

Teaching in Focus #39

What can schools and teachers
do to help boys close the gap
in reading performance?



Teaching & Learning

What can schools and teachers do to help boys close the gap in reading performance?

- Boys' performance in reading seems to be more hampered by classroom disciplinary problems than girls'.
- Positive teacher-student relationships are especially beneficial for boys' reading performance.
- Boys are more likely to perform as well as (or even better) than girls in reading in schools that have a culture of student assessment, and teacher accountability and appraisal.

One of the goals of education systems is to equip all students, irrespective of their individual characteristics, with market-relevant skills. Poor or inadequate skills limit access to better-paying and more rewarding jobs and, ultimately, to better living and health conditions, and higher social and political participation. Yet, inequalities in education abound. Family background, disabilities and gender all influence students' trajectory toward fulfilling their potential. Boys, for instance, tend to lack the basic reading proficiency needed for today's knowledge societies.

Due to gender stereotypes, girls and boys are often raised and socialised differently. Parents and other members of a child's close circle growing up tend to project different roles for and interact differently with children depending on their sex. As a result, girls and boys often develop different interests, aspirations and attitudes towards learning. Gender stereotypes are also present in the classroom. Teachers may hold certain beliefs about boys' and girls' interests and abilities that may bias – deliberately or not – their expectations of and interactions with students. Thus, gender stereotypes can eventually lead to disparities in learning outcomes and can partly explain why girls usually outperform boys in reading, while boys do better than girls in mathematics.

The latest TALIS-PISA link report, *Positive, High-achieving Students? What Schools and Teachers Can Do*, explores some of the teacher and school factors that could play a role in bridging the gap in reading performances at school between girls and boys.

What is the TALIS-PISA link?

The OECD Teaching and Learning International Survey (TALIS) is the largest international and periodic survey asking teachers and school leaders about their working conditions and learning environments. The OECD Programme for International Student Assessment (PISA), which provides the most comprehensive and rigorous international assessment of student learning outcomes to date, delivers insights into the cognitive and social-emotional skills of 15-year-old students by focusing on students' competencies and on how well these competences are applied in different contexts.

Bringing together TALIS and PISA, the TALIS-PISA link comprises data from schools that took part in both surveys. In so doing, it links how 15-year-old students participating in PISA performed on the tests and responded to questions about their socio-emotional profile with the practices, opinions and characteristics of teachers and school principals in the students' schools. By applying a machine learning technique to this unique dataset, we identified teacher and school factors that matter the most for student achievement.

The TALIS-PISA link features student assessment results and survey responses from students, teachers and school principals from nine countries and economies: Australia, Ciudad Autónoma de Buenos Aires (referred to as CABA [Argentina]), Colombia, the Czech Republic, Denmark, Georgia, Malta, Turkey and Viet Nam.

The key features of the TALIS-PISA link 2018 are as follows:

- Representative samples of schools and 15-year-old students within schools with a target nominal sample size of 150 schools per country and 35 students in each school. In each PISA participating school, the school principal and a random sample of 20 teachers teaching 15 year-old students were selected.

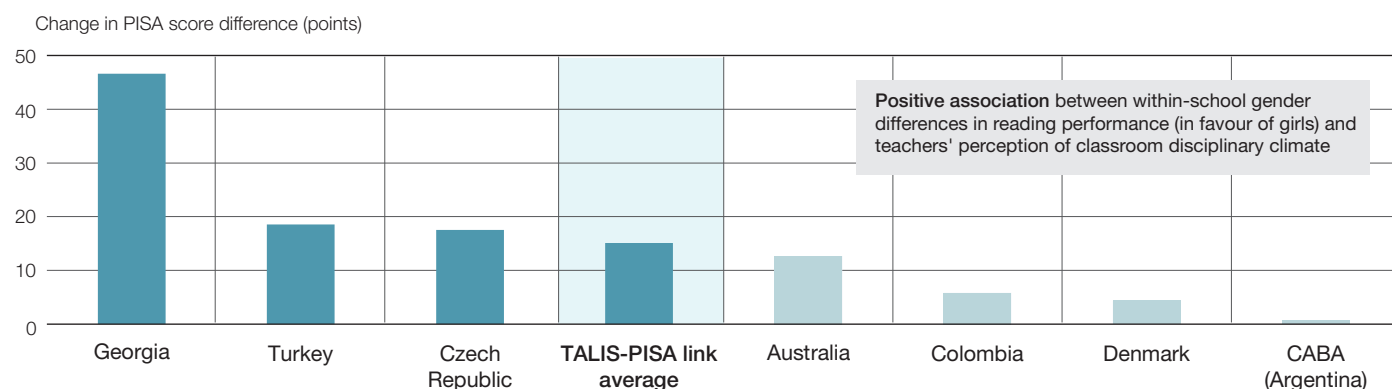
- The TALIS-PISA link only allows data from the teachers teaching 15-year-old students in a school to be matched with the data from 15-year-old students from that same school, but not the data from teachers with that of their own students.
- The TALIS and PISA surveys are cross-sectional, i.e. they measure student, teacher, principal and school characteristics in many countries, but at a single date. This survey design prevents causal interpretation of the analyses based on the TALIS-PISA link data.
- The TALIS questionnaires and PISA assessments and questionnaires were administered during the school year of 2017/18 before the COVID-19 pandemic.

