

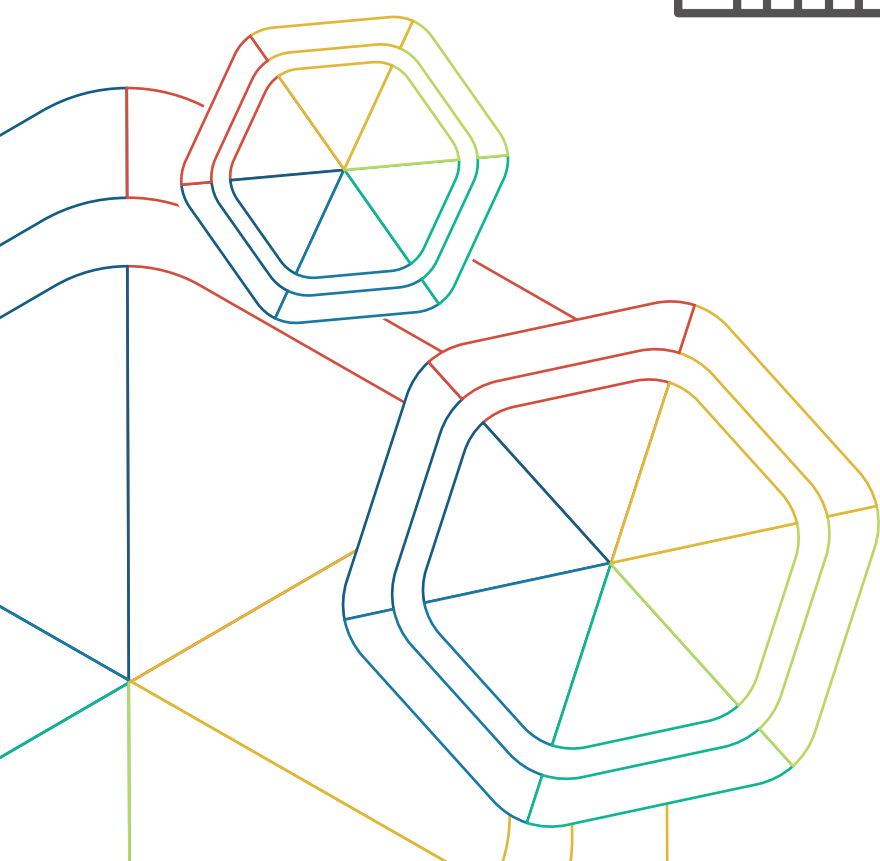
# European School Bergen

**How your school compares  
internationally**

**School Report**

**PISA for Schools**

**2022**





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How Your School Compares Internationally  
PISA for Schools

**2022**

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## Foreword

Teachers and educational leaders need meaningful and reliable information to assess how well their students are prepared for life and work. Many administrators evaluate student learning based upon local or countrywide expectations. In a global economy, however, the benchmark for educational success is no longer national standards alone, but those set by the world's best performing schools and education systems.

Over the past 20 years, the OECD Programme for International Student Assessment (PISA) has evaluated the quality, equity and efficiency of school systems in over 80 countries and economies that, together, comprise nine-tenths of the world economy. Through PISA, schools and countries can learn from each other. Those education systems that have been able to secure strong and equitable learning outcomes and mobilise rapid improvements show others what is possible.

Similar to the international PISA assessment, the PISA-based Test for Schools measures 15-year-old students' knowledge and competences in reading, mathematics and science.

It also assesses their attitudes towards learning and school and the learning environments of the schools themselves. Importantly, these assessments measure not just whether students can reproduce what they have learned, but how well students can extrapolate from what they know and apply their knowledge creatively in novel contexts. The PISA based Test for Schools is a unique tool designed for individual schools to compare their students' learning outcomes and benchmark them globally in innovative ways.

This report provides results from the PISA-based Test for Schools for Your School. But data is only the first step to deeper understanding and is only useful if it paves the way to action. You also have the opportunity to exchange with and learn from the strategies, policies and practices of other participating schools around the world who share your commitment to peer-learning, critical reflection and school improvement. The OECD stands ready to support all those involved in delivering "better policies for better schools and better lives."

**Andreas Schleicher**

**Director, Directorate for Education and Skills**

**Special Advisor on Education Policy to the Secretary-General**

**OECD**

## Acknowledgments

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This digital assessment is provided by Janison Solutions Pty Ltd, which serves as the International Platform Provider for the PISA-based Test for Schools, in partnership with the OECD.

Strategic guidance and oversight of the PISA for Schools project is provided by Andreas Schleicher and Yuri Belfali with Joanne Caddy.

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







# 1. Executive Summary

Comparative statements describe results that are statistically significant at a 95% confidence level. Performance is reported on a scale having a mean score of 500 and a standard deviation of 100 across OECD participating countries.

## European School Bergen

	 Reading	 Mathematics	 Science
Average performance of Your School	<b>549</b> which is <b>higher</b> than the EU  <b>483</b>  OECD <b>487</b>	<b>542</b> which is <b>higher</b> than the EU  <b>490</b>  OECD <b>489</b>	<b>561</b> which is <b>higher</b> than the EU  <b>485</b>  OECD <b>489</b>
Gender differences in performance	Girls and boys perform similarly	Girls and boys perform similarly	Girls and boys perform similarly
Socio-economic differences in performance	Most and least advantaged students perform similarly	Most and least advantaged students perform similarly	Most and least advantaged students perform similarly
Student engagement and feelings	 <b>77%</b> Believe what they learn in science is important for their future.  <b>40%</b> Observe their teachers providing individual help to struggling students.  <b>21%</b> Experience noise and disorder.		
Social and emotional skills	The strongest relationships between social and emotional skills and life outcomes were observed for: <div>  Classroom disciplinary climate ↔ Empathy   Students' perceived health ↔ Optimism   Students' overall life satisfaction ↔ Optimism         </div>		

**Note:** The EU statistics in this report were calculated by taking the simple average of the set of corresponding statistics computed in each of the 27 countries of the EU that have data reported for PISA 2018 [oecd.org/pisa/publications/pisa-2018-results](https://oecd.org/pisa/publications/pisa-2018-results). No weighting was applied, so each country contributed equally to the EU average. Standard errors (SE) were calculated in a similar way applying a formula combining standard errors from each country.



## 2. WHAT YOUR SCHOOL CAN LEARN FROM THE PISA-BASED TEST FOR SCHOOLS

While PISA is intended to deliver national results, the PISA-based Test for Schools (PBTS) is designed to deliver school-level results for school improvement and benchmarking purposes.

By administering the PISA-based Test for Schools in Your School, you have access to internationally comparable estimates of performance of your students and information about their learning environment and attitudes.

Furthermore, the PBTS also provides you with some insights concerning your students' social and emotional skills, an increasingly important aspect in education and that is believed to be core in the capacity of students to be able to adapt and navigate the fast-paced changing world that we live in.

Given our global, knowledge-based economy, it has become more important than ever before to compare students not only to local or national standards, but also to the performance of the world's top-performing school systems.

Because both PISA and PBTS are based on the same framework, their results are comparable, meaning that you will be able to benchmark the performance of Your School with that of national education systems from around the world. This will allow you to both gauge how prepared your students are to participate in a globalised society and set goals against the best school systems worldwide.

The PBTS also provides you with a better understanding of the challenges faced by low-performing students in Your School, thus allowing you to put in place specific targeted measures and practices aimed at reducing all achievement and developmental gaps that may exist.

### **Cognitive skills: What students in Your**

**School know and can do:** this chapter displays your students' performance in reading, mathematics and science and how Your School's results map onto the PISA proficiency levels. It also explores any performance gaps between the highest- and lowest-performing students, between genders and between students with high or low socio-economic backgrounds.

### **Student voice: Exploring student**

#### **engagement and how students feel at**

**school:** this chapter investigates your students' self-reported motivation for learning, their beliefs in their own self-efficacy, and their perception of the teaching practices adopted in their classrooms, of their learning environment and of their relations with their peers.

### **Insights on students' social and emotional**

**skills:** this chapter sheds light on your students' social and emotional skills as measured by statements about five sub-domains linked to the Big Five dimensions (emotional regulation, engaging with others, collaboration, task performance and open-mindedness).

Finally, the OECD encourages you to take advantage of the opportunity for peer-learning by participating in the PISA for Schools Community. This online, multilingual forum enables all schools who have received PBTS results to share good practice, pose questions, obtain advice from peers, co-create teaching resources, and participate in webinars and discussions on selected themes moderated by the OECD or national actors.

"What is important for citizens to know and be able to do?" In response to that question and to the need for internationally comparable evidence on student performance, the Organisation for Economic Co-operation and Development (OECD) launched the triennial survey of 15-year-old students around the world known as the **OECD Programme for International Student Assessment**, or **PISA**. PISA assesses the extent to which 15-year-old students have acquired key knowledge and skills that are essential for full participation in modern societies.

In each round of PISA, one of the three core domains is tested in detail, requiring nearly half of the total testing time.

The major domain in 2018 was reading, as it was in 2009. Science was the major domain in 2015 and 2006, and mathematics was the major domain in 2003 and 2012 (and will be again in 2022).

**PISA results reveal what is possible in education by showing what students in the highest-performing and most rapidly improving education systems can do.**

The findings allow policy makers around the world to gauge the knowledge and skills of students in their own countries and in their schools in comparison with those in other countries.






Read more  
**About PISA**  
[oe.cd/PISA](https://oe.cd/PISA)

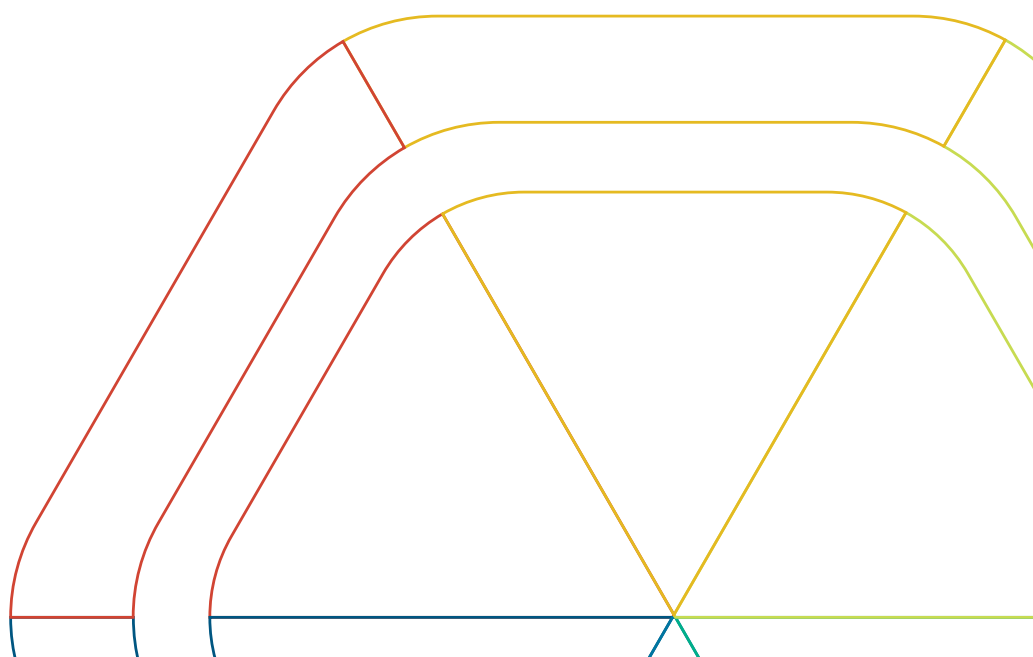
## 2.1 Your sample and your participation

Figure 2.1 provides a short summary of Your School's participation in the PBTS, including both sample characteristics and information about the logistics of your participation. The accompanying Reader's Guide ([www.oecd.org/pisa/pisa-for-schools](http://www.oecd.org/pisa/pisa-for-schools)) provides additional information about the eligibility of schools to participate in the PBTS and the sampling procedures that are used to select schools and students.

**Figure 2.1 Participation summary**

	 Your School	 EU	 OECD
<b>Schools tested</b>	<b>1</b>		<b>11,327</b>
<b>Students sampled</b>	<b>54</b>		<b>328,281</b>
<b>Students tested</b>	<b>54</b>		<b>292,999</b>
<b>Average age of tested students</b>	<b>15.69</b>	<b>15.78</b>	<b>15.71</b>
<b>Share of girls among tested students</b>	<b>56%</b>	<b>49%</b>	<b>50%</b>
<b>Share of boys among tested students</b>	<b>44%</b>	<b>51%</b>	<b>50%</b>
<b>Average social and cultural status of tested students</b>	<b>1.12</b>	<b>-0.03</b>	<b>-0.03</b>
<b>PBTS test date(s)</b>	<b>2022</b>		

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](http://oecd.org/pisa/data)



The PISA for Schools Community aims to support educators from participating schools in the following ways:

- **Give and receive support:** Educators can get their questions answered and share their ideas, concrete practices and materials for the areas of improvement.
- **Enhance professional knowledge and skills:** Educators can improve their knowledge in the subject matter as well as pedagogical skills. They can also further develop skills in coaching peers.
- **Establish an international professional network:** Educators can build their network with international educators. They can also develop their reputation and gain recognition from an international audience.
- **Stay informed of latest research on education and interact with OECD personnel and experts:** through regular webinars and alerts for new OECD publications, educators can stay updated with the latest research in education and benefit from the interaction with OECD personnel and experts.



Read more about  
**The PISA for Schools Community**  
[www.oecd-pisa-for-schools.org](http://www.oecd-pisa-for-schools.org)

## 2.2 Understanding Your School's results

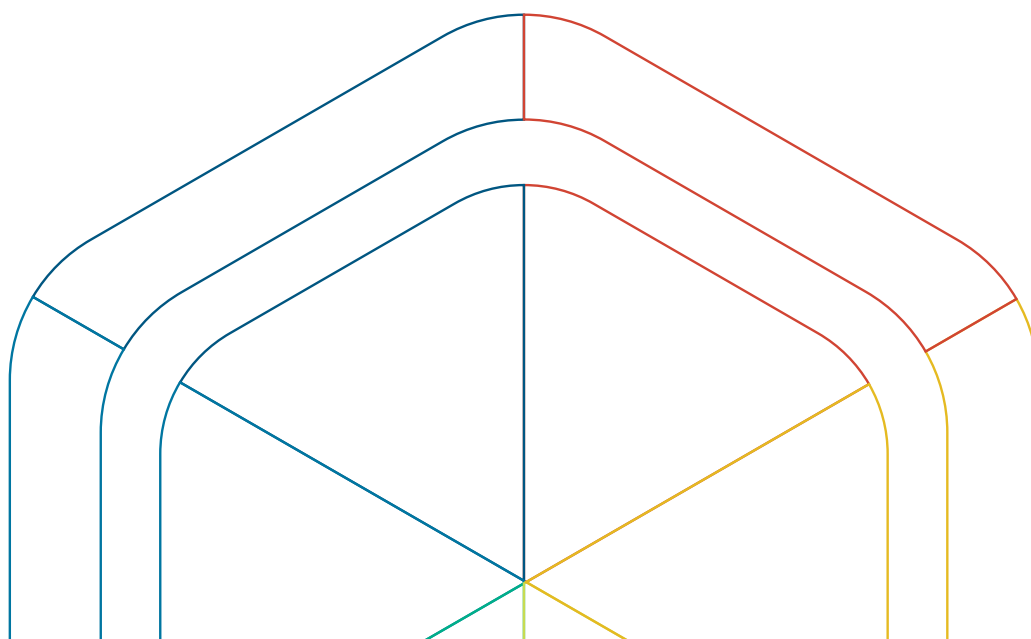
This report presents the results for Your School based on its most recent participation in the PISA-based Test for Schools (PBTS). The assessment measures 15-year-old students' competences in reading, mathematics and science. Because the PBTS is based on the OECD Programme for International Student Assessment (PISA), Your School can compare its results with those from over 80 countries and economies that have participated in the various cycles of PISA.

Focusing the analysis at the school level necessarily implies working with relatively small numbers of students. As a consequence, in some cases a sub-group of students being analysed may consist of only a handful of people (e.g. boys in a school that is mainly attended by girls). In these instances, we recommend caution in drawing any conclusion when looking at these results for sub-groups, as their estimates will be based on only a few cases. Throughout the report, thus, a note will appear under any figure to indicate whether one or more sub-groups in that figure consist of too few students to give reliable conclusions. Furthermore, this report shows only point estimates

for values concerning the EU and the OECD. While these scores are also subject to a certain degree of uncertainty, this has been omitted from the visual representation of the data given that they are being used in this report as benchmarks. Nonetheless, all of the significance tests used for data presented in this school report fully account for their inherent uncertainty.


If you are interested in exploring further the results of Your School, you will find additional opportunities to interact with your data and the data of PISA participating countries on the forthcoming PISA for Schools Digital Dashboard.

The accompanying Reader's Guide ([www.oecd.org/pisa/pisa-for-schools](http://www.oecd.org/pisa/pisa-for-schools)) represents a useful toolkit to better understand Your School's results. Throughout the report, links are available to gain additional insights based on OECD and PISA evidence.









## 3.

### **COGNITIVE SKILLS:**

#### **WHAT STUDENTS IN YOUR SCHOOL KNOW AND CAN DO**

This chapter provides an overview of Your School's performance on the PISA-based Test for Schools. It focuses on the performance of different groups of students in Your School and the kinds of tasks that they can perform in each domain.

## **3.1 Analysing student performance at Your School**

Are 15-year-old students in Your School prepared to meet the challenges that the future holds? Can they analyse, reason and communicate their ideas effectively? Have they developed the competences, skills and knowledge that are essential in order to successfully participate in 21st century societies?

PISA measures the competences, skills and knowledge of 15-year-old students in reading, mathematics and science around the world. The PISA-based Test for Schools (PBTS) results of Your School allow you to compare your students' levels of proficiency in these three domains with the levels of other students in the EU and in school systems around the world. The results can be used as a gauge of how prepared students in Your School are to succeed in a global economy.

## Figure 3.1 Student performance in reading, mathematics and science

Figure 3.1 displays the results of Your School in the three domains – reading, mathematics and science – next to the ones of the EU and of the OECD in PISA 2018. For each of Your School's values, the figure also shows its 95% confidence interval. If the respective score of the EU – or of the OECD – is not comprised in the interval, then the difference between this score and the score of Your School can be assumed to be statistically significant.



	Your School's score		EU score		OECD score
<b>Reading</b>	<b>549</b>	which is significantly higher than	<b>483</b>	and significantly higher than	<b>487</b>
<b>Mathematics</b>	<b>542</b>	which is significantly higher than	<b>490</b>	and significantly higher than	<b>489</b>
<b>Science</b>	<b>561</b>	which is significantly higher than	<b>485</b>	and significantly higher than	<b>489</b>

Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://www.oecd.org/pisa/data)

Results from PISA indicate the quality and equity of learning outcomes attained around the world, and allow educators and policy makers to learn from the policies and practices applied in other countries. **The results of the PISA 2018 survey**, the seventh round of the triennial assessment, can be found in its six volumes:

- **Volume I, What Students Know and Can Do**, provides a detailed examination of student performance in reading, mathematics and science, and describes how performance has changed since previous PISA assessments.
- **Volume II, Where All Students Can Succeed**, examines gender differences in student performance, and the links between students' socio-economic status and immigrant background, on the one hand, and student performance and well-being, on the other.
- **Volume III, What School Life Means for Students' Lives**, focuses on the physical and emotional health of students, the role of teachers and parents in shaping the school climate, and the social life at school. The volume also examines indicators of student well-being, and how these are related to the school climate.
- **Volume IV, Are Students Smart about Money?**, examines 15-year-old students' understanding about money matters in the 21 countries and economies that participated in this optional assessment.
- **Volume V, Effective Policies, Successful Schools**, analyses the policies and practices used in schools and school systems, and their relationship with education outcomes more generally.
- **Volume VI, Are Students Ready to Thrive in Global Societies?**, explores students' ability to examine local, global and intercultural issues, understand and appreciate different perspectives and world views, interact respectfully with others, and take responsible action towards sustainability and collective well-being.



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**PISA Volumes**  
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## 3.2 Student performance in reading

The PBTS assesses several different cognitive processes, or elements, involved in reading. These elements represent the mental strategies, approaches or purposes that readers use to negotiate their way into, around and between texts.

Five elements guide the development of the reading literacy assessment tasks in PISA: retrieving information, forming a broad understanding, developing an interpretation, reflecting on and evaluating the content of a text, and reflecting on and evaluating the form of a text.

