

PISA 8

FIRST RESULTS

**FINLAND AMONG
TOP PERFORMERS**

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FINNISH YOUTH AMONG THE BEST READERS

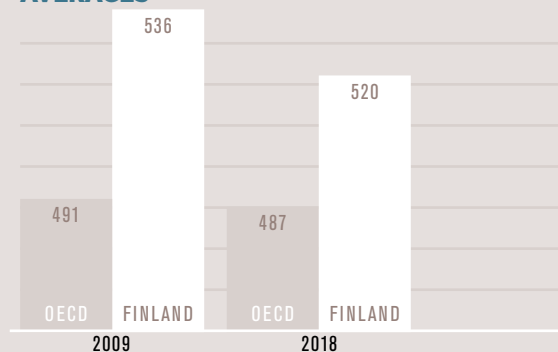
In PISA 2018, Finnish young people aged 15 were one of the best in reading literacy (mean score 520) in the OECD countries together with Estonia (523), Canada (520), Ireland (518) and Korea (514). Among all the participating countries and economies, Finland was preceded by China's BSJZ area (Beijing, Shanghai, Jiangsu and Zhejiang 555) and Singapore (549). The scores of Macao-China (525) and Hong Kong-China (524) were also among those whose scores did not differ statistically significantly from those of Finland.

Reading proficiency in the rest of the Nordic countries was clearly weaker than in Finland. Nevertheless, the Swedish, Danish and Norwegian scores were significantly above the OECD average, while Iceland ranked significantly below it. The lowest points in reading literacy in the whole assessment were recorded in the Philippines and the Dominican Republic. Among the participating countries, the difference between the highest and the lowest scores was 111 points, which corresponds to nearly three years of school education.

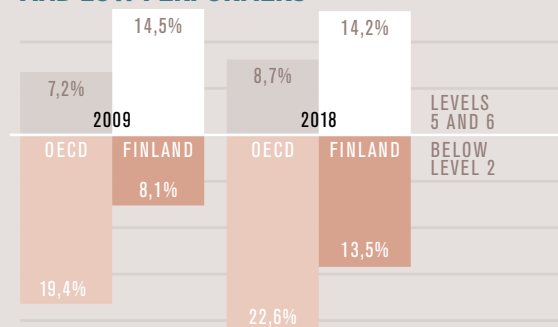
Finland's mean score fell by 6 points compared with PISA 2015, but the change was not statistically significant. A longer-term review shows that the trend in reading literacy is declining not only in Finland, but also in OECD countries in average. Finland's mean score has dropped by 16 points relative to 2009 and by 26 points relative to 2000.

In Finland, performance and satisfaction with life are at a high level.

