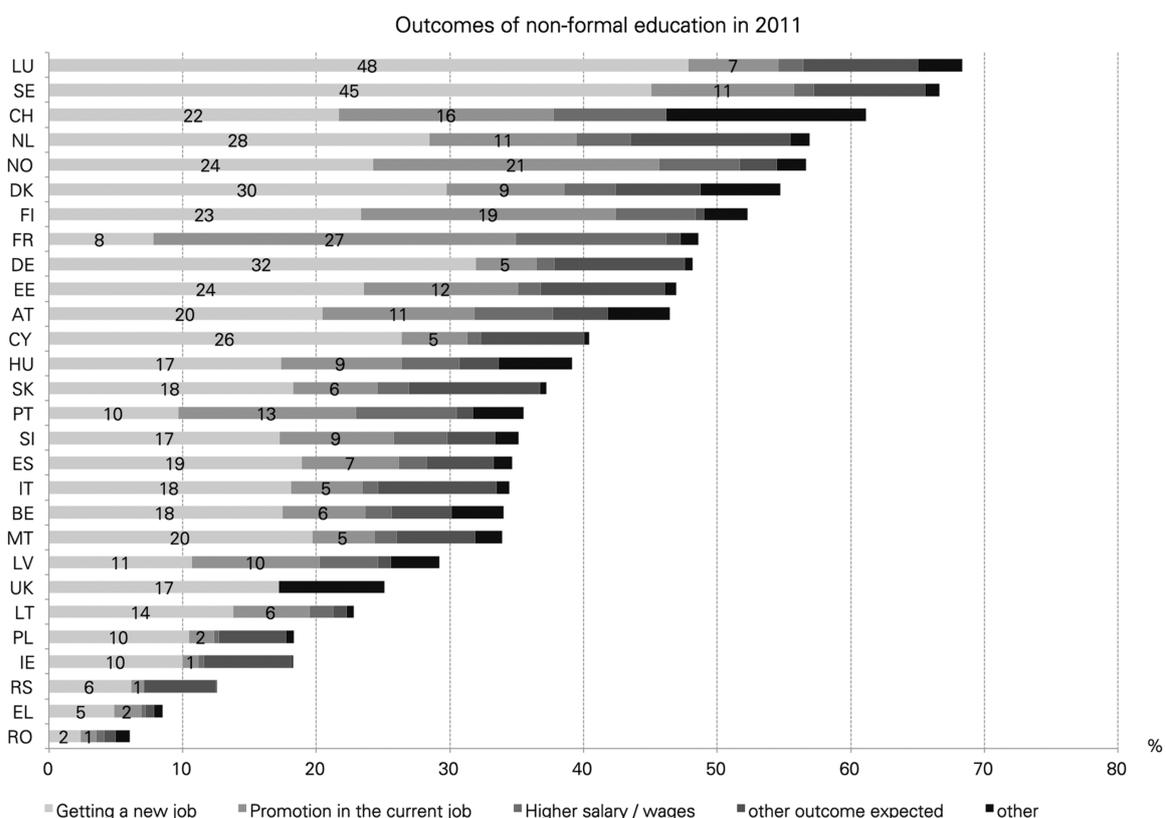
Figure 1: 2011, Outcomes of one non-formal learning activities per individual participant, including all countries in Adult Education Survey, Source: AES 2011 , Eurostat



More than one third of European adults still have not recognized that continued learning is a necessity

The country patterns (Figure 2) document that in countries with high participation rates most participants can clearly attribute lifelong learning outcome to improved employability. In countries with low participation, in most cases relatively smaller share of participants ho can improved employability attribute to the outcome of participating in lifelong learning activities.