As it is not possible to include sufficient items in the PBTS to report on each element as a separate sub-scale, these five elements are organised into three sub-scales for reporting on reading literacy:

- **Locating information:** this element involves going to the information space provided and navigating in that space to locate and retrieve one or more distinct pieces of information.
- **Understanding:** this element involves processing what is read to make internal sense of a text, whether this is clearly stated or not.
- **Evaluating and reflecting:** this element involves drawing upon knowledge, ideas or attitudes beyond the text in order to relate the information provided within the text to one's own conceptual and experiential frames of reference.

The PISA assessment frameworks define competence as far more than the capacity to reproduce accumulated knowledge.

According to PISA, competence is the ability to successfully meet complex demands in varied contexts through the mobilisation of psychosocial resources, including knowledge and skills, motivation, attitudes, emotions and other social and behavioural components.

Rather than assessing whether students can reproduce what they have learned, PISA measures whether students can extrapolate from what they have learned and apply their competences in novel situations.

Tasks that can be solved through simple memorisation or with pre-set algorithms are those that are also easiest to digitise and automate. These types of skills, therefore, will be less relevant in a modern knowledge-based society and are not the focus of PISA.



Read more about

**The PISA Assessment Frameworks**

[oe.cd/publications](https://oe.cd/publications)

## Figure 3.2 Student performance in sub-scales of reading

While not all PBTS tasks engage students in every sub-scale, items can be classified according to the dominant process. Figure 3.2 shows the results of Your School in the three sub-scales of reading, next to the results of the EU and of the OECD in PISA 2018. For each of Your School's values, the figure also shows its 95% confidence interval. If the respective score of the EU – or of the OECD – is not comprised in the interval, then the difference between this score and the score of Your School can be assumed to be statistically significant.



	Your School's score		EU score		OECD score
Locating information	569	which is significantly higher than	487	and significantly higher than	487
Understanding	538	which is similar to	484	and is similar to	487
Evaluating and reflecting	539	which is significantly higher than	485	and significantly higher than	489

### 3.3 Student performance in mathematics

The PISA mathematics framework defines the theoretical underpinnings of the PISA mathematics assessment based on the fundamental concept of mathematical literacy, relating mathematical reasoning and three processes, or elements, of the problem-solving (mathematical modeling) cycle.

The PBTS assessment measures how effectively schools are preparing students to use mathematics in every aspect of their personal, civic and professional lives, as constructive, engaged and reflective 21st century citizens.

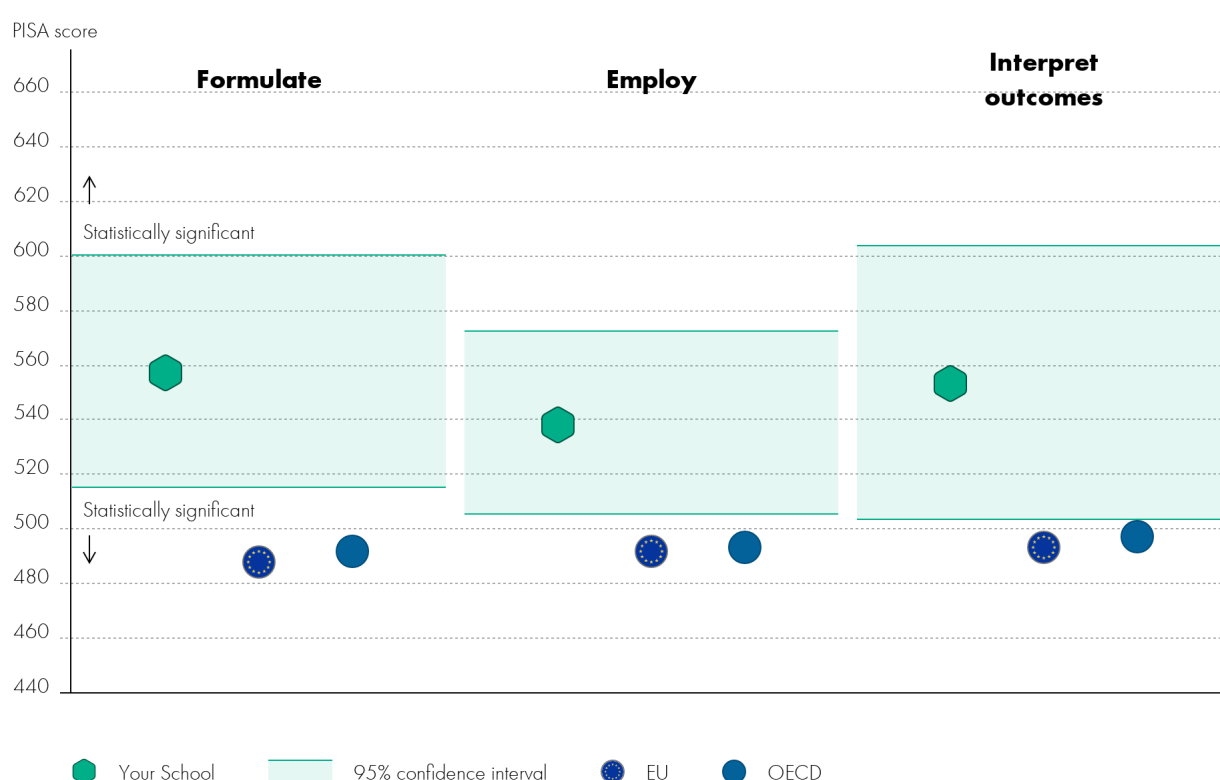
The framework schematises three elements of the mathematical modeling cycle: formulate, employ and interpret.

Each of these elements draws on fundamental mathematical capabilities, and, in turn, on the problem-solver's detailed mathematical knowledge, as detailed below:

- **Formulate:** the action begins with the "problem in context." The problem-solver tries to identify the mathematics relevant to the problem situation, formulates the situation mathematically according to the concepts and relationships identified, and makes assumptions to simplify the situation. The problem-solver thus transforms the "problem in context" into a "mathematical problem" that can be solved using mathematics.
- **Employ:** to solve the problem using mathematics, the problem-solver employs mathematical concepts, facts, procedures and reasoning to obtain the "mathematical results." This stage usually involves mathematical manipulation, transformation and computation, with and without tools.
- **Interpret outcomes:** the "mathematical results" then need to be interpreted in terms of the original problem to obtain the "results in context." The problem-solver thus must interpret, apply and evaluate mathematical outcomes and their reasonableness in the context of a real-world problem.

## Figure 3.3 Student performance in sub-scales of mathematics

While not all PBTS tasks engage students in every stage of the modeling cycle, items can be classified according to the dominant process. Figure 3.3 shows the results of Your School in the three sub-scales of mathematics, next to the results of the EU and of the OECD in PISA 2012. For each of Your School's values, the figure also shows its 95% confidence interval. If the respective score of the EU – or of the OECD – is not comprised in the interval, then the difference between this score and the score of Your School can be assumed to be statistically significant.



	Your School's score		EU score		OECD score
<b>Formulate</b>	<b>558</b>	which is significantly higher than	<b>488</b>	and significantly higher than	<b>492</b>
<b>Employ</b>	<b>539</b>	which is significantly higher than	<b>492</b>	and significantly higher than	<b>493</b>
<b>Interpret outcomes</b>	<b>554</b>	which is significantly higher than	<b>493</b>	and significantly higher than	<b>497</b>

Learning happens well before children start school and continues throughout adulthood. It happens in the family, the neighbourhood and in isolation. Above all, it happens in the classroom. It is in schools where students most strongly experience the joys and frustrations that come along with learning, and where many of them, mostly inadvertently, learn how to learn. Even if most education systems focus on “what” is learned, rather than “how” students learn, most students inevitably develop particular learning strategies to complete school assignments and prepare for exams. Which strategies they adopt can make all the difference in their learning.

As an integral part of the learning process, students’ learning strategies have a direct influence on academic performance and thus have an impact on students’ daily lives. In addition to this immediate influence, learning strategies can also have long-term consequences for students. Rote learning, for instance, can be useful in certain school environments, but relying on that strategy alone may seriously penalise students later on in their educational career or in many work situations where simply storing and reproducing information may not be enough to get a job done. Sooner or later, a lack of deep, critical, creative and flexible thinking becomes a problem, particularly in innovative societies where the demand for non-routine skills is rising.

Learning strategies are defined as cognitive and metacognitive processes employed by students as they attempt to learn something new. In PISA, the main strategies students use to learn mathematics are grouped into three broad approaches: memorisation, elaboration and control strategies.

Students differ in how intensively they use these types of learning strategies. Some feel more comfortable with particular strategies; others may adopt different strategies depending on their teachers’ expectations, their motivation, the type of task and, more generally, on their learning environment. Students may also give different weight to particular learning strategies when they are faced with new information, depending on in which phase of the learning process they find themselves: identification, comprehension, retention or retrieval. After all, “no single strategy is a panacea”.



Read more about

**Students’ learning strategies in Mathematics**

[oe.cd/il/teach](https://oe.cd/il/teach)



## 3.4 Student performance in science

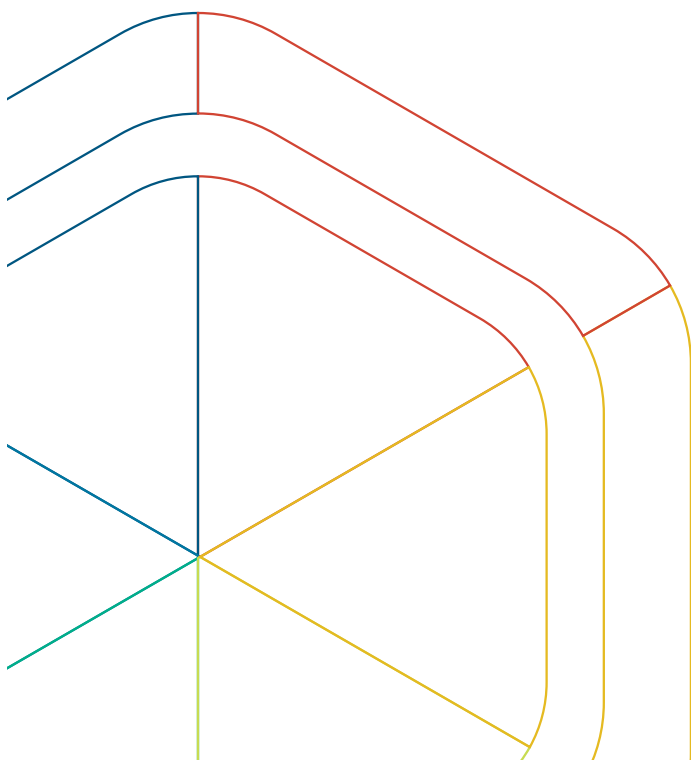
Performance in science requires three elements of knowledge: scientific competences, knowledge of the standard methodological procedures used in science, and knowledge of science subject content.

These three elements are interconnected. Explaining scientific and technological phenomena, for instance, demands knowledge of the content of science. Evaluating scientific inquiry and interpreting evidence scientifically also require an understanding of how scientific knowledge is established and the degree of confidence with which it is held.

According to the PISA definition, a science-literate person is able and willing to engage in reasoned discourse about science and technology.

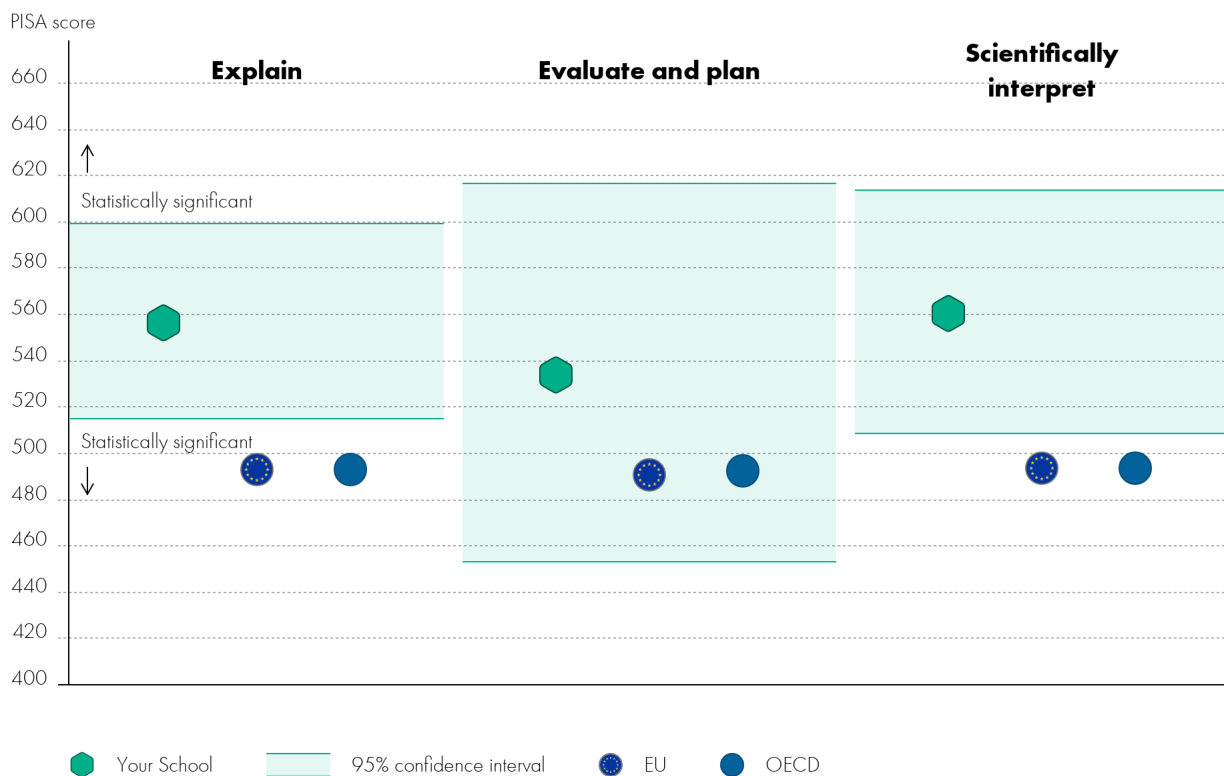
This requires the necessary competences to successfully:

- **Explain:** this element implies being able to recognise, offer and evaluate scientific explanations for a range of natural and technological phenomena.
- **Evaluate and plan:** this element implies being able to describe, design and appraise scientific investigations and propose ways of addressing questions scientifically.
- **Scientifically interpret:** this element implies being able to analyse and evaluate data, claims and arguments in a variety of representations, and draw appropriate scientific conclusions.



## Figure 3.4 Student performance in sub-scales of science

While not all PBTS tasks require all of these competences, items can be classified according to the dominant one. Figure 3.4 shows the results of Your School in the three sub-scales of science, next to the results of the EU and of the OECD in PISA 2015. For each of Your School's values, the figure also shows its 95% confidence interval. If the respective score of the EU – or of the OECD – is not comprised in the interval, then the difference between this score and the score of Your School can be assumed to be statistically significant.



	Your School's score		EU score		OECD score
<b>Explain</b>	<b>557</b>	which is significantly higher than	<b>493</b>	and significantly higher than	<b>493</b>
<b>Evaluate and plan</b>	<b>535</b>	which is similar to	<b>491</b>	and is similar to	<b>493</b>
<b>Scientifically interpret</b>	<b>561</b>	which is significantly higher than	<b>493</b>	and significantly higher than	<b>493</b>

Science permeates all aspects of modern life. It is all around us, from the humble toaster to the mighty rocket putting satellites into orbit. Science's record in improving our living circumstances through medicine, communication, transport and many other fields is undeniable.

In today's world, proficiency in science is not a luxury but a necessity. According to the United States Bureau of Labor Statistics, in 2015, 8.6 million jobs in the United States (representing 6.2% of all jobs) were in fields related to science, technology, engineering and mathematics. Jobs in science and mathematics, in particular, are expected to grow at an unprecedented rate of 28.2% between 2014 and 2024, compared to 6.5% growth in all other professions.

This rise will be accompanied by the progressive automation of routine and low-skilled jobs. Figures from the World Bank show that a wide range of jobs – from truck drivers to finance professionals – have a high probability of being automated in the coming years, with technology entirely or largely replacing routine tasks performed by human workers. This evidence underscores the importance of science in the future, as students who perform well in science are more likely to pursue careers in this field and to find good jobs.

Several studies indicate that instructional practices in science could have a more significant effect on students' science performance and attitudes than teachers' experience and advanced degrees. Indeed, what teachers enact in the classroom has the potential to engage students with science or alienate them from it. This, in turn, highlights the need to identify the core teaching practices that have a positive impact on students' science performance and attitudes.

OECD work shows that the negative association between inquiry-based science teaching and science performance is greatly attenuated when lessons are delivered in disciplined science classes. This approach could help close the gender gap between girls and boys when it comes to attitudes towards science and to the decision to pursue a career in STEM-related fields.

The work also shows that teacher-directed instruction is a reliable strategy that is positively associated with students' science outcomes regardless of school climate and resources. Adaptive teaching is positively correlated with science performance in the majority of countries, particularly in countries known for the use of personalised learning approaches, while teacher feedback is weakly but positively associated with science performance once students' achievement in mathematics and reading is accounted for.



Read more about

### **The relationship between science teaching strategies and students' science-related outcomes**

[oe.cd/il/scienceteaching](https://oe.cd/il/scienceteaching)

## 3.5 Your School's results across PISA proficiency levels

In order for students in Your School to thrive in the 21st century, it is paramount that they are able to demonstrate skills and competences that will allow them to participate productively in life as they continue their studies and enter the labour force. According to PISA, different levels of skills and competences at age 15 can be associated with different labour outcomes.

PISA results group student performance according to six proficiency levels for each subject, from the best performing students (Level 6) to the lowest performing ones (Below Level 2).

Level 2 is used as a reference and baseline group, and represents the level of proficiency at which students begin to demonstrate the competences that will enable them to participate effectively and productively in life as continuing students, workers and citizens.

Would you like to have a detailed description for each proficiency level in each of the three domains? Have a look at the Reader's Guide!

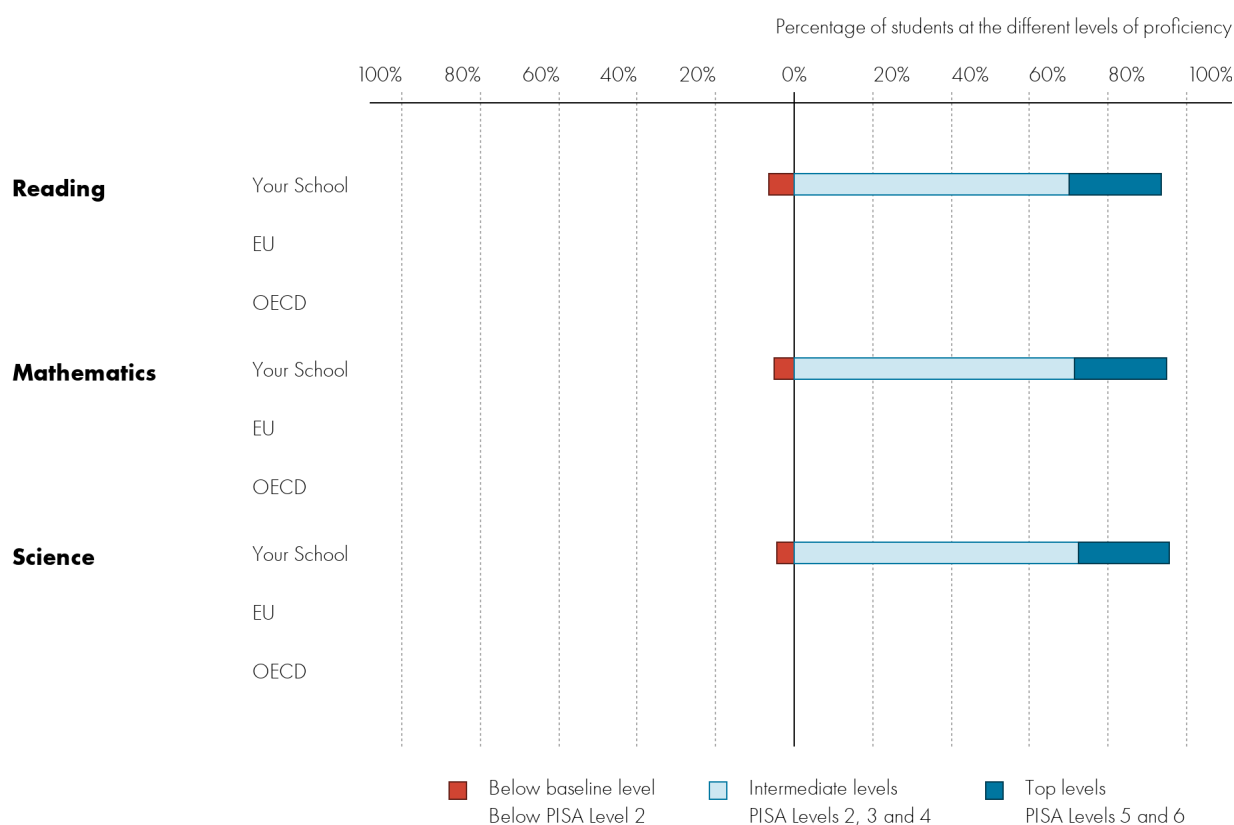
[www.oecd.org/pisa/pisa-for-schools](http://www.oecd.org/pisa/pisa-for-schools)

Due to the usually small sample sizes of schools participating in the PBTS, this report aggregates the students into three groups:

- students who reach the **top levels** (corresponding to PISA Levels 5 and 6) and are well on their way to becoming the highly skilled knowledge workers of tomorrow;
- students who perform at the **intermediate levels** (corresponding to PISA Levels 2, 3 and 4) and are able to demonstrate skills and competences that will allow them to participate productively in life as they continue their studies and enter the labour force; and
- students who perform **below baseline** PISA Level 2 and who are at risk of poor educational and labour-market outcomes.