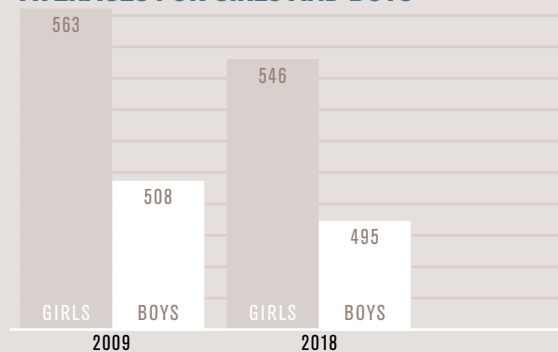
READING PROFICIENCY AVERAGES



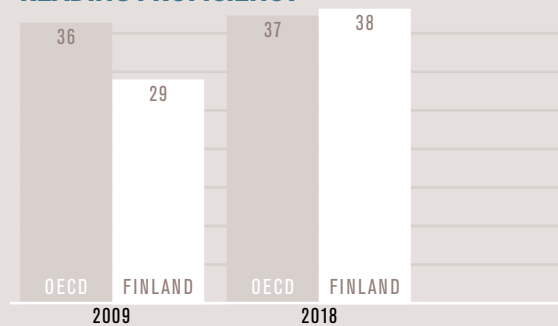
PERCENTAGE OF HIGH AND LOW PERFORMERS



READING PROFICIENCY AVERAGES FOR GIRLS AND BOYS



IMPACT OF SOCIO-ECONOMIC BACKGROUND ON READING PROFICIENCY



AVERAGES AND STANDARD DEVIATIONS OF READING PROFICIENCY SCORE POINTS

	M	SD	OECD M	SD
BSJZ (CHINA)	555	+ 87		
SINGAPORE	549	+ 109		
MACAO (CHINA)	525	+ 92		
HONG KONG (CHINA)	524	+ 99		
ESTONIA	523	+ 93		
CANADA	520	+ 100		
FINLAND	520	+ 100		
IRELAND	518	+ 91		
KOREA	514	+ 102		
POLAND	512	+ 97		
SWEDEN	506	+ 108		
NEW ZEALAND	506	+ 106		
UNITED STATES	505	+ 108		
UNITED KINGDOM	504	+ 100		
JAPAN	504	+ 97		
AUSTRALIA	503	+ 109		
TAIWAN	503	+ 102		
DENMARK	501	+ 92		
NORWAY	499	+ 106		
GERMANY	498	+ 106		
SLOVENIA	495	+ 94		
BELGIUM	493	+ 103		
FRANCE	493	+ 101		
PORTUGAL	492	+ 96		
CZECH REPUBLIC	490	97		
OECD COUNTRIES	487	99		
NETHERLANDS	485	105		
AUSTRIA	484	99		
SWITZERLAND	484	103		
CROATIA	479	- 89		
LATVIA	479	- 90		
RUSSIA	479	- 93		
ITALY	476	- 97		
HUNGARY	476	- 98		
LITHUANIA	476	- 94		
ICELAND	474	- 105		
BELARUS	474	- 89		
ISRAEL	470	- 124		
LUXEMBOURG	470	- 108		
UKRAINE	466	- 93		
TURKEY	466	- 88		
SLOVAKIA	458	- 100		
GREECE	457	- 97		
CHILE	452	- 92		
MALTA	448	- 113		
SERBIA	439	- 96		
UNITED ARAB EMIRATES	432	- 113		
ROMANIA	428	- 98		
URUGUAY	427	- 96		
COSTA RICA	426	- 81		
CYPRUS	424	- 98		
MOLDOVA	424	- 93		
MONTENEGRO	421	- 86		
MEXICO	420	- 84		
BULGARIA	420	- 101		
JORDAN	419	- 87		
MALAYSIA	415	- 85		
BRAZIL	413	- 100		
COLOMBIA	412	- 89		
BRUNEI	408	- 97		
QATAR	407	- 110		
ALBANIA	405	- 80		
BOSNIA AND HERZEG.	403	- 79		
ARGENTINA	402	- 98		
PERU	401	- 92		
SAUDI ARABIA	399	- 84		
THAILAND	393	- 79		
NORTHERN MACEDONIA	393	- 94		
BAKU (AZERBAIJAN)	389	- 74		
KAZAKHSTAN	387	- 77		
GEORGIA	380	- 84		
PANAMA	377	- 88		
INDONESIA	371	- 75		
MOROCCO	359	- 75		
LEBANON	353	- 113		
KOSOVO	353	- 68		
DOMINICAN REPUBLIC	342	- 82		
PHILIPPINES	340	- 80		

M = MEAN | SD = STANDARD DEVIATION | BSJZ = BEIJING, SHANGHAI, JIANGSU AND ZHEJIANG
SOURCE: OECD, PISA 2018 DATABASE

MATHEMATICAL LITERACY PROFICIENCY REMAINED UNCHANGED

Mathematical literacy (mean score 507) among Finnish 15-year-olds is still well above the OECD average. Finland's ranking was in places between 7 and 13 among OECD countries and in places between 12 and 18 among all participating countries and economies. The Finnish average does not differ statistically significantly from that of Canada (512), Denmark (509), Slovenia (509), Belgium (508), Sweden (502) and the United Kingdom (502). Seven Asian countries and economies were among the top-performing countries in mathematical literacy. Of these, the BSJZ area (591) ranked first and Singapore (569) second, followed by Macao-China (558), Hong Kong-China (551), Taiwan (531), Japan (527) and Korea (526). The European countries that outperformed Finland in a statistically significant way were Estonia (523), the Netherlands (519), Poland (516) and Switzerland (515). Although Finland's mean score dropped by 4 points from PISA 2015, the change is not statistically significant, so mathematical literacy effectively remains at its previous level.

