The ‘basics’ of teaching

Insights from research and schools

Anna Pons, Project Lead

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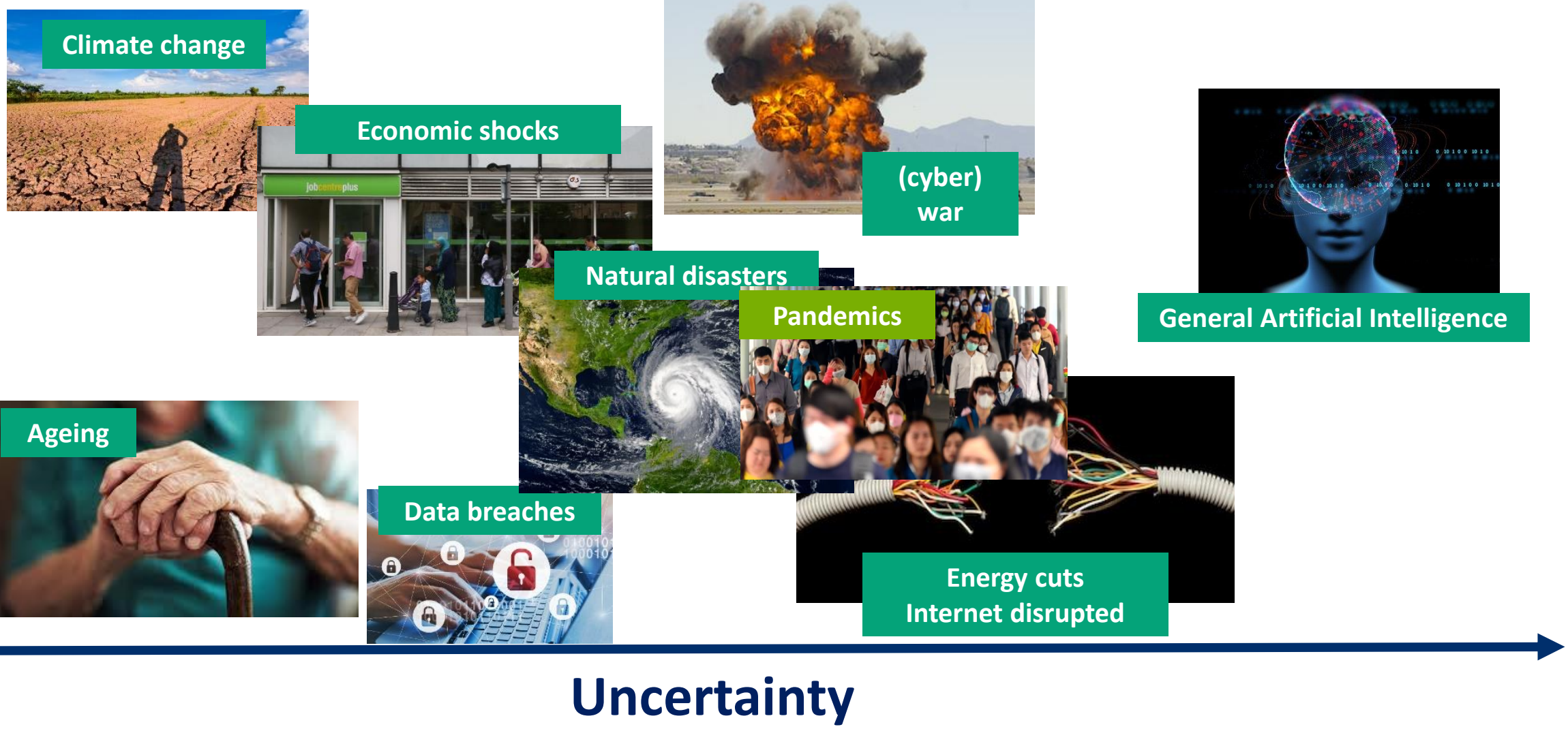
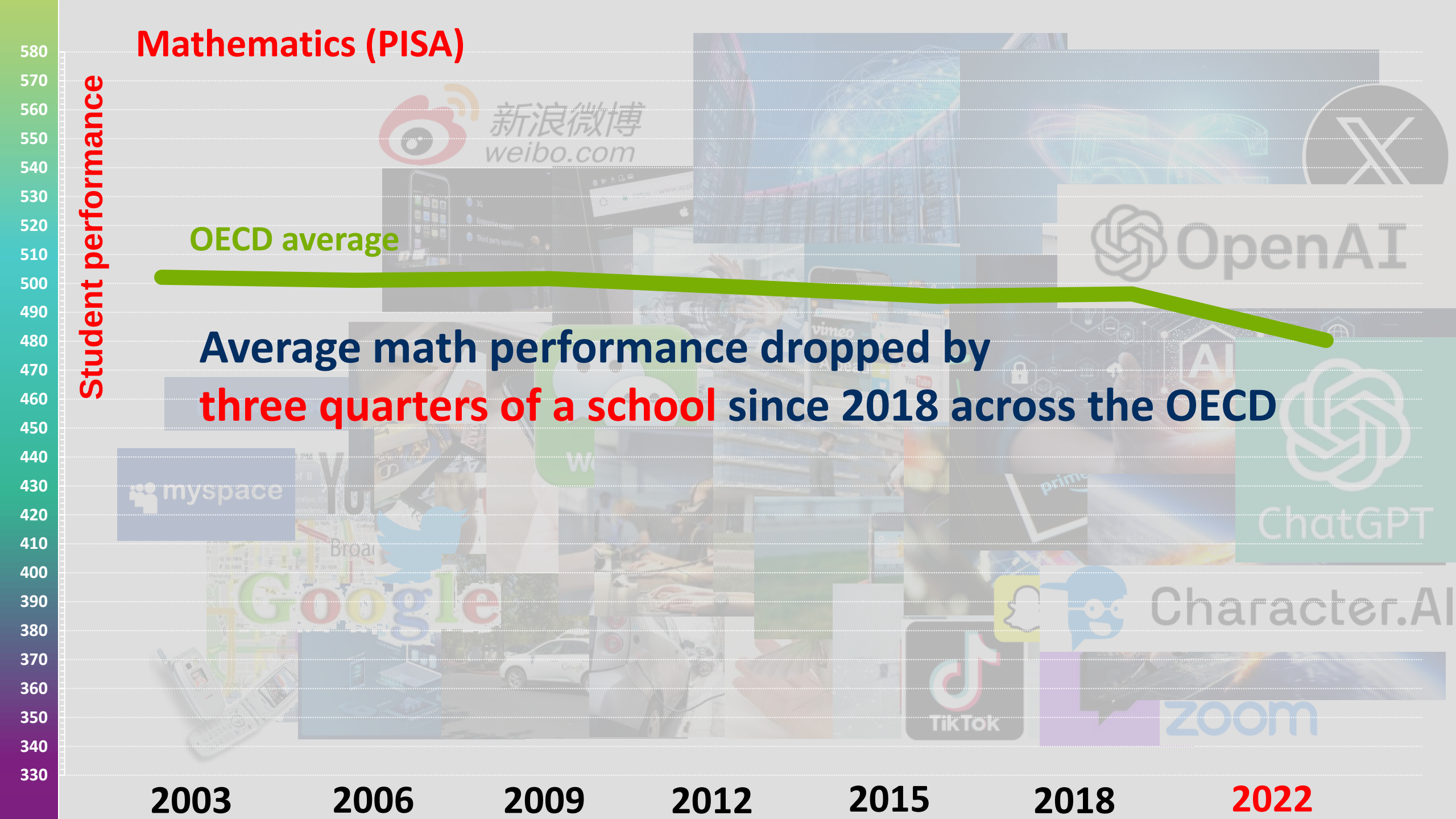
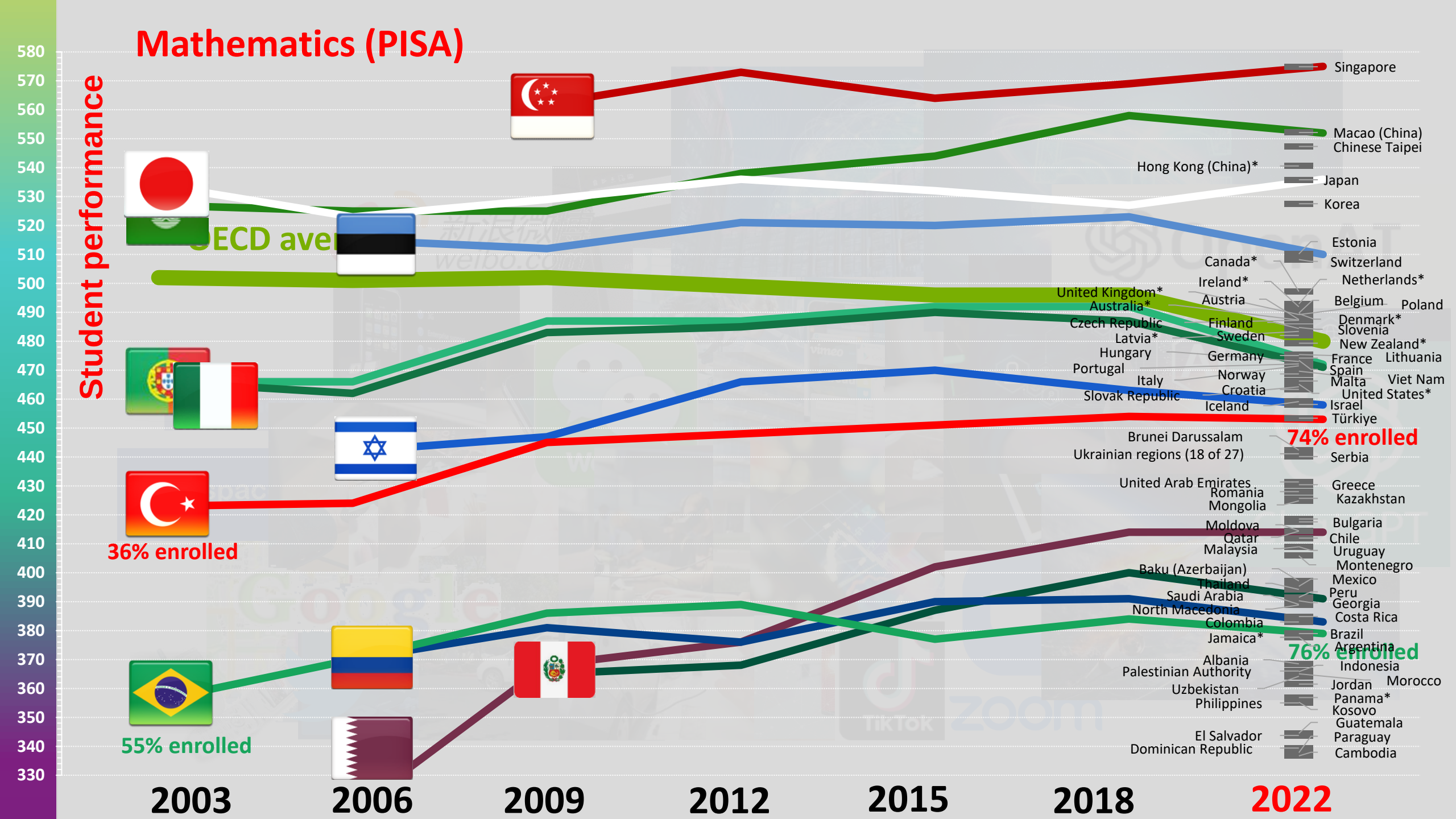
Schools+ OECD