## Figure 3.5 Student proficiency levels in reading, mathematics and science

Figure 3.5 summarises how students in Your School perform in terms of proficiency levels. The results of Your School are shown next to the mean performance obtained by students across schools in the EU and in the OECD in PISA 2018.



**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)



The OECD collected many videos profiling specific policies and practices from strong-performing or improving countries and economies. Would you like to know more from their experiences? Here you can find some!

[oe.cd/strongperf](https://oe.cd/strongperf)

**Reading:** The reading domain of the assessment measures the active, purposeful and functional application of reading in a range of situations and for various purposes. Students who are proficient at the highest levels are capable of critically evaluating unfamiliar texts and building hypotheses about them, drawing on specialised knowledge and accommodating concepts that may be contrary to expectations.

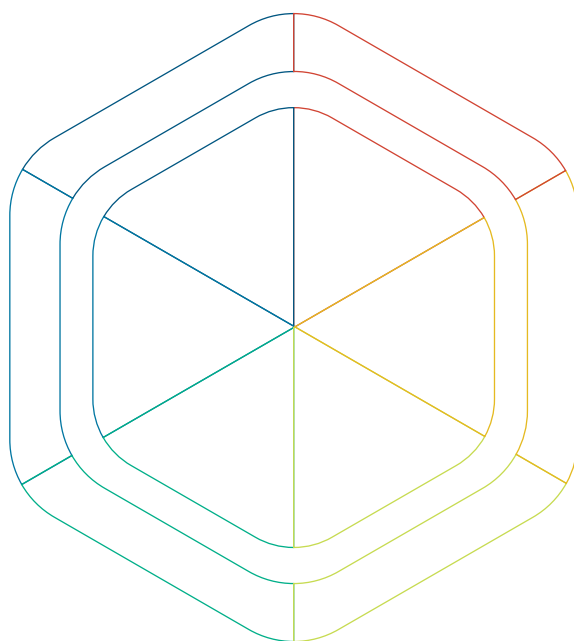
At the other end of the performance scale, PISA has defined Level 2 as a baseline level of proficiency at which students begin to demonstrate the reading competences that will enable them to participate effectively and productively in life.

**Mathematics:** The mathematics part of the assessment measures student capacity to formulate, employ and interpret mathematics in a variety of contexts. Students who reach Levels 5 and 6 in mathematics are capable of developing and working with models in complex situations, identifying constraints and specifying assumptions.

Students who perform at the baseline level of mathematics proficiency (Level 2) can employ basic algorithms, formulae, procedures or conventions and they can interpret and recognise situations that require no more than direct inference.

**Science:** The science domain measures student ability to explain phenomena scientifically, evaluate and design scientific inquiry, and interpret data and evidence scientifically. Students at the highest levels of science proficiency are sufficiently skilled in and knowledgeable about science to be able to creatively and autonomously apply their knowledge and skills to various situations, including unfamiliar ones.

At the baseline level of proficiency in science (Level 2), students can draw on everyday content knowledge to identify an appropriate scientific explanation, demonstrating the competences that will enable them to participate actively in situations related to science and technology.



## 3.6 Exploring the performance of girls and boys

PISA 2018 data show that within-schools, on average, girls perform slightly – albeit significantly – better than boys in reading, while boys perform slightly – albeit significantly – better than girls in mathematics and science. These results however, vary across countries and economies.

A comparison of results in reading performance between 2009, when reading was also the main subject assessed in PISA, and 2018 shows that the gender gap in reading performance narrowed over time in 36 countries and economies. However, in 11 of these countries the narrowing of the gender gap in reading was due not to an improvement in boys' performance but to a decline in girls' performance.

Are there achievement gaps according to gender at Your School? How might those gaps compare to gaps in the EU and around the world? Given Your School's results, what targeted measures could you introduce to address these gaps?

Among the subjects of science, mathematics and reading, science is the one where average gender differences in performance in PISA are smallest.

However, overall similar average performance in science does not reflect the many girls who have difficulty achieving at the highest levels of proficiency – and the large number of boys who struggle to acquire basic skills. In all three domains, boys show larger variation in performance than girls, meaning that the best-performing boys are far ahead of the lowest-achieving boys. Among girls, the difference between the top and lowest performers is narrower.

But for each of these findings, there are considerable variations across countries and years. This indicates that gender disparities in performance do not stem from innate differences in aptitude, but rather from factors that parents, teachers, policy makers and opinion leaders can influence.

A collective effort to encourage student attitudes that are conducive to success, among both boys and girls, and to change the behaviours that impede learning can give boys and girls equal opportunities to realise their full potential and to contribute to society with their unique, individual capacities.



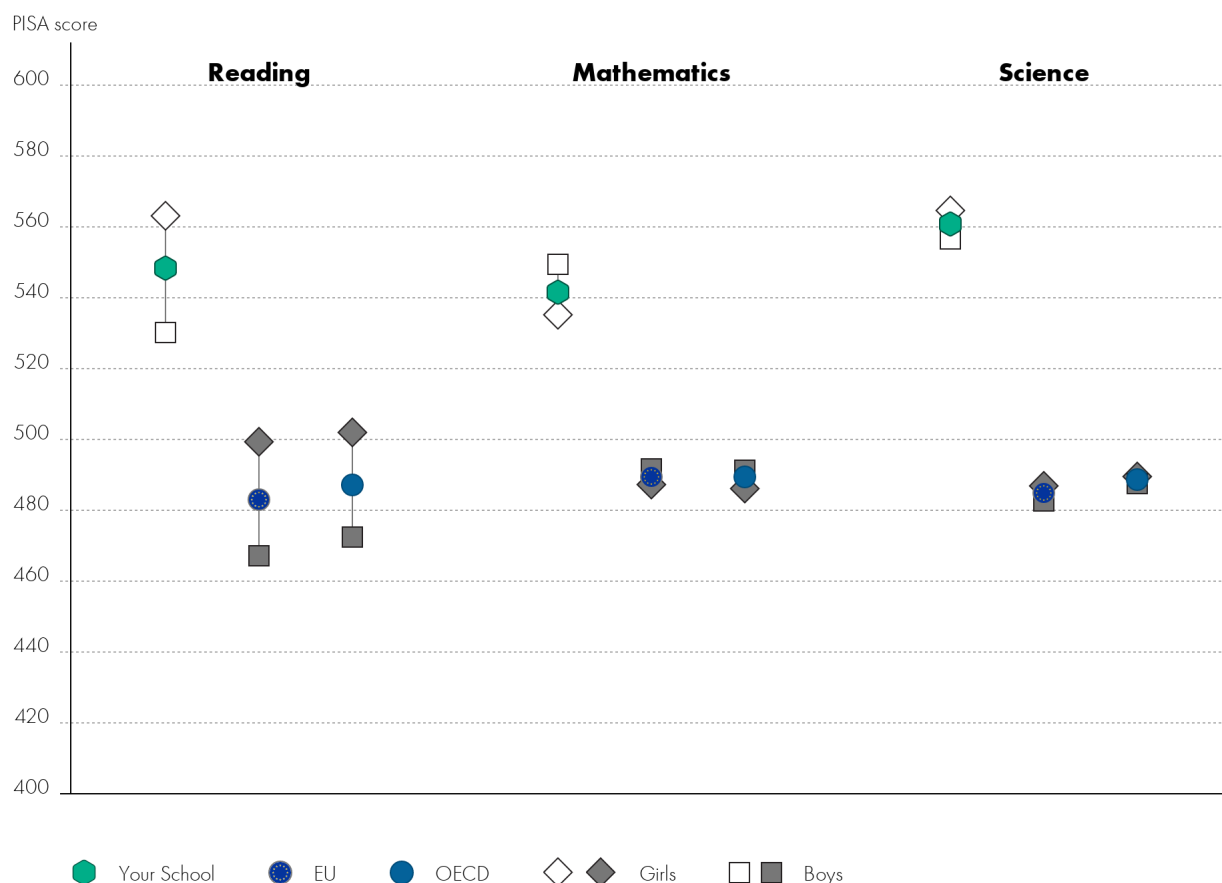
Read more about

**The policy implications of gender difference in performance**

[oe.cd/il/PISA15vol1](https://oe.cd/il/PISA15vol1)

## Figure 3.6 Student performance in reading, mathematics and science for girls and boys

Figure 3.6 shows how girls and boys perform in reading, mathematics and science at Your School, compared with students in other schools in the EU and in the OECD in PISA 2018. There are three sets of charts, one for each domain. Markers with a solid fill indicate that the achievement gap between the two genders is statistically significant with a 95% confidence level.



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

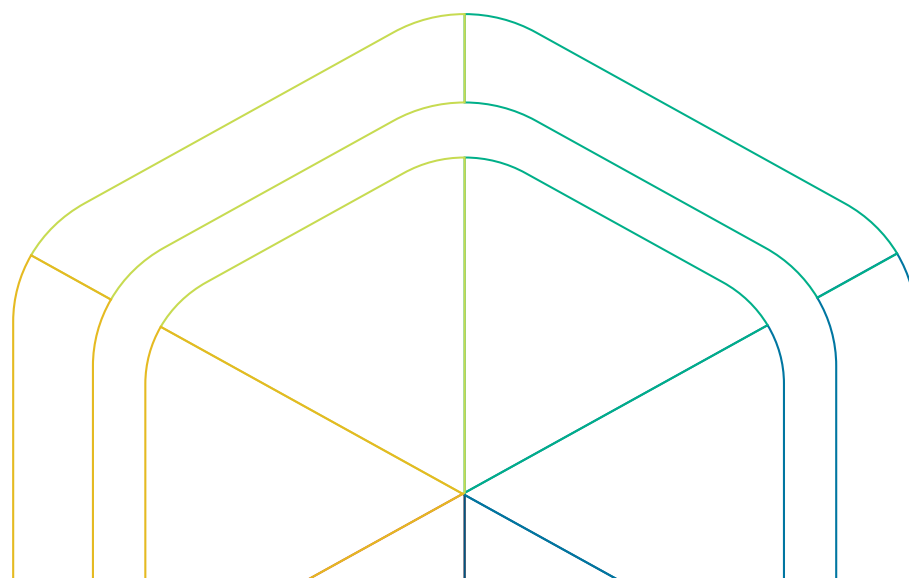


## 3.7 Measuring the performance gap between the highest- and lowest-performing students

This and the following sections of Your School's report focus on equity, with special attention to the results of specific groups of students within Your School. Thus, these sections will primarily compare Your School's results with within-schools results, and not within-country results, from other countries and economies. Unlike a within-country result, a within-schools result is a "mean of means" that represents all schools in a country or economy.

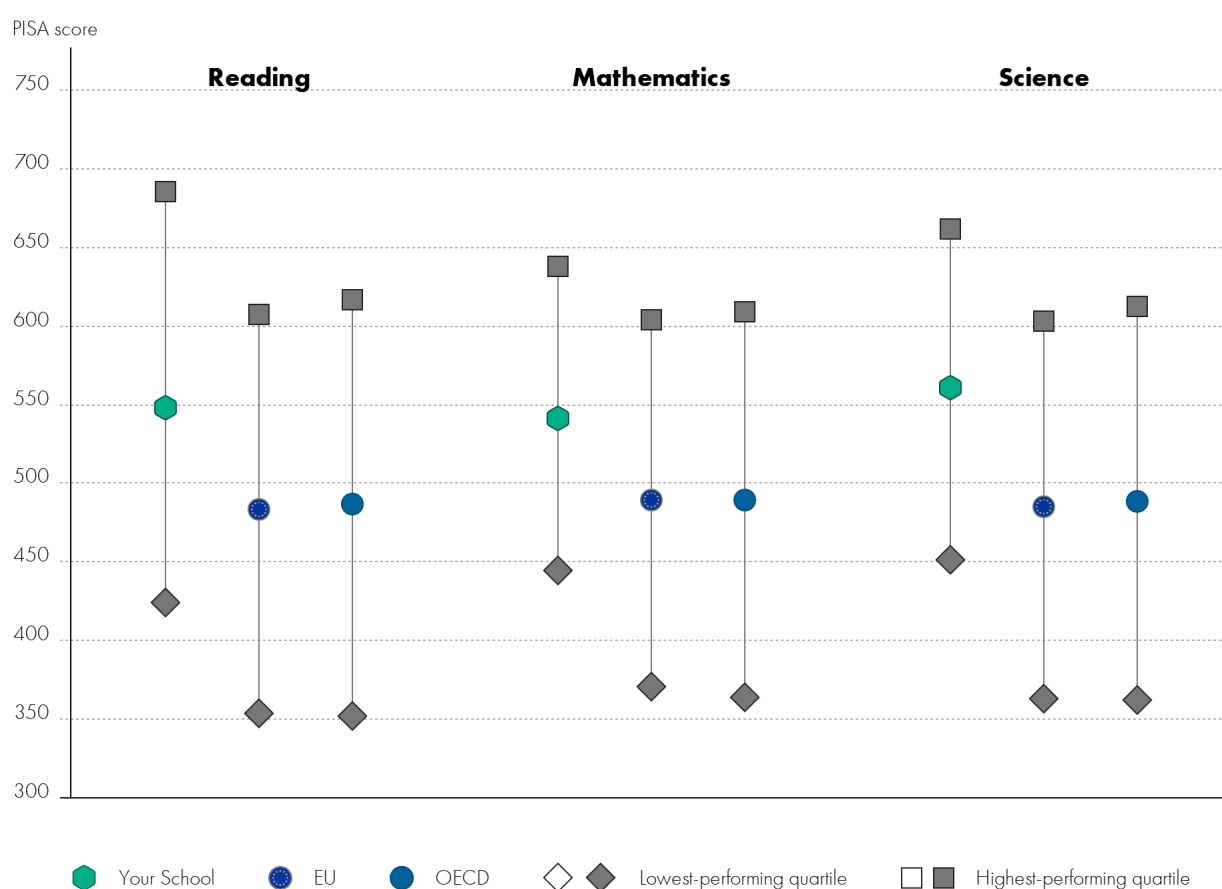
If, for example, an entity's result refers to the scores of the top 25% of students within-schools in terms of socio-economic status, this result is produced by calculating the average score of the top 25% of students in terms of socio-economic status in each school in a country or economy. The mean scores from each school are then averaged to produce the mean score within-schools of the top 25% of students in terms of socio-economic status in a country or economy. In effect, the information represents the results of the average school in a country or economy.

The score difference between Your School's highest- and lowest-performing students can indicate how wide the range in learning outcomes is at Your School. A gap that is larger than that of other schools in the EU might suggest that Your School has less learning outcomes parity, on average, than other schools in the EU. A smaller gap, on the other hand, might suggest that Your School achieves greater parity in learning outcomes.



## Figure 3.7 Student performance in reading, mathematics and science for the highest- and lowest-performing students

Figure 3.7 shows the difference in performance between the top and bottom quartiles of students in Your School. There are three sets of charts, one for each domain. In each set of charts, Your School's result is displayed next to the average within-school results of the EU and the OECD in PISA 2018. For each domain, the top marker represents the average performance among the top 25% of students at Your School (highest-performing students). The bottom marker, instead, represents the average performance among the bottom 25% of students at Your School perform (lowest-performing students). Markers with a solid fill indicate that the achievement gap between highest- and lowest-performing student quartiles is statistically significant with a 95% confidence level.



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data/](https://www.oecd.org/pisa/data/)

**Analyses show that poor performance at age 15 is not the result of any single risk factor, but rather of a combination and accumulation of various barriers and disadvantages that affect students throughout their lives.**

While these background factors can affect all students, among low performers the combination of risk factors is more detrimental to disadvantaged than to advantaged students. Indeed, most demographic characteristics, as well as the lack of pre-primary education, increase the probability of low performance by a larger margin among disadvantaged than among advantaged students, on average across OECD countries.

Low-performing students tend to have less perseverance, motivation and self-confidence in mathematics than better-performing students, and they skip classes or days of school more. Students who have skipped school at least once in the two weeks prior to the PISA test are almost three times more likely to be low performers in mathematics than students who did not skip school.

Students attending schools where teachers are more supportive and have better morale are less likely to be low performers, while students whose teachers have low expectations for them and are absent more often are more likely to be low performers in mathematics, even after accounting for the socio-economic status of students and schools.

In addition, in schools with larger concentrations of low performers, the quality of educational resources is lower, and the incidence of teacher shortage is higher, on average across OECD countries, even after accounting for students' and schools' socio-economic status.

In countries and economies where educational resources are distributed more equitably across schools, there is less incidence of low performance in mathematics, and a larger share of top performers, even when comparing school systems whose educational resources are of similar quality.

The first step for policy makers is to make tackling low performance a priority in their policy agenda and translate it into additional resources.

An agenda to reduce the incidence of low performance can include several actions, such as:

- creating demanding and supportive learning environments at school;
- providing remedial support as early as possible;
- identifying low performers and designing a tailored policy strategy;
- offering special programs for immigrant, minority-language and rural students; and
- reducing inequalities in access to early education.



Read more about

**Why low-performing students fall behind and how to help them succeed**

[oe.cd/lowperf](https://oe.cd/lowperf)

## 3.8 Exploring the effect of socio-economic status on student performance in Your School

To what extent do students at Your School show gaps in performance according to socio-economic status? And how do Your School's socio-economic performance gaps compare with those of schools in other countries and economies?

PISA data shows that in many countries, even those that perform well in PISA, students' backgrounds continue to influence their opportunities to benefit from education and develop their skills.

High income families often invest in buying books, high-quality pre-schooling and daycare, enrichment activities, and private tutoring if needed. Low incomes adversely affects parents' ability to nurture and provide for their children's needs, and the experience of poverty during childhood and adolescence is often associated with slower cognitive development and poorer health.

That is why equity in education – ensuring that education outcomes are the result of students' abilities, will and effort, rather than their personal circumstances – lies at the heart of ensuring opportunities for all and inclusive growth.

Ensuring that the most talented, rather than the wealthiest, students obtain access to the best education opportunities is also a way to use resources effectively and raise education and social outcomes in general.

Socio-economic status is a broad concept that summarises many different aspects of a student, school or school system. In PISA and in the PBTS, this concept is measured using information gathered from a questionnaire that asks students about their family background. Different variables from the student questionnaire – parents' education, parents' occupations, home possessions representing material wealth, and the number of books and other educational resources available in the home – make up the PISA index of economic, social and cultural status (ESCS) which is also used in the PBTS.

As a general reference, the ESCS index is usually comprised between -3.5 and +2.0 at a country level, with lower values indicating lower socio-economic status. The ESCS index is built in a way that the value of 0.0 corresponds to the average OECD economic, social and cultural status, and is standardised so that a value of 1 equals a difference of 1 standard deviation from the OECD average of 0.0. For additional details about the ESCS index, readers can consult the Reader's Guide and the PBTS Technical Report.