Figure 2: Outcomes of non-formal education activity, 2011 AES, one selected activity undertaken in span of past 12 months (outcomes getting a new job or other outcomes relates to all respondents including inactive and unemployed), Eurostat

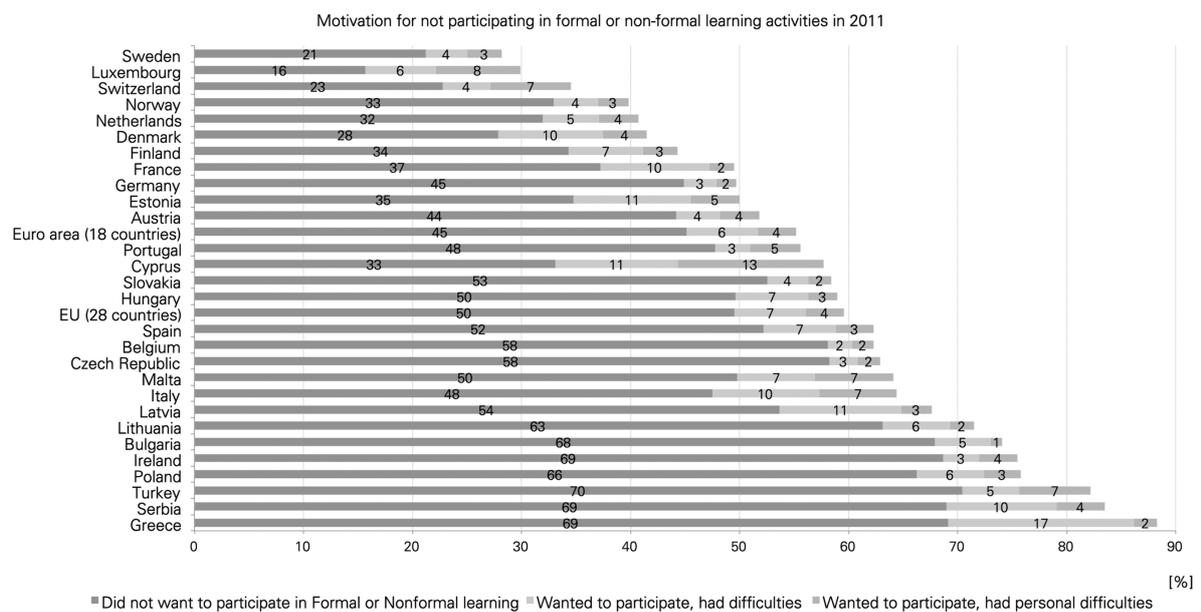


Most individuals who do not want to participate in lifelong learning in fact face obstacles preventing them from participation

For illustration in Sweden, where almost 70% of adults participate in lifelong learning, about 60% participants report a lifelong learning activity had positive outcome on employability leaving 10% of participants reporting other outcomes. In Italy the share of respondents reporting other outcomes is the same as in Sweden, 10%, but the share of respondents reporting positive outcome of LL activity in terms of employability is around 25% compared to 60% in Sweden.

Inquiring further about the obstacles that might lie behind non-participation we find that most individuals across all countries report in first hand they do not want to participate as opposed to those who wanted to participate but encountered difficulties in doing so (Figure 3).