The future will always surprise us



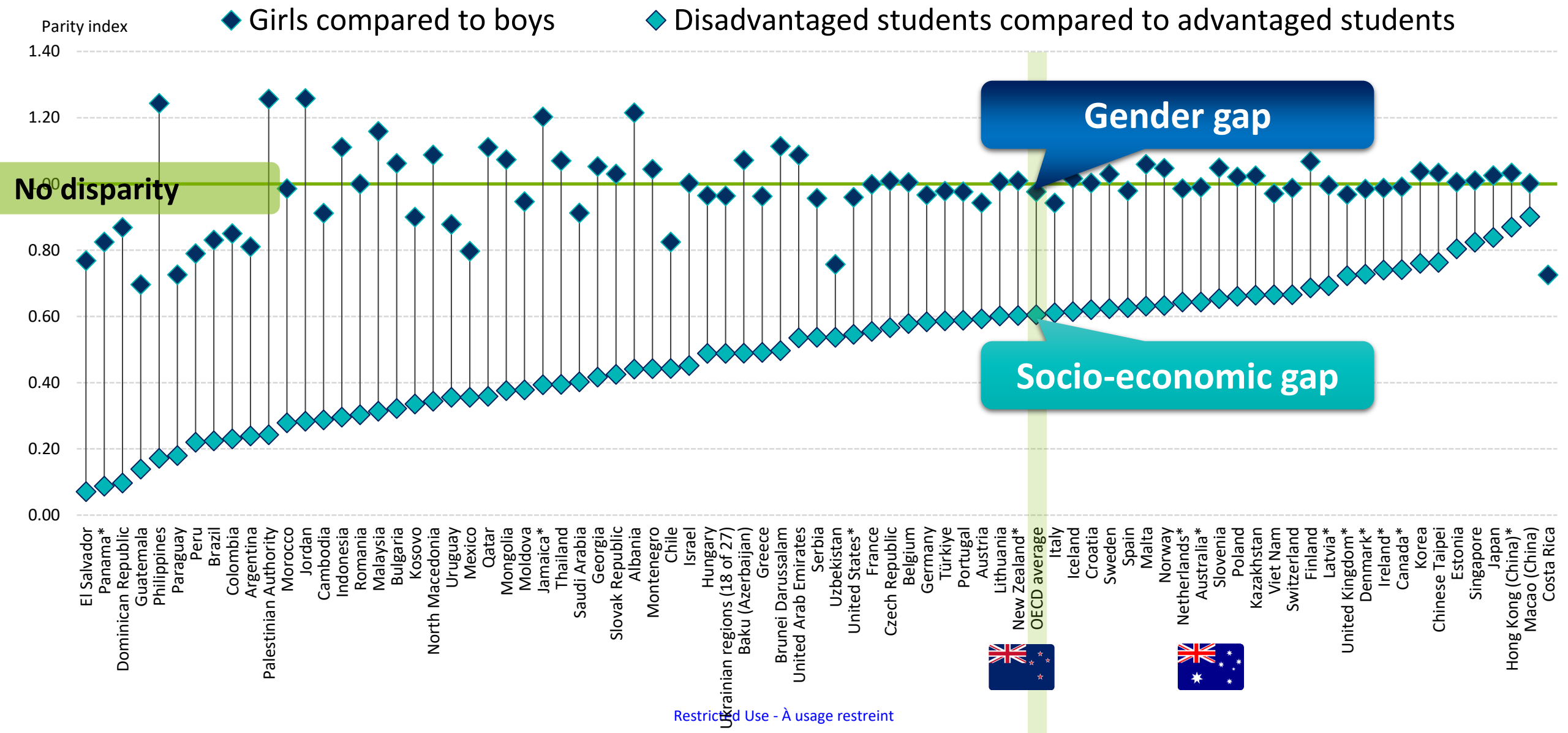

Mathematics (PISA)
Student performance
580
570
560
550
540
530
520
510
500
490
480
470
460
450
440
430
420
410
400
390
380
370
360
350
340
330
OECD average
Average math performance dropped by
three quarters of a school since 2018 across the OECD
2003
2006
2009
2012
2015
2018
2022

Mathematics (PISA)



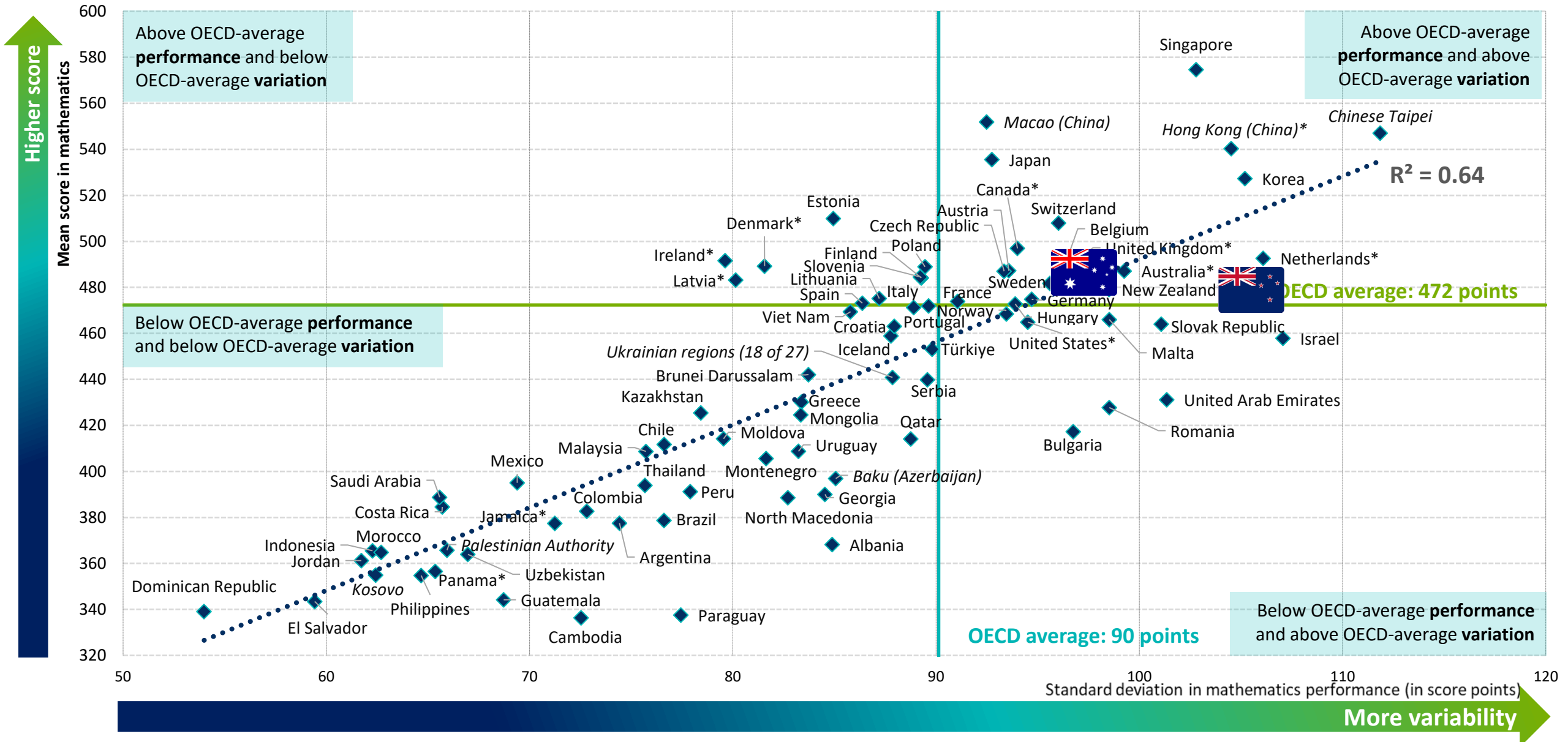
Disparities in minimum achievement in mathematics (parity index), by gender and socio-economic background

