ADULT SKILLS IN FOCUS #2 MARCH 2016

SURVEY OF ADULT SKILLS (PIAAC)

What does low proficiency in literacy really mean?



- The Survey of Adult Skills finds that even adults with the lowest proficiency in literacy possess some basic reading skills, although the level of these skills varies considerably across countries.
- Basic reading skills are revealed in both the accuracy in and speed of responding to reading tasks, which indicate the level of ease and automaticity of reading.
- Among adults with low proficiency in literacy, those who took the survey in a language different from their mother tongue had much poorer basic reading skills than native speakers.

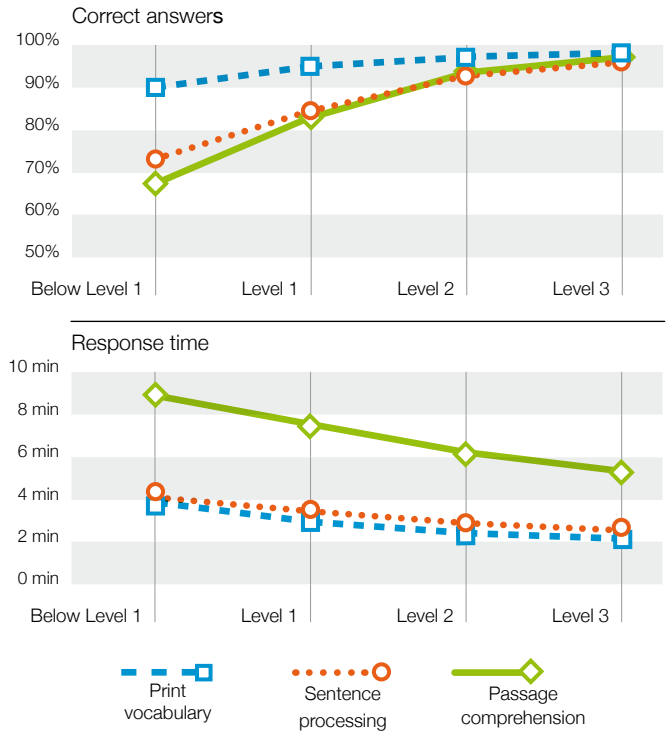
The Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), defines literacy as the ability to understand, evaluate, use and engage with written texts to participate in society, achieve one's goals, and develop one's knowledge and potential. The results show that literacy is associated with many positive life outcomes: individuals with better literacy proficiency are less likely to be unemployed, earn higher incomes when they are employed, are more likely to report being in good health, to volunteer, trust others and feel that people like them can have a say in what the government does.

A sizeable proportion of adults in many countries have poor or very poor reading skills.

Countries are likely to benefit from policies and programmes that aim to increase the level of skills in their populations. For reasons of equity and efficiency, programmes that target adults with particularly low proficiency in foundation skills, such as literacy, should be prioritised. The Survey of Adult Skills was designed to assess the full spectrum of literacy proficiency. Across the 24 countries that participated in the 2012 survey, around 15.5% of adults aged 16 to 65 were assessed as having low literacy skills: they scored at or below Level 1 on the scale that measures literacy proficiency (see box). The proportion of adults who scored at or below Level 1 ranged from 5% in Japan to 28% in Italy.

What does it mean to have low proficiency in literacy? What kinds of reading skills do adults who performed at the lowest levels in the survey possess?

Figure 1 / **How the mastery of basic reading skills varies among individuals with different levels of literacy proficiency**



Note: Levels refer to the PIAAC proficiency levels, with higher levels signalling greater proficiency.

Source: OECD Survey of Adult Skills (PIAAC) (2012), *http://www.oecd.org/site/piaac/publicdataandanalysis.htm*.

In order to answer these questions, the survey included an assessment of "reading components" to evaluate how well individuals with low literacy proficiency mastered the basic building blocks of reading. Three component skills were defined: the ability to recognise words in printed form ("print vocabulary"), the ability to process meaning at the sentence level ("sentence processing"), and the ability to comprehend text passages ("passage comprehension"). The assessment was designed to measure the accuracy of responses as well as the time individuals took to complete tasks to determine the ease and fluency with which they were able to use basic reading skills.



What kinds of tasks can adults with low literacy proficiency perform?