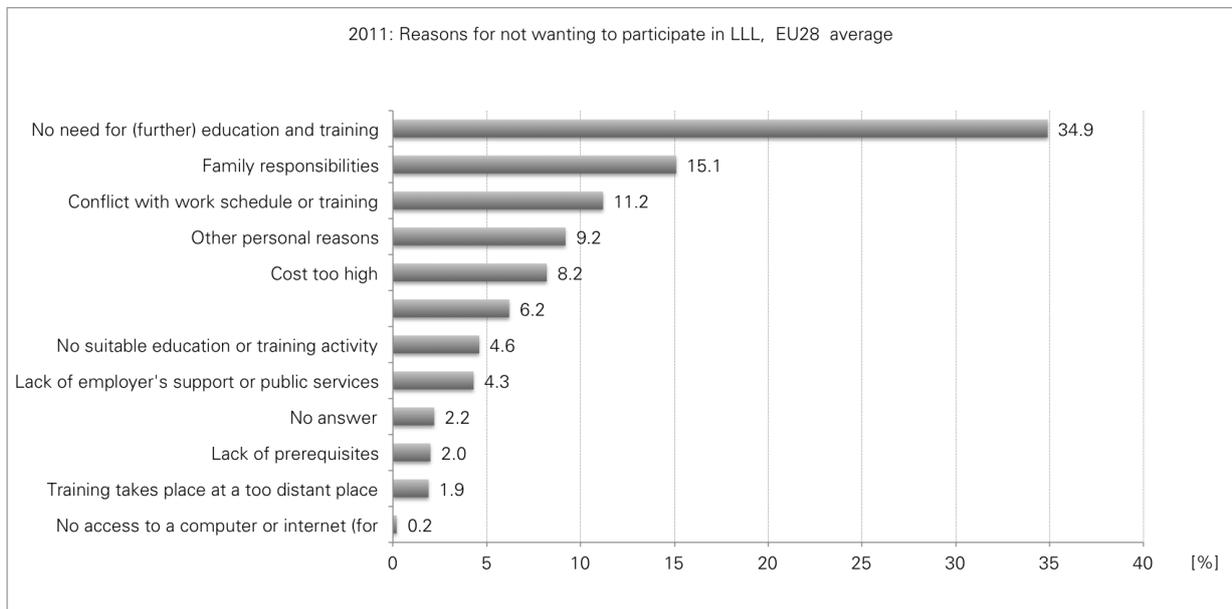
Figure 3: Motivation not to participate in LLL in 2011, Source: AES, Eurostat



Family responsibilities are mostly cited specific obstacle to lifelong learning participation

However, when asking about the reasons for not wanting to participate we find that only more than one third of individuals who did not want to participate report they feel no need for further education or training. Other two thirds of those who did not want to participate signal obstacles to participation, among which as much as 15% of all non participating respondents report family responsibilities (Figure 4).

Figure 4: Main reason for not wanting to participate in formal or non-formal learning, % share of total non-participation including all countries where information was collected in AES 2011, source AES 2011, Eurostat



Recommendations for policy-makers

The research undertaken in LLLight hints towards IT and problem solving skills as good candidates for enhancing ability at workplaces and positive effects on employability. Programmes supporting access to learning in this area might be instrumental for improved prospects of adults.

Employers play important role in lifelong learning support at workplaces

Non-formal learning is effective for its participants. Once individuals participate in lifelong learning, most of them connect the outcome with positive effects on employability. Since most non-formal learning is happening at workplaces and due to support of employers, effective policy measures might need inputs from and coordination with the spectrum of employers.

Room for improvement in the institutional and socio-cultural set-ups to increase participation in lifelong learning

When designing national policies supporting employability via lifelong learning participation, the nature of obstacles to lifelong participation perceived by individuals represent vital input for effective delivery across spectrum of social and personal backgrounds.

Since lifelong learning participation and the role of personal and institutional factors vary across countries, policy measures need to refer to country specific circumstances created by social welfare and labour market setups. At the same time the role of institutions signals room for improvement in the institutional and socio-cultural context to increase participation in lifelong learning in many European countries.

Administratively accessible programmes are a success factor to reach all companies including SMEs

In particular, non-selective and administratively easily accessible programmes for the whole population are a key success factor to avoid market distortions and address risk of specific business interests. The dominating and increasing importance of SMEs in EU create favorable conditions for such policy solutions.

Research parameters

Babos, Comincini (2015) use OECD's Survey of Adult Skills (PIAAC) to test suggested links between education, skills and employability in different countries representing different labour market regimes. Structural equations are used to model complex relationships between education, skills and employability. Employability is conceptualized in a retrospective way: the years a respondent has been working as a share of the respondent's whole working life. This way longer-term effects are addressed compared to other studies based on probabilistic modelling. For illustration, within the probabilistic approach, only the relationship between the current willingness to mobility and the likeliness of employment can be addressed, whereas Babos, Comincini take a broader view on the possible effects of actual mobility in the past 5 years on employability.

