



## **Teacher enthusiasm**

This chapter examines differences between countries and economies in teacher enthusiasm, and how it varies according to student and school characteristics. It also looks at how teacher enthusiasm is related to student performance, disciplinary climate and student motivation.

Teacher enthusiasm has traditionally been defined as a lively and motivating teaching style that includes a range of behaviours, such as varied gestures, body movements, facial expressions and voice intonations, and the frequent use of humour, that reflects a strong interest in the subject (Collins, 1978<sub>[1]</sub>; Murray, 1983<sub>[2]</sub>). More recently, the emphasis has shifted to the pleasure that teachers take in a subject or in teaching more generally – a definition closer to the ideas of enjoyment, passion and experience (Kunter, 2013<sub>[3]</sub>). A broad definition should therefore cover both how teachers feel about teaching a subject (experienced enthusiasm) and how they express these feelings to students (displayed enthusiasm) (Frenzel et al., 2019<sub>[4]</sub>; Keller et al., 2016<sub>[5]</sub>).

Teacher enthusiasm has positive effects on student attitudes (Keller et al., 2016<sub>[5]</sub>; Lazarides, Gaspard and Dicke, 2019<sub>[6]</sub>). For example, several experiments have documented how enthusiastic teachers can instil greater intrinsic motivation, enjoyment and vitality amongst students (Moè, 2016<sub>[7]</sub>; Patrick, Hisley and Kempler, 2000<sub>[8]</sub>), and increase the time that students spend on learning tasks (Brigham, Scruggs and Mastropieri, 1992<sub>[9]</sub>). In qualitative interviews, teachers often describe how the emotional state of the entire classroom depends on the enthusiasm they bring to teaching (Frenzel et al., 2009<sub>[10]</sub>). University students see teachers who can “bring a subject to life for students” as one of three elements that makes an engaging lecture (Revell and Wainwright, 2009<sub>[11]</sub>). Teacher enthusiasm may even deter students from cheating on exams (Orosz et al., 2015<sub>[12]</sub>). Previous studies have also noted that teacher enthusiasm may be particularly beneficial for lecture-style lessons (Gilles and Buck, 2016<sub>[13]</sub>) and when the enthusiasm is genuine (Keller et al., 2018<sub>[14]</sub>; Taxer and Frenzel, 2018<sub>[15]</sub>; Wild et al., 1997<sub>[16]</sub>).

Teacher enthusiasm can also enhance student learning outcomes, though the observed effects are usually indirect, moderate in magnitude and probably non-linear (Keller et al., 2014<sub>[17]</sub>; Kunter, 2013<sub>[3]</sub>; Larkins and McKinney, 1982<sub>[18]</sub>). Keller, Neumann and Fischer (2012<sub>[19]</sub>) describe three indirect ways through which teacher enthusiasm may improve student learning: teacher enthusiasm can attract and retain students’ attention in class; passionate teachers can serve as role models for students, instilling in them a passion for a subject; and enthusiastic teachers can transmit their positive feelings through emotional contagion (Hatfield, Cacioppo and Rapson, 1993<sub>[20]</sub>). However, over-enthusiastic teaching may mask meaningless or contradictory content, giving students the erroneous idea that they are learning something of value (Naftulin, Ware and Donnelly, 1973<sub>[21]</sub>).

This chapter examines teacher enthusiasm in language-of-instruction lessons, as perceived by students. For the first time, PISA asked 15-year-old students whether they agree (“strongly disagree”, “disagree”, “agree”, “strongly agree”) with the following statements about their two language-of-instruction lessons prior to sitting the PISA test: “It was clear to me that the teacher liked teaching us”; “The enthusiasm of the teacher inspired me”; “It was clear that the teacher likes to deal with the topic of the lesson”; and “The teacher showed enjoyment in teaching”. These statements were combined to create the index of teacher enthusiasm whose average is 0 and standard deviation is 1 across OECD countries. Positive values in this index mean that students perceived their language-of-instruction teachers to be more enthusiastic than the average student across OECD countries did. Student reports of their teacher’s level of enthusiasm may differ by subject area, so any findings presented in this chapter in the area of reading (language-of-instruction lessons) may not apply for other subjects, like mathematics and science.