SCIENCE LITERACY PROFICIENCY DECLINED

The performance of Finnish students in science literacy (mean score 522) ranked among the best in the OECD countries immediately after Estonia (530) and Japan (529). Students in the BSJZ area (590), Singapore (551) and Macao (554) outperformed Finnish students. The Finnish score did not differ statistically significantly from Korea (519), Canada (518), Hong Kong-China (517) and Taiwan (516). Seven out of the ten best-performing countries and economies in science literacy were Asian ones. In the Nordic countries, Sweden and Denmark exceeded the OECD average, whereas Norway ranked

close to the average and Iceland was well below it. Finland's scores have fallen steadily, dropping by a total of 41 points since 2006 and by a statistically significant 9 points from 2015.

NUMBER OF TOP-PERFORMING READERS REMAINS HIGH BUT CLEAR RISE IN NUMBER OF LOW-PERFORMING READERS

Over 14% of Finnish students have excellent reading proficiency at Levels 5 and 6, which is roughly the same as in 2009 (15%). The corresponding figure in OECD countries was just below 9%. In Finland, the number of top-performing readers (Level 6) rose marginally from 2009, but the change was not statistically significant.

The number of low-performing readers (below Level 2) increased by more than 5 percentage points in Finland compared with PISA 2009 and by 2.5 percentage points compared with PISA 2015. Both are statistically significant changes. It is a serious concern that there are now more young people in Finland whose reading proficiency is too weak for studying and participating in society.

WIDER DISPARITIES BETWEEN STUDENTS

Disparities between Finnish schools have always been small by international standards. The variation between Finnish schools was 7% of the total variation in reading proficiency. This is the least variation among the participating countries, and it has not increased from the previous PISA survey. Variation was also low in the rest of the Nordic countries, with Sweden showing the highest variation (18%) between schools. Disparities between Finnish schools have not increased, but differences in reading proficiency among students within individual schools were

bigger in 2018 than ever in the history of Finland's participation in the PISA surveys.

GIRLS ARE BETTER READERS THAN BOYS

In Finland, the gender gap in reading literacy performance has consistently been one of the highest in the participating countries. It was one of the highest in the OECD countries this time too. In Finland, the difference in favour of girls was 52 points, compared with an average of 30 points in OECD countries. Altogether 20% of Finnish girls but only 9% of boys ranked at the highest performance levels (Levels 5 and 6). Similarly, 20% of boys and 7% of girls were among the poorest performing readers. Among boys, the number of low-performing readers has increased by up to 7 percentage points since 2009, and among girls by 4 percentage points.

REGIONAL VARIATION REMAINS SMALL

While the average outcomes of students in metropolitan Helsinki are still higher in all content categories than in the rest of the country, the gaps have narrowed considerably since the previous PISA assessment. The variation in performance was also greater in metropolitan Helsinki than elsewhere in Finland. This can be seen as reflecting the regional divide between schools, observed in several studies in the largest cities in Finland. Earlier PISA assessments show that both the highest-performing and the weakest-performing schools are located in metropolitan Helsinki.

STUDENTS IN SWEDISH-SPEAKING SCHOOLS ARE WEAKER READERS

In reading literacy, the difference between Finnish-speaking and Swedish-speaking schools is still significantly in favour of Finnish speakers, although the gap not as

wide as in previous years. The reading literacy outcomes of boys in Swedish-speaking schools are still alarmingly low, with their average performance ranking below the OECD average. However, there was no significant difference in science literacy outcomes between students in Finnish-speaking and Swedish-speaking schools. In PISA 2018, students in Swedish-speaking schools in Finland achieved the highest mean score in mathematical literacy in the Nordic countries and therefore also ranked higher than those studying in Finnish-speaking schools. However, since the study sample was small, this gap between the students in Swedish-speaking schools and those in Finnish-speaking schools or students in Danish and Swedish schools was not statistically significant.

STUDENTS' SOCIO-ECONOMIC BACKGROUND MAKES A DIFFERENCE

The educational background and occupation of parents and family wealth (socio-economic background) were linked to the reading proficiency of students in all participating countries. In Finland, the average difference in reading proficiency between the top and the bottom socio-economic quarter was 79 score points, which corresponds to approximately two academic years of studies. In OECD countries, the corresponding difference was 88 score points. In Finland, the link between students' socio-economic background and performance has become more marked since 2009 when it was 62 points. This trend can be explained by poorer outcomes in the bottom quarter. In 2009, the average reading proficiency in the top quarter was 565 score points, remaining virtually unchanged in 2018 at 562 points. By contrast, the performance of the bottom quarter in 2018 (483 points) was 21 points lower than in 2009 (504 points).