The Survey of Adult Skills defines six levels of proficiency, with below Level 1 indicating the lowest proficiency, Level 1 indicating low proficiency and Level 5 indicating the highest proficiency. Information about test takers' responses to different questions is used to describe the kinds of tasks that individuals with different scores in the assessment can complete with a greater or lesser probability of success. For example, adults proficient at Level 1 are generally able to solve reading tasks that require a knowledge of basic vocabulary, determine the meaning of short sentences and read paragraphs of text. At times, they may also successfully complete more complex tasks, such as those that require reading longer and more complex texts and using more complex and varied cognitive strategies. Adults who score below Level 1 are expected only to be able to read short text on familiar topics and locate single pieces of well-defined, concrete information within those texts.

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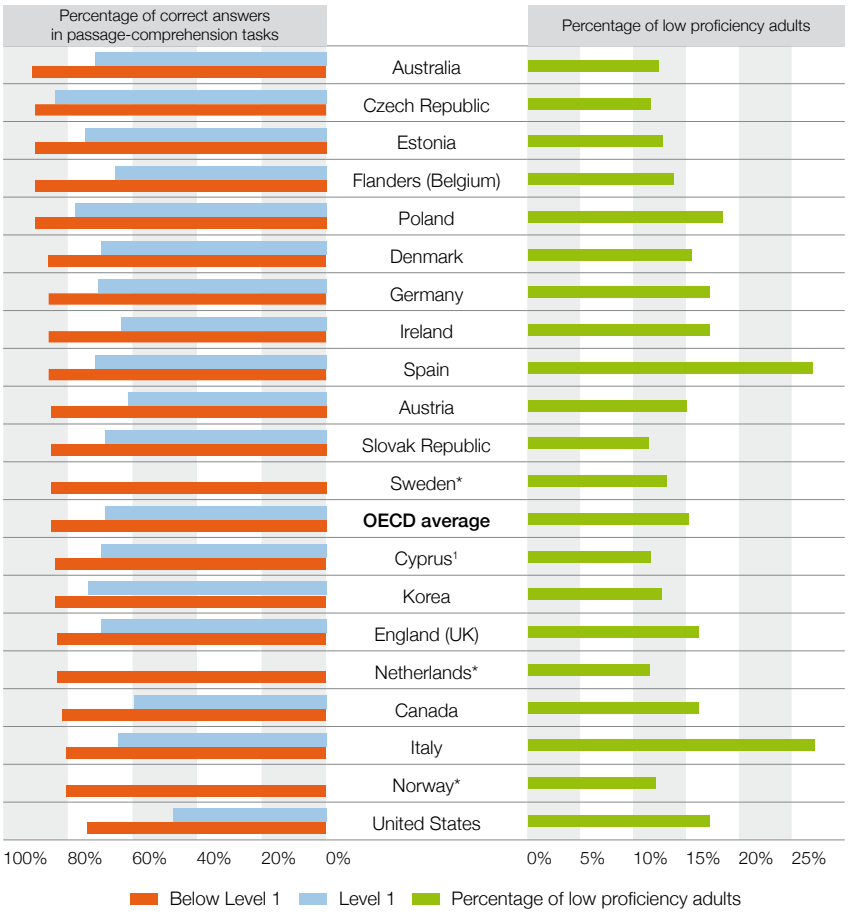
Understanding long texts is particularly difficult for those with the lowest proficiency in literacy.

Almost all adults with low proficiency in literacy have a basic knowledge of print vocabulary. For example, when they were shown a picture of a common object (such as a bird, a circle or a chair), they were able to identify the printed word that corresponds to the object from a set of four alternatives. On average, adults who scored below Level 1 were able to identify the correct word 90% of the time. Adults who scored at Level 1 were able to do so 95% of the time. Moreover, adults performing at Level 1 generally completed print vocabulary-recognition tasks much more quickly than adults who did not reach Level 1. The average time taken to complete print-vocabulary task set (34 tasks) was 3 minutes among adults who scored at Level 1 and 4 minutes among adults who scored below Level 1.

Most adults who scored at or below Level 1 in literacy were also able to understand the meaning of sentences composed of around 14-18 words that may include several clauses and complicated logical relations. When presented with tasks that required them to indicate whether a sentence makes sense, adults who scored below Level 1 were able to identify the correct answer 73% of the time, on average. By comparison, adults who scored at Level 1 were correct as much as 85% of the time. Response time per task was also different between the two groups. Those who scored below Level 1 completed sentence-processing task set (22 tasks) in around 4.2 minutes and those who scored at Level 1 answered in around 3.4 minutes, on average.

