

# European Lifelong Learning Indicators (ELLI)

Report on the International Online Survey  
June 2008





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# 1 Introduction

Lifelong learning has been an issue in the political arena for many years. Its priority in policy making has increased steadily. And its importance for social and economic development as well as for social cohesion and active citizenship in the knowledge society and economy has become widely acknowledged. Lifelong learning is a process that involves the development of knowledge, skills and values throughout all stages of a person's life – from early childhood through adulthood. Learning is not just an intellectual process, but one that involves all areas of life, including a person's role in the community, performance in the workplace, personal development and physical well-being. Lifelong learning also has an attitudinal nature and expresses the concept that “it's never too soon or too late for learning”.

However, despite considerable research no European country has developed a tool to monitor the extent of lifelong learning within its population. In spring 2008 the Bertelsmann Stiftung, together with international research partners, launched an endeavor to operationalize the concept of lifelong learning in Europe.

The next crucial step was a dialogue with experts all over Europe. By participating in an online survey, experts were given an opportunity to express their opinions about the structure of the proposed model and the importance of indicators for the measurement of lifelong learning.

The Bertelsmann Stiftung and its partners believe that the indicators should be developed and used in an open collaborative authoring process. This online survey was just the first step in involving international co-developers in this ongoing process.

## 2 Statistical information

One-hundred ninety-one experts in the scientific field of Lifelong Learning were contacted to participate in the online survey. The rate of return was 47.1% (90 of the experts actually took part). Among the people participating in the survey, 50 filled out the complete questionnaire. The survey was conducted by inworks GmbH from May 27, 2008 to June 30, 2008 via a web-based questionnaire with Inquiry® Survey Server. The average time needed to fill out the questionnaire was 25:28 minutes. The scale ranged from 1 (minimum level of importance) to 5 (maximum level of importance). The experts surveyed came from a variety of countries including Germany, Slovakia, UK, Italy, Greece, Russia, Switzerland, Denmark, Sweden, Turkey, Australia, France, Luxembourg, USA, Canada, Austria and Finland.

### 3 PILLAR – learning to know

Developing skills and knowledge is an essential element of this dimension of lifelong learning, because it determines the capacity for innovative thinking and adaptability required in today's knowledge-based economy. Table 1 shows how the experts estimated the importance of the suggested indicator (1 = minimum level of importance, 5 = maximum level of importance). Indicators measuring learning to know were grouped into seven categories/constructs: supply of (formal) education, access to (formal) education, participation/engagement in (nonformal and informal) education, early childhood development skills, key competences for acquiring knowledge, school/educational success, and attitudes towards (formal) education and learning. A total of 22 indicators were subordinated to the constructs. Within the second column, the average values of importance are listed. In the third column the number of experts who had rated this indicator can be found.

When indicators are looked at, the range reaches from an average value of importance of 4.7 to an average value of importance of 3.5. Thereby the two indicators measuring literacy (4.7 – youth literacy and 4.6 – adult literacy) were judged the most important indicators regarding the measuring of learning to know. Moreover, the majority of the suggested indicators were tagged with a comparatively high value of importance. Nevertheless some indicators, e.g. participation in education by field (3.8) as well as household expenditure in formal education (3.7) and participation in online education (3.5) were judged comparatively less important.

A closer look at the particular values assigned to the indicators shows that there was only a small variance between the values attributed to the indicators. Thus, indicators were judged to be of minimum importance by the experts only few times. However, the figure also shows that there is considerable agreement on the major importance of the first half of the indicators listed in figure 2.

The experts were also asked to suggest additional indicators when they missed indicators. Thus, the following indicators were suggested by the experts: supply by some member of family (within the construct: supply of (formal) education); reading professional literature (within the construct of participation/engagement in [non-formal and informal] education); support in making an interesting hobby (construct: early childhood development skills); first entrance in the labor market (construct: school/educational success).