Disciplinary issues

When there are classroom disciplinary problems, boys seem to be more disturbed by this than girls are. In fact, the more the average school teacher perceives there are disciplinary issues, the greater the difference in PISA reading scores between girls and boys within schools – favouring girls (Figure 1).

Perhaps boys are more affected by deteriorated learning conditions because they are exposed to greater peer pressure than girls. It is also more likely that boys are the students disturbing lessons. Overall, boys seem to be less able than girls to stay focused on their schoolwork when there are disciplinary issues in the school. Yet, it might also be the case that reading is more attractive to girls if teachers’ practices in reading classes consciously or unconsciously favour verbal and communication skills, which mature earlier for girls than boys. As a result, girls may read more and develop better reading skills, while boys lose interest in reading and become more disruptive.

Figure 1. Relationship between within-school gender disparities in reading and classroom disciplinary problems
Change in within-school gender disparities in the PISA reading score associated with teachers’ perceived classroom disciplinary problems



Notes: Results of linear regression based on responses of 15-year-old students and teachers. Controlling for other classroom practices of teachers and for the following student characteristics averaged at the school level: gender, immigrant background and index of economic, social and cultural status.

Within-school differences in performance between girls and boys are defined as the school-level average PISA score for girls minus the school-level average PISA score for boys. Differences are positive when they are in favour of girls and negative when they are in favour of boys.

Statistically significant coefficients are marked in a darker tone.

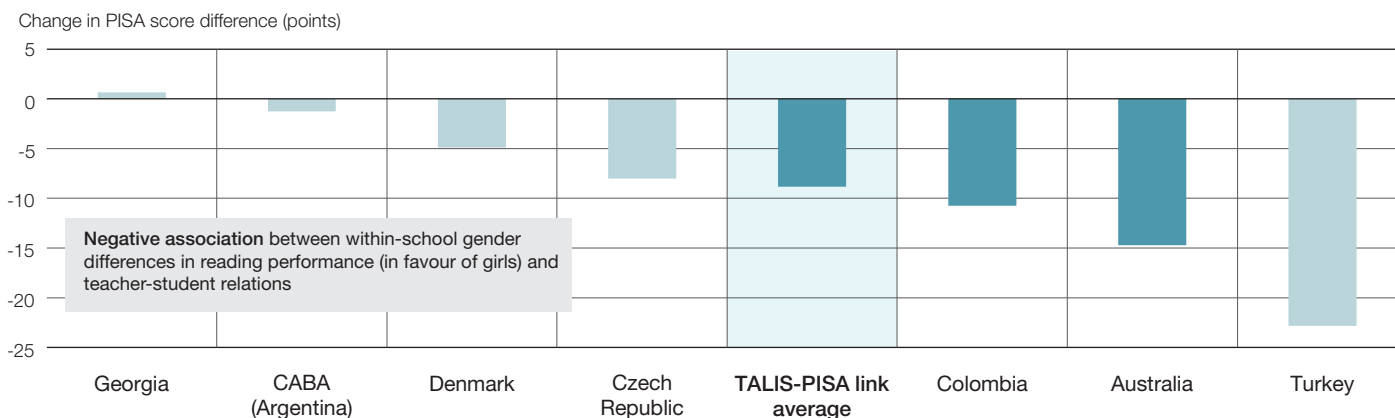
Source: Adapted from OECD (2021), *Positive, High-achieving Students?: What Schools and Teachers Can Do*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/3b9551db-en>, Figure 4.9

Teacher-student relationships

Boys tend to benefit more from positive relationships with their teachers than girls. In schools where teachers consider their relationships with students to be positive, gender disparities in reading performance are smaller, in favour of boys (Figure 2). This suggests that, at the age of 15, boys (more than girls) need their teachers to help them self-regulate and be achievement-focused.

One way to improve relationships with students is to spend quality time with them outside regular lessons. Doing extracurricular activities with students is not only beneficial for teacher-student relationships but can also improve the disciplinary climate. Our findings show that the more time teachers spend on extracurricular activities, the more students report that the classroom is disciplined. That said, teachers' workload should not be increased to include more extracurricular activities unless the time they spend on activities such as administrative work, which is less effective for student development, is reduced.