### What the data tell us

- Most 15-year-old students across OECD countries reported that their language-of-instruction teachers were enthusiastic and enjoyed teaching.
- In 33 countries and economies, teachers in advantaged schools were perceived as more passionate in their teaching, while in 9 countries/economies teachers in disadvantaged schools were perceived as more enthusiastic.
- In most countries and economies, students scored higher in reading when they perceived their teacher as more enthusiastic, especially when they said their teachers were interested in the subject.
- Disciplinary climate and students’ motivation were positively associated with teacher enthusiasm, and mediated the relationship between teacher enthusiasm and students’ reading performance.

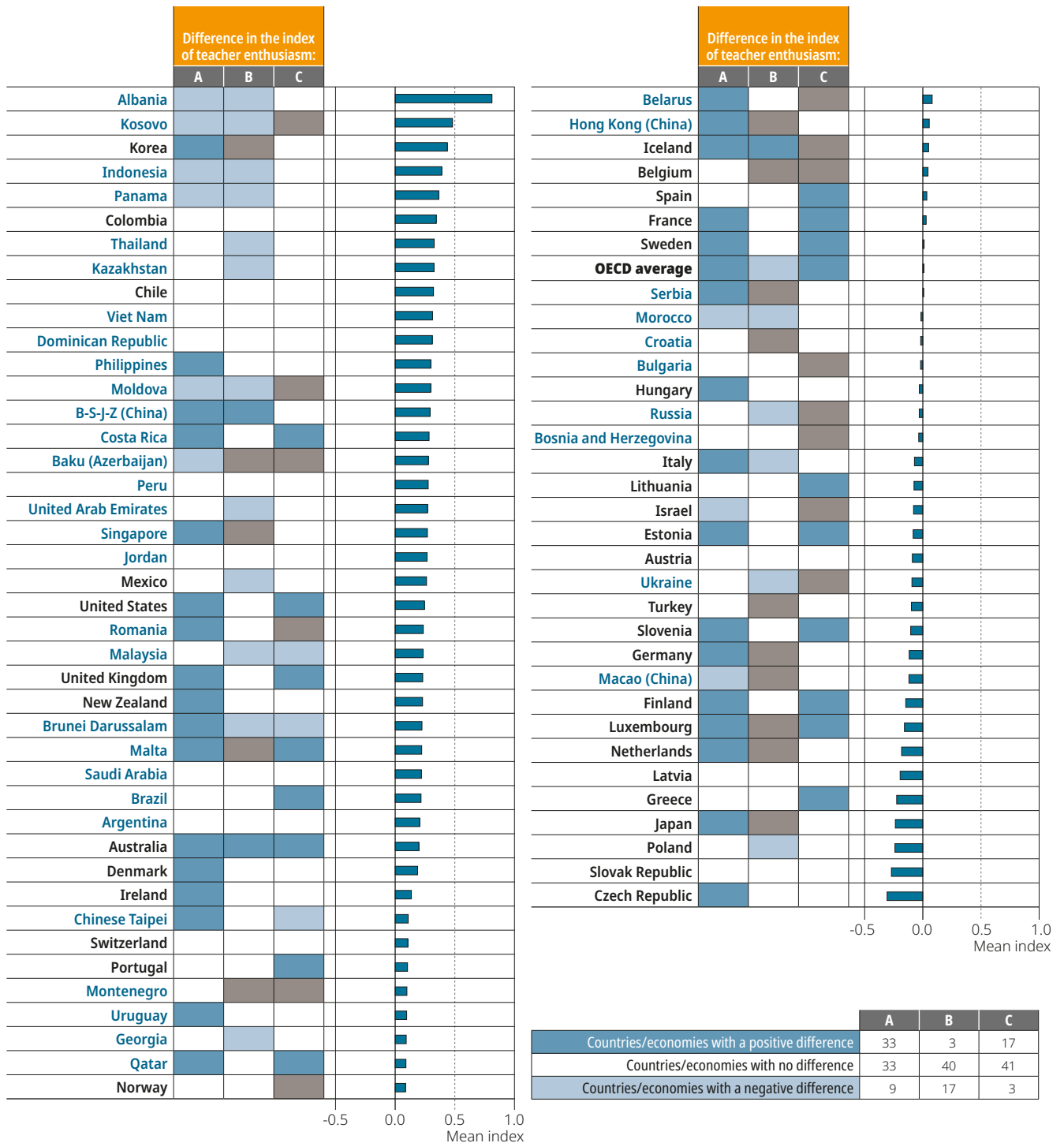
### HOW TEACHER ENTHUSIASM VARIES ACROSS COUNTRIES, SCHOOLS AND STUDENTS

Most 15-year-old students in OECD countries reported that, in the two lessons prior to sitting the PISA test, their language-of-instruction teachers were enthusiastic and enjoyed teaching (Table III.B1.5.1). For instance, 73% of students agreed or strongly agreed that the teacher likes teaching them; 79% agreed or strongly agreed that the teacher likes to deal with the topic of the lesson; and 74% of students agreed or strongly agreed that the teacher showed enjoyment in teaching. However, only 55% of students agreed or strongly agreed that the teacher’s enthusiasm inspired them. Students in Albania, Colombia, Indonesia, Korea, Kosovo and Panama perceived their teachers to be amongst the most enthusiastic, while students in the Czech Republic, Greece, Japan, Latvia, Poland and the Slovak Republic perceived their teachers to be amongst the least enthusiastic.

Figure III.5.1 **Index of teacher enthusiasm, by school characteristics**

Based on students' reports

■ Positive difference   
 ■ Negative difference   
  Difference is not significant   
 ■ Missing values  
**A** Advantaged - disadvantaged schools   
 **B** City - rural schools   
 **C** Private - public schools



Countries and economies are ranked in descending order of the index of teacher enthusiasm.

Source: OECD, PISA 2018 Database, Tables III.B1.5.1 and III.B1.5.4.

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In Korea, for instance, almost 9 in 10 students agreed that the language-of-instruction teacher liked teaching them, while in Latvia only 6 in 10 students agreed with this statement. Only in some schools did a large majority of students perceive that their teachers lack passion for their work. For instance, in all countries and economies, except the Czech Republic, Iceland, Poland, Saudi Arabia, the Slovak Republic and Slovenia, less than 1% of students attended a school where more than 75% of students disagreed that the teacher showed enjoyment in teaching (Table III.B1.5.2).