Figure I.3.7



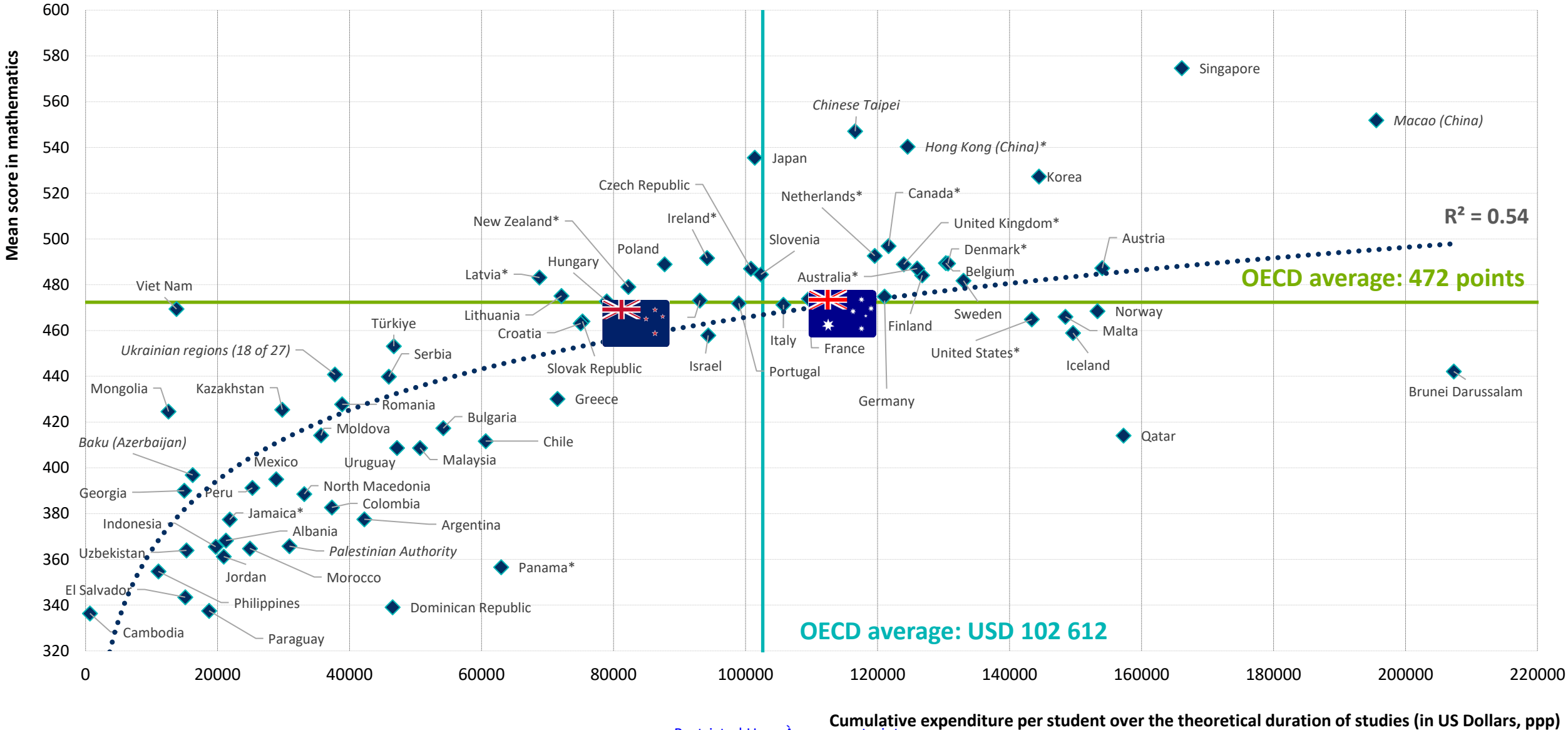
Average performance in mathematics and variation in performance