**PISA results show that educational excellence and equity can be achieved within the same school system. That is, students can be high-achievers on average while the influence of socio-economic status on their performance can be relatively small.**

Equity in education is a matter of design and concerted policy efforts. Achieving greater equity in education is not only a social justice imperative, it is also a way to use resources more effectively, increase the supply of skills that fuel economic growth, and promote social cohesion. As such, equity should be one of the key objectives in any strategy to improve an education system.

PISA shows that, in most participating countries and economies, socio-economic status and an immigrant background are associated with significant differences in student performance. Yet PISA also shows that the relationship between students' background and their outcomes in education varies widely across countries.

In some high-performing countries, this relationship is weaker than average – implying that high achievement and equity in education outcomes are not mutually exclusive. This underlines PISA's definition of equity as high performance for students from all backgrounds, rather than as small variations in student performance only.

PISA is an assessment of the cumulative learning that has occurred since birth. Investments in early childhood education bring relatively large returns as children progress through school. By contrast, intervening when students have already fallen behind is often more expensive and less effective, even if skills can be developed at all ages.

For most countries, comprehensive education policy must also focus on increasing socio-economic inclusion and enabling more families to provide better support for their children's education. For others, it may also mean improving school offerings and raising the quality of education across the board. And most importantly, high levels of equity and performance should be seen as complementary rather than competing objectives.



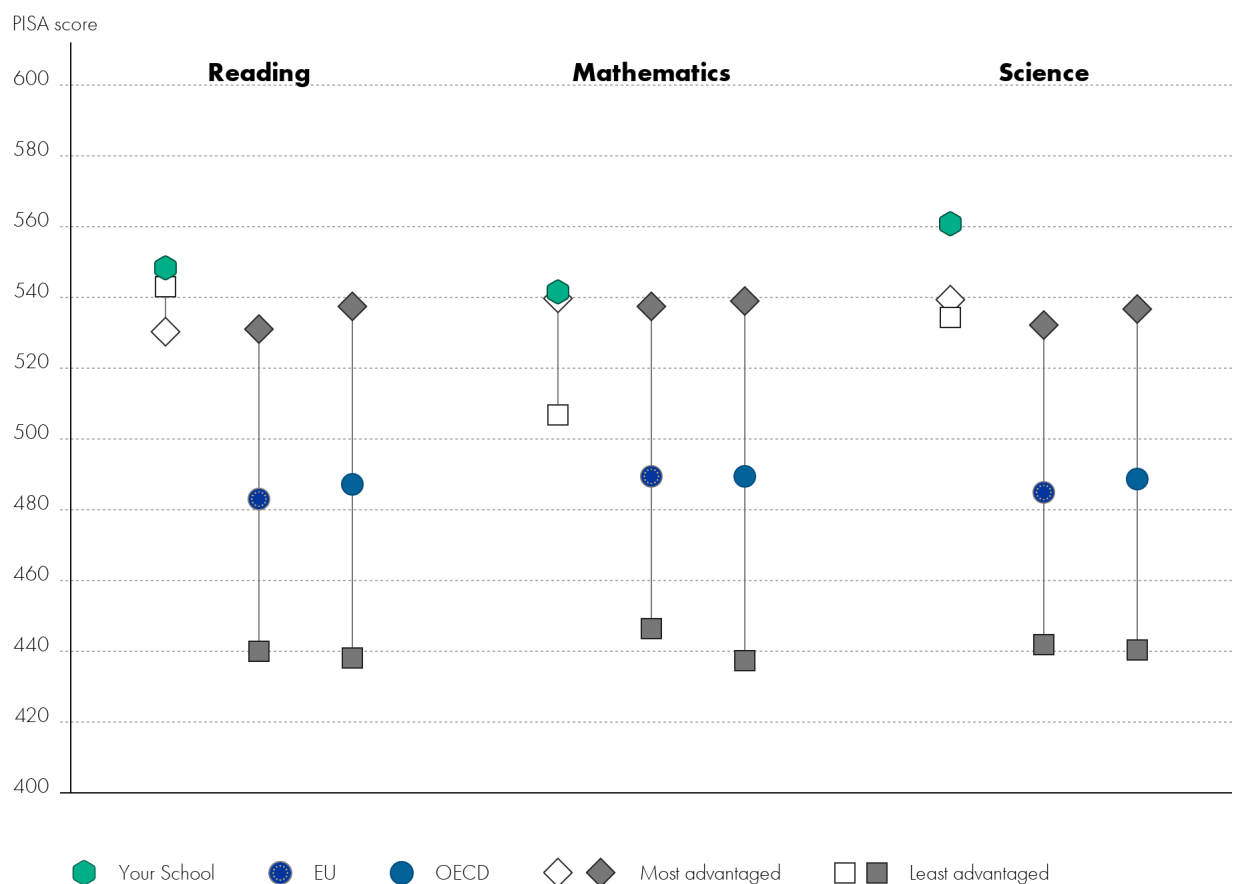
Read more about

**The policy implications of differences in equity**

[oe.cd/il/PISA15vol1](https://oe.cd/il/PISA15vol1)

### Figure 3.8 Student performance in reading, mathematics and science for the most and the least socio-economically advantaged student quartiles

Figure 3.8 shows the difference in performance between the most and the least socio-economically advantaged students at Your School next to corresponding, within-school results of the EU and the OECD in PISA 2018. For each domain, the figure presents for Your School, the EU and the OECD the average performance of all students and of the top and bottom 25% of students according to their ESCS index (the most and the least socio-economically advantaged students). Markers with a solid fill indicate that the achievement gap between the two groups is statistically significant with a 95% confidence level.



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://www.oecd.org/pisa/data/)

Equity in education is promoted by removing obstacles to the development of talent that stem from economic and social circumstances over which individual students have no control, including unequal access to educational resources in their family and school environments.

One of the ways PISA examines equity is by looking at how well a student's socio-economic status predicts his or her performance (what PISA calls the strength of the socio-economic gradient).

Recent trends in equity are best analysed by comparing the evolution of this indicator between PISA 2006 and PISA 2015, two rounds of PISA when science was the focus of the assessment.

Over the past decade, equity improved modestly in many PISA-participating countries and economies. In 2006, on average across OECD countries, 14% of the variation in students' science performance could be explained by students' socio-economic status; by 2015, 13% of the variation in performance could be so explained. But in a few countries the socio-economic gradient weakened by between 2 and 7 percentage points. Progress towards greater equity in education is even more commendable as many of these countries saw rising income inequality over the same period.

Trends in equity are also reflected in changes in the average impact of socio-economic status on performance. Over the past decade, the average difference in performance observed between students from different socio-economic groups decreased by between 5 and 13 score points in several countries.

Was progress in equity driven by improvements in performance among disadvantaged students? Trends in student "resiliency" suggest that, in many countries, this was the case. Resilient students are those from disadvantaged backgrounds who beat the odds against them and perform at high levels when compared with students of the same socio-economic status from around the world.



Read more about

**Where equity in education improved over the past decade**

[oe.cd/il/equity](https://oe.cd/il/equity)

## 3.9 Your School's performance in the socio-economic context of the EU

Figure 3.9 shows Your School's results in the socio-economic context of all schools from the EU that participated in PISA 2018 for the reading domain. The scale on the left side of the figure (the y-axis) represents the performance on the PISA reading scale. The scale on the bottom (the x-axis) refers to the socio-economic status of students as measured by the PISA index of economic, social and cultural status (ESCS).

What is important to keep in mind when reading this chart is that as values increase (from left to right), the average socio-economic status of students increases. Thus, schools that are plotted towards the lower end of the scale (-1.5 for example) will appear on the left side of the figure, and one may conclude that students in these schools, on average, come from more disadvantaged backgrounds. Schools plotted with higher ESCS values, such as +1.0 or higher, (towards the right side of the x-axis) serve students primarily from more advantaged backgrounds.

The diagonal line in the figure (which is the regression line) indicates the relationship between socio-economic status and performance based on the performance of all schools participating in PISA 2018. Schools well above the diagonal line perform better than what would reasonably be expected in the EU given the socio-economic status of their students, while those well below do not perform as well as what would reasonably be expected.

There are also two shaded areas in each figure. The horizontal shaded area represents the confidence interval around Your School's score on the PISA scale for reading. The vertical shaded area represents the confidence interval around Your School's value on the ESCS index. Where they overlap represents the area in which Your School's results would be expected to be 95% of the time if the PBTS were administered continuously in Your School.

It is useful to compare Your School's results not only with all schools from the EU in PISA 2018, but in particular with those whose students come from similar socio-economic backgrounds as yours. These can be found throughout the vertical shaded area.

**What is the performance of Your School compared with the other schools in this shaded area? How does the performance of Your School compare with its expected performance (the diagonal line) given the socio-economic background of your students?**

Furthermore, it can be helpful to compare Your School's results with schools in the horizontal shaded area whose students perform similarly but come from different socio-economic backgrounds. Is Your School achieving comparable performance with more or less advantaged students?

Figures 3.10 and 3.11 show Your School's results in the socio-economic context of all schools from the EU that participated in PISA 2018 for the mathematics and science domains.



**Figure 3.9 How Your School's results in reading compare with schools in the EU in PISA 2018**



**Note:** size of the dot is proportional to the number of students enrolled at the school.

**Source:** data for schools in the EU were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

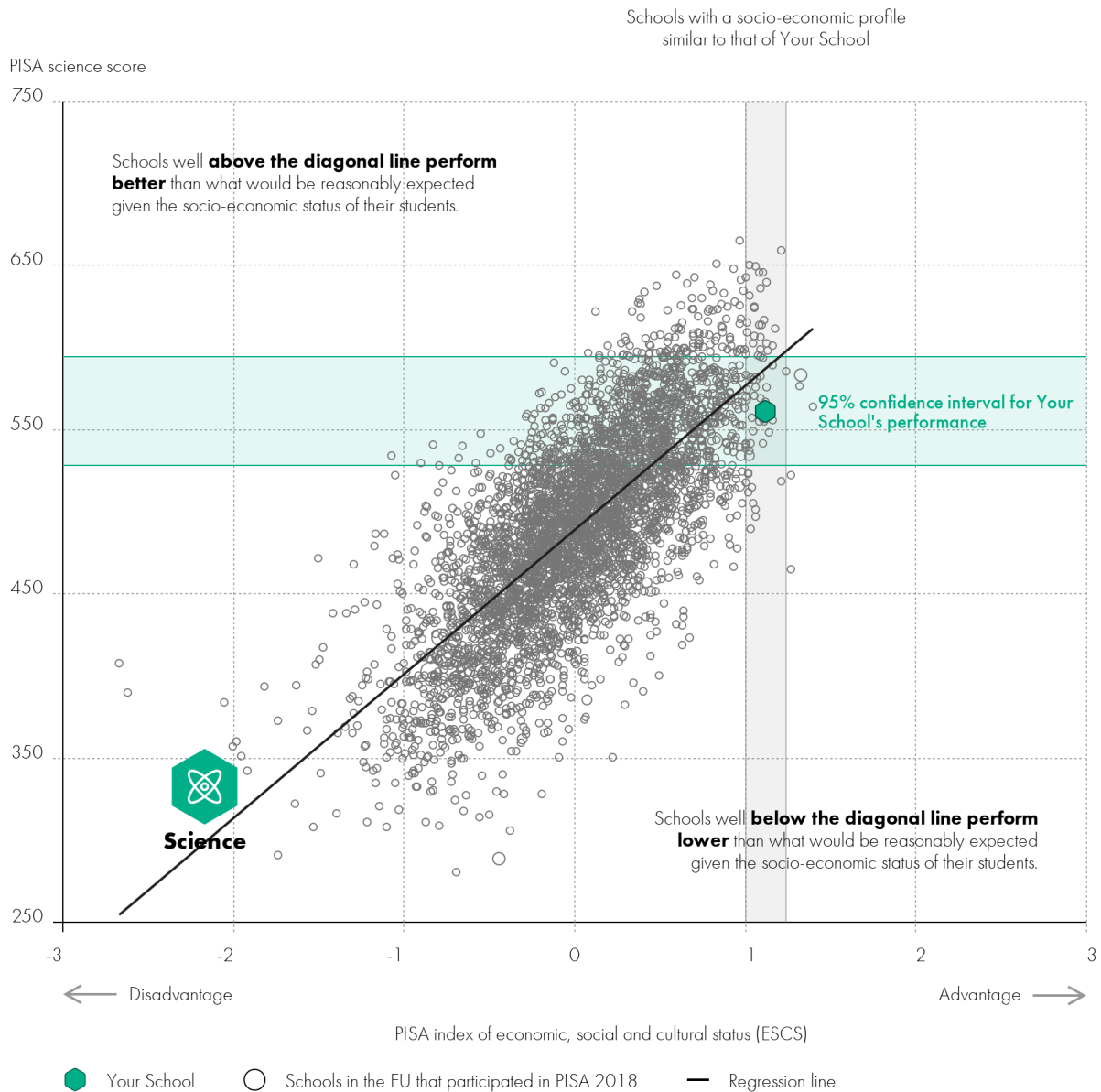
**Figure 3.10 How Your School's results in mathematics compare with schools in the EU in PISA 2018**



**Note:** size of the dot is proportional to the number of students enrolled at the school.

**Source:** data for schools in the EU were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure 3.11 How Your School's results in science compare with schools in the EU in PISA 2018**



**Note:** size of the dot is proportional to the number of students enrolled at the school.

**Source:** data for schools in the EU were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

According to PISA definitions, “academically resilient” students are those who are among the 25% most socio-economically disadvantaged students in their country but are able to score at Level 3 or above in all PISA subjects.

The variation in the share of academically resilient students across countries and time largely reflects differences in the outcomes achieved by all students, on average. The smallest shares of resilient students are found in countries where average performance is low, even among more advantaged students. But this variation also reflects disparities in how equitably learning opportunities are distributed.

**PISA data show that several countries have been able to increase the share of academically resilient students among those in the bottom quarter of socio-economic status.**

The likelihood that disadvantaged students are academically resilient varies not only across countries, but also within each education system, depending on the school these students attend. An in-depth analysis of PISA data from 2012 and 2015 focused on the subset of countries and economies where at least 5% of disadvantaged students are academically resilient.

The analysis identified some traits common to school environments in which disadvantaged students succeed.

Across the vast majority of education systems examined, the likelihood that disadvantaged students are resilient is higher in schools where students reported a good disciplinary climate, compared to schools with more disruptive environments, even after accounting for differences in students’ and schools’ socio-economic profile and other individual characteristics associated with resilience.

Attending orderly classes, in which students can focus and teachers provide well-paced instruction, is beneficial for all students, but particularly so for the most vulnerable. A similar relationship is found with the share of students who did not skip days of schools during the two weeks prior to the PISA test, another indicator of (a positive) school climate.

By contrast, the likelihood of resilience among disadvantaged students is only weakly related to the amount of human and material resources available in their schools.



Read more about

**Countries and schools where disadvantaged students succeed**

[oe.cd/il/succeed](https://oe.cd/il/succeed)

## 3.10 Trends in student performance

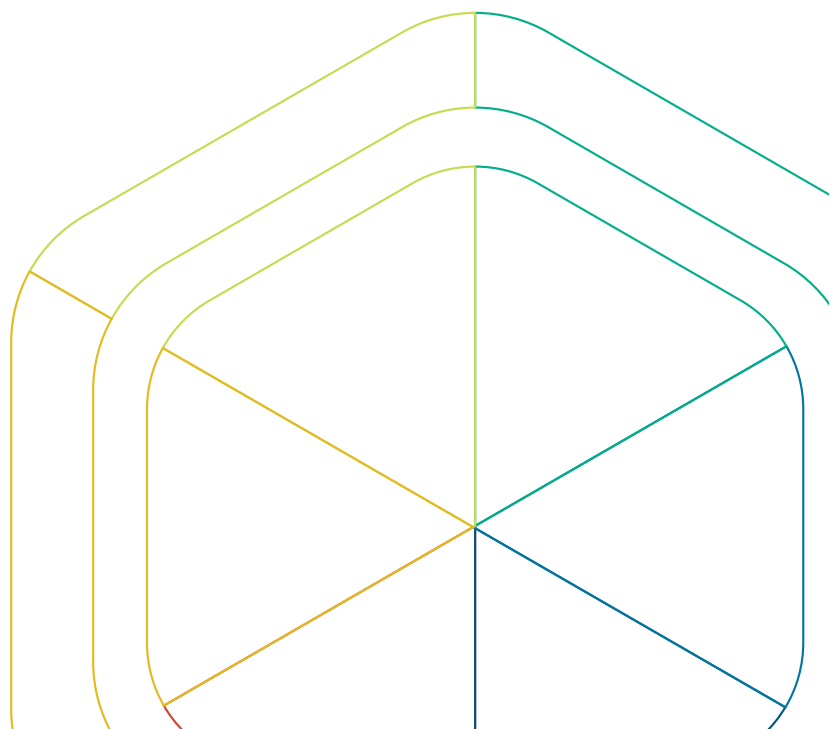
Trends in student performance provide a useful indication of whether and how Your School is improving over time.

In order for comparisons to be meaningful, certain conditions must be met.

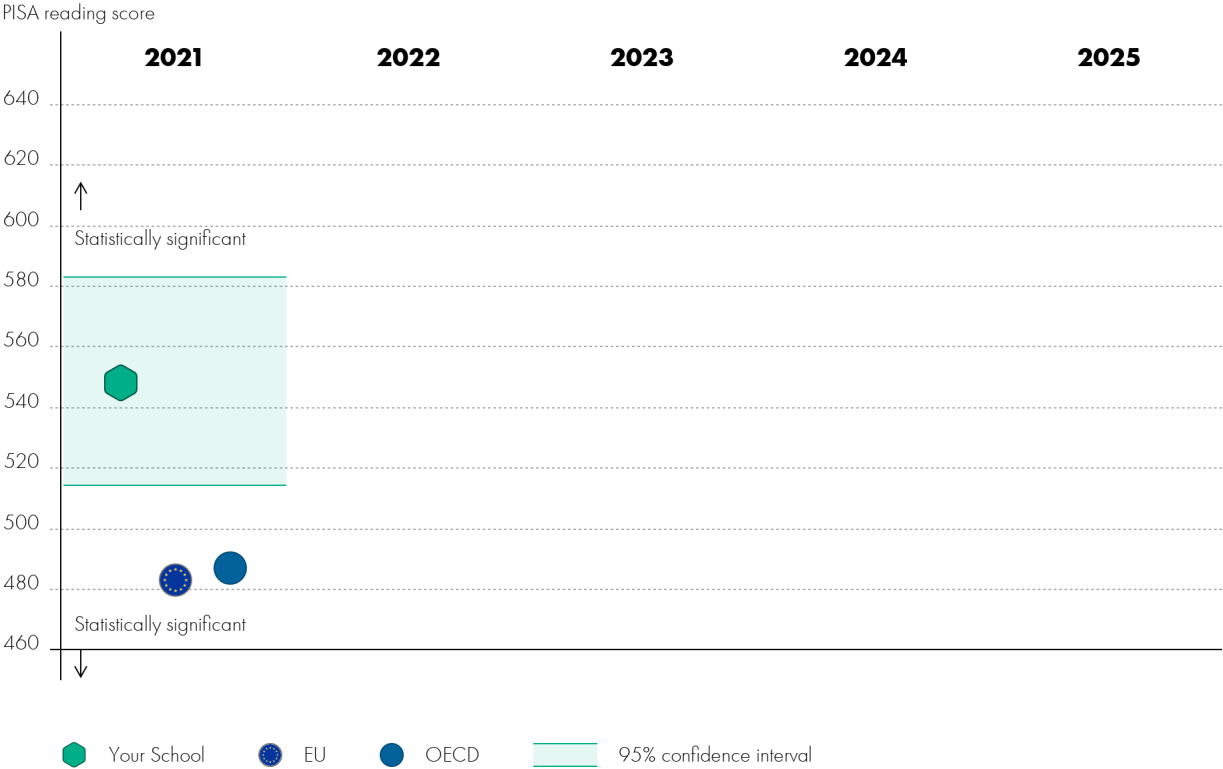
- First, successive assessments must include a sufficient number of common assessment items so that results can be reported on a common scale.
- Second, the sample of students in successive assessments must be equally representative of the target population, and only results from samples that meet the PISA for Schools standards can be compared over time.
- Third, the assessment conditions must be sufficiently similar across time so that performance on the test reflects the same underlying proficiency in a domain.
- Fourth, the same reporting scale must be used to report student proficiency.

When PISA for Schools transitioned to digital delivery of the test in 2019, the reporting scale anchors were re-estimated, so no comparisons can be made with the results from earlier, paper-based administrations of the PISA-based Test for Schools.