Considering differences across schools, as much as 8% of the variation in the index of teacher enthusiasm lay between schools, on average across OECD countries, which is a larger proportion than for most of the other indices examined in this report (Table III.B1.5.4). Moreover, pupils in more socio-economically advantaged schools perceived their teachers as more enthusiastic than those in disadvantaged schools, on average across OECD countries and in 33 education systems (Figure III.5.1). However, according to students' reports, in Albania, Baku (Azerbaijan), Indonesia, Israel, Kosovo, Macao (China), the Republic of Moldova, Morocco and Panama, teachers in disadvantaged schools were perceived as more passionate in their teaching.

In addition, in 17 school systems, students in rural schools reported higher levels of teacher enthusiasm than students in city schools (Figure III.5.1). Only in Australia, Beijing, Shanghai, Jiangsu and Zhejiang (China) and Iceland did students in urban schools report higher levels of teacher enthusiasm than students in rural schools. Students in private schools reported that their teachers were more enthusiastic than students in public schools, on average across OECD countries and in 17 education systems. The largest differences (at least one-fifth of a standard deviation) in favour of private schools were found in Estonia, Finland, Greece, Portugal, Qatar, Slovenia and the United States (Table III.B1.5.4). Students who attended schools with lower concentrations of students with an immigrant background were more likely to perceive their teachers as enthusiastic than students in schools with higher concentrations of immigrant students, on average across OECD countries and in 16 countries and economies.

Some groups of students reported higher levels of enthusiasm from their language-of-instruction teachers than other groups (Table III.B1.5.3). In a majority of school systems, girls were more likely than boys to report higher levels of teacher enthusiasm, which could be related to differences in the way their teachers teach (girls and boys do not always share the same classrooms; for more details, see Box III.3.1), but also to differences in the way boys and girls appraise their teachers. Other groups of students who were more likely to report higher levels of teacher enthusiasm, on average across OECD countries, include socio-economically advantaged students (compared to disadvantaged students) and students without an immigrant background (compared to those with an immigrant background).