Figure I.2.3



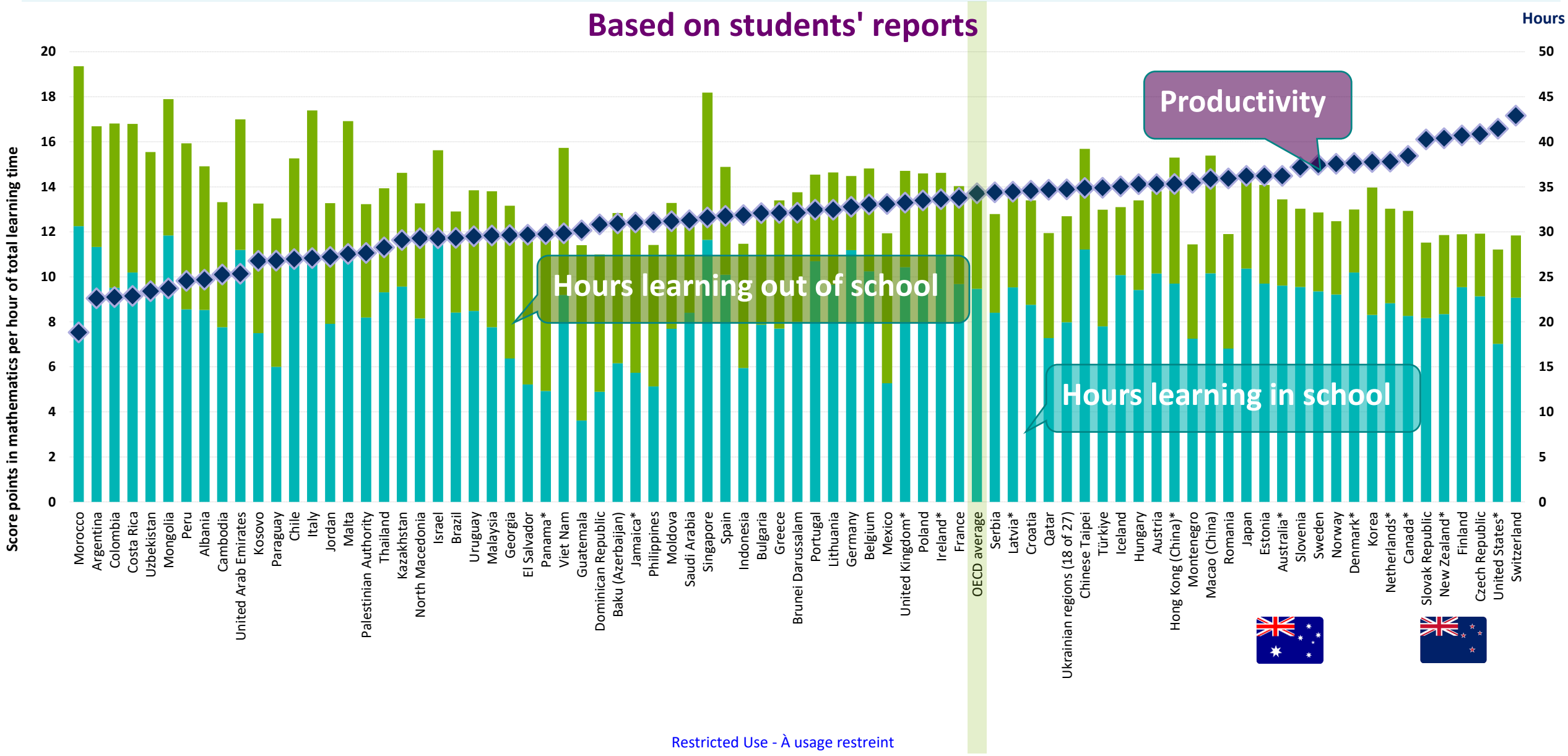
Money is necessary but not sufficient

Figure I.4.15

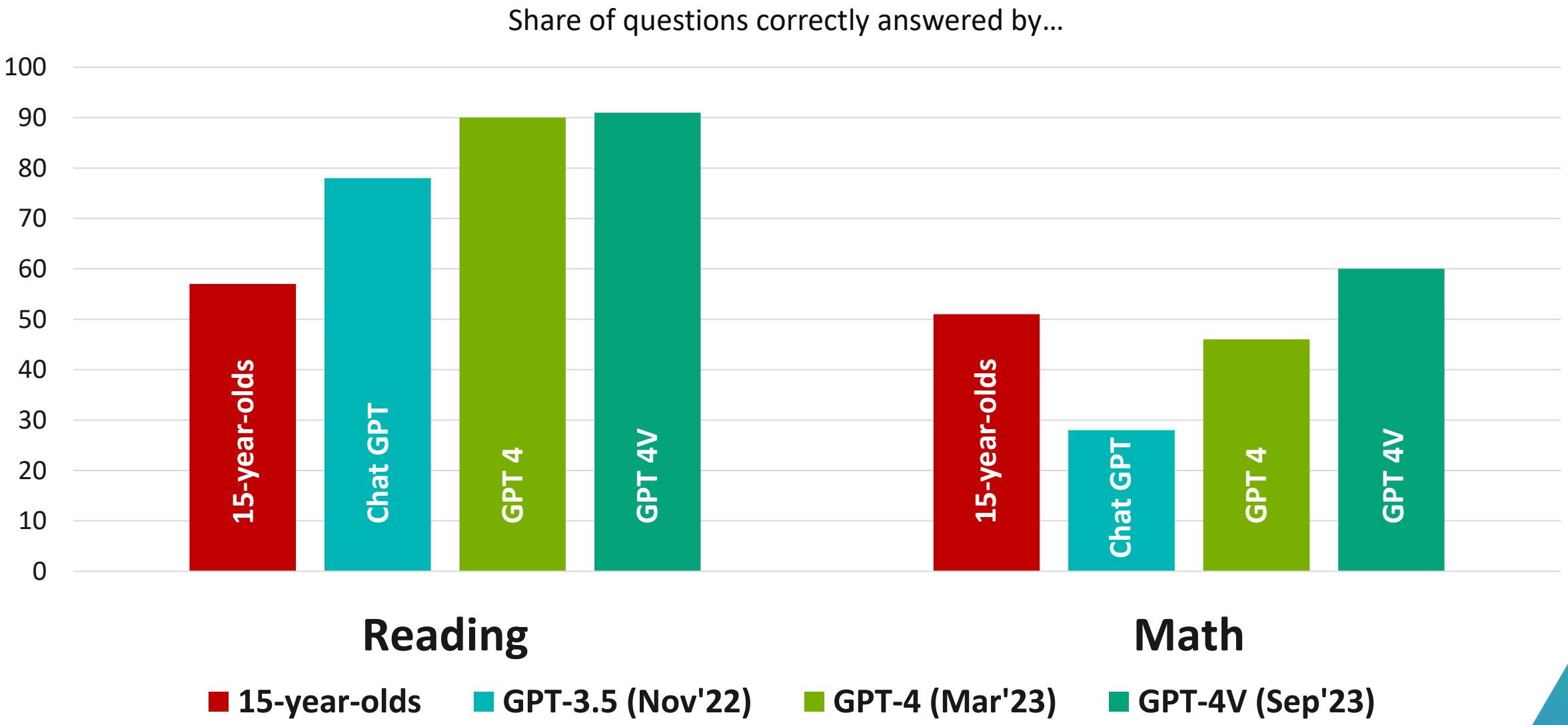


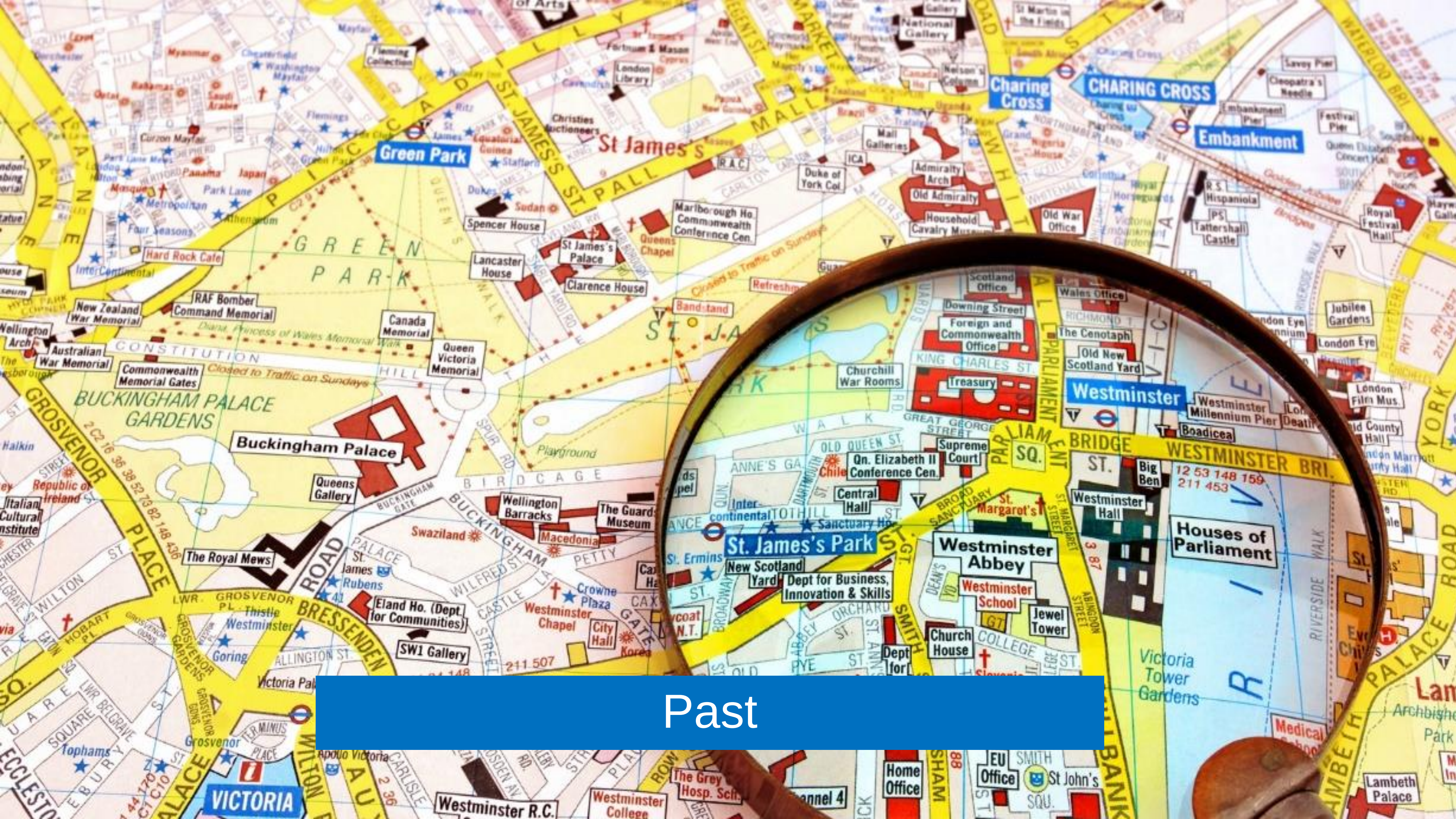
Learning time ≠ learning outcomes

Figure II.5.11



Putting AI to the test: chatGPT and student performance on PISA

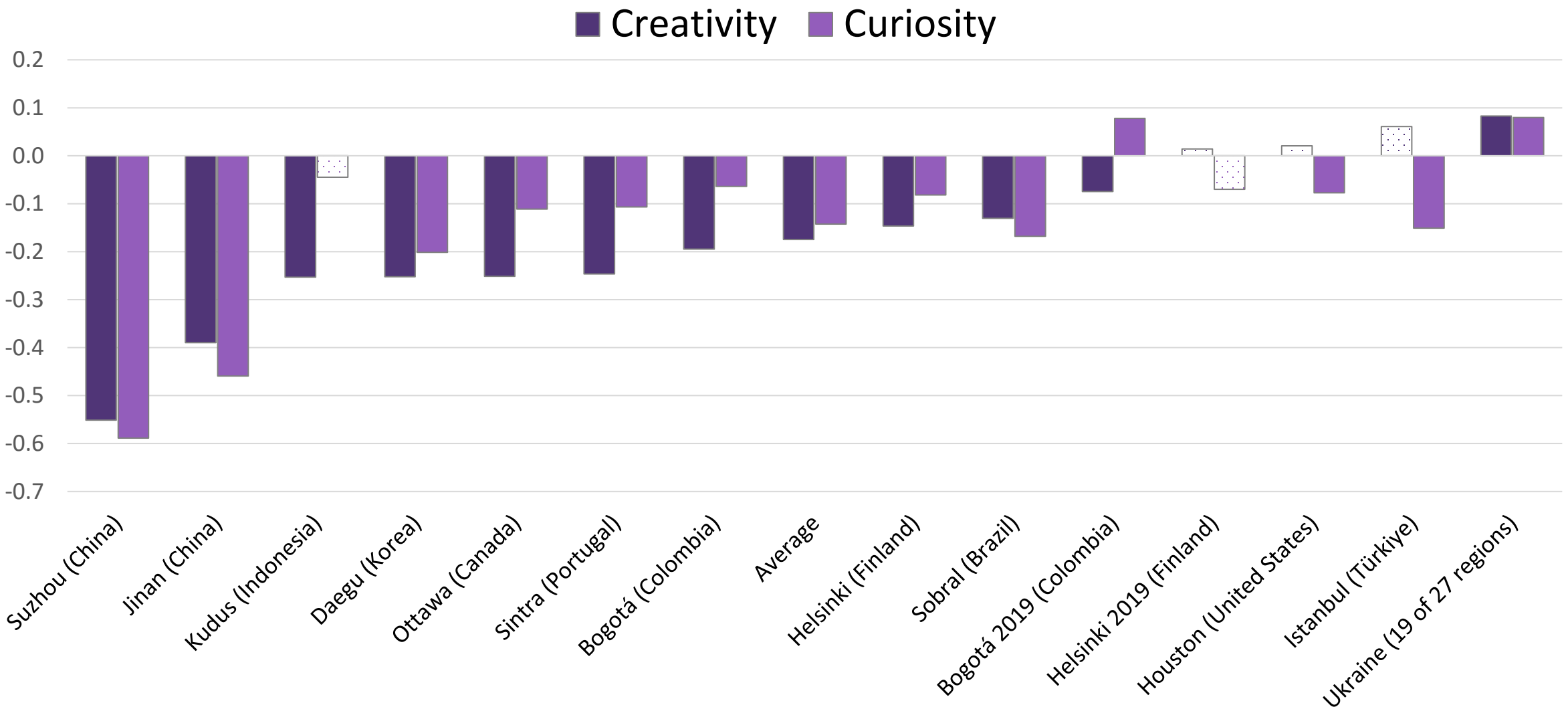



Green Park
Charing Cross
CHARING CROSS
Embankment
St James's
GREEN PARK
BUCKINGHAM PALACE GARDENS
Buckingham Palace
Queens Gallery
The Royal Mews
Hard Rock Cafe
RAF Bomber Command Memorial
New Zealand War Memorial
Australian War Memorial
Wellington Arch
Commonwealth Memorial Gates
Canada Memorial
Queen Victoria Memorial
Spencer House
Lancaster House
St James's Palace
Clarence House
Marlborough Ho. Commonwealth Conference Cen.
Queens Chapel
National Gallery
Nelson's Column
Admiralty Arch
Old Admiralty
Household Cavalry Museum
Old War Office
Scotland Office
Wales Office
Downing Street
Foreign and Commonwealth Office
The Cenotaph
Old New Scotland Yard
Churchill War Rooms
Treasury
Westminster
Westminster Millennium Pier
Boadicea
Supreme Court
Qn. Elizabeth II Conference Cen.
Central Hall
Big Ben
Westminster Hall
Houses of Parliament
St. James's Park
New Scotland Yard
Dept for Business, Innovation & Skills
Westminster Abbey
Westminster School
Jewel Tower
Church House
Victoria Tower Gardens
Home Office
London Eye
Jubilee Gardens
Savoy Pier
Cleopatra's Needle
Embankment Pier
Festival Pier
Royal Festival Hall
Lambeth Palace
Wellington Barracks
The Guards Museum
Swaziland
Macedonia
Westminster Chapel
Crowne Plaza
City Hall
Eland Ho. (Dept. for Communities)
SW1 Gallery
VICTORIA
Westminster R.C.
Westminster College
The Grey Hosp. Sch.
PICCADILLY
PALL MALL
CONSTITUTION HILL
BIRDCAGE WALK
GROSVENOR PLACE
BRESSENDEN
WESTMINSTER BRIDGE
PARLIAMENT SQ.