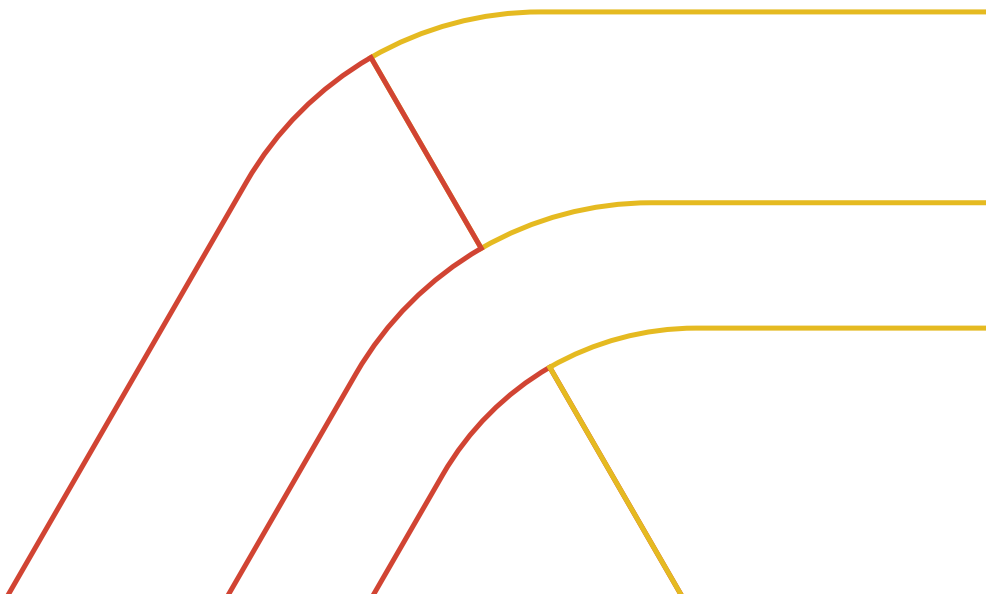
Figures 3.12, 3.13 and 3.14 show the average change in the performance of Your School over time, and the extent to which results at Your School have improved, deteriorated or remained unchanged. For each of Your School's values, the figures also show its 95% confidence interval. When the intervals from two years overlap, the difference between those two years cannot be assumed to be statistically significant.



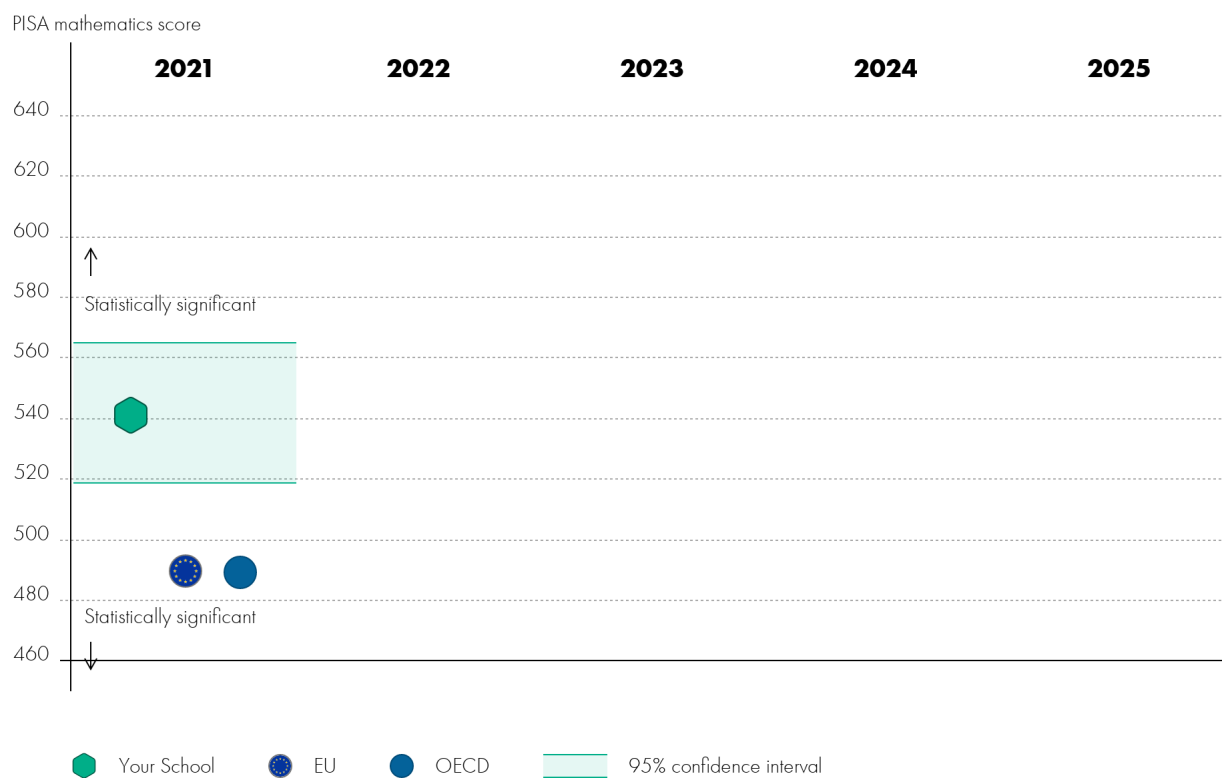
**Figure 3.12 Trends in student performance in reading  
(with 95% confidence interval for Your School)**



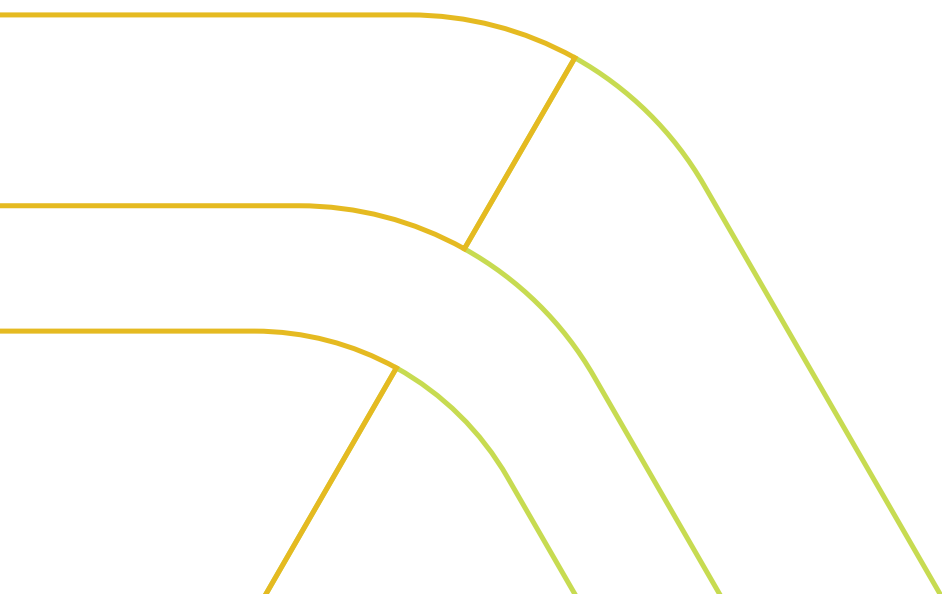
**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://www.oecd.org/pisa/data)



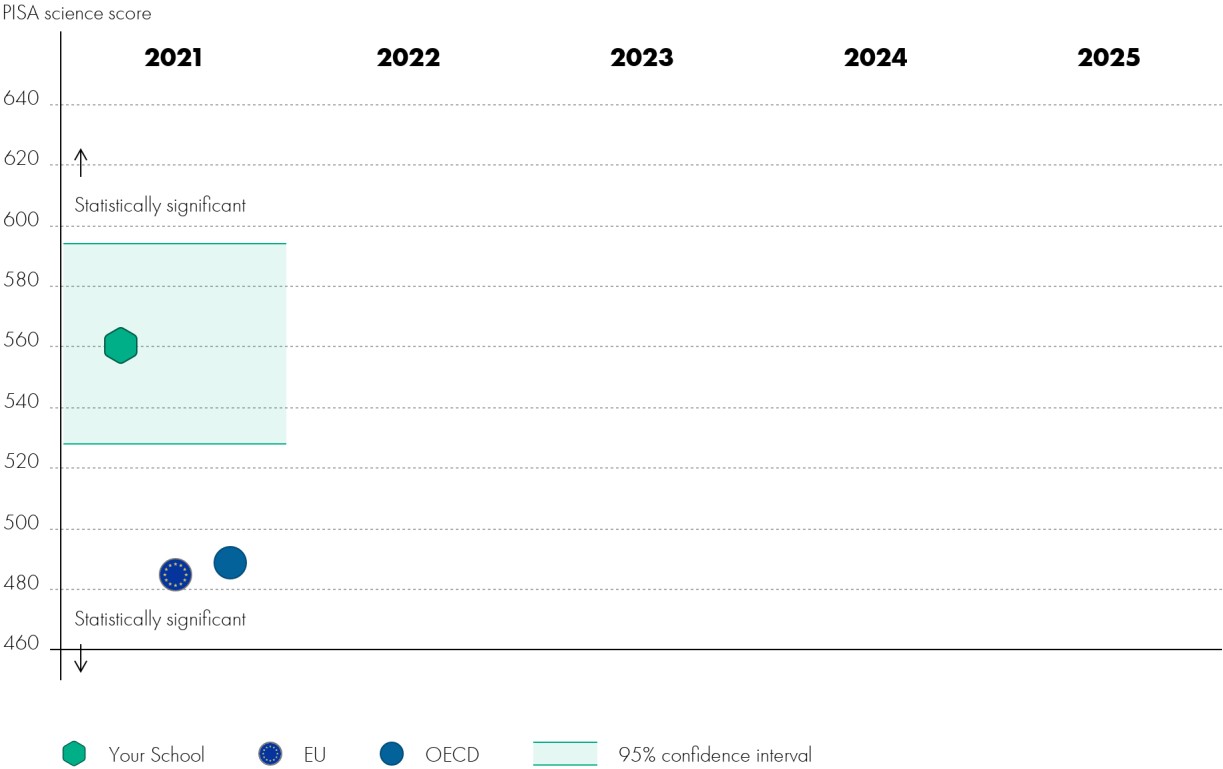
**Figure 3.13 Trends in student performance in mathematics  
(with 95% confidence interval for Your School)**



**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)



**Figure 3.14 Trends in student performance in science  
(with 95% confidence interval for Your School)**



**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)



## 4.

### STUDENT VOICE:

#### EXPLORING STUDENT ENGAGEMENT AND HOW STUDENTS FEEL AT SCHOOL

This chapter provides an overview of your students' motivation to achieve, attitudes towards learning and perceptions about their learning environment. PISA results show that understanding what students feel at school and in life could explain their performance and future life outcomes.

How are student attitudes and perceptions associated with their performance?

Students in Your School responded to several questions regarding their perceptions of how useful reading, mathematics and science are for their study and career plans. These questions can be an important predictor for course selection, career choice and job performance, and provide an interesting insight on students' motivation to achieve. Furthermore, PISA data show that low levels of motivation are associated with lower performance.

Additionally, students also responded to several questions concerning their "self-efficacy", which is a term used to describe students' belief that, through their actions, they can produce desired effects, such as solving a difficult problem or achieving a personal goal. This, in turn, is a powerful incentive to act or to persevere in the face of difficulties.

Successful learners often believe in their own self-efficacy, or how confident they are in their ability to read effectively.

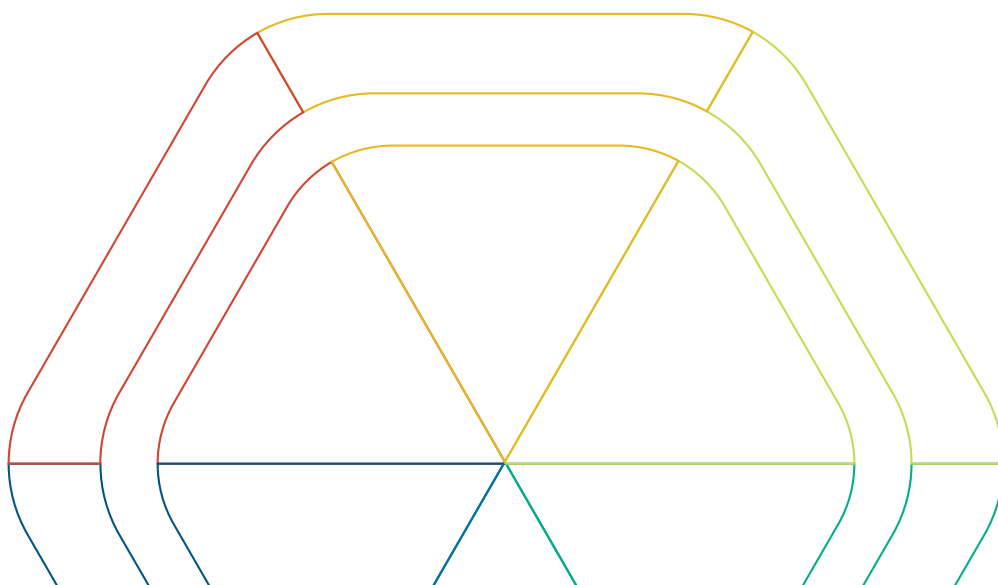
One might ask if students' beliefs about their abilities simply mirror their performance. However, research shows that confidence helps to drive learning success, rather than simply reflecting it.

Students need to believe in their own capacities before making the necessary investments in learning strategies that will help them achieve higher performance. In fact, greater self-efficacy (corresponding to a one-unit increase in the index of self-efficacy) was associated with a 9-point increase on the PISA reading scale across OECD countries in 2018.

Furthermore, students' self-efficacy in mathematics was one of the strongest predictors of their mathematics performance in 2012 (the latest year available for this index), as it explained on average 28% of its variance across OECD countries and was associated with a 49-point increase on the PISA mathematics scale – the equivalent of an additional year of school.

Finally, students in the top quartile in their country in terms of self-efficacy in science scored 41 points higher than the average in 2015 (the latest year available for this index), although self-efficacy in science explained only 6% of the variation in students' science performance.

In the following sections, you can see the results of Your School in terms of motivation for learning science and of self-efficacy in science. If you would like to explore the results for these constructs in mathematics, you will be able to do so in the forthcoming PISA for Schools Digital Dashboard.



One of the most important factors related to achievement, both in school and in life, is the motivation to achieve. In many cases, people with less talent, but greater motivation to reach their goals, are more likely to succeed than those who have talent but are not capable of setting goals for themselves and staying focused on achieving them.

This drive may come from an internal or external source. Achievement motivation is intrinsic when it is sparked by an interest or enjoyment in the task itself. It is organic to the person, not a product of external pressure or a drive for external rewards. Achievement motivation is extrinsic when it comes from outside the person. Extrinsic motivation may come from social concerns, such as not wanting to disappoint a parent, or from a craving for rewards, like good marks or praise from teachers.

Research shows that internal motivation and achievement are mutually reinforcing. Intrinsic motives increase engagement and may be related to the concept of work mastery, defined as the desire to work hard to master tasks.

By contrast, external motivation has an ambiguous impact on achievement. For instance, excessive emphasis on competition may undermine intrinsic motivation and generate anxiety. The pressure to get higher marks and the concern about receiving poor grades are some of the sources of stress most often cited by school-age children and adolescents.

The degree to which students are motivated by intrinsic or extrinsic drives may vary depending on gender. Girls usually report greater enjoyment of reading, a component of intrinsic motivation. Meanwhile, boys tend to hold more positive attitudes towards competition.

Empirical evidence indicates that gender differences in attitudes towards competition may be formed early and persist, even if the magnitude of these differences in attitudes towards competition is related to the prevailing social norms in a country/economy.



Read more about

**Student motivation to master tasks**

[oe.cd/il/PISA18vol2](https://oe.cd/il/PISA18vol2)

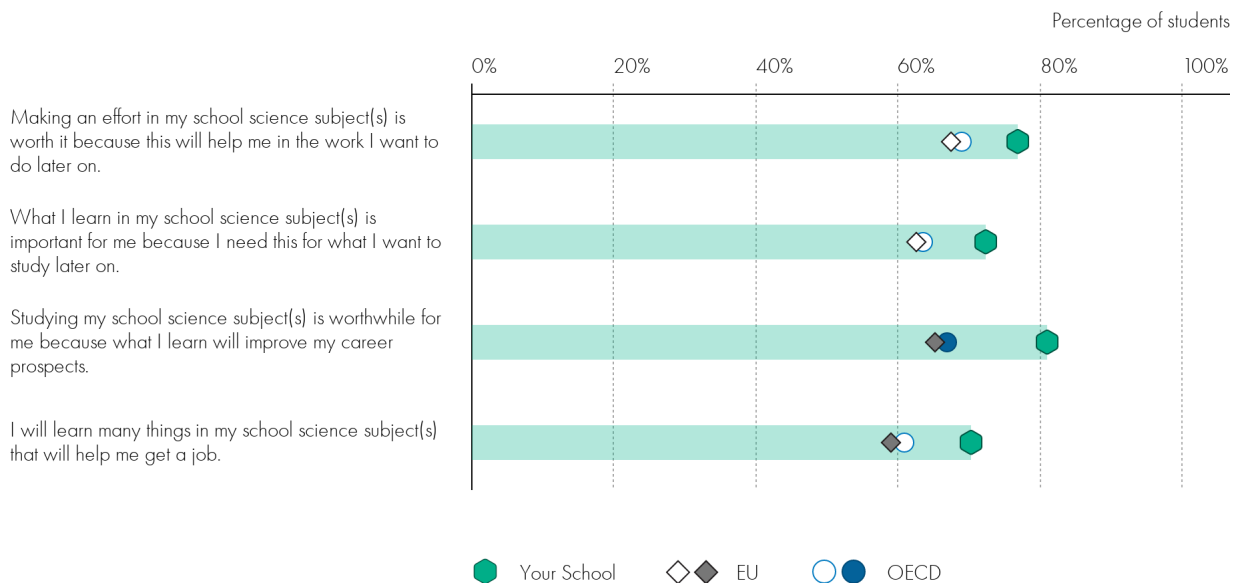
## 4.1 Motivation for learning science

Motivation for learning science refers to the extent to which students believe science is relevant for their future careers and studies, and is found to be consistently related to science performance.

Figure 4.1 shows how students in Your School responded to four questions regarding their motivation for learning science. The questions focus on how important they see science to be for their own lives as they move on to further studies and the labour market.

The bars represent the percentage of students at Your School who strongly agree or agree with each statement. The figure also shows the average responses from students in the EU and in the OECD in PISA 2015 (the latest year available for these items). Markers with a solid fill for the EU or the OECD indicate that the difference between them and Your School is statistically significant with a 95% confidence level.

**Figure 4.1 Student motivation for learning science (students strongly agree or agree)**



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2016), PISA 2015 database, [oecd.org/pisa/data](https://www.oecd.org/pisa/data)

PISA data show that large differences in motivation to achieve exist across countries, even if they may reflect more than just disparities in motivation. They may also reflect, for example, differences between countries in how socially acceptable it is to acknowledge ambition and seek individual success, or differences between countries in what behaviours are considered to reflect high and low motivation.

Across countries, motivation is not strongly related to performance. Within almost every education system, however, motivation is positively associated with performance.

In addition to being associated with better performance, greater motivation is associated with higher anxiety. The relationship between motivation and anxiety is also observed within countries. Greater motivation to achieve is often related to higher levels of schoolwork-related anxiety.

In almost all countries and economies, students reporting that they want top grades in most or all of their courses are also more likely to report feeling very anxious even if they are well-prepared for a test.

The association between students' motivation and anxiety may depend on the nature of this motivation.

**Students who are extrinsically motivated want to do well because their parents, teachers and peers hold high expectations for them; students who are intrinsically motivated hold high expectations for themselves and want to realise those expectations for themselves, not for others.**

Students can hold both kinds of motivation simultaneously; indeed some students may internalise extrinsic motivation to the extent that they claim as their own the expectations that others have of them. But external motivation can lead to stress and anxiety as students fear shame and censure from others if they fail. These students may develop perfectionist tendencies and eventually suffer from discouragement, a lack of confidence and burnout.