### HOW TEACHER ENTHUSIASM IS RELATED TO READING PERFORMANCE

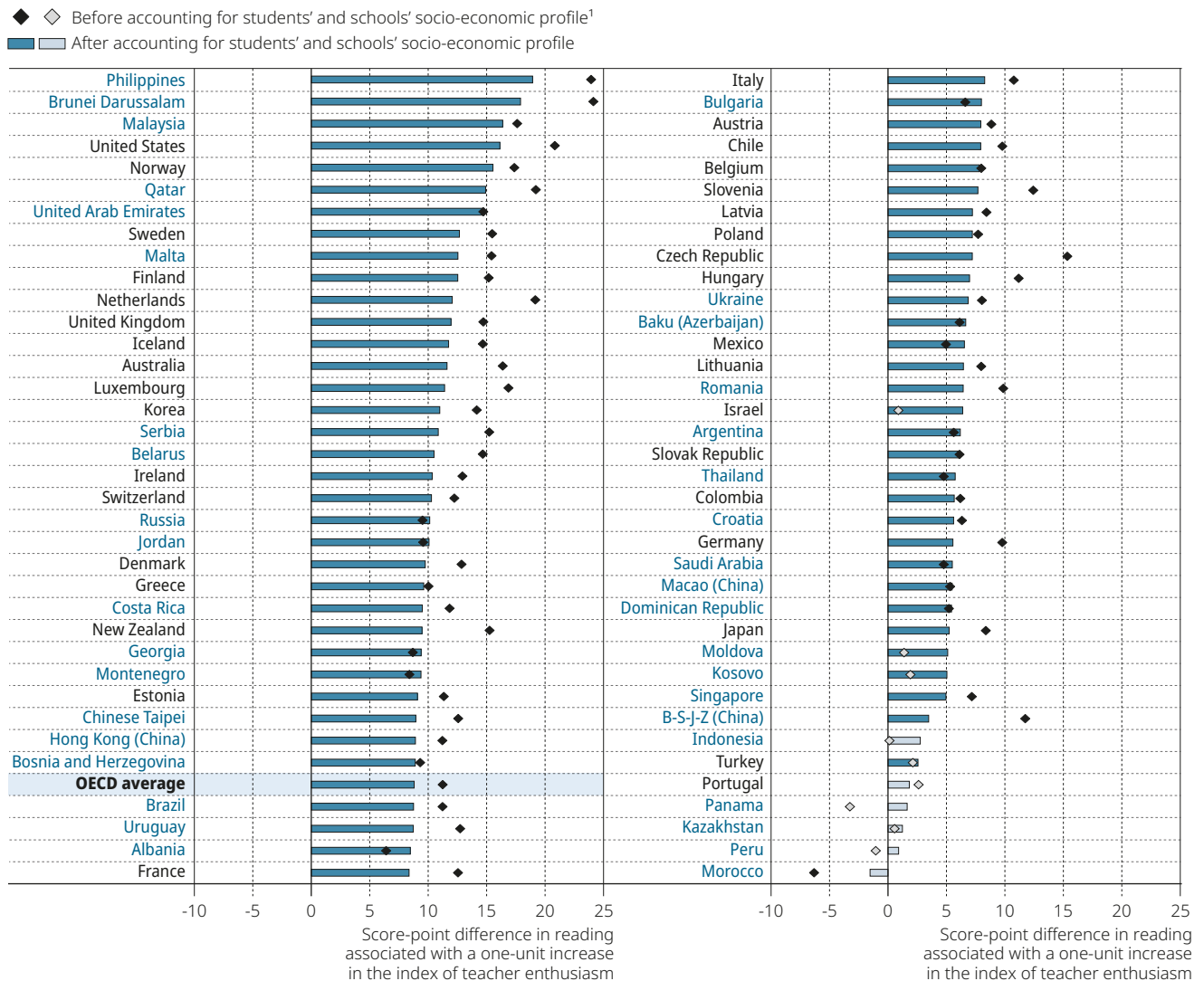
Teacher enthusiasm can improve student achievement, though researchers indicate that the effects are probably indirect in nature and moderate in magnitude (Keller et al., 2014<sub>[17]</sub>; Kunter, 2013<sub>[3]</sub>; Larkins and McKinney, 1982<sub>[18]</sub>). PISA findings reveal that, in a clear majority of countries and economies, the more enthusiastic 15-year-old students perceived their teachers to be, the higher they scored in the reading assessment, even after accounting for the socio-economic profile of students and schools (measured by the PISA index of economic, social and cultural status) (Figure III.5.2 and Table III.B1.5.5). The countries where teacher enthusiasm was the strongest predictor of reading performance – where it accounts for at least 3% of the variation in performance – are Brunei Darussalam, the Netherlands, the Philippines, Qatar and the United States. Amongst the individual components used to create the index of teacher enthusiasm, the one most strongly associated with reading performance across OECD countries was the intrinsic interest that the teacher showed in the subject (“It was clear that the teacher likes to deal with the topic of the lesson”).