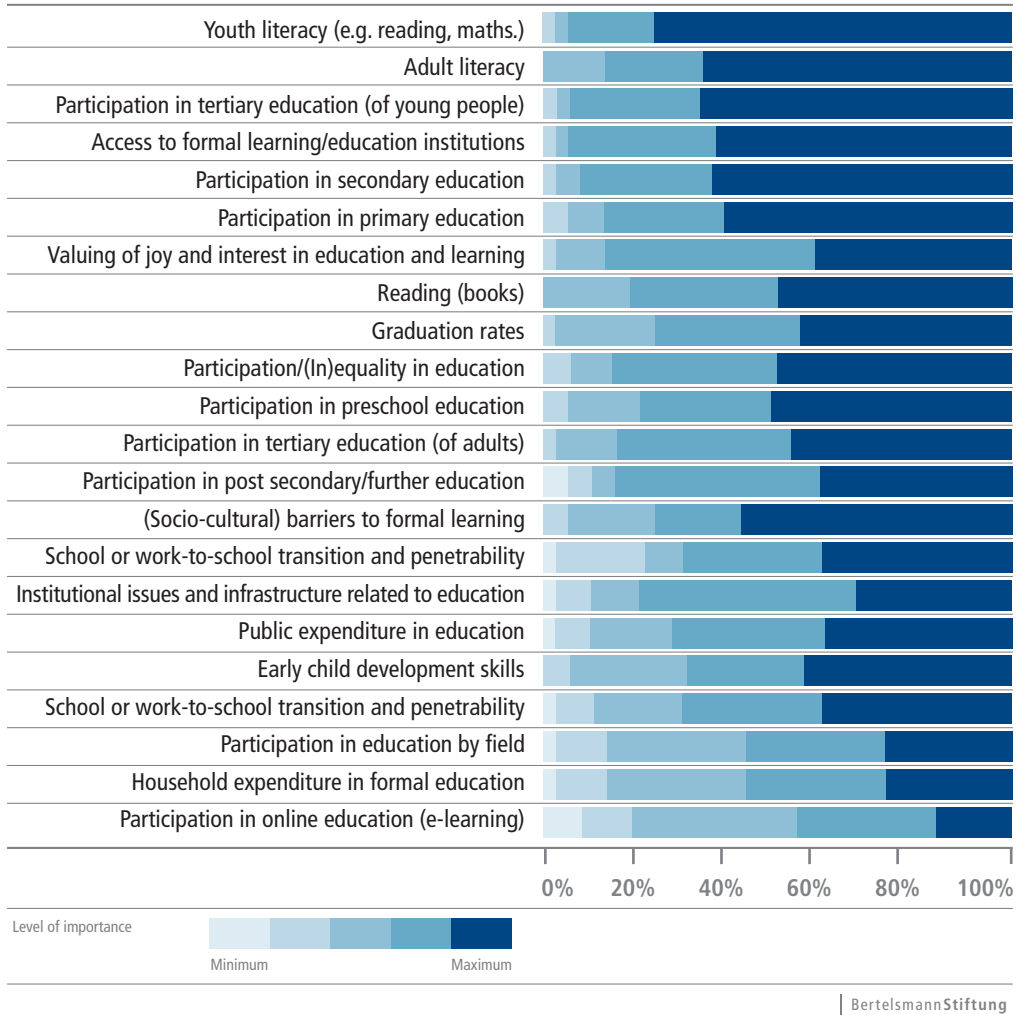
**Table 1: PILLAR – learning to know**

	Value	Participants
<b>Supply of (formal) education</b>		
Public expenditure for education	4.0	50
Institutional issues and infrastructure related to education (e.g. student-teacher ratio, technical infrastructure)	4.1	49
<b>Access to (formal) education</b>		
Access to formal learning/education institutions	4.5	48
(Sociocultural) barriers to formal learning (e.g. access differences between sexes, minorities)	4.2	48
School or work-to-school transition and penetrability	4.0	38
Participation in preschool education	4.3	46
Participation in primary education	4.4	49
School or work-to-school transition and penetrability	4.1	47
Participation in secondary education	4.5	49
Participation in post secondary/further education (not job-related but liberal or hobby-related)	4.1	49
Participation in tertiary education (of young people)	4.5	46
Participation in tertiary education (of adults)	4.2	42
Participation in education by field	3.8	42
Participation/(in)equality in education	4.3	44
Household expenditure in formal education	3.7	47
<b>Participation/engagement in (nonformal and informal) education</b>		
Participation in online education (e-learning)	3.5	46
Reading (books)	4.3	48
<b>Early childhood development skills</b>		
Early child development skills (e.g. ECD-Index/Atlas)	4.0	46
<b>Key competences (for acquiring knowledge)</b>		
Youth literacy (e.g. reading, math)	4.7	48
Adult literacy	4.6	48
<b>School/educational success</b>		
Graduation rates	4.3	48
<b>Attitudes toward (formal) education and learning</b>		
Valuing of joy and interest in education and learning	4.4	48

**Figure 1: Indicators measuring learning to know ranked by importance**

Youth literacy (e.g. reading, maths.)	4,7
Adult literacy	4,6
Participation in tertiary education (of young people)	4,5
Access to formal learning/education institutions	4,5
Participation in secondary education	4,5
Participation in primary education	4,4
Valuing of joy and interest in education and learning	4,4
Reading (books)	4,3
Participation/(In)equality in education	4,3
Participation in preschool education	4,3
Graduation rates	4,3
Participation in tertiary education (of adults)	4,2
(Socio-cultural) barriers to formal learning	4,2
Participation in post secondary/further education	4,1
School or work-to-school transition and penetrability	4,1
Institutional issues and infrastructure related to education	4,1
Early child development skills	4,0
Public expenditure in education	4,0
School or work-to-school transition and penetrability	4,0
Participation in education by field	3,8
Household expenditure in formal education	3,7
Household expenditure in online education	3,5