Read more about

**How student motivation is related to performance and anxiety**

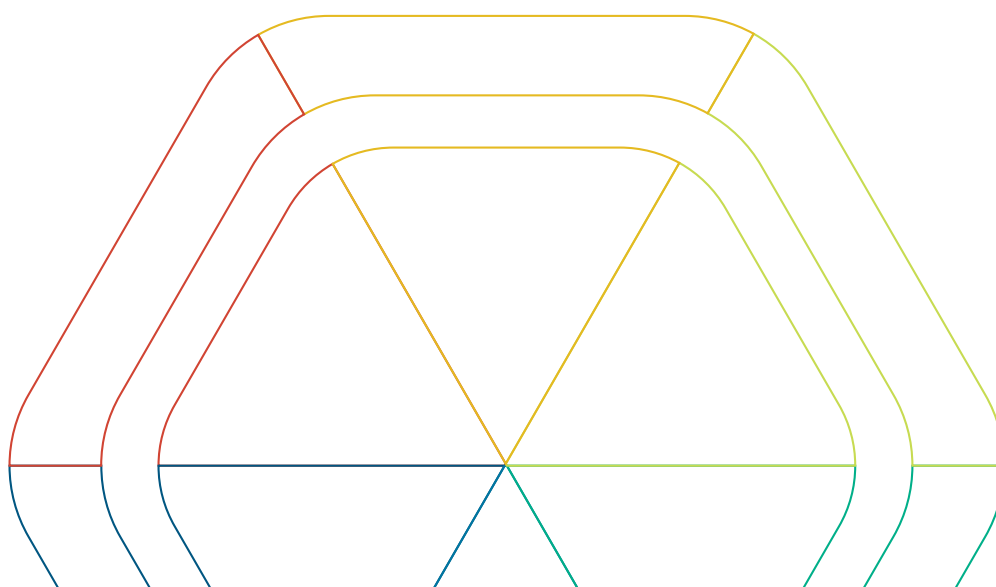
[oe.cd/il/motivation](https://oe.cd/il/motivation)

## 4.2 Student beliefs in their own self-efficacy

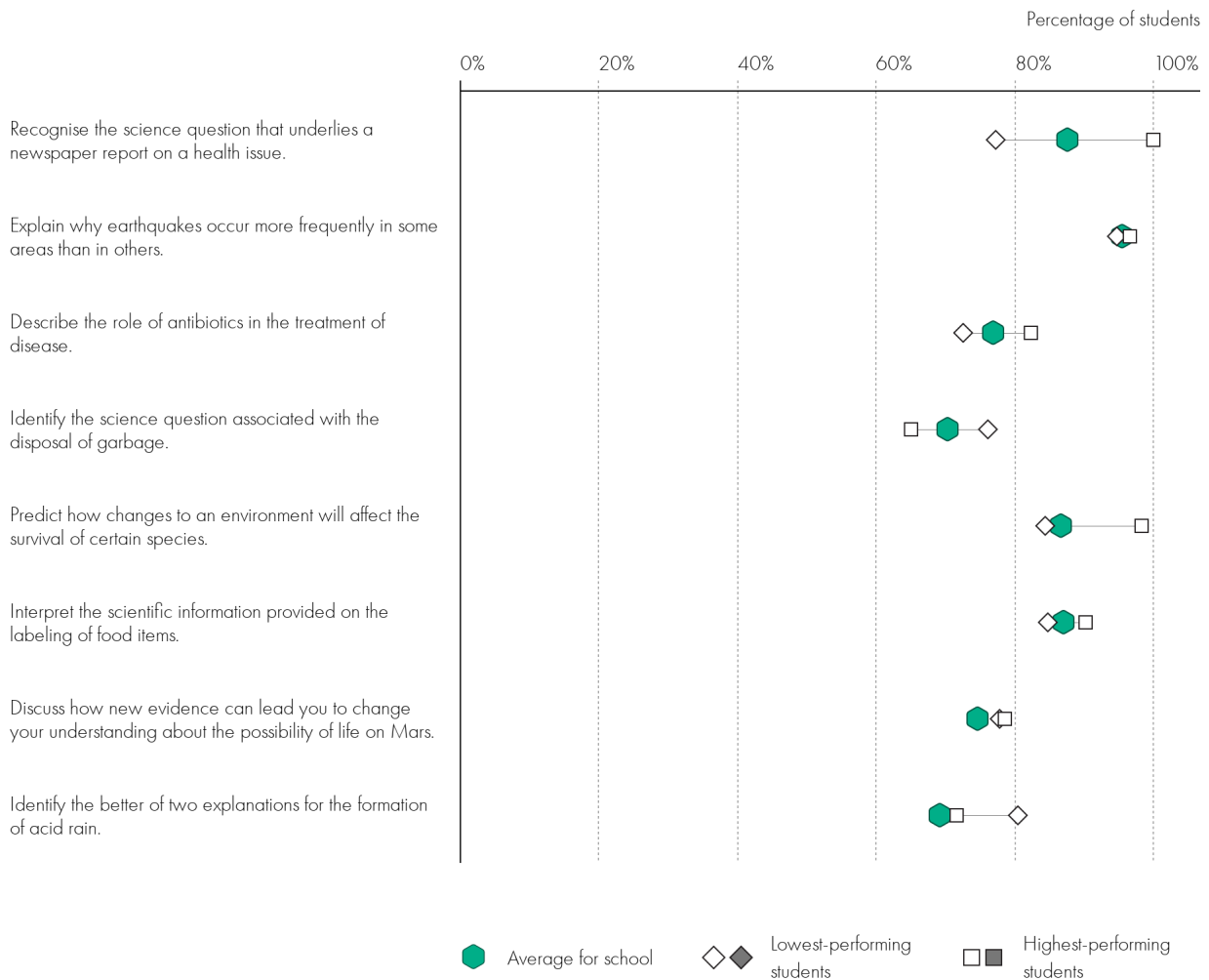
Figure 4.2 shows how students at Your School responded to eight questions regarding their self-efficacy in science. They were asked how confident they feel about having to do each of the science tasks mentioned in the figure. The values reported by the figure represent the percentage of students who responded they could perform the tasks easily or with a bit of effort.

To illustrate the relationship between self-efficacy in science and performance in science, separate results are shown for the highest- and lowest-performing students in science (i.e. the top 25% and bottom 25% of students based on their score in science).

While students' responses to the different items are used to create the index of science self-efficacy, Figure 4.2 presents them item by item to show how, in most cases, the confidence of students from the lowest- and highest-performing quartiles is similar when items define clear scientific problems (e.g. explaining what earthquakes occur more frequently in some areas than in others). Nonetheless, when students have to apply their scientific knowledge to different contexts – which corresponds to the competences framework behind the test, the lowest-performing students show dramatically lower confidence. Markers with a solid fill indicate that the difference between highest- and lowest-performing student quartiles is statistically significant with a 95% confidence level.



**Figure 4.2 Student beliefs in their own self-efficacy in science, at Your School and for the highest- and lowest-performing students (students believe they can perform the task easily or with a bit of effort)**



Science self-efficacy refers to future-oriented judgments about one's competence in accomplishing particular goals in a specific context, where meeting these goals requires scientific abilities, such as explaining phenomena scientifically, evaluating and designing scientific inquiry, or interpreting data and evidence scientifically.

Better performance in science leads to higher levels of self-efficacy, through positive feedback received from teachers, peers and parents, and the positive emotions associated with it. At the same time, students who have low self-efficacy are at high risk of underperforming in science, despite their abilities.

If students do not believe in their ability to accomplish particular tasks, they may not exert the effort needed to complete the task, and a lack of self-efficacy becomes a self-fulfilling prophecy. Self-efficacy in science has been related to students' performance, but also to their career orientation and their choice of courses.

While younger children have often been found to hold more positive beliefs about their general ability than older children, domain-specific self-efficacy tends to increase with age. This can reflect the fact that as children become better at understanding and interpreting the feedback received from parents, peers or teachers, they become more accurate and realistic in their self-assessments.

PISA data show that students' average science self-efficacy is not associated with a country's mean science performance, but levels of self-efficacy tend to be positively associated with the percentage of students expecting a career in science-related occupations. Furthermore, data show that girls are more likely than boys to have low science self-efficacy.



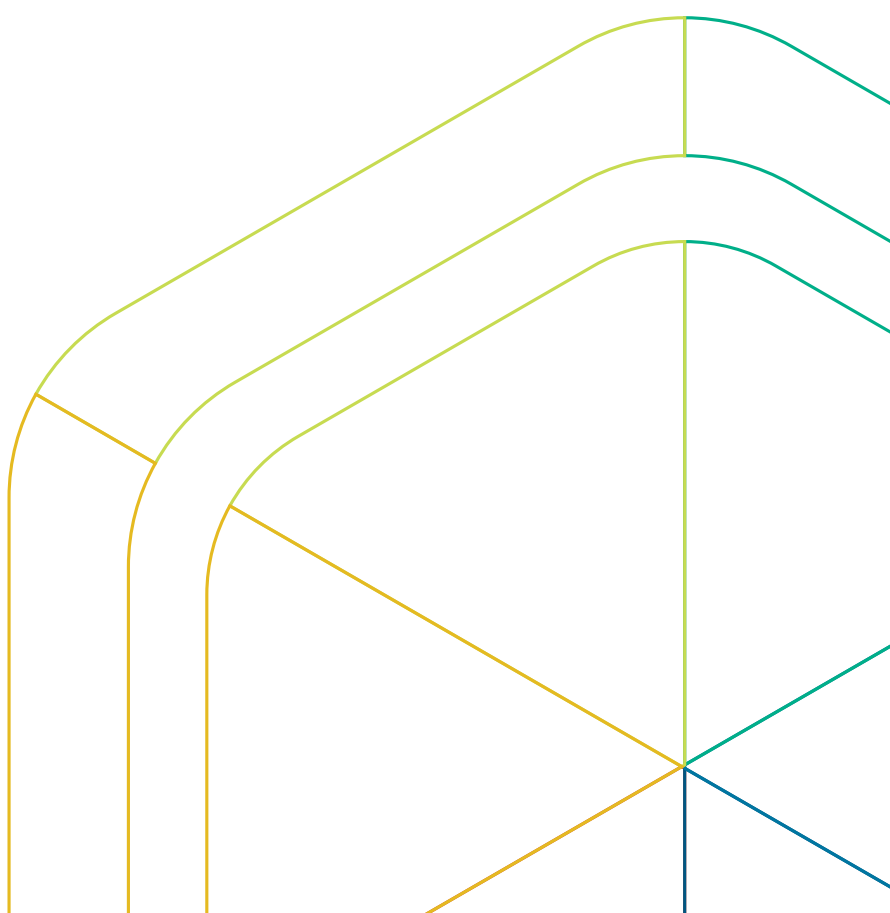
Read more about  
**Science self-efficacy**  
[oe.cd/il/PISA15vol1](https://oe.cd/il/PISA15vol1)



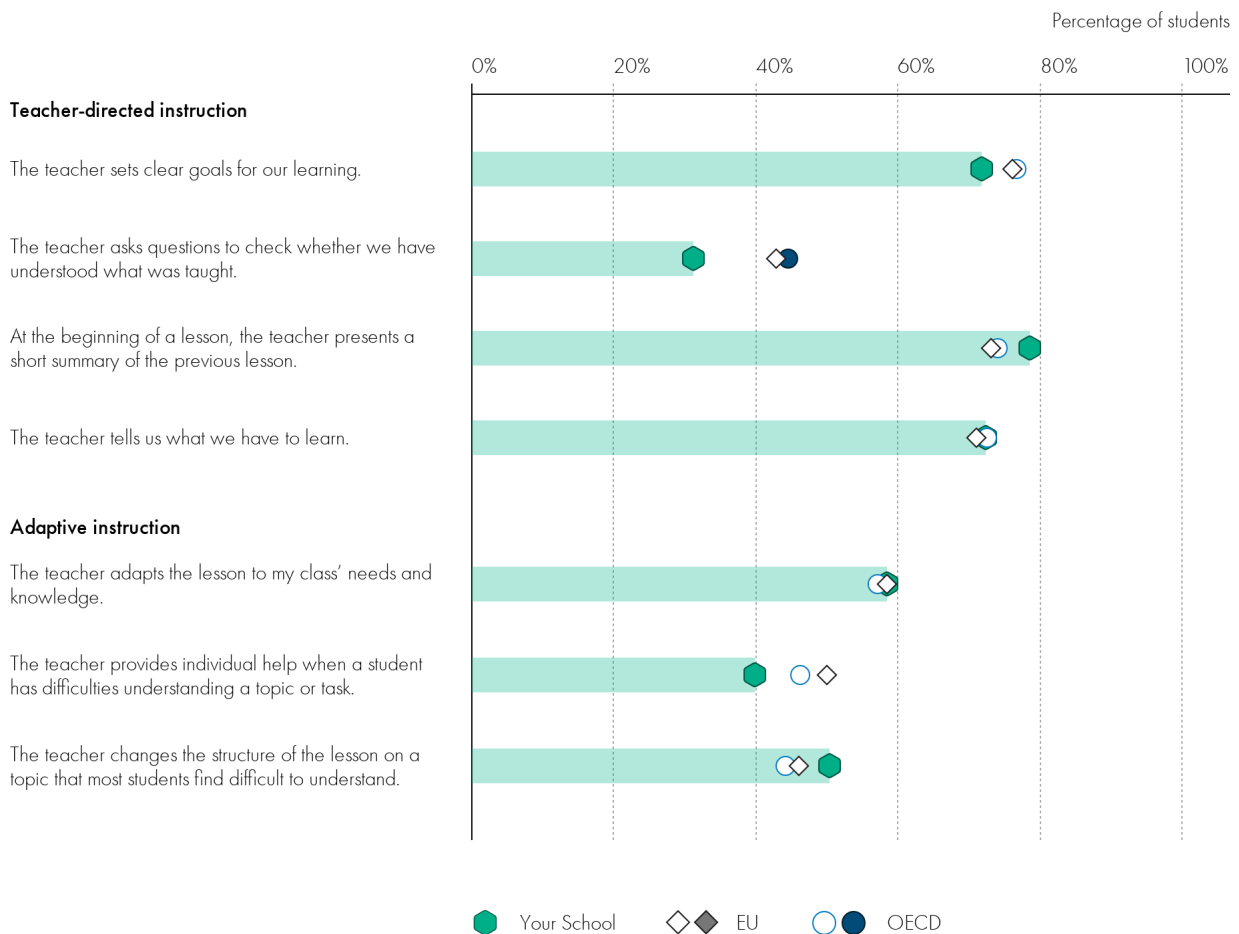
## 4.3 Student perceptions of teaching practices

Even if there is no single “best” way of teaching, teachers need to decide which instructional practices they use in their lessons and how much time they allocate to each of them. Teachers need to consider, for example, how much time they will devote to setting goals, explanations and questions; how much time they will spend supporting struggling students and providing feedback; how much emphasis will be given to stimulating students; and how flexible their lessons will be. Moreover, teachers need to decide how much and when to combine different teaching approaches: all teaching strategies can be combined over the course of a semester; some may even be combined during a single lesson.

Figure 4.3 shows the percentage of students who reported that the frequency of specific teaching practices occurred in every lesson or many lessons during their language-of-instruction classes. The figure also groups the practices into two clusters, one characterising adaptive instruction and another one characterising teacher-directed instruction. To contextualise Your School’s results, the figure also shows how students in other schools in the EU and in the OECD responded to the same questions in PISA 2018. Markers with a solid fill for the EU or the OECD indicate that the difference between them and Your School is statistically significant with a 95% confidence level.



**Figure 4.3 Teaching practices**  
(students observe these behaviours in all lessons or many lessons)



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**PISA data suggests that positive and constructive teacher-student relations are associated with better performance in mathematics – and can be a key vehicle through which schools can foster the social and emotional well-being of students.**

On average across OECD countries, when comparing students with similar socio-economic status and performance in mathematics, students who reported that they enjoy good relations with their teachers were more likely to report that they are happy at school, that they make friends easily at school, that they feel like they belong, and that they are satisfied with their school. They are also less likely to report that they feel lonely at school, or that they feel like an outsider or awkward and out of place in school.

In schools with better teacher-student relations, students were also less likely to report that they arrived late for school or skipped classes or days of school during the two weeks prior to the PISA test.

For example, in almost all countries and economies, among students who were similarly proficient in mathematics and came from similar socio-economic status, students who attended schools where relations between teachers and students were better were less likely to have reported that they arrived late during the two weeks before the PISA test.

PISA data reveal that most students are in schools where teachers believe that the social and emotional development of their students is as important as the acquisition of subject-specific knowledge and skills. However, large differences exist among countries and economies, especially. Specifically, this tends to be less true in OECD countries than it is in both high- and low-achieving partner countries and economies.



Read more about

**How teacher-student relations affect student well-being at school**

[oe.cd/il/wellbeing](https://oe.cd/il/wellbeing)

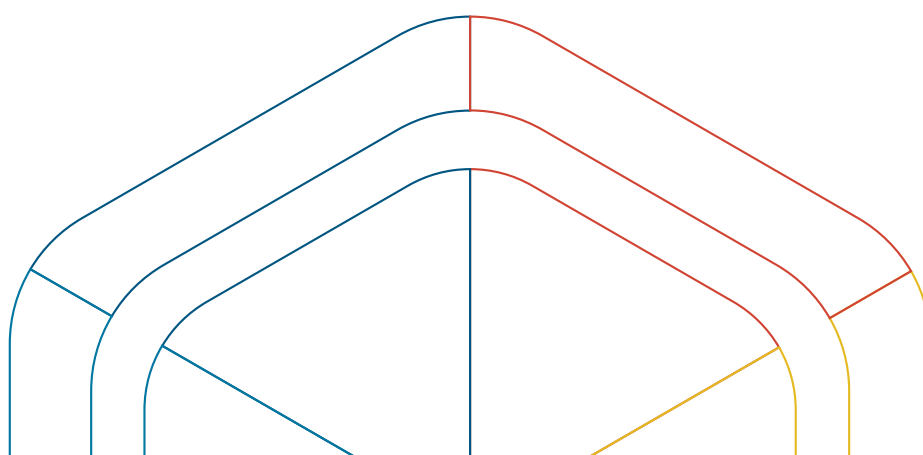
## 4.4 Classroom disciplinary climate

PISA shows that a strong and supportive learning environment is consistently and robustly associated with better student performance. In school systems around the world, students tend to perform better when classrooms are well disciplined and relations between students and teachers are amiable and supportive.

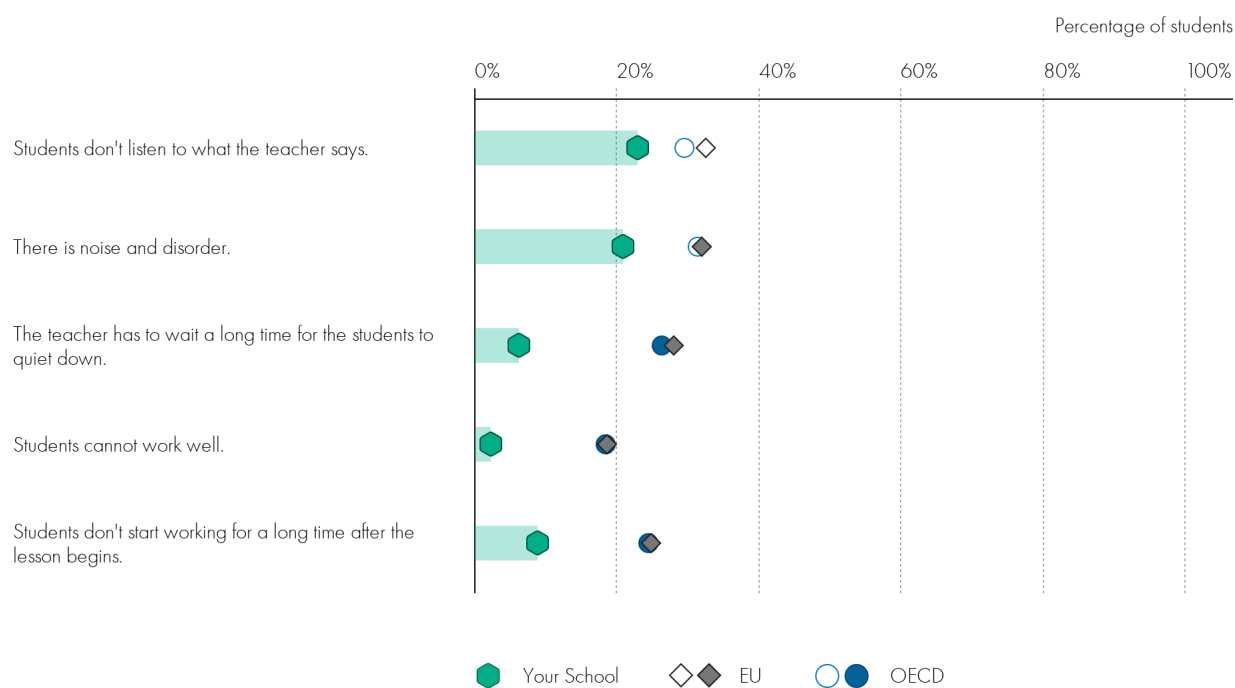
Is the climate at Your School conducive to learning?