Students' reading performance is also related to how other students in the school evaluate the language-of-instruction teacher's enthusiasm (Table III.B1.5.6). For every additional unit increase in the school index of teacher enthusiasm (how enthusiastic the students in a school perceive their teachers to be, on average), student reading performance increased by about eight score points, on average across OECD countries and after accounting for the student-level index and the socio-economic profile of students and schools. In some school systems, such as Malaysia, the Netherlands, Qatar, Serbia and Chinese Taipei, the increase in reading scores was more than 30 points.

When specific items of the index of teacher enthusiasm were considered, in schools with the largest share of students who agreed that the language-of-instruction teacher likes to deal with the topic of the lesson (that is, schools in the top quarter of the indicator in their country/economy) the average reading score was 502 points. In schools with the lowest percentage (that is, schools in the bottom quarter of the indicator in their country/economy) the average reading score was 470 points.

According to a previous study, excessively enthusiastic teachers may make students believe they are learning even when the content delivered is meaningless and contradictory (Naftulin, Ware and Donnelly, 1973<sub>[21]</sub>). However, the correlational evidence presented in Figure III.5.3 does not appear to support the idea that overly enthusiastic teachers can be detrimental to student learning.

Figure III.5.2 Teacher enthusiasm and reading performance



1. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

**Note:** Statistically significant values are shown in darker tones (see Annex A3).

Countries and economies are ranked in descending order of the score-point difference associated with a one-unit increase in the index of teacher enthusiasm, after accounting for students' and schools' socio-economic profile.

**Source:** OECD, PISA 2018 Database, Table III.B1.5.5.

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Students generally scored higher in reading as they agreed more strongly with the statements about the enthusiasm of their language-of-instruction teachers. On average across OECD countries, students who strongly disagreed with the statements scored the lowest in reading, and those who strongly agreed with the statements scored the highest, after accounting for students' socio-economic status, gender and immigrant background. The relationship with reading performance was strongest when students were asked how much they agreed that their teacher liked the topic of the lesson. For instance, students who strongly agreed that their teacher likes to deal with the topic of the lesson scored 16 points higher than students who agreed, 24 points higher than students who disagreed, and 50 points higher than students who strongly disagreed with the statement.

## HOW TEACHER ENTHUSIASM IS RELATED TO STUDENT BEHAVIOUR AND MOTIVATION

There seems to be agreement that teacher enthusiasm can have positive effects on students' attitudes towards learning (Keller et al., 2016<sub>[5]</sub>). A passionate teacher can motivate and inspire students, and increase the productive time they spend on learning tasks (Keller et al., 2014<sub>[17]</sub>; Kunter et al., 2013<sub>[22]</sub>). One of the reasons why they may concentrate more on learning activities is that an enthusiastic teacher leaves few opportunities for students to get bored and misbehave. For instance, it is difficult for

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students to chat with each other when the teacher is speaking firmly and clearly; and students have little time to disrupt the lesson if they are genuinely engaged in the activities organised by an energetic teacher. The relationship could go the other way round too: it is probably much harder for teachers to be enthusiastic in classrooms with disruptive, uninterested and underachieving students than in classrooms with respectful, motivated and high-performing students. For all these reasons, teacher enthusiasm is expected to be positively associated with the disciplinary climate in class and with students' motivation.