Past

Preparing students for the future

15-year-olds tend to report lower creativity and curiosity

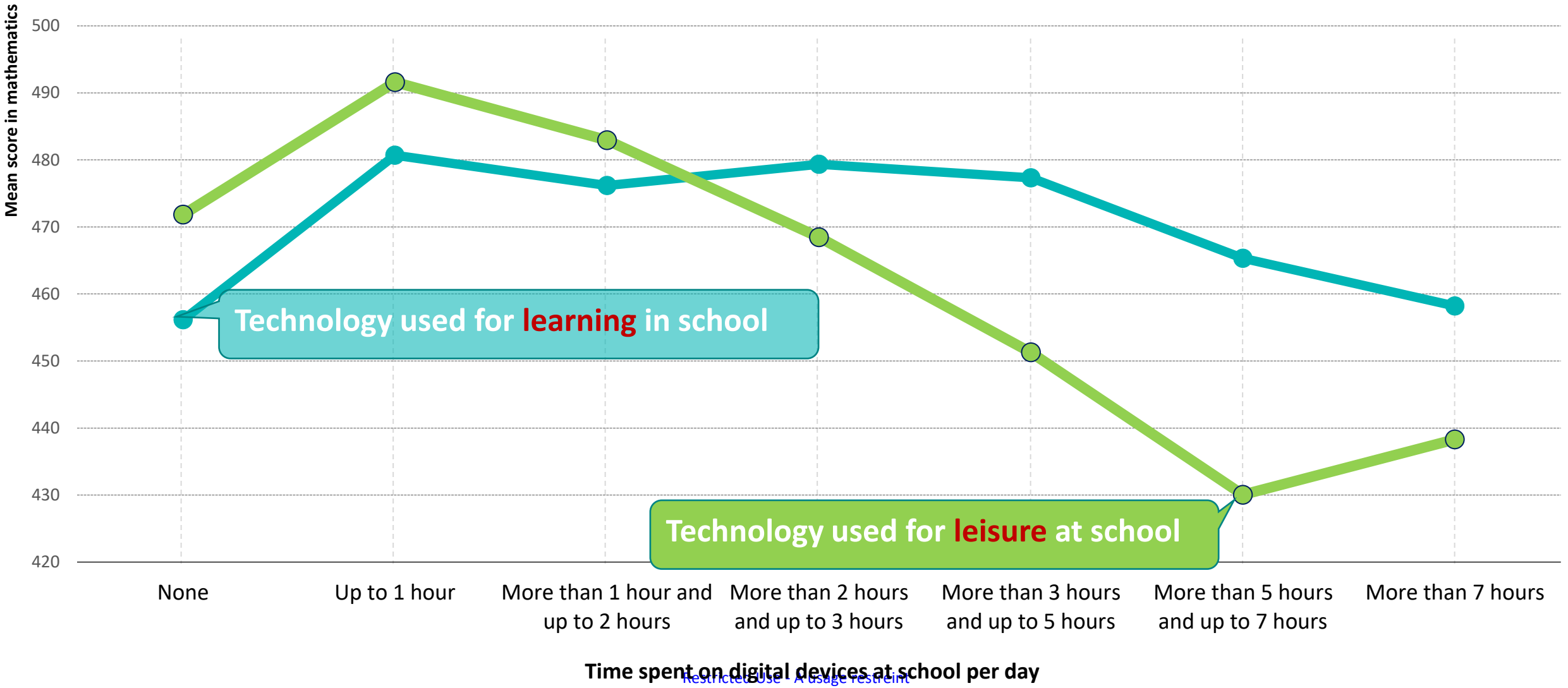


Standardised differences between 10- and 15-year-olds, average across sites

Time spent on digital devices at school and mathematics performance

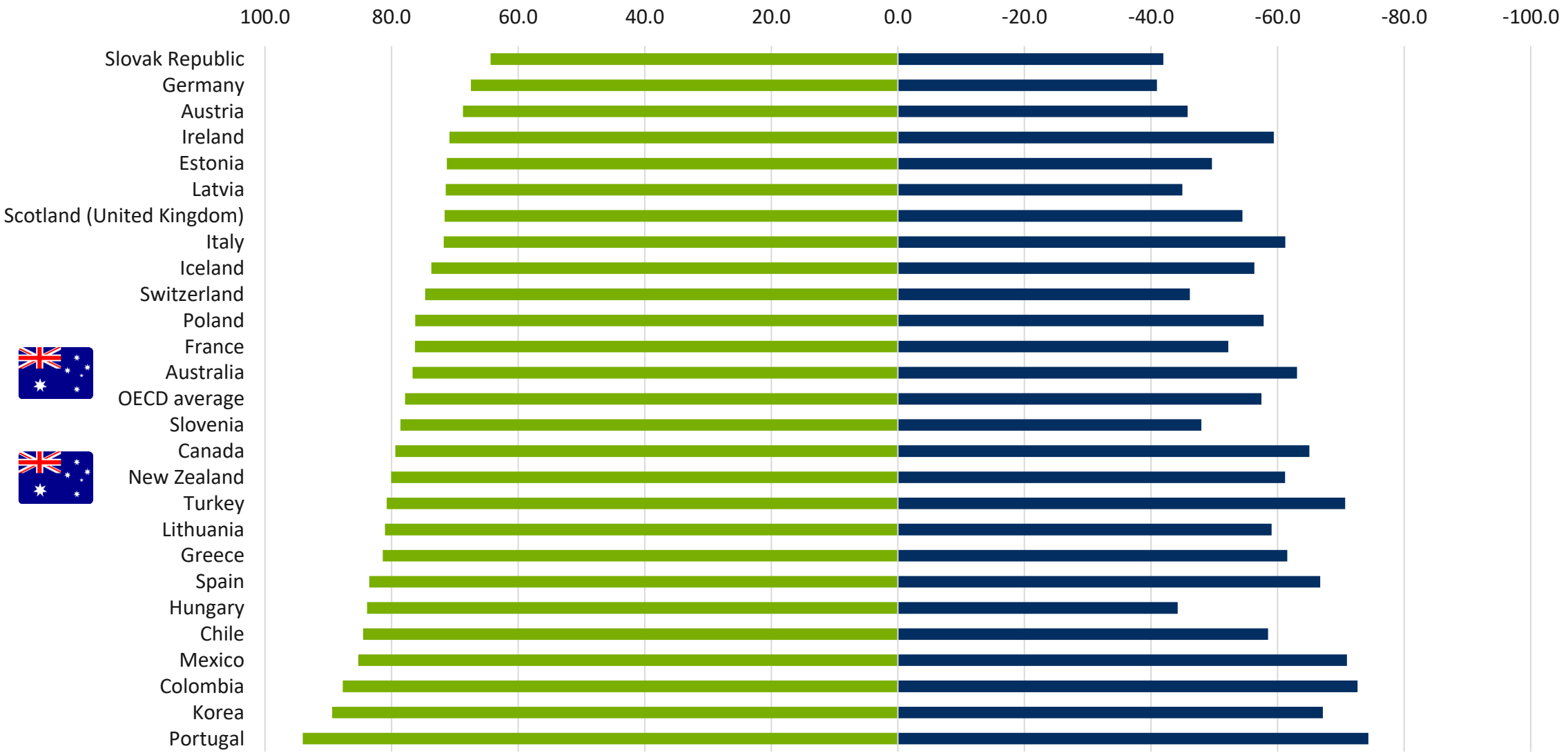
Figure II.5.14

Based on students' reports; OECD average



Agency: empowering students to make a difference

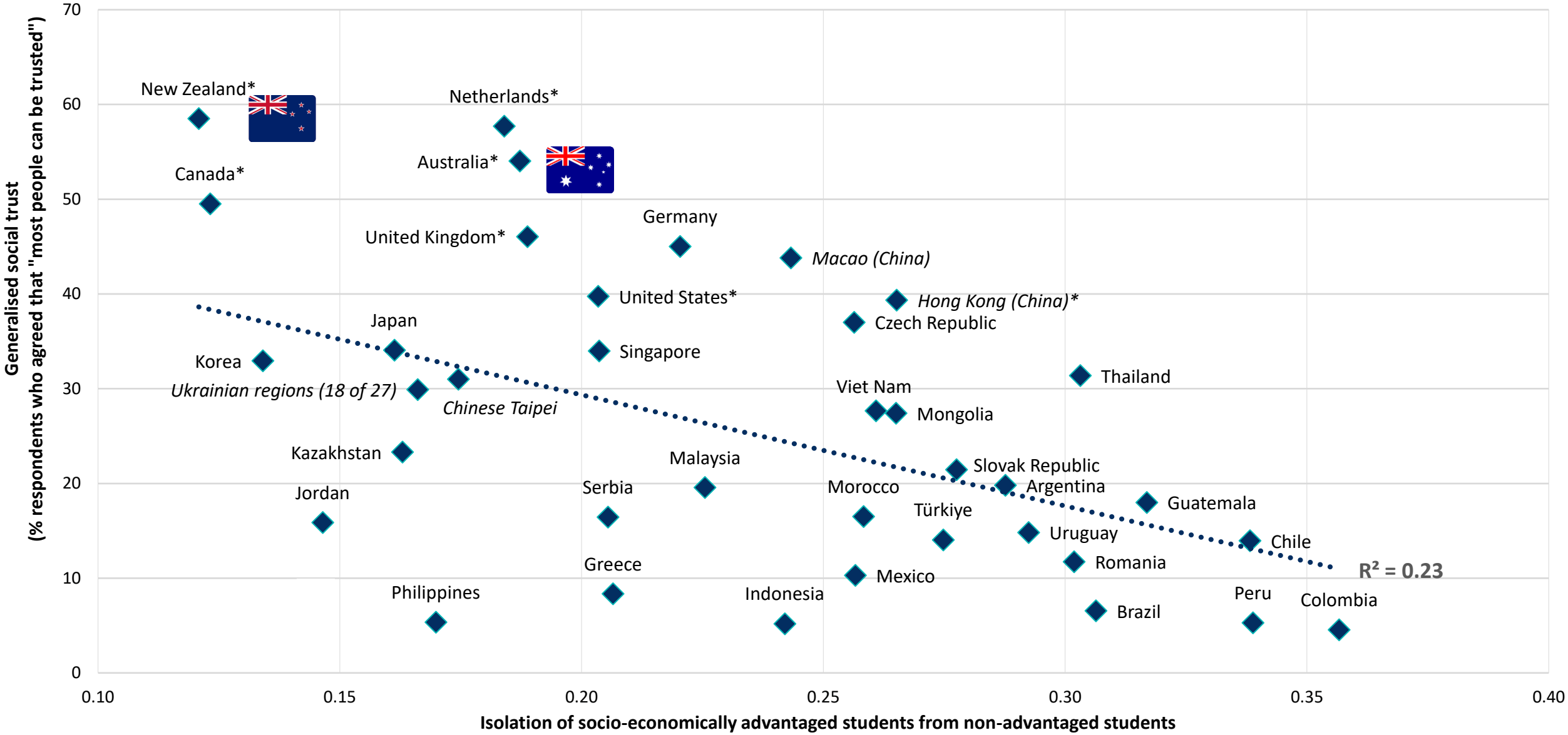
Percentage of students who agree or strongly agree



PISA 2018, Table VI.B1.5.1

Concentration of students in schools and generalised social trust

Figure II.4.12



In a world of fast-paced changes and uncertainty, how can we make schools more resilient?