Students who sat the PBTS were asked several questions about their school environment. One set of items collected information about the classroom disciplinary climate at Your School during language-of-instruction lessons. In PISA, classroom disciplinary climate refers to keeping noise and disorder to a minimum, making sure that students can listen to what the teacher (and other students) say and that they can concentrate on academic tasks.

Figure 4.4 shows how students at Your School responded to five questions about the classroom disciplinary climate in their language-of-instruction lessons compared with the students in the EU and in the OECD in PISA 2018. This figure shows the percentage of students who reported that the frequency of specific incidents occurred in all lessons or most lessons during their language-of-instruction classes. Markers with a solid fill for the EU or the OECD indicate that the difference between them and Your School is statistically significant with a 95% confidence level.



**Figure 4.4 Disciplinary climate in language-of-instruction lessons  
(in all lessons or most lessons)**



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

PISA data shows that about one-third of the variation in performance among students within each country lies between schools, and two-thirds lie within schools. That schools differ within a given country is also apparent from PISA variables measuring whether the classroom disciplinary climate is conducive to learning. The index of disciplinary climate was constructed from students' reports, and higher values of the index correspond to reports of a better classroom climate in science lessons.

On average, about one tenth (9%) of the overall variation in students' reports of disciplinary climate lies between schools, with the remaining variation reflecting different reports by students from the same school (but perhaps from different classes). Interestingly, countries where reports of the classroom climate in science lessons vary the most across schools are not necessarily the same countries where performance varies the most.

Research studies indicate that experienced teachers are more effective, but also suggest multiple explanations why this might be the case – whether because teachers gain valuable skills on the job and through formal professional development opportunities, or because the least effective teachers tend to quit teaching earlier, while more effective teachers remain in the profession.

Each of these possible reasons has distinct implications for policy: from increasing hiring standards, improving teacher training and raising the attractiveness of the teaching profession, to ensuring that novice teachers receive the necessary support to quickly learn the tools of the trade and taking measures to prevent good teachers from dropping out of the profession.



Read more about

**How school performance and school climate are related to teachers' experience**

[oe.cd/il/schoolclimate](https://oe.cd/il/schoolclimate)

## 4.5 Student experience of bullying

Bullying at school can have long-lasting consequences for the psychological well-being of students (both victims and bullies), their families and the school community.

Adolescents engaged in bullying as perpetrators, victims, or both are more likely to skip classes, drop out of school, and perform worse academically than schoolmates who have no conflictual relationships with their peers. Furthermore, they are also more likely to show symptoms of depression and anxiety, have low self-esteem, feel lonely, change their eating patterns, and lose interest in activities.

Students who sat the PBTS were asked several questions about their school environment. One set of items collected information about different types of bullying which they may have experienced at school. Bullying can take different forms.

Physical (hitting, punching or kicking) and verbal (name-calling or mocking) bullying refers to direct forms of abuse.

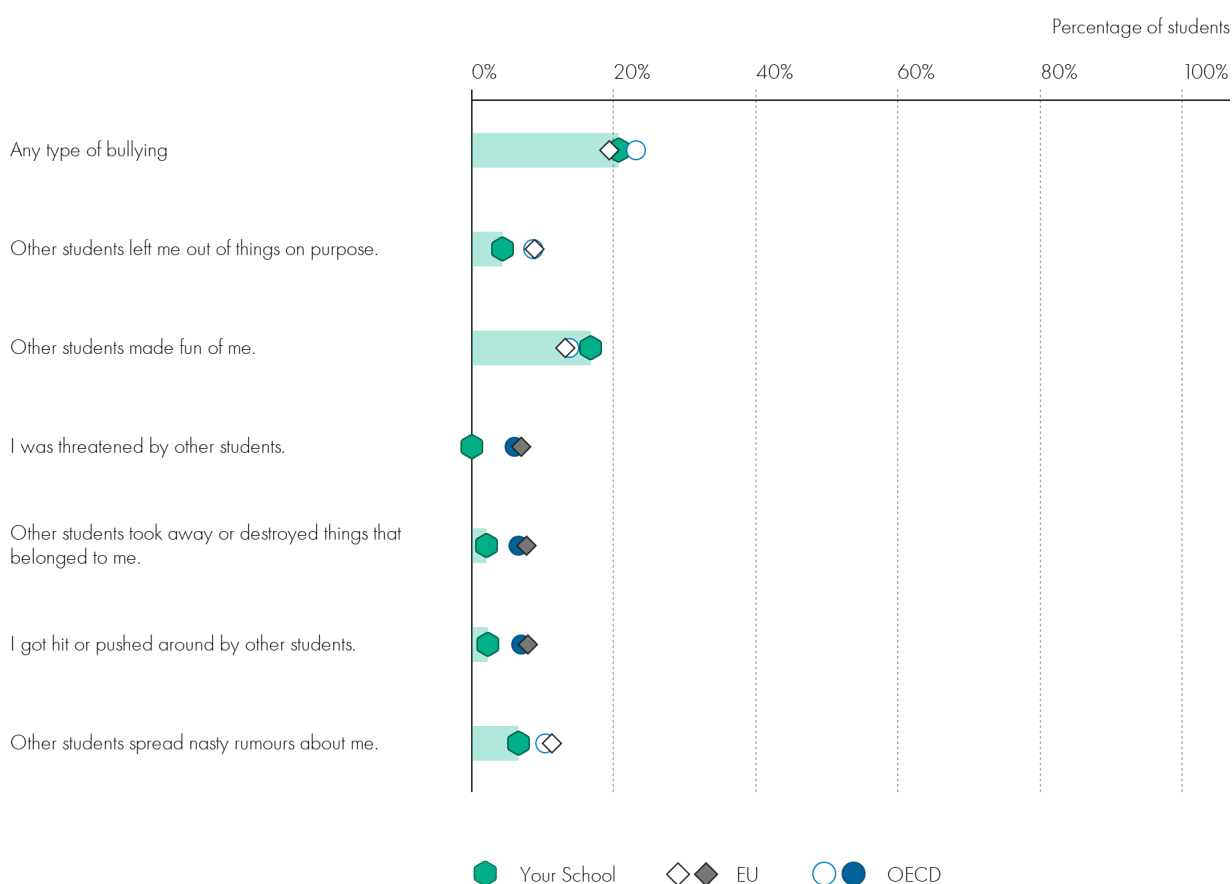
Relational bullying refers to the phenomenon of social exclusion, where some children are ignored, excluded from games or parties, rejected by peers, or are the victims of gossip and other forms of public humiliation and shaming.

As teenagers use electronic communications more and more, cyberbullying has become a new form of aggression expressed via online tools, particularly mobile phones (e.g. instant messaging, social networks and e-mails).

These different types of bullying tend to occur concurrently. In PISA, bullying episodes are defined as “frequent” if they happen at least a few times per month.

## Figure 4.5 Bullying at school (happening a few times a month or once a week or more)

Figure 4.5 shows how students at Your School responded to six questions about bullying at school compared with the students in the EU and in the OECD in PISA 2018. This figure shows the percentage of students who reported that the frequency of specific incidents occurred a few times a month or once a week or more. The figure also shows the percentage of students who reported to have experienced at least one of these incidents at least a few times a month or once a week or more. Markers with a solid fill for the EU or the OECD indicate that the difference between them and Your School is statistically significant with a 95% confidence level.



**Note:** statistically significant differences are shown by filled shapes.

**Source:** data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data/](https://www.oecd.org/pisa/data/)



Teachers and school staff are in a unique position to promote healthy relationships among students, intervene in instances of bullying and, with parents, help bullies and their victims learn how to build, or re-build, strong and healthy relationships with their peers. Protecting children from abuse is the responsibility of all the adults in their lives, primarily parents and teachers. Close communication among these adults is essential for conveying consistent messages and supporting children in all the contexts in which they live, work and play.

**Young people who are more connected with their teachers and parents are less likely to be bullied; and even if they are bullied, they are less likely to develop crippling psychological problems as a result.**

Educators can reduce aggression and victimisation by creating a climate of support and empathy both in and outside of the classroom. A school's disciplinary structure and adult support of students are the two key components of a positive school climate to counter bullying. Disciplinary structure refers to the idea that school rules are perceived as strict but fairly enforced.

Adult support refers to students' perceptions that their teachers and other school staff members treat them with respect and want them to be successful. Schools with a low incidence of physical and relational violence tend to have more students who are aware of school rules, believe that these rules are fair, and have positive relations with their teachers.

One of the common factors related to a lower incidence of bullying and victimisation is class and school discipline. When they work in a structured and orderly environment, students feel more secure, become more engaged with school work, and are less inclined to engage in high-risk behaviours.

On average across OECD countries, the proportion of frequently bullied students is about 6 percentage points larger in schools with a poor disciplinary climate (worse than the country average) than the proportion in schools with a good disciplinary climate (better than the country average), after accounting for students' and schools' socio-economic profile.



Read more about

**How schools, teachers and parents can help reduce the incidence of bullying**

[oe.cd/il/PISA15vol3](https://oe.cd/il/PISA15vol3)



## 5. INSIGHTS ON STUDENTS' SOCIAL AND EMOTIONAL SKILLS

This chapter discusses the results of Your School in terms of the social and emotional skills of your students. It investigates the relationship between these skills and some relevant life outcomes.

Social and emotional skills encompass individual characteristics that show consistent patterns of thoughts, emotions and behaviours, which can change throughout life and influence important outcomes.

The role and impact of social and emotional skills is increasingly critical for individuals to successfully navigate diverse and changing economies and societies, and has direct consequences on educational attainment, the transition from school into the labour market, productivity and job satisfaction, mental and physical health and overall well-being.

Developing social and emotional skills not only helps people adjust to their environment and determines their success, but they also shape the larger communities and societies we live in.

Resourceful, respectful and tolerant citizens who work well with others, and take personal and collective responsibility, are the foundation of a society working towards the common good.

These skills are malleable, and they can be shaped by a variety of individual and contextual factors, including direct policy interventions. Although social and emotional skills can be developed at a later age, early and continuous development achieves the best results.

## 5.1 The different dimensions of social and emotional skills

Introduced for the first time in 2019, the PBTS student questionnaire now incorporates 40 item questions on students' social and emotional skills. These items were taken from the OECD Study on Social and Emotional Skills, a project involving 10 cities from 9 countries.

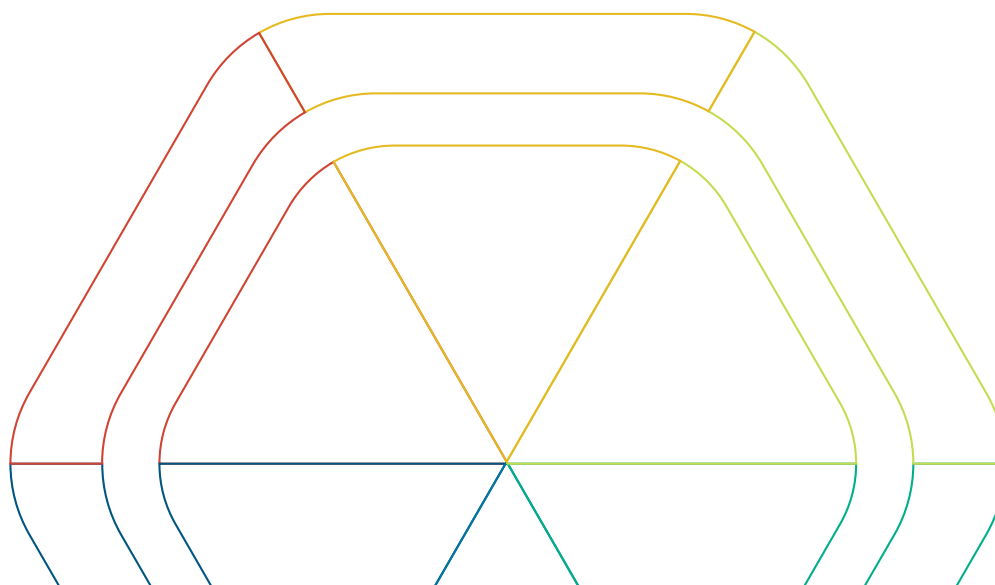
This Study aims to help cities and countries improve young people's social and emotional skills, and to shed light on the development of these skills.

The OECD Study on Social and Emotional Skills assesses 15 skills which are grouped into five sub-domains, each containing three skills: emotional regulation, engaging with others, collaboration, task performance and open-mindedness. These sub-domains can be linked to the most influential conceptual framework outlining the different dimensions of these skills: the Big Five taxonomy.

The PBTS, in order to keep the student questionnaire as short as possible, includes one skill for each of the five sub-domains:

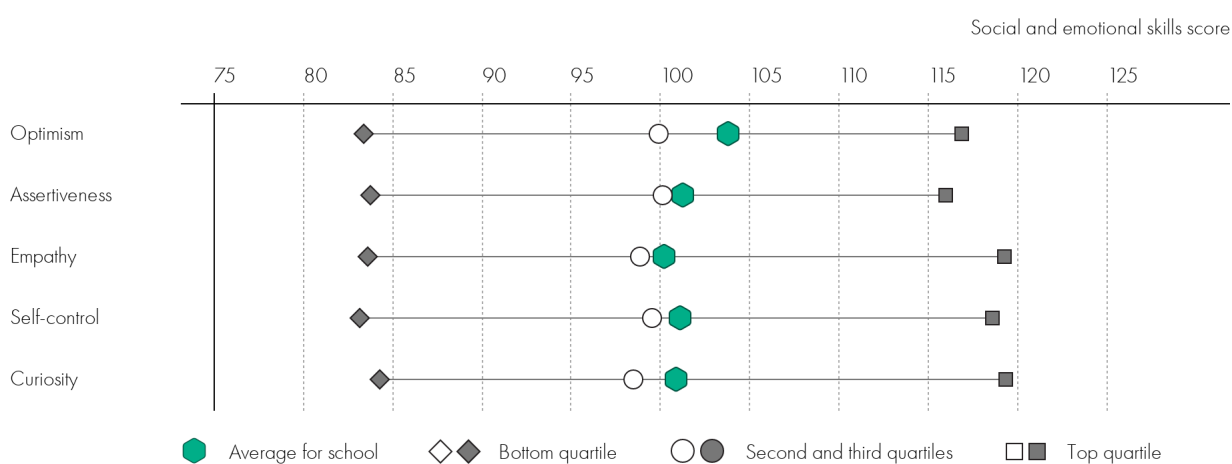
- **Optimism** for emotional regulation
- **Assertiveness** for engaging with others
- **Empathy** for collaboration
- **Self-control** for task performance
- **Curiosity** for open-mindedness.

As the measures for these specific social and emotional skills are not drawn from PISA but from another OECD international survey, your students' results cannot be compared on a PISA scale. However, they can be compared to the results obtained by other schools who have administered the PBTS in the EU to date. This approach to data analysis enables within-country comparisons to be made, but cannot provide a basis for cross-country comparisons.



**Figure 5.1 Social and emotional skills in each of the Big Five dimensions, at Your School and in the different quartiles of all PBTS schools in the EU to date**

Figure 5.1 illustrates how the students at Your School compare with other schools taking the PBTS in the EU to date in each of these skills. The results are reported on a nationally standardised scale, where higher values indicate higher levels of each skill. For each skill, the figure shows the value for Your School and the average of the bottom 25%, mid 50% and top 25% of all schools taking the PBTS in the EU to date. Markers with a solid fill indicate that the difference between that group and Your School is statistically significant with a 95% confidence level.



**Note:** statistically significant differences are shown by filled shapes.

## 5.2 The relationship between school environment and social and emotional skills

Social and emotional skills are developed through countless interactions between an individual and their living environment, with some aspects of this environment having a positive or negative effect on the development of these skills.

By assessing students' social and emotional skills, it is possible to investigate their relationship with different aspects of students' living conditions, and to find those factors that foster – or hinder – the development of these skills.

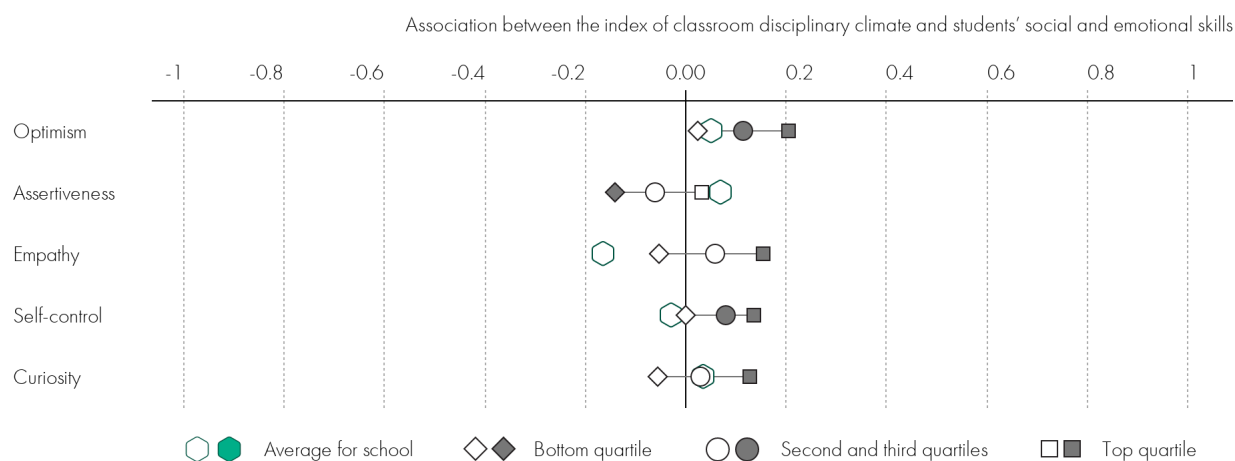
To illustrate this, Figure 5.2 shows the strength of the relationship between the index of classroom disciplinary climate and each of the five skills, after controlling for the effect of students' socio-economic status and other demographic differences.

For each skill, the figure displays the strength of the relationship with the index of classroom disciplinary climate for Your School. Additionally, as there are no corresponding representative figures available for the EU or for the OECD, the figure also provides an indication about the distribution of the values of this relationship across all schools taking the PBTS in the EU to date.

To do so, and for each of the skills, it groups the bottom 25%, mid 50% and top 25% of schools according to their values in the skill and then shows the strength of the relationship between the index of classroom disciplinary climate and that skill in each of the three groups. Markers are displayed with a solid fill when the strength of the relationship with a skill is significantly different from 0 with a 95% confidence level.

The index of disciplinary climate was constructed using students' responses to the items detailed in section 4.4. Positive values on this scale mean that the students enjoyed a better disciplinary climate in language-of-instruction lessons than the average student across OECD countries.

**Figure 5.2 Relationship between the index of classroom disciplinary climate and students' social and emotional skills, at Your School and in the different quartiles of all PBTS schools in the EU to date**



**Note:** statistically significant differences are shown by filled shapes.

In the case of Empathy, for example, the relationship with the index of classroom disciplinary climate has a value of -0.17 in Your School, highlighting a statistically not significant negative correlation between these two measures.

## 5.3 The relationship between social and emotional skills and life outcomes

While the development of social and emotional skills can be seen as an outcome of individual, family, peer, school and community characteristics, these skills themselves also have significant consequences for many other important life outcomes, such as educational achievement, employment, health or personal well-being.

As a consequence, educators and policy makers are often interested in understanding the strength of the relationship between these skills and the abovementioned outcomes.

To illustrate this, Figures 5.3 and 5.4 show the strength of the relationship between each of the five skills and students' i) perceived health and ii) overall life satisfaction. Similarly to Figure 5.2, these relationships are displayed after controlling for the effect of students' socio-economic status and other demographic differences.

For each skill, the figures display the strength of the relationship with these outcomes for Your School. Additionally, as there are no corresponding representative figures available for the EU or for the OECD, the figures also provides an indication about the distribution of the values of these relationships across all schools taking the PBTS in the EU to date.

