

NEWSLETTER 13

Learning in Later Life: PIAAC and Older People



PIAAC

The 'Programme for International Assessment of Adult Competencies' (PIAAC, 2013) marks a next generation in research programmes on the basic skills and literacies of adults learning. PIAAC results point to the need for basic education for adults, even in many highly developed countries and

reveal social disparities and inequalities in several of the 23 OECD member states, taking part in the research.

PIAAC shows that an average 20% of the EU adult population has low literacy and numeracy skills. The European Association of Education for Adults (EAEA) states in a wake-up call '*literacy as a continuum is the most significant foundation for an active participation in a rapidly changing society. Urgent action is needed to improve literacy across Europe and prevent the divide between generations.*'¹.



The results

PIAAC measures literacy and numeracy skills as well as problem-solving skills in technology-rich environments. 1 is the lowest level and 5 the highest one. The overall outcome is:

	Literacy	Numeracy	Problem Solving
No computer experience			9,3%
Below level 1	3,3%	5,0%	4,9%
Level 1	12,2%	14,0%	10,2%
Level 2	33,3%	33,0%	12,3%
Level 3	38,2%	34,4%	29,4%
Level 4	11,1%	11,4%	28,2%
Level 5	0,7%	1,1%	5,8%

Literacy proficiency below Level 1

Individuals at this level can read brief texts on familiar topics and locate a single piece of specific information identical in form to that in the question or directive. They are not required to understand the structure of sentences or paragraphs and only basic vocabulary knowledge is required. Tasks below Level 1 do not make use of any features specific to digital texts. On average, 3.3% of adults perform below Level 1. Spain has the largest proportion of adults scoring below Level 1 (7.2%), followed by Italy (5.5%), France (5.3%), and Ireland (4.3%).



Numeracy proficiency below Level 1

Adults at this level can only cope with very simple tasks set in concrete, familiar contexts where the mathematical content is explicit and that require only simple processes such as counting; sorting; performing basic arithmetic operations with whole numbers or money, or recognising common spatial representations. Adults who score less than 176 points are considered to be below Level 1. On average, 5% of adults scored below Level 1. Spain (9.5%), France (9.1%), and the United States (9.1%) have the largest proportion of adults scoring below Level 1.



Problem solving in technology-rich

environments proficiency below Level 1

Below Level 1, adults can complete tasks in which the goal is explicitly stated and for which the necessary operations are performed in a single and familiar environment. They can solve problems whose solutions involve a relatively small number of steps, the use of a restricted range of operators, and a limited amount of monitoring across a large number of actions. Some 12.3% of adults score below Level 1. The United States (15.8%), England/Northern Ireland (UK) (15.1%),

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Flanders (Belgium) (14.8%) and Canada (14.8%) have the largest proportions of adults scoring below Level 1.

However, it is hard to get more concrete data out of PIAAC about age and skill, except just a global indication:



Competencies in Later Life Project (CiLL)

The Competencies in Later Life Project (CiLL) is a parallel study to the German Programme for the International Assessment of Adult Competencies (PIAAC). It is a joint project delivered by the German Institute for Adult Education (DIE) in cooperation with the Institute of Pedagogy, Education and Socialisation Research of the Ludwig-Maximilians-University of Munich (LMU) and the Institute of Education of the Eberhard Karls University of Tuebingen. It is sponsored by the German Federal Ministry of Education and Research (BMBF). The project assessed three central basic skills of adults: literacy, numeracy and problem solving in technology-rich environments which are considered by the Organisation for Economic Co-operation and Development (OECD) as essential for successful participation in today's society.

PIAAC focuses on people mainly being active in the labour market (16 to 65 years old), whereas CiLL collects data from older adults mainly 'beyond' the working age population (66 to 80 years old).

CiLL provides valuable information about the skills of the elderly, gathers insight in the daily use of considered skills, and examines factors associated with the acquisition and maintenance of these skills. It also elucidates effects of these competencies on social participation, e.g. participation in continuing education, labour market or voluntary work. In combination with the PIAAC results, CiLL can outline differences in skills between older and younger age cohorts.

People participating in CiLLⁱⁱ were born between 1932 and 1946, thus, during or shortly after the Second World War period. The childhood and school time of this war or post-war generation is characterised by poverty and shortage – many of them heard of the death of their relatives and endured air raids on German cities. After the war, quick entry into the labour market was often more important than a long school, vocational or academic qualification. Reconstruction required many workers and craftsmen who were often only semi-skilled or qualified with a short training. 56 % of the participants in CiLL have a middle education (ISCED 3/4), 18 % have a low education (ISCED 1/2), only 12 % have a high vocational education (ISCED 5b), and 13 % a higher academic education (ISCED 5a/6). 96 % of the sample live together with a spouse or a partner, 90 % have children (average: 2.3 children/person) and the majority of the sample assesses their own health status as "very good" (29 %) or "good" (41 %), only 16 % as "fair".

The results for the literacy and numeracy skills in CiLL are compatible with PIAAC. The average is on level 2, but more at the lower end of the level than in PIAAC.



Literacy level 2 means: people can integrate two or more pieces of information based on criteria, compare and contrast or reason about information, and make low level inferences. Moreover, they can navigate within digital tests to access and identify information from

various parts of a document (OECD *Skill Outlook 2013:66*)ⁱⁱⁱ.

