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Could learning strategies reduce the performance gap between advantaged and disadvantaged students?

- Students who know how to summarise information tend to perform better in reading.
- If disadvantaged students used effective learning strategies to the same extent as students from more advantaged backgrounds do, the performance gap between the two groups would be almost 20% narrower.

Being able to read well isn't enough…

The increasing sophistication of information technologies and the nearly daily introduction of new media are redefining what it means to be an avid reader and how to teach and learn reading. With information overload becoming a growing problem, people must also learn how to manage a constant flow of data, summarise it effectively, and identify material relevant to their needs.

PISA 2009 assessed the extent to which students were aware of the strategies that are most effective for learning. Students were asked to describe how they summarise texts they read using five possible choices: 1) "I carefully check whether the most important facts in the text are represented in the summary"; 2) "I read through the text, underlining the most important sentences; then I write them in my own words as a summary"; 3) "I write a summary, then I check that each paragraph is covered in the summary, because the content of each paragraph should be included"; 4) "Before writing the summary, I read the text as many times as possible"; or 5) "I try to copy out accurately as many sentences as possible". Experts in participating countries were asked to determine the relative effectiveness of the different strategies. They found that strategies 1 and 2 are most effective, strategies 3 and 4 are moderately effective, and strategy 5 is the least effective for summarising information.

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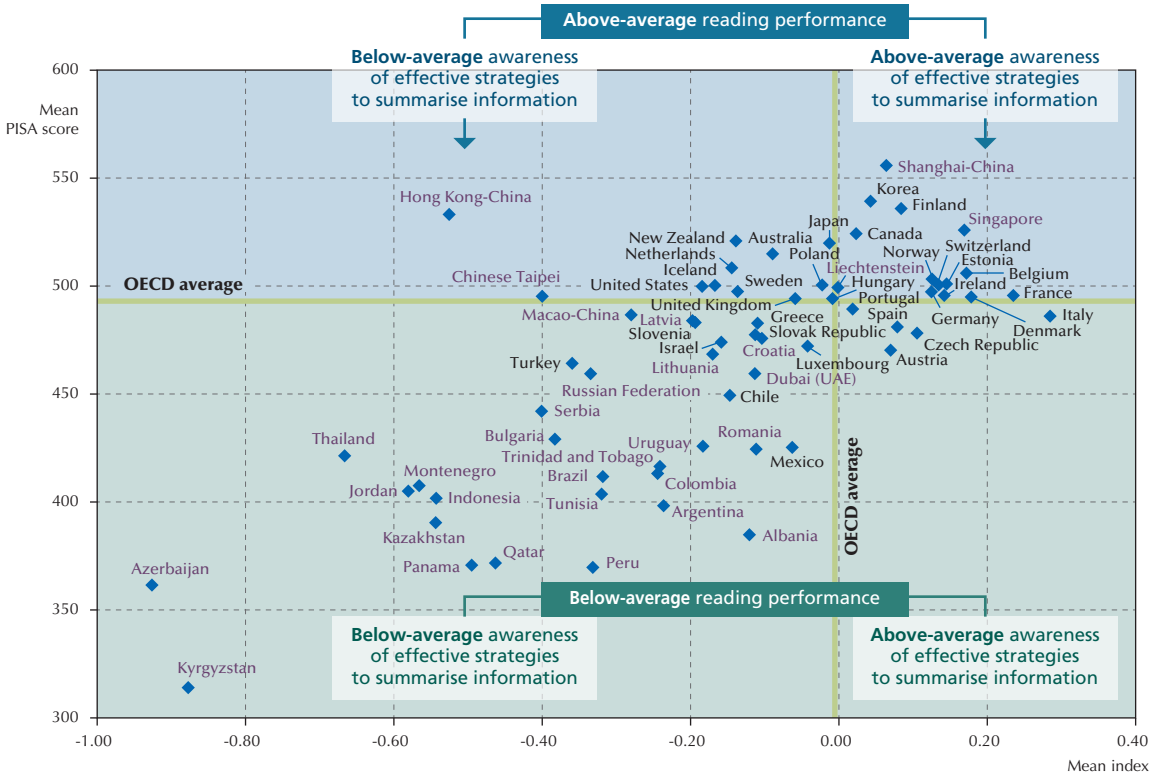
...the best-performing students also know the most effective ways of summarising the information they acquire through reading.