Figure 2. Relationship between within-school gender disparities in reading and teacher-student relationships
Change in within-school gender disparities in the PISA reading score associated with positive teacher-student relationships



Notes: Results of linear regression based on responses of 15-year-old students and teachers. Controlling for other aspects of school culture and the following student characteristics averaged at the school level: gender, immigrant background and index of economic, social and cultural status. The index of teacher-student relations measures how strongly teachers agree or disagree with the following statements about what happens in school: teachers and students usually get on well with each other; most teachers believe that the students' well-being is important; most teachers are interested in what students have to say; and if a student needs extra assistance, the school provides it. Within-school differences in performance between girls and boys are defined as the school-level average PISA score for girls minus the school-level average PISA score for boys. Differences are positive when they are in favour of girls and negative when they are in favour of boys. Statistically significant coefficients are marked in a darker tone. **Source:** Adapted from OECD (2021), *Positive, High-achieving Students?: What Schools and Teachers Can Do*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/3b9551db-en>, Figure 4.11.

A culture of assessment and accountability

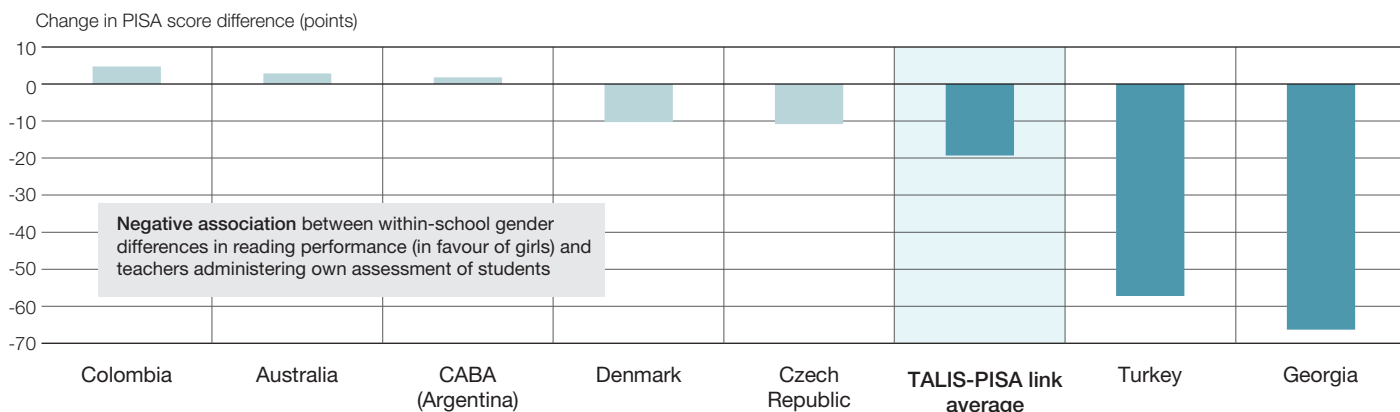
Boys are more likely to perform as well as (or even better) than girls in reading in schools that have a culture of student assessment, and teacher accountability and appraisal. The more often teachers evaluate their students by administering their own assessment, the smaller the difference in reading performance between girls and boys, in favour of boys (Figure 3). This finding suggests that boys benefit from more regular testing as this allows them to better self-regulate and focus on schoolwork. Yet, this might also be due to girls' increased anxiety about frequent testing and induced competition.

The more school leaders ensure that teachers feel responsible for their students' learning outcomes, the better boys perform in reading compared to girls. This holds true in Denmark and Turkey. This kind of instructional leadership might be particularly efficient in motivating teachers to support boys and, in particular, low-achieving boys. It might also be the case that boys are more stimulated than girls in a school environment where significant weight is given to performance and accountability.

It is also notable that the more often teachers are formally appraised by external individuals and bodies, the better boys perform in reading compared to girls. This holds true on average across countries and economies participating in the TALIS-PISA link as well as in Denmark, Georgia and Turkey. Giving teachers opportunities to reflect on their teaching practice and finding ways to support low- and middle-achievers, among which boys are overrepresented in reading, helps overcome gender inequalities.

Figure 3. Relationship between gender disparities in reading and teachers' assessment practices

Change in within-school gender disparities in the PISA reading score associated with the frequency with which teachers administer own assessment of students



Notes: Results of linear regression based on responses of 15-year-old students and teachers. Controlling for other classroom practices of teachers and for the following student characteristics averaged at the school level: gender, immigrant background and index of economic, social and cultural status. Within-school differences in performance between girls and boys are defined as the school-level average PISA score for girls minus the school-level average PISA score for boys. Differences are positive when they are in favour of girls and negative when they are in favour of boys. Statistically significant coefficients are marked in a darker tone.

Source: Adapted from OECD (2021), *Positive, High-achieving Students?: What Schools and Teachers Can Do*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/3b9551db-en>, Figure 4.9.

The bottom line

Finding ways to improve schools' disciplinary climate and teachers' relationships with students (boys in particular), and instilling a culture of assessment both for students and teachers can help bridge the gap in reading performance between girls and boys.

Visit

www.oecd.org/education/talis/

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OECD (2021), *Positive, High-achieving Students?: What Schools and Teachers Can Do*, TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/3b9551db-en>.

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