**Figure 2: Indicators measuring learning to know ranked by importance and structure of voting**



## 4 PILLAR – learning to do

Acquisition of applied skills, which are closely tied to occupational success, is the core element of learning covered by this pillar. Such training is key to keeping Europe's workforce competitive with other countries around the world. It also means learning to do in the context of young people's various social and work experiences, which may be informal or formal. Besides the ability to acquire occupational skills, learning to do more broadly includes the competence to deal with many situations and to work in teams.

**Table 2: PILLAR – learning to do**

	Value	Participants
<b>Supply of vocational and job-related training</b>		
Supply of continuing vocational training in enterprises (e.g. pro-portion of companies, expenditure etc.)	4.5	46
Prevalence of (private and public) incentives offered to firms and individuals to support vocational training	4.0	47
Supply of public continuing vocational training and guidance	4.3	45
<b>Access to vocational and job-related training</b>		
Access to training institutions (e.g. distance, admission to adult education centers)	4.0	46
(Sociocultural) barriers to vocational training (e.g. access differences between sexes, minorities)	4.0	46
Training/work-to-work transition and penetrability	4.1	45
Access to the Internet (e.g. services related to professional development and vocational guidance)	3.9	47
<b>Participation in professional development and job-related training</b>		
Participation (of young people) in vocational training and guidance	4.5	47
Participation (of adults) in continuing on-the-job vocational training	4.6	47
Participation (of adults) in off-the-job vocational training	4.3	47
Household expenditure in professional development and vocational training	3.6	45
Use of public available resources on jobs and related training	3.7	46
<b>Vocational training success (institutional)</b>		
Graduation rates (vocational training, institutions and programs)	4.1	46
<b>Vocational competences</b>		
Vocational competences (e.g. IT skills)	4.3	46
<b>Attitudes towards professional development and job-related training</b>		
Entrepreneurial attitude and activity	3.9	42

**Figure 3: Indicators measuring learning to do ranked by importance**

Participation (of adults) in continuing on-the-job vocational training	4,6
Participation (of young people) in vocational training and guidance	4,5
Supply of continuing vocational training in enterprises	4,5
Supply of public continuing vocational training and guidance	4,3
Participation (of adults) in off-the-job vocational training	4,3
Vocational competences (e.g. IT-skills)	4,3
Graduation rates (vocational training, institutions and programs)	4,1
Training/work-to-work transition and penetrability	4,1
Access to training institutions	4,0
Prevalence of incentives to support vocational training	4,0
(Socio-cultural) barriers to vocational training	4,0
Access to internet	3,9
Entrepreneurial attitude and activity	3,9
Use of public available resources on jobs and related training	3,7
Household expenditure in professional and vocational training	3,6

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In order to cover the learning to do pillar, six meta-indicators or constructs were differentiated by the development team: supply of vocational and job-related training; access to vocational and job-related training; participation in professional development and job-related training; vocational training success (institutional); vocational competences; and attitudes toward professional development and job-related training. On average 2.5 indicators were subordinated to the six concepts. Table 2 shows the average ratings of the indicators as well as the number of experts who gave their vote.