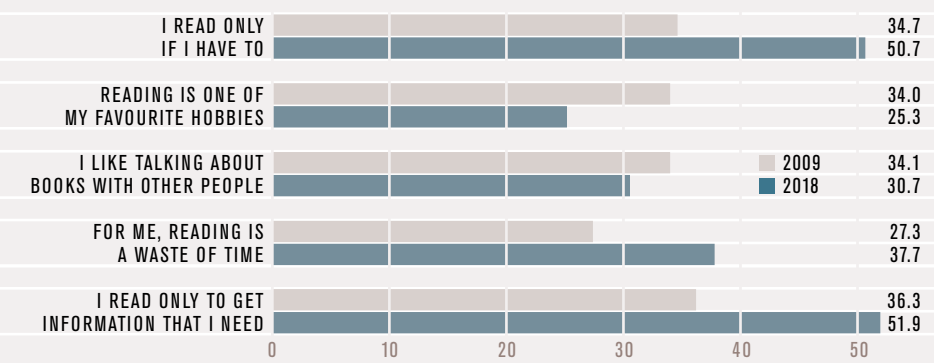
STUDENTS WITH IMMIGRANT BACKGROUND FALLING BEHIND

The mean score of first-generation immigrant students in reading literacy was 107 points and the mean score of second-immigrant students was 71 points below the mean score of students in the majority population. Differences between the majority population and students with an immigrant background have remained stable. The proportion of immigrant students, corrected by sample weighting coefficients, was 5.8%, compared with 2.6% in the 2009 data. However, the link between an immigrant background and literacy proficiency outcomes is not very strong: In Finland's PISA 2018 data, the student's immigrant background explained 5% of the variations in reading proficiency. Over 300 students with an immigrant background participated in the survey.

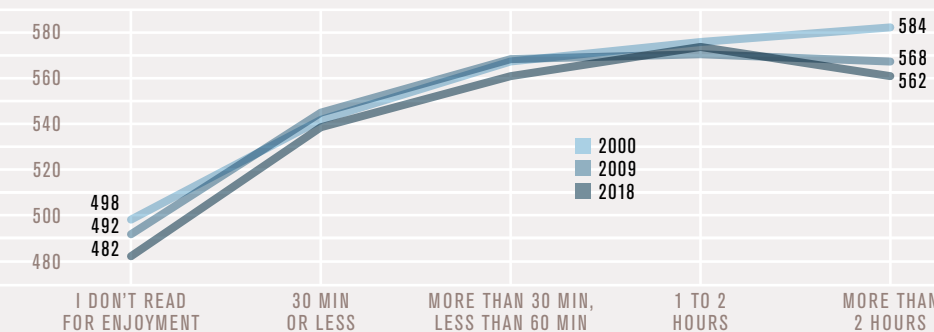
READING ENGAGEMENT STRONGLY LINKED WITH READING PROFICIENCY

In 2009, engagement in reading was included in the definition of reading literacy in PISA, because it was considered to be an important dimension of reading proficiency and how it evolves. In Finland, engagement with reading explains the variation in outcomes more so than in OECD countries on average. In Finland, more students than before reported a negative attitude to reading: the number of students who considered reading as their favourite hobby had decreased by nine percentage points since 2009. Correspondingly, the number of students who read only if they had to or only if they needed information had increased by 16 percentage points. In Finland, 15% of boys agreed or strongly agreed that reading was one of their favourite hobbies, whereas the corresponding figure for girls was 36% (24% for boys and 44% for girls in the OECD). What is particularly worrying is that as many as 63% of Finnish boys agreed or strongly agreed the statement: "I read only if I have to."