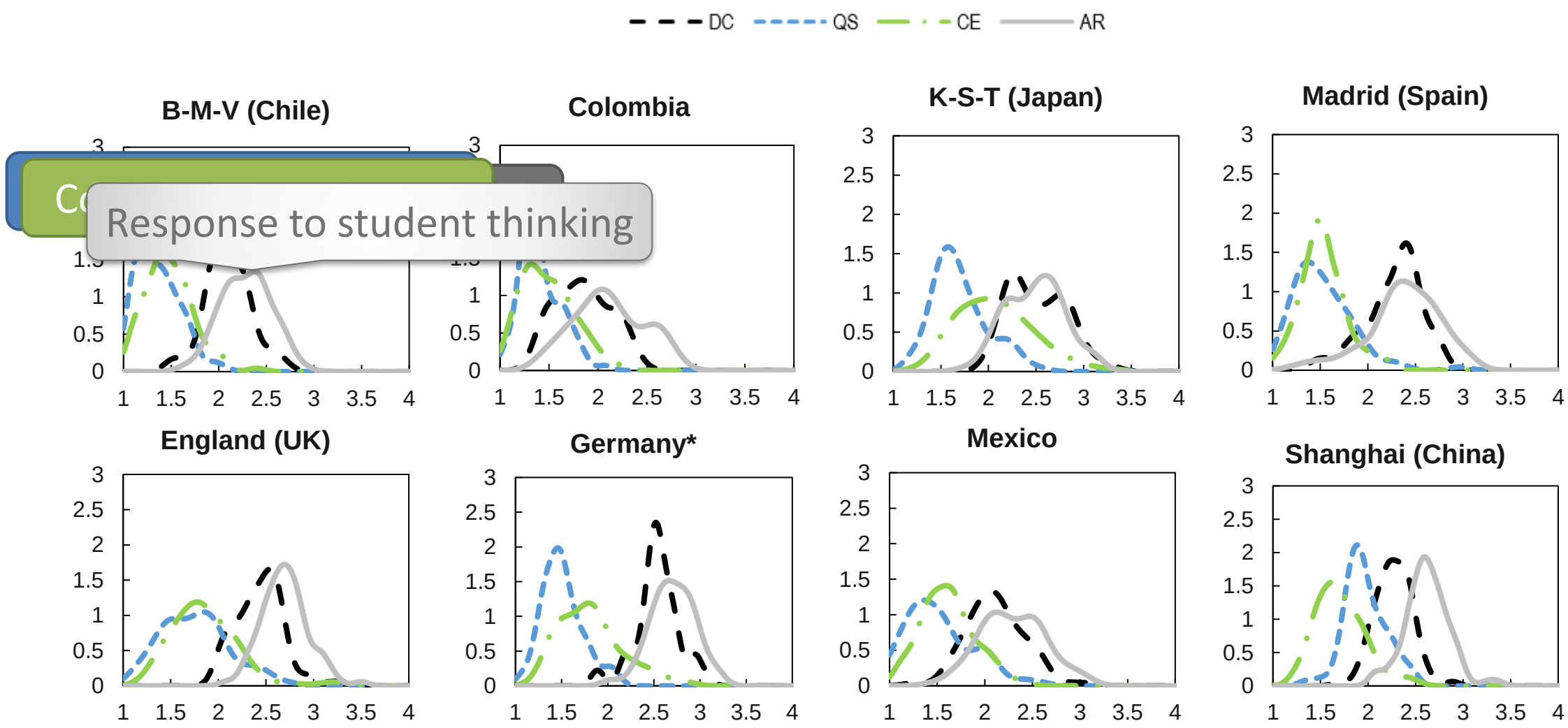
Past	Future
Student inclusion	
Some students learn at high levels (sorting)	All students need to learn at high levels
Curriculum, instruction and assessment	
Routine cognitive skills	Agency, Complex ways of thinking, complex ways of doing
Teacher Education	
Standarisation and compliance	High-level professional knowledge workers
Work organisation	
'Tayloristic,' hierarchical	Flat, collegial
Accountability	
Primarily to authorities	Primarily to peers and stakeholders

Why is teaching so complex?

Classrooms are complex

Radical innovation or improvement in teaching?

Distribution of classrooms, by the mean instruction sub-domain scores

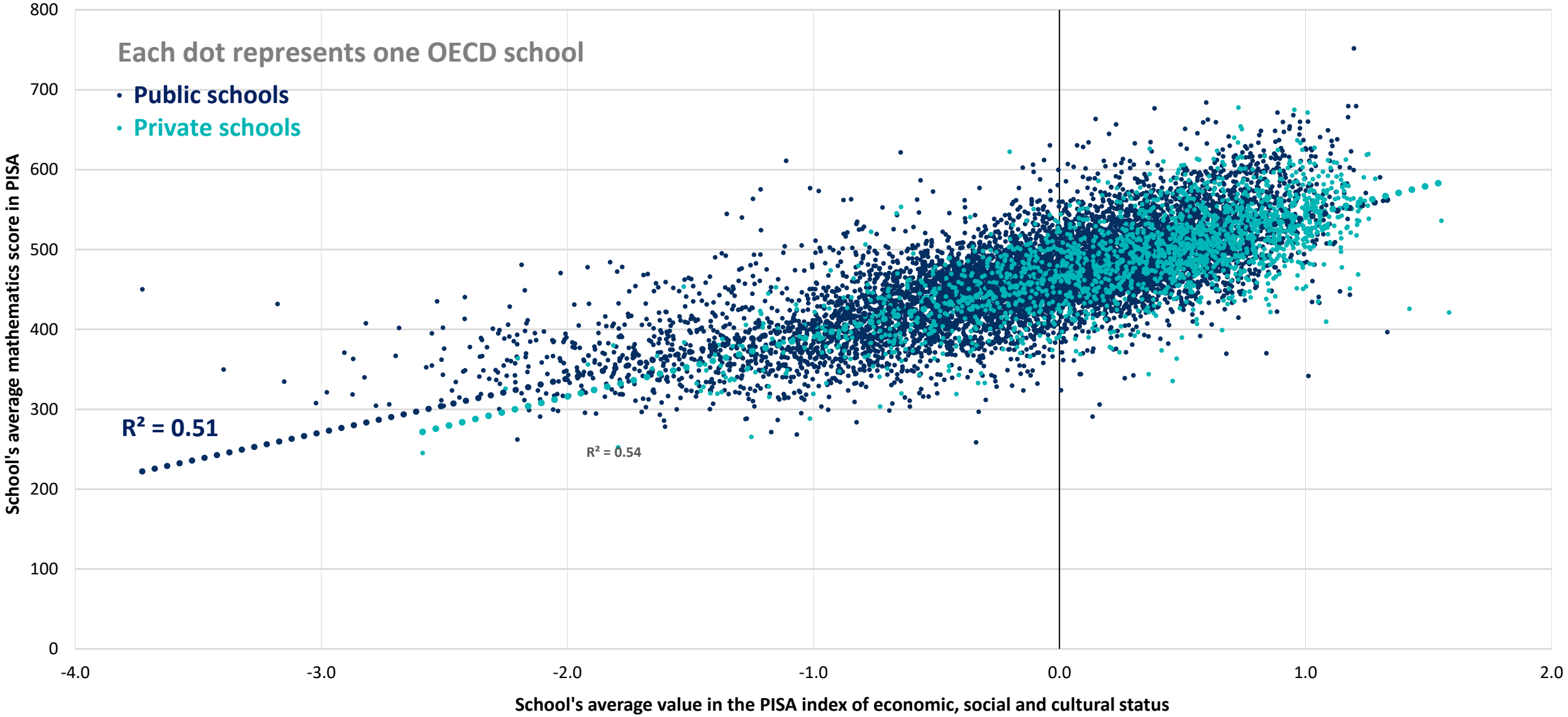


Source: OECD, Global Teaching InSights Database, Tables 5.A.3 and 5.A.4

How can we understand what outperforming schools are doing?