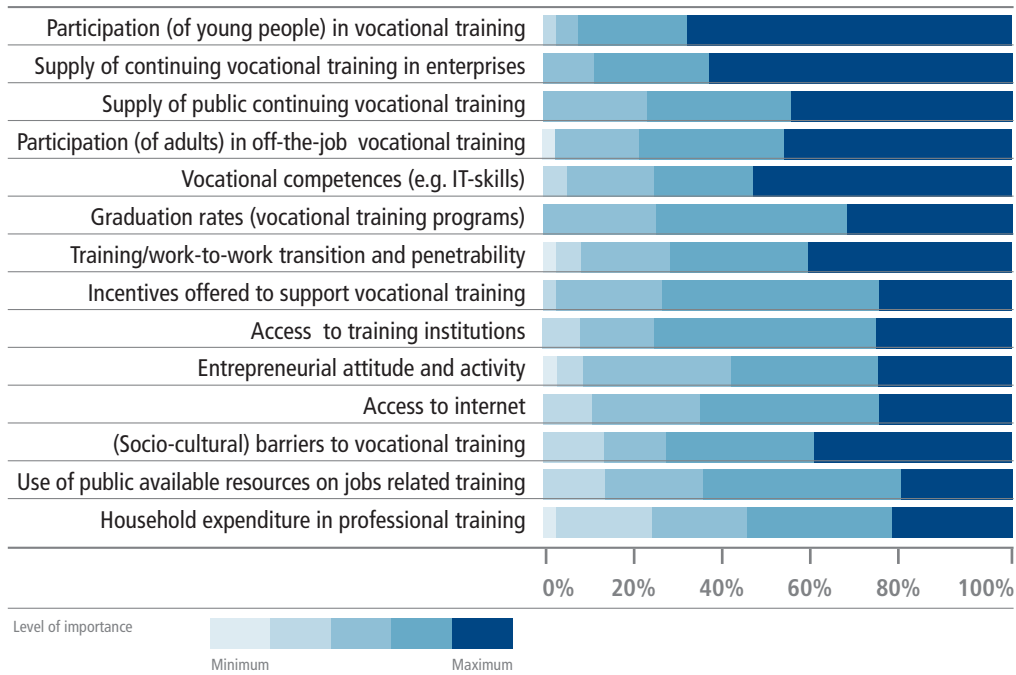
Participation in and supply of vocational training were judged the most important indicators by the experts. This group of indicators was followed by indicators measuring institutional incentives or barriers to vocational training. Indicators measuring expenditure on vocational training were judged to be of comparatively minor importance (figure 3). The development team was

surprised to find that, on average, minor values of importance were assigned to access to the Internet in comparison to other indicators within that pillar of learning.

Regarding the structure of voting, in figure 4 it can be seen that there is a clear consensus on the major importance of indicators measuring participation in, supply of and graduation from vocational training. Only very seldom were indicators rated of minimum importance. Among the indicators rated less cohesively are, for example, indicators related to structural conditions of a learning regime (such as access to training institutions, [sociocultural] barriers to vocational training or access to the Internet), or indicators specifically measuring financial investments (household expenditure in professional training).

As additional indicators the experts suggested the following indicators to measure learning to do: legal structure to enable leave of absence for studying (construct: supply of vocational and job-related training); financial accessibility for participants (participants' ability to pay fees) and access to apprenticeship programs (dual education combining firms and schools) (construct: access to vocational and job related training); type of training: courses, on-the-job, conferences, job rotation, self learning, learning groups; participation in dual education (combining firms and schools) (construct: access to vocational and job related training); taking more than one vocational program; percentage of students without any (vocational) education degree (construct: vocational training success [institutional]); competences measured by Pisa for 15-year-olds; self-evaluation of usefulness of skills acquired (construct: vocational competences); attitude toward learning; self-evaluation of acquisition of knowledge and skills needed for running an own business; attitude toward importance of continuous self-development (construct: attitudes toward professional development and job-related training).

**Figure 4: Indicators measuring learning to do ranked by importance**



## 5 PILLAR – learning to live together

The learning to live together dimension of learning is closely linked to the cultivation of respect and concern for others, understanding of others and their history and traditions and, on this basis, it may be seen as creating a spirit that would induce people to implement common projects or to manage the inevitable conflicts in an intelligent and peaceful way. The pillar was

**Table 3: PILLAR – learning to live together**

	Value	Participants
<b>Supply of opportunities for social learning</b>		
Availability of social clubs, organizations and initiatives	3.8	45
Availability of areas devoted to common activities (parishes, public places, parks, social and cultural centers)	3.8	45
Cultural offer related to common activities	3.6	43
Prevalence of the concept of civic engagement in education	3.9	46
Prevalence of integrated pedagogical concepts (coeducation of boys/girls, disabled/nondisabled students, migrants and natives)	3.7	47
<b>Access to social learning</b>		
Distance to community institutions, social clubs, associations and organizations	3.7	44
Barriers to admission (e.g. financial viability/affordability)	4.1	44
<b>Participation in political- and civil society related learning</b>		
Participation in social clubs, organizations and initiatives	3.9	47
Participation in (religious) community life	3.2	47
Participation in online social networks/communities	3.2	46
Participation in political life (direct democracy)	3.9	46
(Participation in) international exchange programs and initiatives	3.8	47
Participation/engagement in charity work and volunteering	3.8	47
<b>Participation/engagement in family life related learning</b>		
Family cohesiveness	3.8	42
Multi-generational awareness/language retention	3.7	42
<b>Social competences</b>		
Communication/language skills	4.4	45
<b>Social attitudes</b>		
Tolerance and empathy	4.4	46
Trust (general, international, democracy)	4.3	43