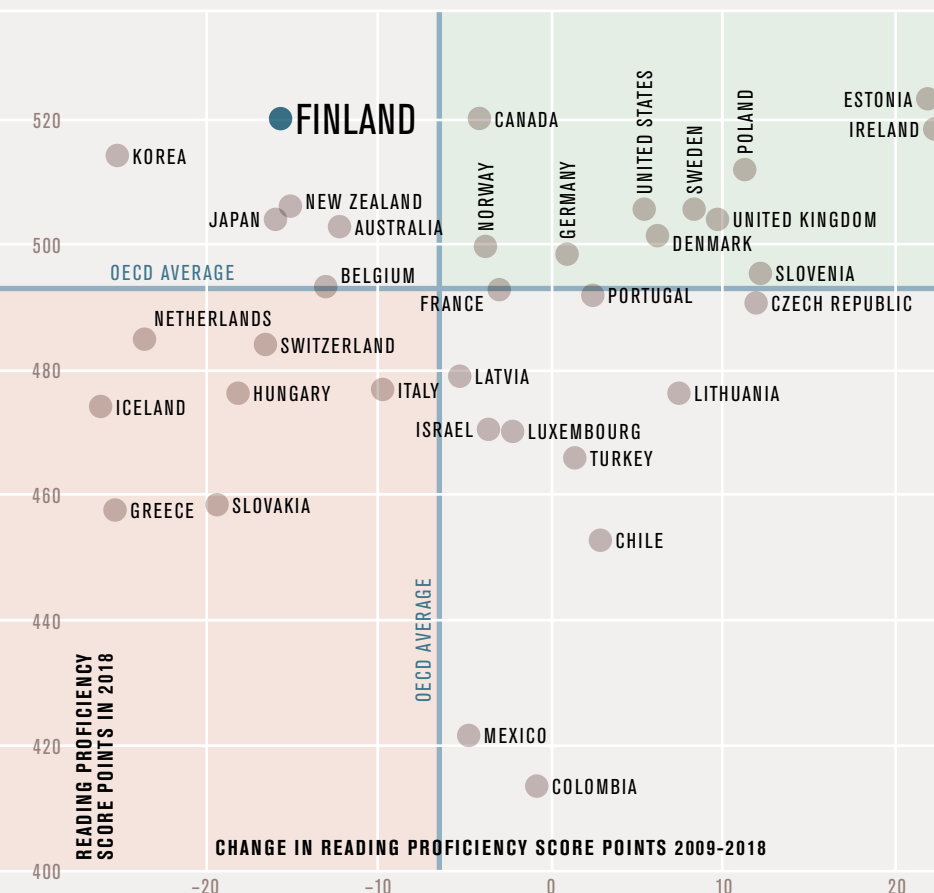
PERCENTAGES OF FINNISH STUDENTS WHO AGREE OR STRONGLY AGREE WITH ATTITUDE STATEMENTS IN 2009 AND 2018