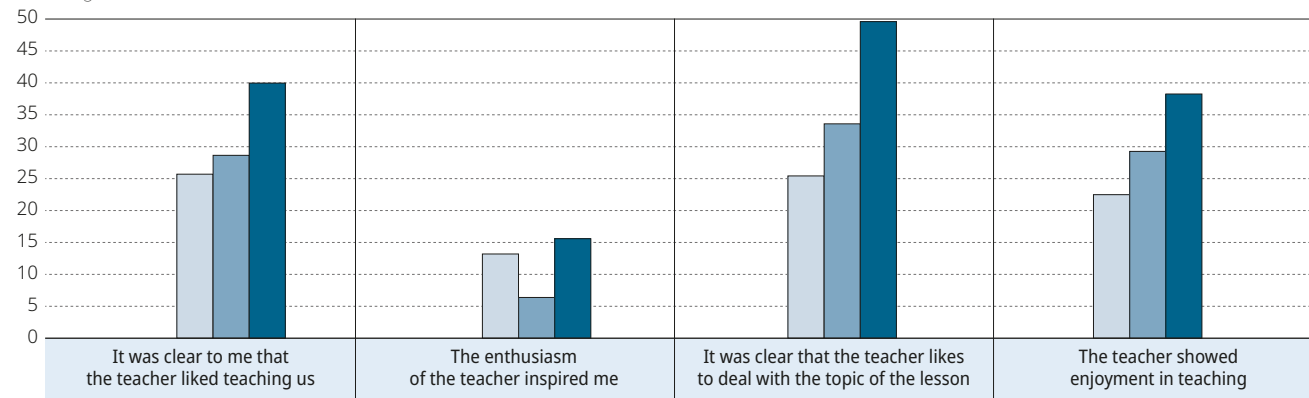
Figure III.5.3 **Prevalence of teacher enthusiasm and reading performance**

OECD average

Reference category: "strongly disagree"

Disagree Agree Strongly agree

Score-point difference  
in reading



**Notes:** All values are statistically significant (see Annex A3).

Results based on linear regression analysis, after accounting for students' socio-economic profile, gender and immigrant background. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