**Figure 5: Indicators measuring learning to live together ranked by importance**

Tolerance and empathy	4,4
Communication/Language skills	4,4
Trust (general, international, democracy)	4,3
Barriers to admission	4,1
Participation in social clubs, organizations	3,9
Prevalence of the concept of civic engagement	3,9
Participation in political life (direct democracy)	3,9
Availability of areas devoted to common activities	3,8
Participation/Engagement in charity work	3,8
Family cohesiveness	3,8
Availability of social clubs, organizations	3,8
(Participation in) international exchange programs	3,8
Distance to community institutions, social clubs	3,7
Prevalence of integrated pedagogical concepts	3,7
Multi-generational awareness	3,7
Cultural offer related to common activities	3,6
Participation in (religious) community life	3,2
Participation in online social networks	3,2

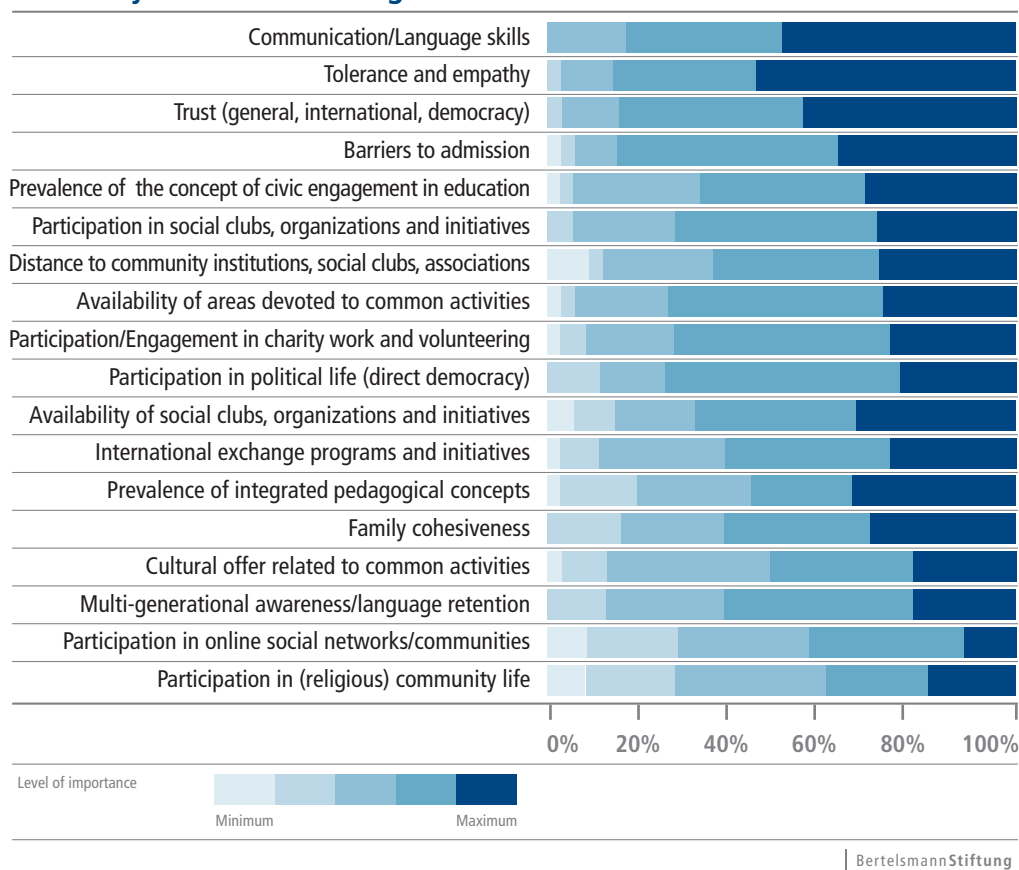
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subdivided into six meta-indicators or constructs: supply of opportunities for social learning; access to social learning; participation in political and civil society related to learning; participation/engagement in family life related to learning; social competences and social attitudes. In total, 18 indicators were grouped under the six constructs.

Within the pillar learning to live together, tolerance and empathy and communication/language skills received the highest values of importance (4.4). Trust and barriers to admission were also tagged with high values of importance (4.3). Many of the indicators were rated at a level of importance of between 3.9 to 3.6. With average values of 3.2, participation in (religious) community life and participation in online social networks were judged the least important indicators within this pillar of learning (figure 5).

Compared to other pillars, within the learning to live together pillar the experts made use of the full range of levels of importance that could be used to measure learning to live together. This could reflect the fact that, while there is a clear common understanding of what learning

**Figure 6: Indicators measuring learning to live together ranked by structure of voting**



to know and learning to do is and how it could be measured, the terminology on learning to live together is less developed. For example, the full range of values were used to rate the indicators barriers to admission; distance to community institutions; social clubs and associations; availability of social clubs, organizations and initiatives; prevalence of integrated pedagogical concepts; participation in online social networks/communities; and participation in (religious) community life (figure 6).