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People at numeracy level II successfully perform tasks that require identifying and acting upon mathematical information and ideas embedded in a range of common contexts where the mathematical content is fairly explicit or visual with relatively few distractors. The tasks may require applying two or more steps or processes involving, for example, calculations with whole numbers and common decimals, percentages and fractions, simple measurement and spatial representations, estimation or interpreting relatively simple data and statistics in texts, tables and graphs (OECD Skill Outlook 2013:79).

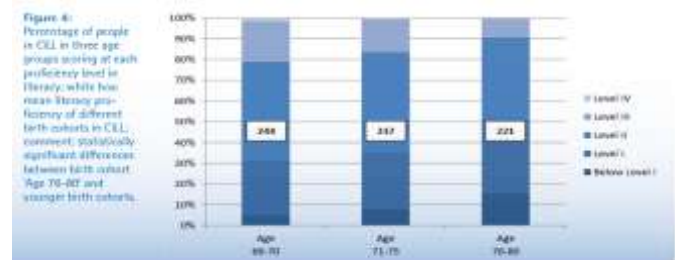
Computer-based assessment

The main differences are in the problem solving skills in a technology –rich environment. All in all, scores for problem solving in technology-rich environments were determined for 29.1 % of the CiLL cohort. 49.5 % of the assessed people in CiLL did not have any experience with the computer. 15.6 % refused to make the computer-based test and 5.8 % failed the computer pre-test. In the younger PIAAC cohort, 80.8 % of the people were able and willing to do the computer-based assessment. However, people aged 66 to 80 years did not grow up during the computer age and were often not confronted with the need in their professional and personal life to learn how to use a computer.

48.5 % of the people assessed for CiLL perform below Level I, 41.6 % at level I, and 9.6 % at level II. Only 0.3 % perform at the highest level in problem solving in technology-rich environments. The average score is 244 points which is a score at the bottom of level I.

Therefore, an average older person is able to complete tasks in which the goal is explicitly stated and in which the necessary operations are performed in a single or familiar environment. They can solve problems whose solutions involve a relatively small number of steps, the use of a restricted range of operators, and a limited amount of monitoring across a large number of actions (OECD Skill Outlook 2013:90). Anyhow, it can be assumed that for many older adults it is not so much the problem solving task itself that makes them perform low

in this kind of tasks but the necessity to use and to understand the structure of digital environments.



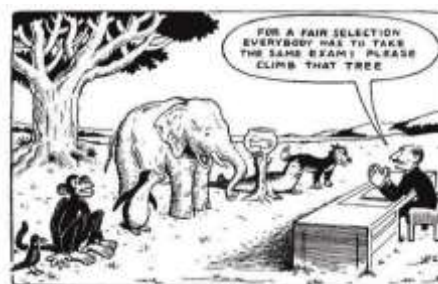
People of older cohorts have lower proficiency scores in literacy and numeracy than younger cohorts. Especially the oldest cohort in CiLL has considerably lower literacy and numeracy scores than of those aged 66 to 70 years and 71 to 75 years. More than half of the people in the age group 76 to 80 years are located on Level I or below in the two competence domains. In literacy this means that, at best, they are able to read short text with simple vocabulary and simple structure. The age difference is still significant when controlling other variables.

Moreover, CiLL confirms for the elderly a trend of PIAAC that older cohorts do not participate as often in education/training as younger cohorts.

That brings us to some recommendations for future policy, as mentioned by EAEA.

One size does not fit all

A carefully tailored approach is necessary. Different



under-represented groups may need special measures to attract them back to learning (e.g. migrants, older people, prisoners, etc.).

Innovative and successful projects set up to attract particular groups are often short-lived because of short-term funding and the methodologies not being mainstreamed .

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Attention to older learners

Special attention should be paid to the age groups of 50 + when it comes to adult learning. In the future, Europeans will live and work longer, therefore more efforts, support, knowledge, outreach and funding are needed so that older people can and will participate in



learning. Research also shows that liberal adult education helps to reduce health care costs.

It's never too late to learn

We need an initiative like 'One Step Up' that will qualify a certain number or percentage of the population to secondary-level schooling. It is essential that possibilities for adults to go one step up in terms of qualifications become a permanent feature of adult education and training, so as to enable social mobility and the growth of competence, particularly for individuals with low qualifications. We need to invest in learning for older people for their benefit and for the good of the wider community.

Access to and skills for ICT

We need future e-inclusion through collaboration and education with the pedagogy to recognise individual needs as key ingredients. With the ever-increasing use of computers and 'smart devices', a significant number of citizens are becoming isolated because of lack of access, lack of knowledge or lack of interest. Adult education can bridge the digital divide.



Support for non-formal adult education

Non-formal adult learning often works better for many learners because it is much more flexible in responding to learners' needs and interests than formal education. Strengthening non-formal adult education can increase participation and drive learning motivation. Participating in learning activities can provide a stable time framework, a community, a chance for re-orientation, a safe place, a new challenge, social recognition, and end up being an important tool for empowerment. Later-life learning is not a luxury – it is a necessity.

ⁱ EAEA recommendation on PIAAC, *A wake-up call for Europe*, 2014

ⁱⁱ DIE, *Competencies in Later Life: Overview of the First Results*, 2014

ⁱⁱⁱ OECD (2013). *OECD Skills Outlook 2013. First Results from the Survey of Adult Skills*, OECD Publishing.

^{iv} <http://www.oecd.org/site/piaac/>

Jumbo Klercq

ForAge partner, The Elephant, Learning in Diversity BV
(Jumbo.elephant.klercq@gmail.com)



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