



FINLAND IS THE SECOND BEST  
OECD COUNTRY IN PISA READING  
LITERACY ASSESSMENT. HOWEVER,  
FINNISH STUDENTS' MEAN SCORE  
IN READING LITERACY HAS  
DECREASED SLIGHTLY FROM  
THE PISA 2000 ASSESSMENT.

ALSO IN MATHEMATICAL AND  
SCIENTIFIC LITERACY FINNISH  
STUDENTS' PERFORMANCE IS  
AMONG THE BEST IN THE OECD.



## WHAT PISA MEASURES AND HOW?

PISA 2009 is the fourth survey in the OECD's assessment program that since 2000 aims to study students' learning outcomes in reading literacy, mathematical literacy and scientific literacy every three years. The main assessment area varies in each survey, in 2000 and in 2009 as well it was reading literacy. The assessment of the main area is extensive and receives most of the testing time while in the minor assessment areas only the general trend of learning outcomes can be studied. In 2009 it is possible for the first time in PISA to reliably study the changes in students' performance in reading literacy over a 9-year period. Part of the reading literacy tasks used in the 2009 test derive from the 2000 reading test which enables detailed studies of trends in subscales of reading as well as in overall reading.

PISA reading literacy assessment emphasizes students' use of skills in real-life everyday situations. In PISA, reading literacy is defined as understanding, using and reflecting on and engaging with written texts, in order to achieve one's goals, to develop one's knowledge and potential and to participate in society. In order to cover this definition in

the PISA reading test, a wide selection of authentic texts and tasks that reader will encounter also in everyday life has been chosen for the test. Each task measures one of three aspects of reading which are access and retrieve, integrate and interpret and reflect and evaluate. The results of PISA reading literacy assessment are reported as an overall reading scale but also on subscales corresponding to the three aspects of reading.

The target group of PISA 2009 assessment consists of students that turned 15 on the year of assessment (born between February 1993 and January 1994). In Finland the data was gathered in altogether 203 schools from which 6415 students were sampled for the test by an international independent statistics institute. The participation rate in the PISA 2009 assessment was 91 percent. All Swedish-speaking schools in Finland were sampled in order to make reliable comparisons between the two language groups in Finland. In analyzing the overall results, sample weights proportional to their population size were calculated for the Swedish-speaking schools.

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FINNISH STUDENTS  
AGAIN AMONG TOP-  
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## FINNISH STUDENTS AMONG TOP-READERS IN THE OECD

Finnish students are still among the top-readers in the OECD (Figure 1). Finland had the third best country mean in reading literacy right after partner economy Shanghai and Korea. The score point difference between Korea, Finland and Hongkong, however, was very small. It is notable that besides Finland, all top-performing countries and partner economies represent either Asian countries or English-speaking OECD countries. Furthermore, Finland clearly outperformed the other Nordic countries and also all other European countries: the second best European country in the PISA 2009 reading literacy assessment was the Netherlands coming 10th in the country comparison by mean score.

Finnish students' reading literacy performance is still characterized with high level of equity. The gap between the low and top performers in Finland was clearly narrower than in the OECD on average. However, the distribution of performance was even narrower in Shanghai, Korea and Hongkong. The four top countries and economies all show that both quality and equity of learning outcomes can be attained in very different educational and linguistic contexts.

## FINLAND AMONG THE TOP OECD COUNTRIES IN MATHEMATICAL AND SCIENTIFIC LITERACY

Finnish students' performance in mathematical literacy is still among the best in the OECD. Finland's mean score (541 score points) was the second best in the OECD right after Korea (546). Besides Korea, also partner countries and economies Shanghai, Singapore, Hongkong and

Taiwan outperformed Finland in mathematical literacy. In contrast, the other Nordic countries were clearly behind Finland in this comparison. In scientific literacy Finnish students outperformed their peers in all the other OECD countries, with the country mean of 554 score points. Finland also outperformed Hongkong (549) and Singapore (542) placed third and fourth in the comparison of country mean scores in scientific literacy. Shanghai was the best performing participant also in scientific literacy with the mean of 575 score points.

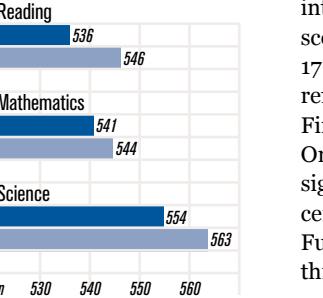
### READING LITERACY PROFICIENCY OF FINNISH STUDENTS DECREASED

The reading literacy proficiency of Finnish students has slightly decreased from the PISA 2000 assessment. The decrease of 10 score points is relatively small (Figure 2) but the trend causes concern. The Finnish students' performance in mathematical literacy is at the same level as in 2003, while the performance in scientific literacy has slightly decreased when compared to the PISA 2006 results.