As additional indicators the following indicators were suggested by the experts: family origin (supporting an intellectual family) (construct: access to social learning) and English language (construct: social competences).

## 6 PILLAR – learning to be

This aspect of learning includes areas that are related to creativity, personal development, and health in the physical, social and spiritual senses. This implies cultivating the qualities of imagination and creativity, acquiring universally shared human values, developing aspects of a person’s potential such as critical thinking, personal commitment and responsibility. The indicators were grouped into four categories. Between one and six indicators were subordinated to the constructs (table 4).

**Table 4: PILLAR – learning to be**

	Value	Participants
<b>Availability/accessibility of opportunities for learning to be</b>		
Cultural offerings related to self-awareness, personal creativity and discovery	3.8	44
Accessibility to cultural offerings related to self-awareness, personal creativity and discovery	3.6	44
Exposure to media (print media and internet)	3.5	46
Household dimension (e.g. number of square meters per person in a household)	2.4	43
Time spent on work vs. leisure	3.4	45
Households stability (e.g. divorce rates)	3.0	44
<b>Learning through physical activity</b>		
Sport activity	3.4	41
Participation in activities related to recreation and life balance	3.8	46
<b>Learning through culture</b>		
Participation in cultural offerings related to self-awareness, personal creativity and discovery	4.0	47
<b>Self-competence and attitudes (toward oneself and living)</b>		
Self-efficacy, self-confidence, self-esteem, self-awareness and self-consciousness	4.0	45
Cultural production (ephemeral and permanent media)	3.3	42
Health literacy	3.6	45

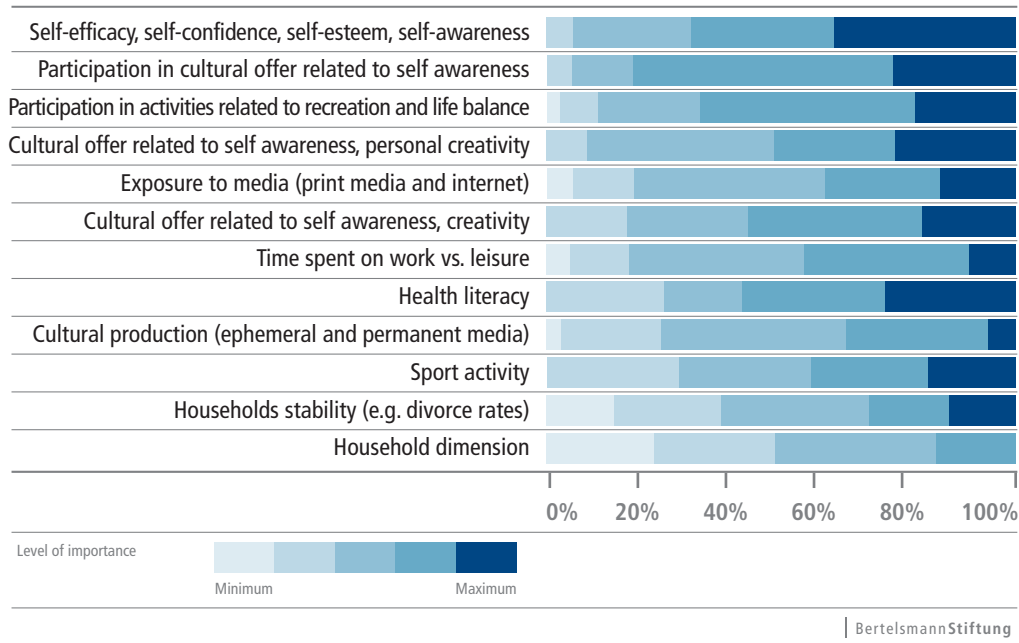
**Figure 7: Indicators measuring learning to be together ranked by importance**

Self-efficacy, self-confidence, self-esteem	4,0
Participation in cultural offer related to self awareness	4,0
Participation in activities related to recreation	3,8
Cultural offer related to self awareness, personal creativity	3,8
Health literacy	3,6
Accessibility to cultural offer related to self awareness	3,6
Exposure to media (print media and internet)	3,5
Sport activity	3,4
Time spent on work vs. leisure	3,4
Cultural production (ephemeral and permanent media)	3,3
Households stability (e.g. divorce rates)	3,0
Household dimension	2,4

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Comparing the indicators' importance, it turns out that self-efficacy, self-confidence, self-esteem as well as participation in cultural offerings related to self-awareness were related with the highest values of importance (4.0) (figure 7). Moreover, high values of importance were assigned to participation in activities related to recreation, and cultural offerings related to self-awareness and personal creativity. Household stability (e.g. divorce rates) (3.0), and household dimension (2.4) were judged least important within this pillar of learning.