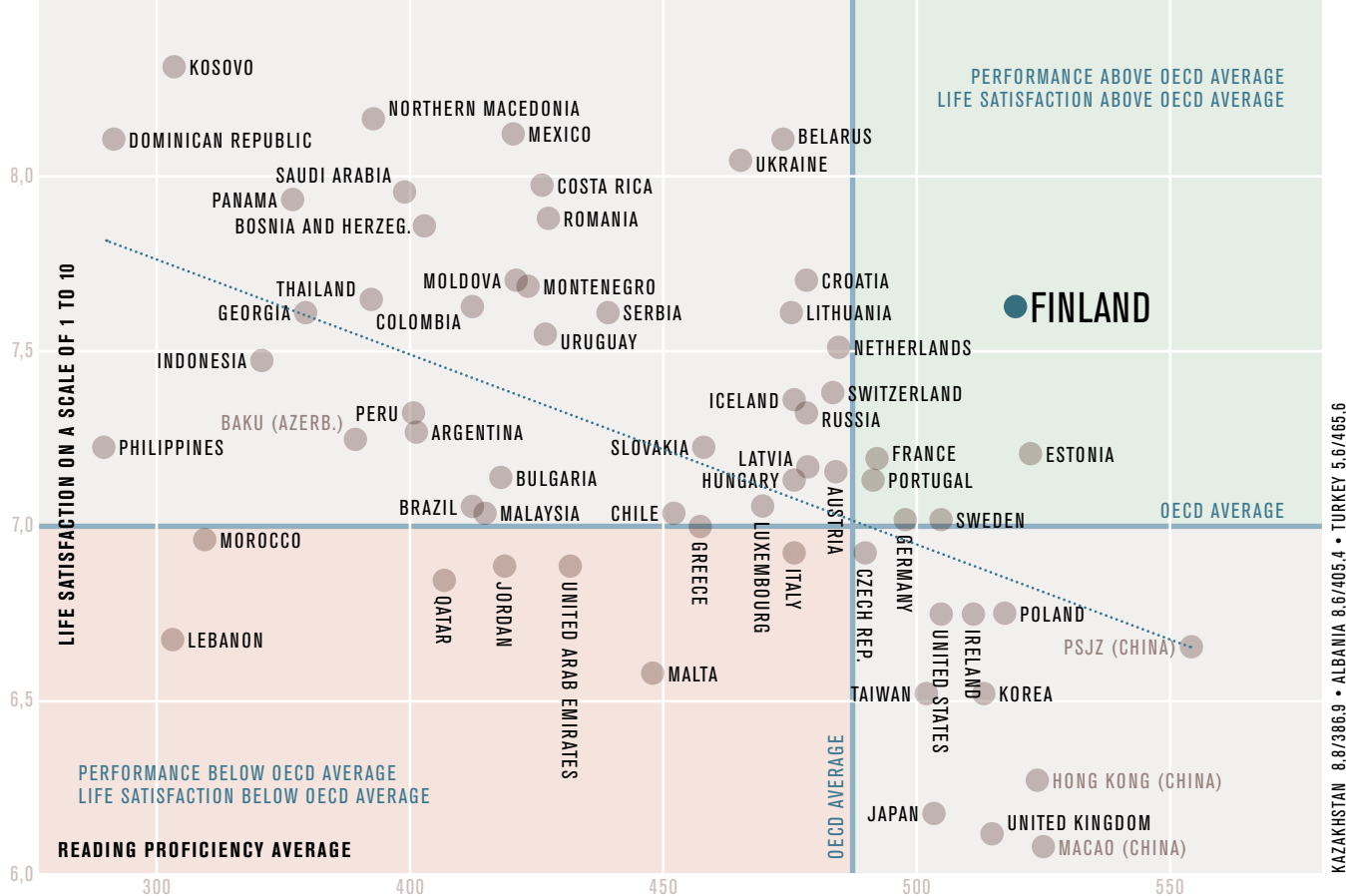


THE RELATIONSHIP BETWEEN TIME SPENT ON READING AND READING LITERACY PROFICIENCY IN FINLAND IN 2000, 2009 AND 2018



READING PROFICIENCY SCORE POINTS AND CHANGE IN OECD COUNTRIES





FINNISH STUDENTS FAIRLY SATISFIED WITH LIFE

PISA 2018 examines well-being as a whole, including material dimensions and those related to attitudes in students' personal lives, their school environment and outside school. From the perspective of material and objectively measurable factors, Finland is among the world's wealthiest nations, only preceded by the other Nordic countries, Canada and Australia.

The student's own assessment of satisfaction with life (on a scale of 1 to 10) is a good indicator of general well-being, used in various studies both nationally and internationally. With a mean score of 7.61, life satisfaction among Finnish students is fairly high.

When examining the relationship between life satisfaction and performance, Finland stood out from other countries and economies. Finland was the only country where both reading proficiency and satisfaction with life were at a high level. For example, life satisfaction was low in all Asian countries with a high level of performance, and in countries with a high level of life satisfaction, performance was mostly poor.



Ministry of Education and Culture



The Programme for International Student Assessment (PISA) was implemented for the seventh time in 2018. The purpose of the assessment programme is to find answers to how successfully 15-year-olds, who have recently completed or will soon complete their lower secondary education, find, assess and apply information to solve tasks and problems that arise from everyday life or from future needs. The PISA survey is carried out every three years, assessing student performance in reading, mathematics and science. Each survey focuses on one of these areas while the other two become minor areas of assessment. In PISA 2018, reading is the major domain for the third time allowing an examination of changes in reading over nearly two decades. In PISA 2018, reading literacy is defined as follows: Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society. According to the PISA framework, the phrase "texts" is meant to include all language as used in its graphic form: handwritten, printed or screen-based. Texts include pictures, diagrams, tables, maps and similar presentations that include some written language. The following four revisions can be considered the most significant differences between the 2009 assessment – the last time reading literacy was the main domain – and the current assessment: the inclusion of online texts, the use of multiple sources, adaptive testing and the assessment of reading fluency. • Altogether 79 countries and economies participated in PISA 2018. Of these, 37 were OECD countries and 42 were partner countries, economies or cities. In Finland, the PISA target group consists of students aged between 15 years and 3 months and 16 years and 2 months on the test day and who are at least in the seventh grade of their compulsory education. In Finland, the date of birth of these students fell between 1 February 2002 and 31 January 2003, and the cohort included roughly 57,500 students. In all, assessment results in reading literacy, mathematics and science were obtained from 5,649 students in the basic sample group. The student participation rate was approximately 93% of the original sample. The school participation rate was 100%. Special needs schools were also included in the sample.