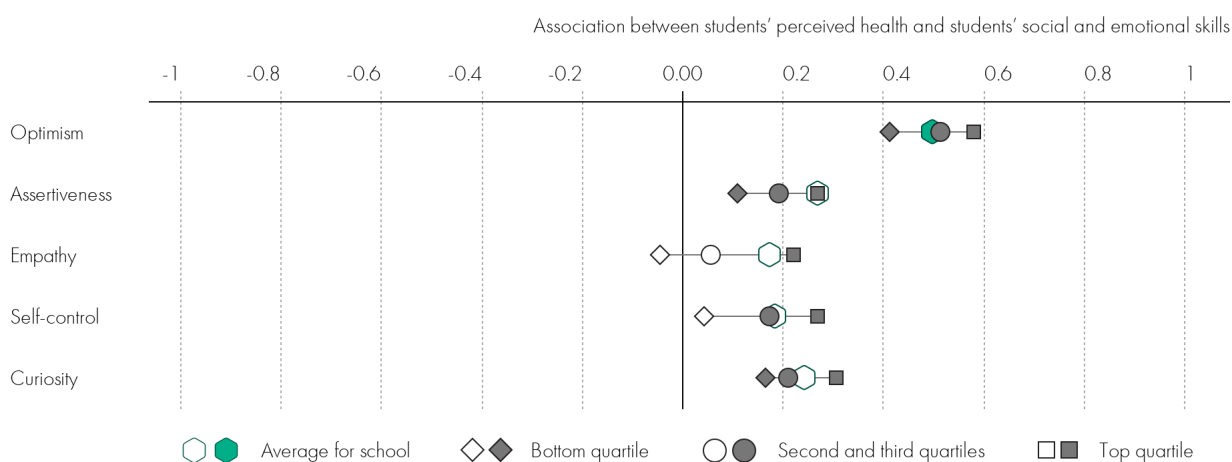
To do so, and for each of the skills, they group the bottom 25%, mid 50% and top 25% of schools according to their values in the skill and then show the strength of the relationship between the outcomes and that skill in each of the three groups.

Markers are displayed with a solid fill when the strength of the relationship with a skill is significantly different from 0 with a 95% confidence level.

Students' perceived health was measured by asking students how they would have described their health (excellent, very good, good, fair and poor). Students' overall life satisfaction was measured by asking students how satisfied they were with their life as a whole (from 0 to 10, with 0 meaning not at all satisfied and 10 meaning completely satisfied).



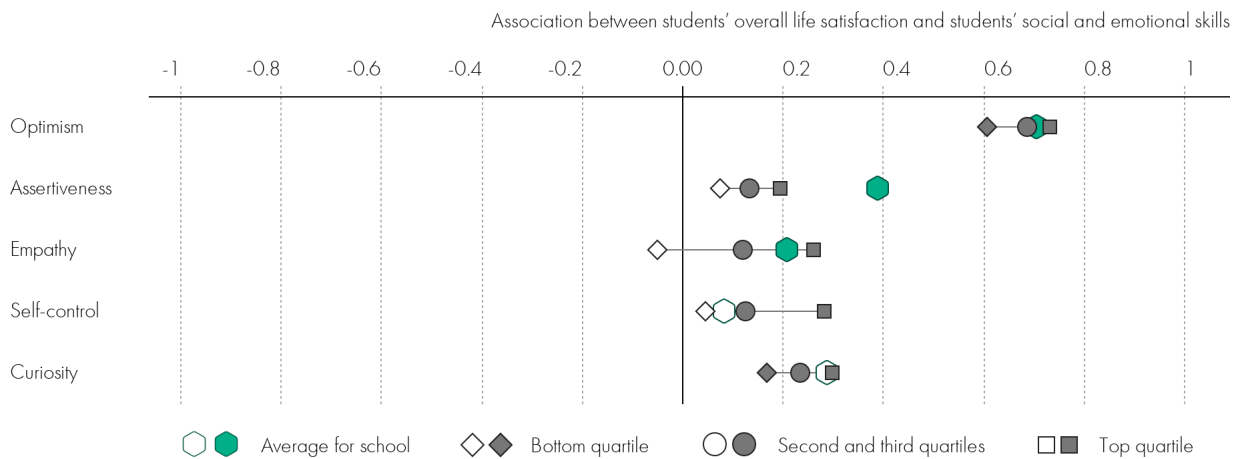
**Figure 5.3 Relationship between students' social and emotional skills and students' perceived health, at Your School and in the different quartiles of all PBTS schools in the EU to date**



**Note:** statistically significant differences are shown by filled shapes.

In the case of students' perceived health, for example, the strongest relationship in Your School is observed for Optimism. This relationship, in fact, has a value of +0.5, highlighting a statistically significant positive correlation between these two measures. This implies that by fostering students' Optimism you would expect to see a corresponding increase in students' perceived health.

**Figure 5.4 Relationship between students' social and emotional skills and students' overall life satisfaction, at Your School and in the different quartiles of all PBTS schools in the EU to date**



**Note:** statistically significant differences are shown by filled shapes.

In the case of students' overall life satisfaction, instead, the strongest relationship in Your School is observed for Optimism. This relationship has a value of +0.7, highlighting a statistically significant positive correlation between these two measures. This implies that by fostering students' Optimism you would expect to see a corresponding increase in students' overall life satisfaction.

In 2019, the OECD initiated the Study on Social and Emotional Skills with the goal of gathering empirical evidence on the social and emotional skills of young people in school.

By gathering a comprehensive set of information on students' families, schools and community learning contexts, the Study aims to provide policy-makers and educators with relevant information about the conditions and practices that foster or hinder the development of social and emotional skills in schools and other settings.

The OECD Study on Social and Emotional Skills is complex and ground-breaking, involving tens of thousands of students, parents and teachers from all around the world, and gathers information on a large set of personal and contextual factors.

The overall goal of the Study is to assist cities and countries to better support the development of social and emotional skills of their students. The Study builds on the premise that a holistic approach, promoting both cognitive and non-cognitive development, is best suited to enable children to fulfill their full potential. Thus, as school systems usually focus on traditional academic knowledge and skills, the Study aims to expand the scope of education policies to include the domain of social and emotional skills, while remaining aligned with traditional academic domains and cognitive skills.

More specific objectives of the Study are to:

- Provide participating cities and countries with robust and reliable information on their students' levels of social and emotional skills.
- Provide insights on individual, family, peer and school characteristics that foster or hinder the development of these skills.
- Provide evidence of the predictive value of social and emotional skills for life outcomes in education, conduct, health and personal well-being.



Read more about

**The OECD Study on Social and Emotional Skills**




[oe.cd/il/SSES](https://oe.cd/il/SSES)



## ANNEX 1.




In this Annex you can find some additional data collected through the student questionnaire that were not analysed in this report. These data will be available for further exploration in the forthcoming interactive PISA for Schools Digital Dashboard.

**Figure A.1 Parents' highest level of education** (percentages)

	 Your School	 EU	 OECD
Below Primary education	0%	1%	1%
Primary education	0%	2%	2%
Lower secondary education	0%	6%	7%
Upper secondary education	0%	7%	6%
Post-secondary education or above	98%	82%	80%
Did not answer	2%	4%	4%




Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure A.2 Student's career expectations** (percentages)

	 Your School	 EU	 OECD
Managers	0%	3%	3%
Professionals	60%	40%	43%
Technicians and associate professionals	6%	11%	11%
Clerical support workers	2%	1%	1%
Service and sales workers	0%	9%	8%
Skilled agricultural, forestry and fishery workers	2%	1%	1%
Craft and related trades workers	0%	6%	5%
Plant and machine operators, and assemblers	0%	1%	1%
Elementary occupations	2%	0%	0%
Armed forces occupations	0%	2%	2%
Not in occupation	17%	13%	10%
Did not answer	10%	15%	17%




Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure A.3 Country of birth of students and parents** (percentages)

		 Your School	 EU	 OECD
Student	In the country	46%	80%	79%
	Abroad	52%	16%	17%
	Did not answer	2%	4%	4%
Mother	In the country	26%	91%	90%
	Abroad	72%	6%	7%
	Did not answer	2%	3%	3%
Father	In the country	37%	80%	79%
	Abroad	63%	16%	17%
	Did not answer	0%	4%	3%




Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure A.4 Language spoken at home** (percentages)

	 Your School	 EU	 OECD
Language of the test	42%	83%	86%
Other language	58%	15%	12%
Did not answer	0%	2%	3%




Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure A.5 Age of entrance in early childhood education and care**

	 Your School	 EU	 OECD
Average age when started Pre-primary	2.93	3.2	3.28
Did not answer			
Average age when started Primary education	5.93	6.25	6.12
Did not answer			

Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)




**Figure A.6 Ever repeated a grade (percentages)**

	 Your School	 EU	 OECD
At Primary education	2%	5%	6%
At Lower secondary education	0%	4%	5%
At Upper secondary education	0%	1%	1%
Did not answer	0%	3%	9%

Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

Note: students can provide none or more than one answer. Percentages may not add up to or exceed 100%.




**Figure A.7 Co-operation among students at Your School: how true is the statement “Students seem to value co-operation (e.g. working together)”?** (percentages)

	 Your School	 EU	 OECD
Not at all true	0%	7%	6%
Slightly true	19%	29%	27%
Very true	53%	34%	34%
Extremely true	27%	10%	10%
Did not answer	0%	20%	22%

Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)






**Figure A.8 Competition among students at Your School: how true is the statement “Students seem to value competition (e.g. competing with each other)”?** (percentages)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>Not at all true</b>	<b>6%</b>	<b>9%</b>	<b>8%</b>
<b>Slightly true</b>	<b>43%</b>	<b>37%</b>	<b>34%</b>
<b>Very true</b>	<b>34%</b>	<b>28%</b>	<b>29%</b>
<b>Extremely true</b>	<b>17%</b>	<b>8%</b>	<b>10%</b>
<b>Did not answer</b>	<b>0%</b>	<b>17%</b>	<b>19%</b>




Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure A.9 Life satisfaction** (from a minimum of 0 meaning not at all satisfied to a maximum of 10 meaning completely satisfied)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>Life satisfaction</b>	<b>7.3</b>	<b>7.15</b>	<b>7.03</b>
<b>Did not answer</b>	<b>0%</b>	<b>13%</b>	<b>24%</b>

Source: data for the EU and the OECD were obtained from OECD (2019), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Figure A.10 Global competence** (percentage of students who know something about this and could explain the general issue or are familiar with this and would be able to explain this well) (percentages)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>Climate change and global warming</b>	<b>100%</b>		<b>79%</b>
<b>Global health (e.g. epidemics)</b>	<b>98%</b>		<b>65%</b>
<b>Migration (movement of people)</b>	<b>91%</b>		<b>80%</b>
<b>International conflicts</b>	<b>83%</b>		<b>66%</b>
<b>Hunger or malnutrition in different parts of the world</b>	<b>94%</b>		<b>78%</b>
<b>Causes of poverty</b>	<b>92%</b>		<b>78%</b>
<b>Equality between men and women in different parts of the world</b>	<b>98%</b>		<b>83%</b>
<b>Did not answer</b>	<b>0%</b>		<b>14%</b>

**Source:** data for the OECD was obtained from OECD (2020), PISA 2018 database, [oecd.org/pisa/data](https://oecd.org/pisa/data)

**Note:** students can provide none or more than one answer. Percentages may not add up to or exceed 100%.




## ANNEX 2.

In this Annex you can find some additional data collected through the PISA 2022 Global Crises Module that were not analysed in this report. The PISA 2022 Global Crises Module was developed by the OECD to provide information on the impact that the disruptions caused by the COVID-19 pandemic had on students.

You can find more information about the PISA 2022 Global Crises Module by reading the following OECD Working Paper.




Bertling, J., et al. (2020), "A tool to capture learning experiences during COVID-19 : The PISA Global Crises Questionnaire Module", OECD Education Working Papers Series, n° 232, Editions OECD, Paris, <https://doi.org/10.1787/9988df4e-en>.

**Figure A.11 School closures during the last three years** (percentages of students who reported school closures for *more than 6 months*)

	 Your School	 EU	 OECD
<b>Because of COVID-19</b>	<b>79%</b>		
<b>For another reason (e.g. a natural disaster, strikes or demonstrations, poor air quality)</b>			
<b>Did not answer</b>	<b>0%</b>		




**Notes:** data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.

**Figure A.12 Interactions with school staff during COVID-19 school closures** (percentages of students who reported the following interactions with school staff *every day or almost every day*)

	 Your School	 EU	 OECD
<b>Sent me learning materials to study on my own</b>	<b>66%</b>		
<b>Sent me specific assignments</b>	<b>77%</b>		
<b>Uploaded material on a learning management system or school learning platform (e.g. Blackboard®, Edmodo®, Moodle®, Google® Classroom™)</b>	<b>73%</b>		
<b>Checked in with me to ensure that I was completing my assignments</b>	<b>64%</b>		
<b>Offered live virtual classes on a video communication program (e.g. Zoom™, Skype™, Google® Meet™, Microsoft® Teams)</b>	<b>88%</b>		
<b>Asked me to submit completed school assignments</b>	<b>76%</b>		
<b>Gave me helpful tips about how to study on my own</b>	<b>46%</b>		
<b>Checked in with me to ask how I was feeling</b>	<b>32%</b>		
<b>Did not answer</b>	<b>0%</b>		




**Notes:** data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.

**Figure A.13 Type of digital device used most often for schoolwork during COVID-19 school closures** (percentages)

	 Your School	 EU	 OECD
<b>My own laptop, desktop computer or tablet</b>	<b>91%</b>		
<b>My own smartphone</b>	<b>9%</b>		
<b>A digital device that was also used by other family members</b>	<b>0%</b>		
<b>A digital device that my school gave or lent me</b>	<b>0%</b>		
<b>I did not have any digital device for my school work.</b>	<b>0%</b>		
<b>Did not answer</b>	<b>0%</b>		




Note: data for the EU and for the OECD will be available in 2024.

**Figure A.14 Subjective impression of learning during COVID-19 school closures** (percentages)

	 Your School	 EU	 OECD
<b>I learnt less when my school building was closed.</b>	<b>62%</b>		
<b>I learnt about as much when my school building was closed.</b>	<b>30%</b>		
<b>I learnt more when my school building was closed.</b>	<b>8%</b>		
<b>Did not answer</b>	<b>0%</b>		




Note: data for the EU and for the OECD will be available in 2024.

**Figure A.15 Types of learning resources used during COVID-19 school closures** (percentages of students who used the following learning resources more than *once or twice a week*)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>Paper textbooks, workbooks, or worksheets</b>	<b>64%</b>		
<b>Digital textbooks, workbooks or worksheets</b>	<b>94%</b>		
<b>Real time lessons by a teacher from my school on video a communication program (e.g. Zoom™, Skype™, Google® Meet™, Microsoft® Teams).</b>	<b>94%</b>		
<b>Real time lessons by a private tutor on video a communication program (e.g. Zoom™, Skype™, Google® Meet™, Microsoft® Teams)</b>	<b>60%</b>		
<b>Learning material my teachers sent via SMS or WhatsApp™</b>	<b>47%</b>		
<b>Recorded lessons or other digital material provided by teachers from my school</b>	<b>34%</b>		
<b>Recorded lessons or other digital material from other sources (e.g. Khan Academy®, Coursera®)</b>	<b>23%</b>		
<b>Lessons broadcast over television or radio</b>	<b>6%</b>		
<b>Did not answer</b>	<b>0%</b>		




**Notes:** data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.

**Figure A.16 Problems with self-directed learning during COVID-19 school closures** (percentages of students who reported the following problems when completing their schoolwork *once a week or more*)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>Problems with access to a digital device when I needed it</b>	<b>9%</b>		
<b>Problems with Internet access</b>	<b>21%</b>		
<b>Problems with access to school supplies (e.g. paper, pencil)</b>	<b>8%</b>		
<b>Problems with finding a quiet place to study</b>	<b>13%</b>		
<b>Problems with finding time to study because I had household responsibilities</b>	<b>15%</b>		
<b>Problems with motivating myself to do school work</b>	<b>59%</b>		
<b>Problems with understanding my school assignments</b>	<b>28%</b>		
<b>Problems with finding someone who could help me with my school work</b>	<b>19%</b>		
<b>Did not answer</b>	<b>0%</b>		

**Notes:** data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.




**Figure A.17 Family support for self-directed learning during COVID-19 school closures** (percentages of students who reported receiving the following forms of support from their family once a week or more)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>Help me with my school work</b>	<b>30%</b>		
<b>Ask me what I was learning</b>	<b>60%</b>		
<b>Help me create a learning schedule</b>	<b>19%</b>		
<b>Help me access learning materials online</b>	<b>19%</b>		
<b>Check whether I was completing my school assignments</b>	<b>30%</b>		
<b>Explain new content to me</b>	<b>30%</b>		
<b>Help me find additional learning resources</b>	<b>26%</b>		
<b>Teach me additional topics not part of my school assignments</b>	<b>22%</b>		
<b>Did not answer</b>	<b>0%</b>		

**Notes:** data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.






**Figure A.18 Feelings about learning at home during COVID-19 school closures** (percentages of students who *agreed or strongly agreed* with the following statements)

	 <b>Your School</b>	 <b>EU</b>	 <b>OECD</b>
<b>I felt lonely</b>	<b>41%</b>		
<b>I enjoyed learning by myself</b>	<b>51%</b>		
<b>My teachers were available when I needed help (e.g. through virtual office hours, email, chat)</b>	<b>79%</b>		
<b>I felt anxious about schoolwork</b>	<b>56%</b>		
<b>I was motivated to learn</b>	<b>21%</b>		
<b>I fell behind in my schoolwork</b>	<b>60%</b>		
<b>I improved my skill of learning with digital devices</b>	<b>66%</b>		
<b>My teachers were well prepared to provide instruction remotely</b>	<b>73%</b>		
<b>I was well prepared to learn on my own</b>	<b>59%</b>		
<b>I missed sports and other physical activities organised by my school</b>	<b>73%</b>		
<b>Did not answer</b>	<b>0%</b>		

**Notes:** data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.




## Figure A.19 Self-directed learning self-efficacy during COVID-19

**school closures** (percentages of students who felt *confident* or *very confident* about doing the following things in case of new school closures)

	 Your School	 EU	 OECD
Using a learning management system or school learning platform (e.g. Compass®, Edmodo®, Moodle®, Google® Classroom™, Scootle®)	94%		
Using a video chat communication program (e.g. Zoom™, Skype™, Google® Meet™, Microsoft® Teams)	96%		
Finding learning resources online on my own	96%		
Planning when to do schoolwork on my own	86%		
Motivating myself to do schoolwork	50%		
Focusing on school work without reminders	65%		
Completing school work independently	85%		
Assessing my progress with learning	68%		
Did not answer	0%		

Notes: data for the EU and for the OECD will be available in 2024.  
students can provide none or more than one answer. Percentages may not add up to or exceed 100%.

## Figure A.20 Feeling of preparedness for self-directed learning in case of new school closures (percentages)

	 Your School	 EU	 OECD
Not prepared at all	0%		
Not very prepared	13%		
Well prepared	61%		
Very well prepared	26%		
Did not answer	0%		

Note: data for the EU and for the OECD will be available in 2024.



# Organisation for Economic Co-operation and Development

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an aging population. The organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

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OECD Publishing disseminates widely the results of the organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.





# PISA for Schools

## How Your School Compares Internationally

How prepared are 15-year-old students at Your School to continue as lifelong learners, to find and fill jobs of the 21st century and compete and collaborate as citizens in a globalised economy?

The OECD Programme for International Student Assessment (PISA) has evaluated and compared education systems worldwide for more than a decade, highlighting education systems that have either repeatedly outperformed others or have shown considerable improvement – sometimes within a relatively short period of time.

Increasingly, however, local educators and school staff are just as interested in international benchmarking and improvement as policy makers. The OECD PISA-based Test for Schools and the school results presented in this report allow local educators to do just that. The report presents performance results in reading, mathematics and science for schools that participated in the assessment, along with contextual information collected from students and school staff. Each school's results are presented in over 40 figures that are unique to each school. Along with performance results, the report attempts to show that the learning climate at school and students' engagement towards learning are important factors in understanding the overall performance of a school.

Because benchmarking is one step towards school improvement, the report also draws upon school policies and practices from around the world to stimulate reflection and discussions among local educators. The report also includes links that allow the reader one-click access to relevant OECD research, reports and resources.

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Chapter 1.	Executive Summary
Chapter 2.	What Your School can learn from the PISA-based Test for Schools
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Chapter 5.	Insights on students' social and emotional skills

# 2022