Results from PISA show that countries with a strong average reading performance are those whose students generally know how to summarise information. The positive relationship between the awareness of effective summarising strategies and reading performance is also evident within countries. For example, across OECD countries, the difference in reading performance between those students who know which strategies are best for summarising information and those who know the least is 107 PISA score points – the equivalent of more than two years of schooling.

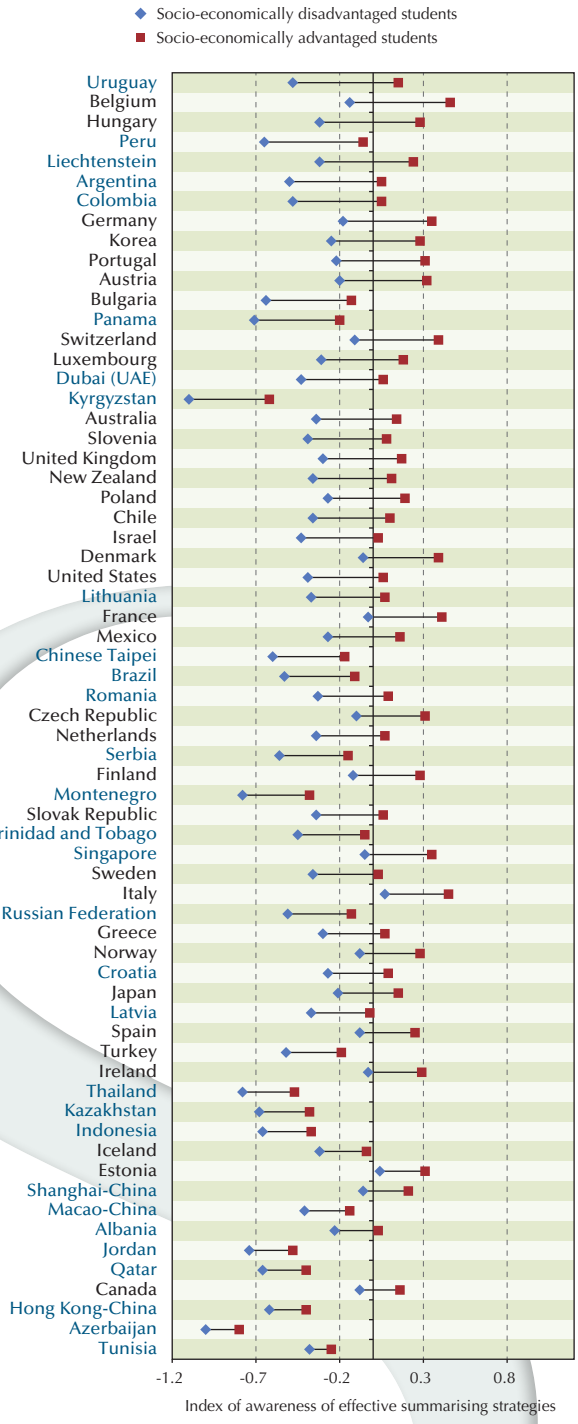
Countries also vary widely in the extent to which particular groups of students know which strategies work best to summarise information. For example, within OECD countries, students from socio-economically advantaged backgrounds know more about the relative effectiveness of different learning strategies than students from disadvantaged backgrounds. Could these differences contribute to performance differences between advantaged and disadvantaged students? And if so, to what extent?

The relationship between reading performance and awareness of which strategies are most effective for summarising information



Note: Countries shown in black are members of the OECD.
Source: OECD PISA 2009 database, Table III.1.16 and Table I.2.3.

A significant difference in knowing how to learn



Note: Countries shown in black are members of the OECD. On the *index of awareness of effective summarising strategies*, 0 represents average awareness of those strategies among all students in OECD countries. Two-thirds of students fall between -1 and +1 on the scale, with -1 representing low levels of awareness and 1 representing high levels of awareness.

Reading performance among disadvantaged students could improve if these students had a greater awareness about effective learning strategies.