**Figure 8: Indicators measuring learning to be ranked by structure of voting**



Within the learning to be pillar, the trend that indicators were rated less cohesively than within the first two pillars continued. Rating five of twelve indicators, experts made use of the full range of levels of importance (figure 8).

The experts suggested the following indicators as additional indicators: activity of traveling and marriage stability (construct: availability/accessibility of opportunities for learning to be); sport activities in groups (construct: learning through physical activity); participating in volunteering (construct: learning through culture); and mental energy (hygiene and belief) (construct: self-competence and attitudes [toward oneself and living]).

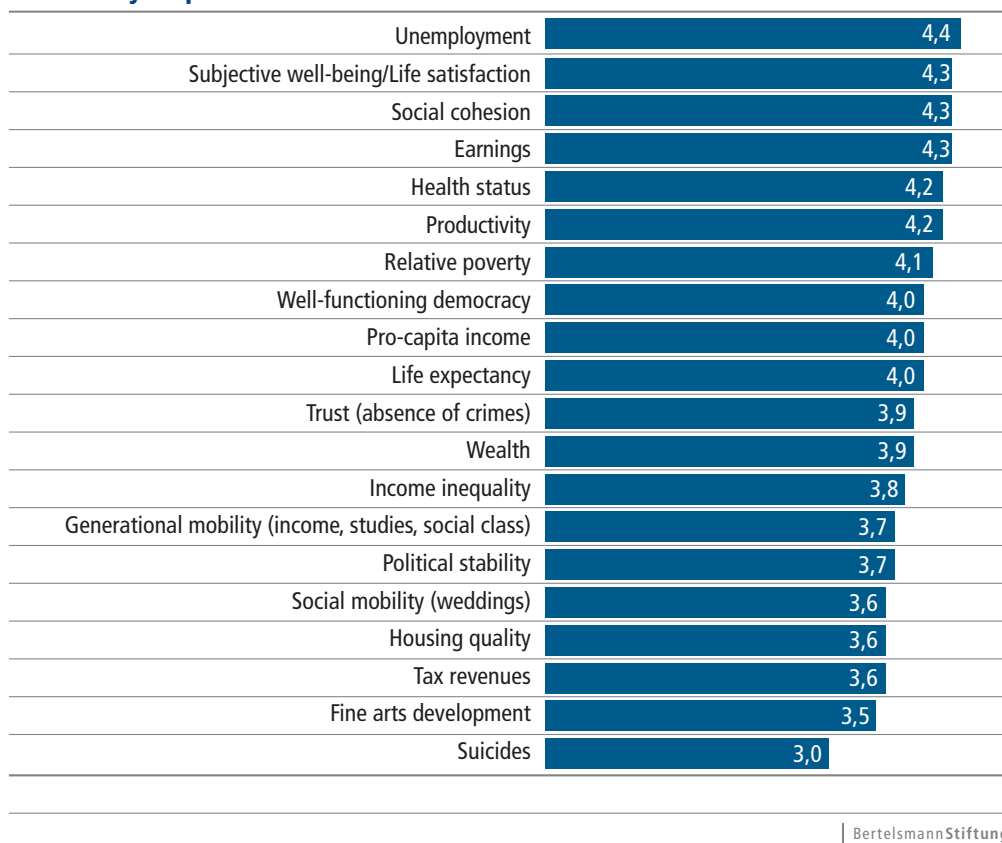
## 7 Socioeconomic outcomes

The link of lifelong learning to socioeconomic outcomes goes as follows: education plays a key role in more than just one direction, determining both the opportunities for a person to be employed, but also to achieve well-being. Education affects a person's degree of freedom (to shape their own life in terms of type of work, profession or entrepreneurship) and, indirectly, affects the quality of life and of the environment, but also income. Following

**Table 5: Socioeconomic outcomes**

	Value	Participants
<b>Private, monetary outcome</b>		
Earnings	4.3	46
Productivity	4.2	46
Wealth	3.9	45
<b>Public, monetary outcomes</b>		
Per capita income	4.0	45
Tax revenues	3.6	45
Relative poverty	4.1	45
Asymmetries between fathers and sons related to income, studies, social class	3.7	44
Unemployment	4.4	45
<b>Private, nonmonetary outcomes</b>		
Health status	4.2	46
Subjective well-being/life satisfaction	4.3	46
Suicides	3.0	40
Social mobility (weddings between different income classes)	3.6	44
Life expectancy	4.0	46
<b>Public, nonmonetary outcomes</b>		
Social cohesion	4.3	44
Income inequality	3.8	45
Political stability	3.7	46
Well-functioning democracy	4.0	46
Trust (absence of crimes)	3.9	45
Housing quality	3.6	45
Fine arts development	3.5	44