**Source:** OECD, PISA 2018 Database, Table III.B1.5.7.

**StatLink** <http://dx.doi.org/10.1787/888934029622>

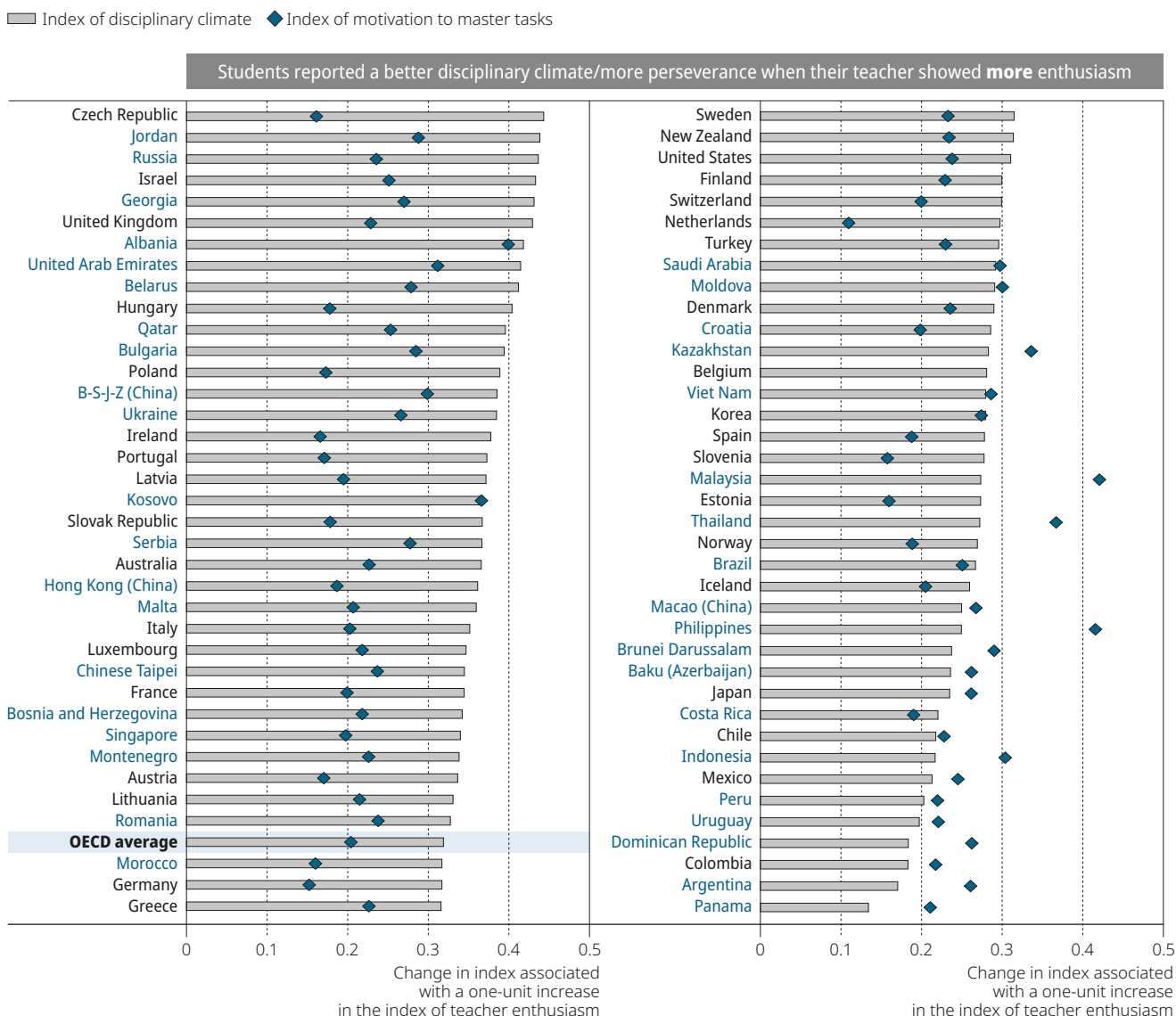
In order to measure the disciplinary climate, PISA asked students how frequently a series of disruptive behaviours happen in their language-of-instruction lessons, such as students not listening to the teacher (for more details, see Chapter 3). These statements were combined to create the index of disciplinary climate, where higher values indicate a better disciplinary climate in language-of-instruction lessons. PISA 2018 found a positive association between this index and students' perceptions of teacher enthusiasm in every participating country and economy, after accounting for the socio-economic profile of students and schools (Figure III.5.4). The association was strongest in Albania, Belarus, the Czech Republic, Georgia, Hungary, Israel, Jordan, the Russian Federation, the United Arab Emirates and the United Kingdom, and weakest in Argentina, Colombia, the Dominican Republic, Panama and Uruguay.

PISA also asked students how much they agreed ("strongly disagree", "disagree", "agree", "strongly agree") with four statements about their motivation to master tasks in general, i.e. not only in language-of-instruction lessons. These statements include: "I find satisfaction in working as hard as I can"; "Once I start a task, I persist until it is finished"; "Part of the enjoyment I get from doing things is when I improve on my past performance"; and "If I am not good at something, I would rather keep struggling to master it than move on to something I may be good at". The first three statements were combined to create the index of motivation to master tasks, where higher values indicate a higher motivation to master tasks. In every school system, teacher enthusiasm was positively related to students' motivation to master tasks, after accounting for the socio-economic profile of students and schools, though the association was generally weaker than that with disciplinary climate, probably because the question about motivation to master tasks did not relate specifically to language-of-instruction lessons (Figure III.5.4). The countries and economies where this association was strongest were Albania, Kosovo, Malaysia, the Philippines and Thailand; the association was weakest in Germany, the Netherlands and Slovenia.