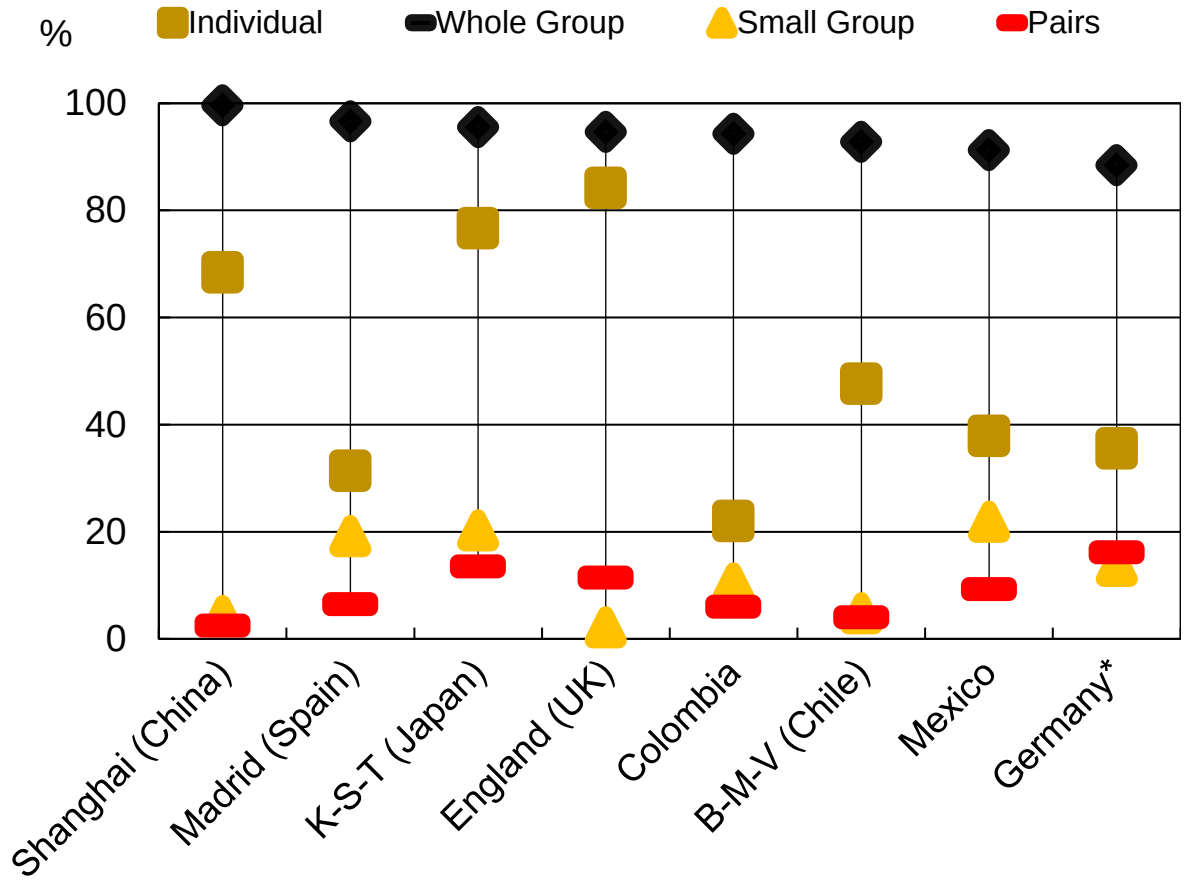
Figure II.6.7

Data aggregated at the school level; OECD countries



The potential of complementing professional insights with evidence

Findings from the Video Study on classroom structures



Note: Mean proportion of the lesson segments
Source: OECD, Global Teaching InSights Database, Tables 3.A.6

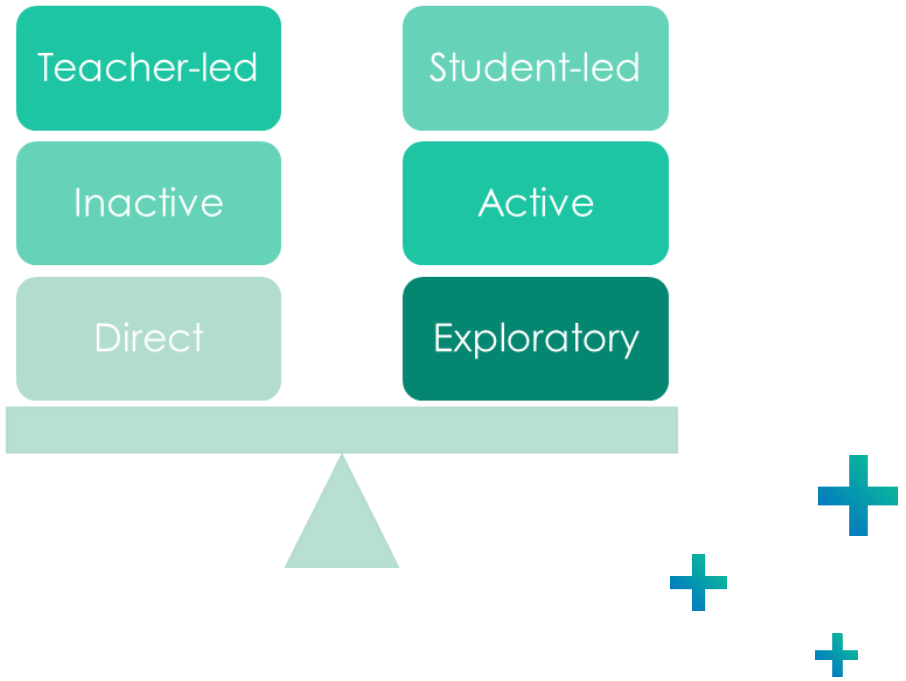
OECD GTI 0:00:18 1y
DEVELOPING GROUP NORMS
Students seem very supportive of each other and used to working together in groups. How might these norms have been developed? What were the classroom expectations and how were they woven into the class environment?

OECD GTI 0:02:14 1y
GROUP ENGAGEMENT
The teacher does not stop engaging with groups for the entire lesson. In particular, when the teacher engages with the groups, tends to engage all the students in the group, not just the one or two that pose questions or get the teacher's attention. There is a strong sense of talking to groups as a whole as shown here.

OECD GTI 0:47:50 1y
Several times during the lesson the teacher asks students to discuss in pairs or small groups. After such discussion, it would be interesting to ask at least one pair or one group to share with the other what they have been talking about or what conclusions they reached.
1
Reply

Unpacking the complexity of teaching

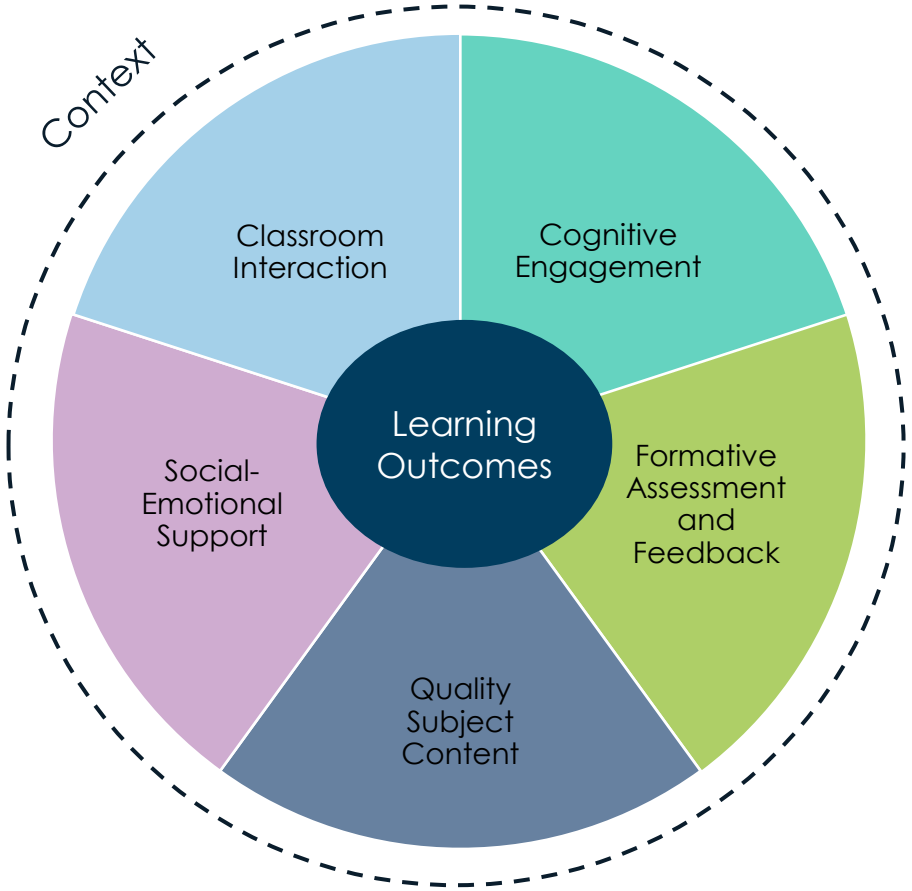
- Teaching has for a long-time been characterised by harmful pedagogical dichotomies.
- Research shows that there is no single best approach to teaching. The question is what pedagogies are better for what, where, why, for whom, and when.
- However, is there an underlying set of basic teaching practices that all teachers should master?



The Schools+ Taxonomy focuses on the basics of teaching

The Taxonomy breaks teaching down into **five dimensions and 20 practices**. Its key design features are:

- Focus on the **underlying core practices of different pedagogies**, looking beyond their different beliefs, values and emphases.
- **Clear and precise descriptors** to facilitate a deeper understanding on the complex nature of teaching.
- Relevant **across grades, subjects and contexts**.
- Look specifically at the **intentional practices in the classroom**, whether led by the teacher or students.
- Informed by the latest **research evidence**, and specifically rigorous causal studies and syntheses where possible.