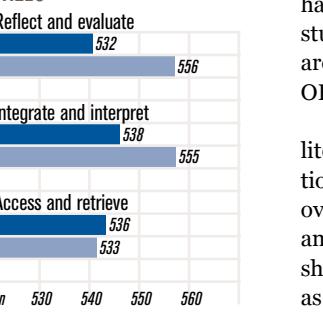
The percentage of weak readers in Finland has increased slightly since 2000, from 7 to 8 percent. Additionally, the share of top readers has decreased from 18 percent in 2000 to 15 percent in 2009. However, the percentage of top performers is still clearly higher than in the OECD on average.

The OECD mean score in reading literacy has also decreased from 500 score point in 2000 to 493 score points in 2009. In Sweden, the reading literacy results have come down significantly, by 19 score points.

## 2. FINNISH STUDENTS' PERFORMANCE IN READING LITERACY, MATHEMATICAL LITERACY AND SCIENTIFIC LITERACY



## 3. PERFORMANCE OF FINNISH STUDENTS IN READING LITERACY BY SUBSCALES



The Finnish students' reading literacy competence has decreased most on the subscale of access and retrieve, but a significant decrease can also be seen on the subscale of integrate and interpret (Figure 3). The decrease in the mean scores for these aspects of reading was 24 and 17 score points, respectively. On the subscale of reflect and evaluate, the performance level of Finnish students remained the same as in 2000. On the subscale of access and retrieve, the most significant change was the increase in the percentage of low performers from 8 to 12 percent. Furthermore, the percentage of top readers on this subscale decreased from 26 to 17 percent.

## GENDER GAP IN READING WIDEST IN FINLAND

In the PISA 2009 reading assessment, girls outperformed boys in every participating country. In Finland, the gender gap was most pronounced with the highest score difference of all OECD countries, 55 score points. Finnish girls achieved a mean of 563 score points in reading literacy while Finnish boys' mean was 508 score points. This equals to roughly one and a half average school year's progress. Furthermore, also in mathematical and scientific literacy the performance level of the students in Swedish-speaking schools is notably lower than that of Finnish-speaking students. The Swedish-speaking students' mean score in mathematical literacy was 527 score points and in scientific literacy 528 score points whereas the same mean scores for the Finnish-speaking students were 541 and 556 score points, respectively.

Finnish girls' higher proficiency in reading literacy shows clearly in the gender distribution across different proficiency levels. Boys are overrepresented among weak readers and girls among top readers: The respective percentages show that in Finland there are about four times as many boys (13%) as girls (3%) performing

at the weakest proficiency levels. Among top readers, in contrast, boys are clearly in minority: While 21 percent of Finnish girls proved to be excellent readers, only 9 percent of boys attained this level.

In other top performing countries the gender gap in reading literacy varies, being as high as 46 score points in New Zealand and 40 score points in Shanghai. Korea (35 score points), Hongkong (33), Singapore (31) and Canada (34) have a gender gap below the OECD average.

## DIFFERENCES BETWEEN SCHOOLS STILL SMALL

Differences between Finnish schools in reading literacy are still small. The between-school variation in Finland was only 8 percent of the total variance in reading literacy. In international comparison this was the smallest proportion although the differences between schools have slightly increased since the PISA 2000 assessment. In 2000 the differences between schools explained only 5 percent of the total variance in reading literacy.

## STUDENTS IN SWEDISH-SPEAKING SCHOOLS PERFORM AT LOWER LEVEL THAN IN FINNISH-SPEAKING SCHOOLS

The students in the Swedish-speaking schools in Finland show a clearly lower level of reading literacy than their peers in the Finnish-speaking schools. The mean score in reading literacy was 511 score points for the Swedish-speaking students while it was 538 score points for the Finnish-speaking students. The difference equals up to more than half a school year's progress. Furthermore, also in mathematical and scientific literacy the performance level of the students in Swedish-speaking schools is notably lower than that of Finnish-speaking students. The Swedish-speaking students' mean score in mathematical literacy was 527 score points and in scientific literacy 528 score points whereas the same mean scores for the Finnish-speaking students were 541 and 556 score points, respectively.

Finnish girls' higher proficiency in reading literacy is also reflected in the gender distribution across different proficiency levels. Boys are overrepresented among weak readers and girls among top readers: The respective percentages show that in Finland there are about four times as many boys (13%) as girls (3%) performing

## INTEREST IN READING AND READING STRATEGIES IMPORTANT

Reading literacy competence can be attributed to several interrelated factors. In Finland, students' high reading literacy performance is notably related both to their attitudes towards reading and to their command of effective and appropriate reading strategies. Also the diversity of reading is a significant determinant of Finnish students' performance in reading literacy. All of these factors are more important in Finland in explaining the students' reading literacy performance than in the OECD. On the other hand, students' socioeconomic background, measured as economic, social and cultural capital of the home, is less influential in Finland as in the OECD when students' performance in reading literacy is explained. Thus, the home background is related to students' performance also in Finland, but less so than in the OECD on average.