While the hypothesis that the enthusiasm of language-of-instruction teachers shapes both the disciplinary climate during their lessons and students' motivation is sensible, there are other plausible explanations for the results described above. For instance, teachers may be more motivated and show greater enthusiasm in classrooms with well-behaved students; motivated and perseverant students may be more likely than less engaged students to recognise teachers' enthusiasm; and teachers may be more passionate in their teaching when their students are motivated and use their learning time productively.



Figure III.5.4 How teacher enthusiasm is related to disciplinary climate and students' motivation to master tasks



**Notes:** All values are statistically significant (see Annex A3). Results based on linear regression analysis, after accounting for students' and schools' socio-economic profile. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS). Countries and economies are ranked in descending order of the change in the index of disciplinary climate associated with a one-unit increase in the index of teacher enthusiasm.

**Source:** OECD, PISA 2018 Database, Table III.B1.5.8.

**StatLink** <http://dx.doi.org/10.1787/888934029641>

Previous studies have indicated that teacher enthusiasm may improve student achievement, but that any potential effect is probably indirect (Keller et al., 2014<sup>[17]</sup>; Kunter, 2013<sup>[3]</sup>). In this regard, teacher enthusiasm may be positively associated with reading performance mostly because passionate teachers have an impact on student behaviour and attitudes, such as motivation and perseverance, and these positive behaviour and attitudes, in turn, enhance student performance. PISA cannot test the causal nature of these relationships, but it can provide an indication of how plausible the hypothesis is.

The findings shown in Figure III.5.5 reveal that, on average across OECD countries, the relationship between teacher enthusiasm and reading performance, after accounting for the socio-economic profile of students and schools, weakens by 34% after accounting for the index of disciplinary climate in language-of-instruction lessons, and by 56% after also accounting for the index of motivation to master tasks. Similar results are observed for a large number of countries and economies (Table III.B1.5.9). These findings are in line with the idea that teacher enthusiasm and reading performance are, to a great extent, indirectly related.

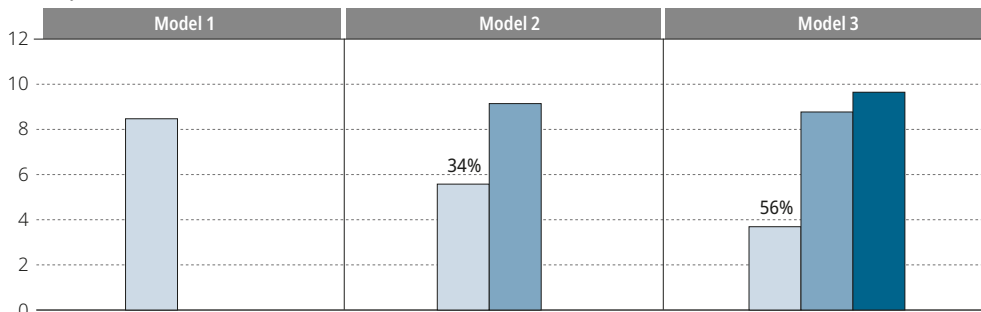
Figure III.5.5 Explaining the positive relationship between teacher enthusiasm and reading performance

OECD average

Change in reading performance associated with a one-unit increase in the index of:

Teacher enthusiasm    Disciplinary climate    Motivation to master tasks

Score-point difference in reading for every one-unit increase in the indices



Notes: All values are statistically significant (see Annex A3).

Results based on linear regression analysis, after accounting for students' and schools' socio-economic profile. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

The three linear regression models use the same sample.

The percentage of the association between teacher enthusiasm and reading performance, after accounting for socio-economic profile, that is mediated by the indices of disciplinary climate and student perseverance is shown inside the blue bars.

Source: OECD, PISA 2018 Database, Table III.B1.5.9.

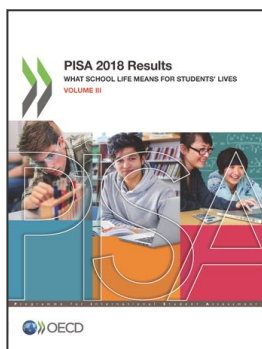
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