Adults who scored at Level 1 in literacy were able to read passages relatively fluently; but those who scored below Level 1 struggled to maintain the attention and persistence required to read multi-paragraph, continuous prose texts. Adults in this latter group completed the passage-comprehension tasks correctly only around 68% of the time compared to 84% of the time among adults who scored at Level 1.

Figure 2 / **The prevalence of adults with low proficiency and their passage comprehension skills**



Notes: The right panel of the figure shows, for each country, the percentage of the adult population that has low levels of literacy proficiency (defined as Level 1 and below Level 1 on the PIAAC literacy scale).
The left panel of the figure shows, for each country, the average percentage of correct answers in passage comprehension tasks among adults at PIAAC literacy proficiency Level 1 and below Level 1.
Countries are ranked in descending order of the percentage of correct answers adults with low literacy proficiency display in passage-comprehension tasks.
* indicates that the percentage of individuals who are below Level 1 in literacy is too small to be reported.

1. Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: OECD Survey of Adult Skills (PIAAC) (2012), *http://www.oecd.org/site/piaac/publicdataandanalysis.htm*.

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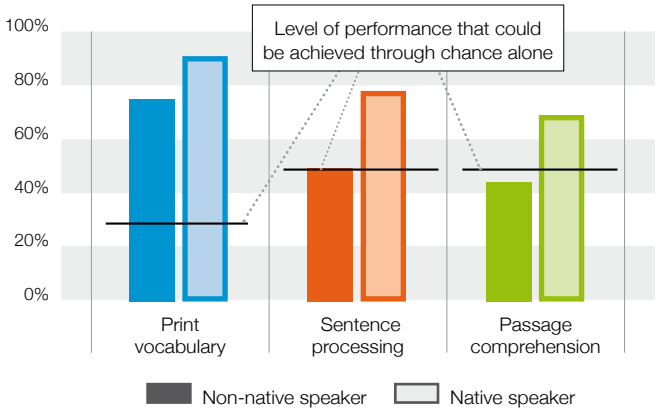
Figure 3 / **How the mastery of basic reading skills varies between native and non-native speakers with low levels of literacy proficiency (Below Level 1)**



Note: Since the sentence-processing and passage-comprehension tasks had only two answer options one of which was right, respondents who did not know any of these tasks would still answer around 50% of the tasks correctly if they gave a random response. Print-vocabulary tasks had four answer options so respondents who did not know any of these tasks would still answer around 25% of the tasks correctly if they gave a random response.

Source: OECD Survey of Adult Skills (PIAAC) (2012), *http://www.oecd.org/site/piaac/publicdataandanalysis.htm*.

Countries differ considerably not only in terms of the number of individuals with low and lowest proficiency, but also in the basic reading skills that they possess. For example, lowest-proficiency adults in the United States appear to lack both sentence-processing and passage-comprehension skills (52% and 47% of correct answers respectively, which is only around the chance level of 50%). On the other hand, lowest-proficiency adults in the Czech Republic, Korea and Poland are able to correctly answer the majority of sentence-processing and passage-comprehension tasks.

Differences in print-vocabulary, sentence-processing and passage-comprehension skills among adults who scored below Level 1 are particularly large between individuals who are native and non-native speakers of the survey language. In particular, non-native speakers with very low literacy have especially poor skills regarding the comprehension of sentences and the reading of passages. This suggests that programmes targeted at non-native speakers may need to first focus on basic reading skills before shifting attention to developing more complex competencies.

The bottom line

In designing policies and programmes targeting populations with poor literacy skills, it is important to take into account differences in the level of these skills within and among these populations. For example, native speakers of the mainstream language may require different language-development training than non-native speakers; and most adults who have poor literacy skills have more trouble comprehending what they read than recognising individual words. Also, low proficiency populations across countries differ in the level of their basic reading skills and will thus require varying degree of assistance in the basic literacy training. Countries can use the evidence gathered through the Survey of Adult Skills to fine-tune their assistance to the least proficient adults.

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> **FOR MORE INFORMATION:**	Grotlüschen, A. et al. (2016), "Adults with low proficiency in literacy or numeracy", *OECD Education Working Papers,* No. 131, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5jm0v44bnmnx-en*.
> **VISIT:**	www.oecd.org/site/piaac Education Indicators in Focus - PISA in Focus - Teaching in Focus

The Survey of Adult Skills is a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC).

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