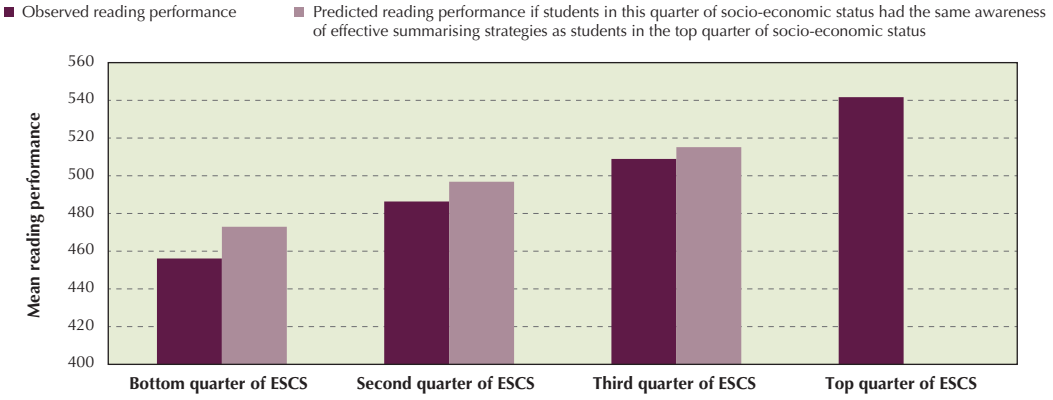
PISA results signal that students from socio-economically disadvantaged backgrounds could attain scores much closer to those of their advantaged peers if they had a greater knowledge of how best to approach learning. In as many as 31 countries and economies, if the most disadvantaged students had the same levels of awareness about summarising strategies as the most advantaged students in their countries and economies, their reading performance would be at least 15 points higher. In Austria, Belgium, Dubai (UAE), France, Hungary, Germany, Liechtenstein, Luxembourg, New Zealand, Portugal, Switzerland and Uruguay, the score point difference between what disadvantaged students could achieve if they had the same levels of knowledge about effective summarising strategies as advantaged students is more than 20 points, or the equivalent of half a year of formal schooling. On average across OECD countries, the untapped potential of disadvantaged students, as represented by their low levels of awareness about learning strategies, is 17 PISA score points. Across OECD countries, if disadvantaged students used effective learning strategies to the same extent as students from more advantaged backgrounds do, the performance gap between the two groups would be almost 20% narrower. In Belgium, Finland, Korea and Liechtenstein, the gap would be 25% narrower.

While PISA cannot firmly establish cause and effect, these results suggest that one of the ways socio-economic advantage translates into better proficiency in reading is by providing more opportunities for students to develop an understanding of which learning strategies are the most effective. Advantaged parents are, for example, more likely to invest time in reading to their children when they are young and to tell them stories.

They are also more likely to talk with their teenage children about social and political affairs and to take an interest in what their children are reading. These kinds of interactions could be crucial in shaping students' awareness of the strategies that can help them to learn as they provide ample opportunities for students to experiment with and practice using alternative learning strategies.

Schools play a role in developing students' awareness of which learning strategies are most effective, too; but they may also reinforce disparities in performance based on socio-economic status. In many countries, socio-economically advantaged families reside in different areas than disadvantaged families, and therefore their children attend different schools. PISA findings also show that advantaged parents can, and often do, choose to send their children to private or other public schools on the basis of academic standards, including the ability of these schools to teach effective learning strategies to their students. These parents are generally not as constrained as disadvantaged families by the cost and location of such schools.

What if disadvantaged students were as aware of effective summarising strategies as their advantaged peers?



Note: Socio-economically disadvantaged/advantaged students are those in the bottom/top quarter of the *PISA index of economic, social and cultural status* (ESCS) within their country of assessment.

Source: OECD PISA 2009 database, Table III.3.5.

The bottom line: In most countries and economies, differences in reading performance between advantaged and disadvantaged students can be partly explained by how well students have learned how to learn by the time they are 15 years old. Parents and teachers can help to close this performance gap by ensuring that all students know how best to approach learning.

For more information

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See OECD (2010), *PISA 2009 Results: Learning to Learn: Student Engagement, Strategies and Practices*, OECD Publishing.

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