Adult Education Survey rounds 2007 and 2011, both individual data as well as Eurostat aggregated results were used to provide insights into patterns of lifelong learning participation.

Literature

Babos P., Comincini, L., “Employability in Different Capitalist Regimes: a Trade-off Between Formal Education and Skills?” draft August 2015 submitted to European Journal of Education

Clarke, M. (2008). Understanding and Managing Employability in Changing Career Contexts. *Journal of European Industrial Training*, Vol. 32 No. 4 pp. 258-284.

de Grip, A., van Loo, J., and Sanders, J. (2004). The Industry Employability Index: Taking Account of Supply and Demand Characteristics. *International Labour Review*, Vol. 143 No. 3 pp. 211-233.

Kenny, A., English, R., and Kilmartin, D. (2007). Key Skills Framework: Enhancing Employability Within a Lifelong Learning Paradigm. Skills Research Initiative, Working Paper (Employability)

Rubenson K. , (2002) Lifelong learning for all: challenges and limitations of public policy. In S. Mojab and W. McQueen (eds), *Adult Education and the Contested Terrain of Public Policy*, Proceedings of the 21st Annual Conference of the Canadian Association for Studies in Adult Education (CASAE) (Toronto: CASAE), available at http://casae-aceea.ca/~casae/sites/casae/archives/cnf2002/2002_Papers_rubenson2002w.pdf

Rubenson, K. & Desjardins, R. (2009) The Impact of Welfare State Regimes on Barriers to Participation in Adult Education: A Bounded Agency Model, *Adult Education Quarterly*, Vol. 59, pp.187–207.

Project Identity

LLLight'in'Europe is an FP7 research project supported by the European Union, which has investigated the relevance and impact of lifelong learning and 21st century skills on innovation, productivity and employability. Against the background of increasingly complex tasks and jobs, understanding which skills impact individuals and organizations, and how such skills can be supported, has important policy implications. LLLight'in'Europe pioneered the use of an instrument to test complex problem solving skills of adults in their work environment. This allowed for the first time insights into the development of professional and learning paths of employed individuals and entrepreneurs and the role that problem solving skills play. Additionally, LLLight'in'Europe draws on a series of databases on adult competences from across the world to conduct rich analyses of skills and their impact.

These analyses were conducted in concert with different disciplines. Economists have been analyzing the impact of cognitive skills on wages and growth; sociologists have been investigating how public policies can support the development of such skills and lifelong learning; innovation researchers have been tracking the relationships between problem solving skills, lifelong learning and entrepreneurship at the organizational level; educational scientists have investigated how successful enterprises support their workforce's competences; cognitive psychologists have researched on the development and implications of cognitive skills relevant for modern occupations and tasks; and an analysis from the perspective of business ethics has clarified the role and scope of employers' responsibility in fostering skills acquisition in their workforce. The team has carried out its research and analyses on the value of skills and lifelong learning in EU countries, USA, China, Latin America and Africa.

The result is a multi-disciplinary analysis of the process of adult learning and problem solving in its different nuances, and of the levers which can support the development of these skills for both those who are already in jobs, and for those who are (re)entering the labor market, as well as the development of effective HR strategies and public policy schemes to support them.

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This policy brief is part of the publication suite of the FP7 Project LLLight'in'Europe. The publication suite consists of 21 policy briefs, 6 thematic reports and 1 synthesis report. The 21 policy briefs discuss findings and policy implications proceeding from the project's research; they are organized along three level of analyses (persons; enterprise; country) and seven topics.

01	Resources of society for learning
02	Institutions of learning
03	Circumstances of learning
04	Role of transversal skills
05	Role of job-specific skills
06	Productivity of skills
07	Outcomes of skills

This policy brief discusses findings related to **Outcomes of skills** at the analysis level **enterprise**. For further publications and multimedia material related to the project, please visit www.lllightineurope.com