**Figure 9: Indicators measuring socioeconomic outcomes ranked by importance**

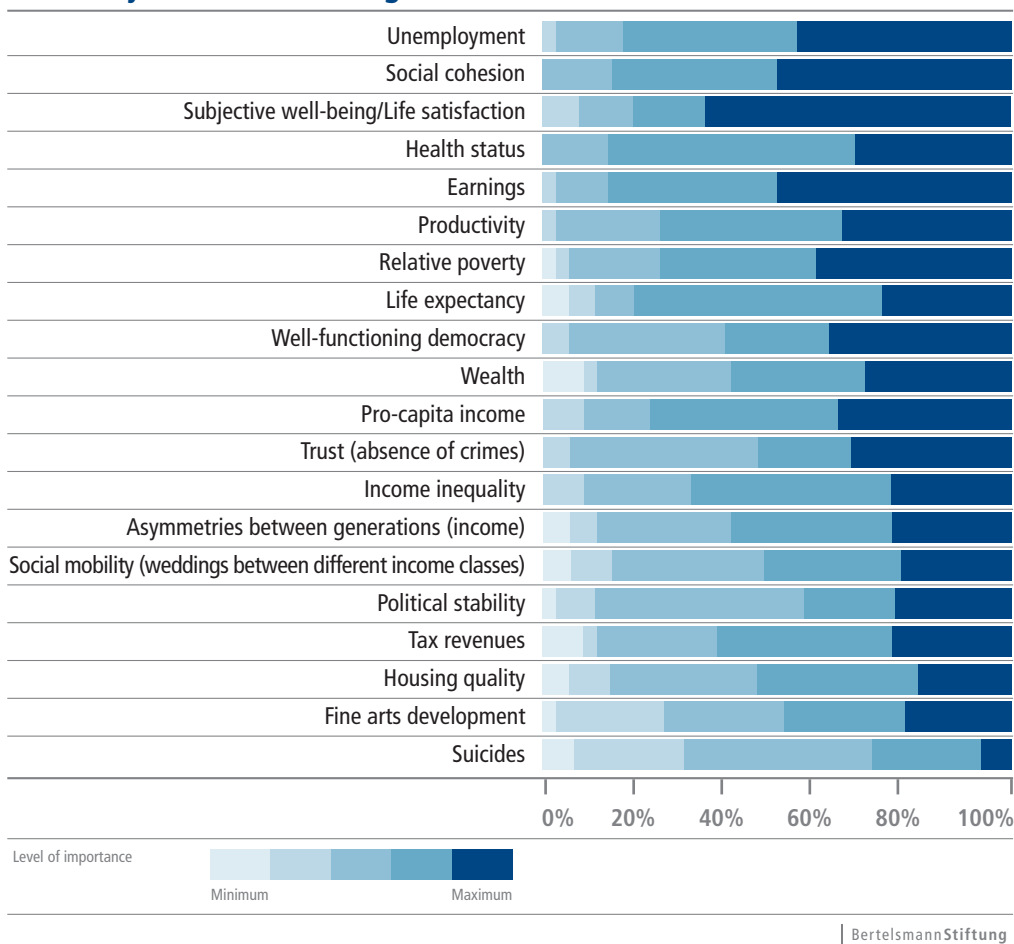


Wößmann/Schütz (2006), the constructs to define socio-economic outcomes were divided into: private, monetary outcomes; public, monetary outcomes; private, non-monetary outcomes; and public, nonmonetary outcomes. Between three and seven indicators were added to each of the mentioned constructs.

The highest values of importance were assigned to unemployment (4.3), which was followed by subjective well-being/life satisfaction, social cohesion, and earnings. Only suicide was rated a comparatively unimportant indicator (3.0) (figure 9).

As regards socioeconomic outcomes of learning, causal relationships between learning indicators have already been proven by empirical research. In addition, a debate on the measurement of societal progress has been opened up. The broad agreement on indicators such as unemploy-

**Figure 10: Indicators measuring socioeconomic outcomes ranked by structure of voting**



ment, social cohesion, subjective well-being/life satisfaction, health status, and earnings reflect increasing societal awareness on that issue (figure 10).

As additional indicators, the following indicators were suggested by the experts: employment rate; societal participation; social inclusion (construct: private, monetary outcome); employment rate; youth unemployment (construct: public, monetary outcomes); attitudes toward (ecologic) sustainability (construct: public, nonmonetary outcomes).

## 8 Literature

Wößmann/Schütz (2006): Efficiency and Equity in European Education and Training Systems.  
Analytical Report for the European Commission.  
<http://ec.europa.eu/education/policies/2010/doc/eenee.pdf>

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