The ‘basic’ teaching practices

Classroom Interaction	Cognitive Engagement	Formative Assessment and Feedback	Quality Subject Content	Social-Emotional Support
Student collaboration	Ensuring an appropriate level of challenge	Learning goals	Crafting explanations and expositions	Nurturing a supportive classroom climate
Whole-class discussion	Metacognition	Diagnosing student learning	Nature of the subject	Building relationships (student-student)
Questioning and responding	Working with multiple approaches and representations	Feedback	Making connections	Building relationships (teacher-student)
	First-hand experiences	Aligning to student thinking	Clarity, accuracy and sequencing	Explicitly teaching and actively practising skills
	Meaningful context and real-world connections			

These practices cut across different pedagogical approaches

		Learning through play	Co-operative & collaborative learning	Experiential learning	Inquiry-based learning	Problem-based learning	Project-based learning	Dialogic Teaching	Mastery learning	Direct Instruction	Competency-Based Education	Rote learning / Repeated practice	'Cognitive' approaches / pedagogies
Cognitive Engagement	Ensuring an appropriate level of challenge	■		■		■			■	■	■		■
	Metacognition		■	■	■								■
	Working with multiple approaches and representations					■			■			■	
	First-hand experiences	■		■	■		■						
	Meaningful context and real-world connections	■	■	■	■	■	■						
Social-Emotional	Nurturing a supportive classroom climate	■			■								
	Building relationships (student-student)		■	■			■						
	Building relationships (teacher-student)			■									
	Explicitly teaching and actively practising social-emotional skills	■	■	■			■						
Classroom	Student collaboration	■	■	■	■	■	■	■					
	Whole-class discussion			■				■		■			
	Questioning and responding				■			■		■			
Formative Assessment	Learning goals	■											
	Diagnosing student learning								■	■	■		
	Feedback			■							■	■	
	Adapting to student thinking							■			■		■
Quality Subject Content	Explanations and making expositions					■		■		■		■	
	Nature of the subject				■								
	Making connections	■			■				■			■	■
	Clarity, accuracy and coherence								■		■	■	■

The strength of research evidence varies

	Low	Medium	High
Cognitive Engagement	Ensuring appropriate levels of challenge Working with multiple approaches and representations Facilitating first-hand experiences Meaningful context and real-world connections	Metacognition	
Classroom Interaction		Collaboration Whole-class discussion Questioning	
Formative Assessment & Feedback		Eliciting Student Thinking Aligning to student thinking	Feedback Learning Goals
Quality Subject Content	Explanations and Making Expositions Making Connections Nature of the Subject	Clarity, accuracy and sequencing	
Socio-Emotional Support	Relationship-Building (Student-Student) Explicitly Teaching and Actively Practising Social-Emotional Skills	Nurturing a Supportive Classroom Climate Relationship Building (Teacher-Student)	

Level of expert consensus

Leverage professional knowledge on their implementation

Cognitive Engagement → **Ensuring appropriate levels of challenge**

Key decision points

Structuring: How to pitch the right level of challenge?

Students: Are students engaged in justifying their thinking with evidence?

Teachers: What is the right amount of teacher guidance to ensure a degree of student struggle and persistence?

Insights from schools

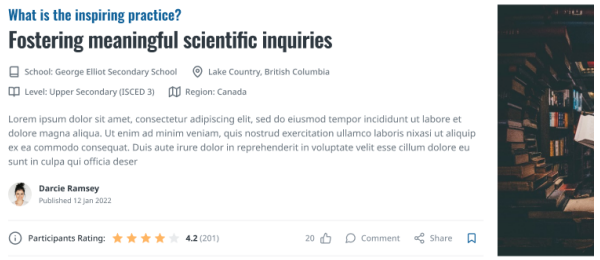
- ***'Thinly slice' complex challenges*** *into multiple smaller steps that provide incremental challenge, so students experience a sense of success, rather than frustration, early on.*
- *Tasks can include* ***routes to quickly increase the level of challenge*** *by investigating answers or open-ended aspects..*
- ***Starting work in small groups*** *can help students use each other as learning resources..*

Concerns and misconceptions

"That means I will therefore need to adjust the learning goals for different students?"

"Expectations need to remain high for all students, and rather it is a case of combining these high expectations with appropriate supports that allow all students to reach them. For instance, how can having multiple entry points be a way of ensuring that everyone takes the first step towards the final goal?"

Inspiring examples



Signals from students

Knowledge	Skills	Values and attitudes
Students demonstrate new knowledge that is well-reasoned with evidence.	Students self-sustain their focus even in the face of setbacks.	Students are engaged in their work and motivated to go beyond what they are expected to do.

Supporting teachers to improve practice

Novice teachers are more likely to work in more challenging schools

Percentage of novice teachers, by school characteristics (OECD average-31)

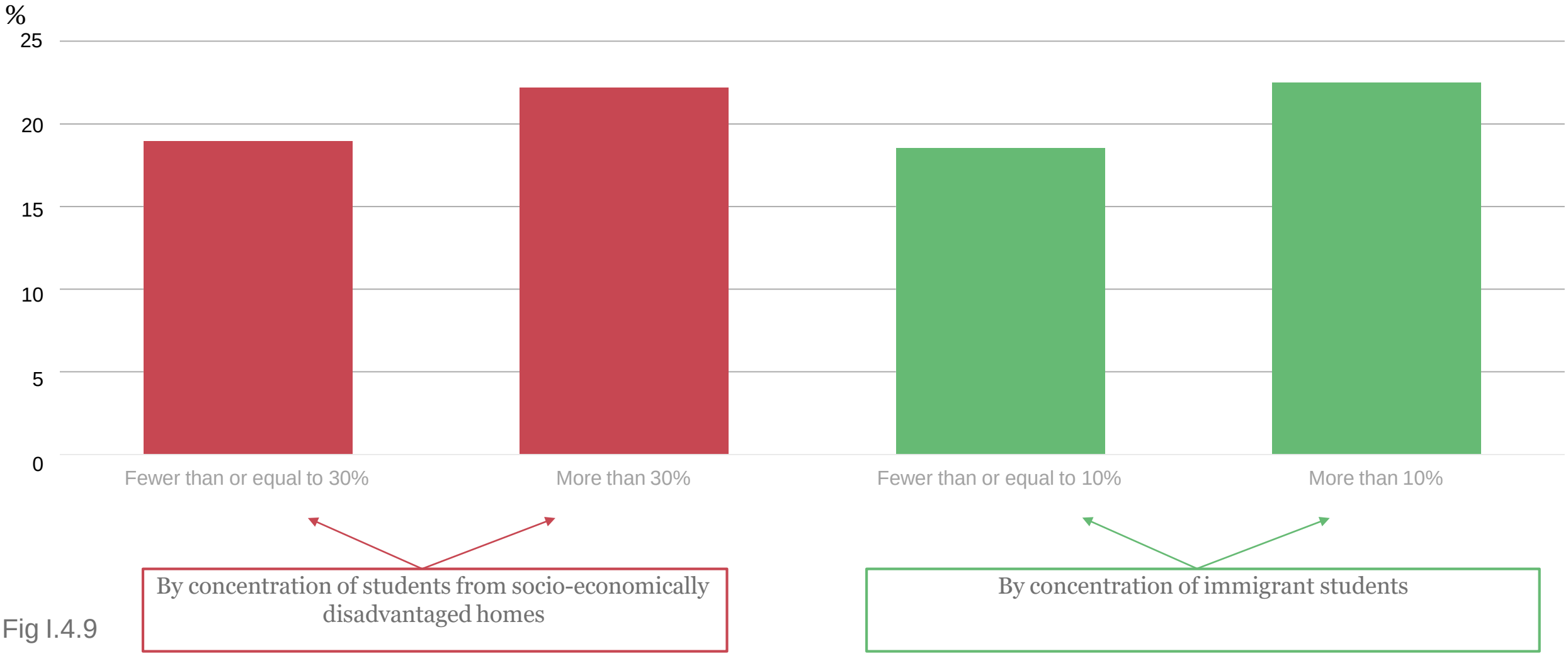
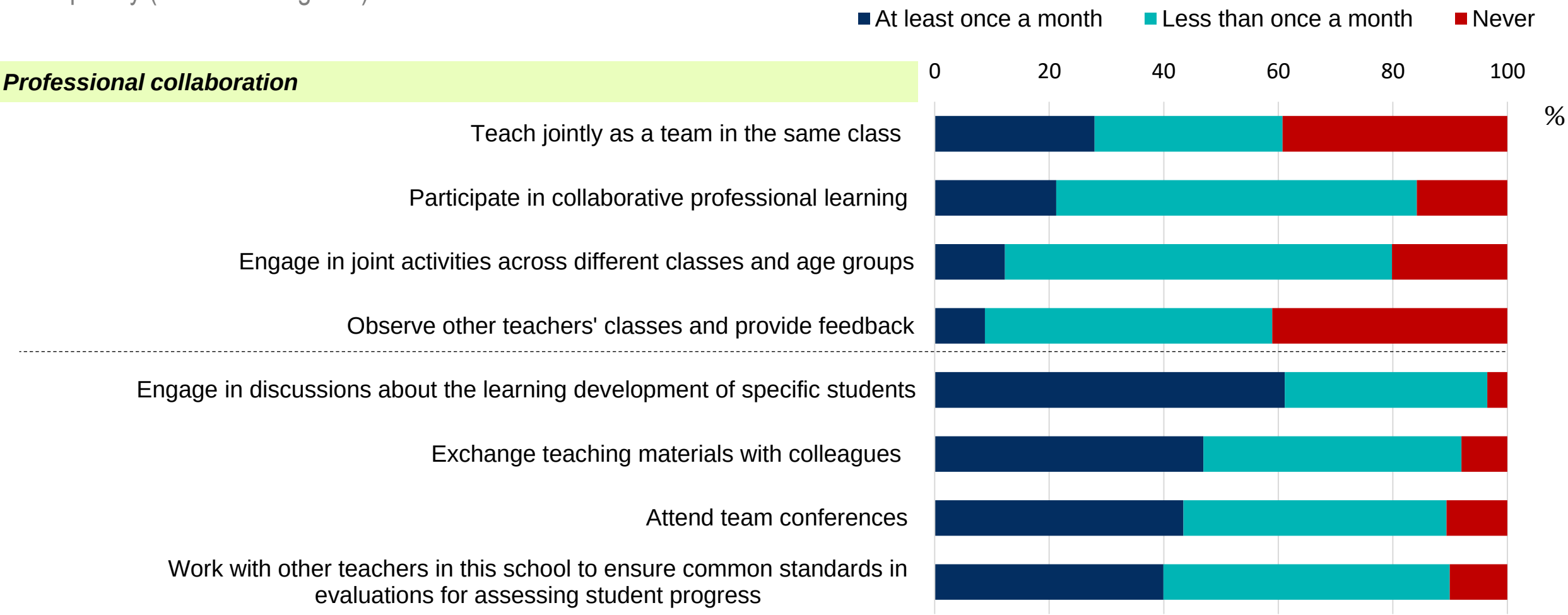


Fig I.4.9

Forging a culture of professional collaboration and sharing

Percentage of lower secondary teachers who report engaging in the following collaborative activities in their school with the following frequency (OECD average-31)



Source: OECD, TALIS 2018 Database, Table II.4.1.

School leaders consider that mentoring opportunities are important…

Percentage of principals reporting that the following outcomes of mentoring are of "high" importance (OECD average-30)

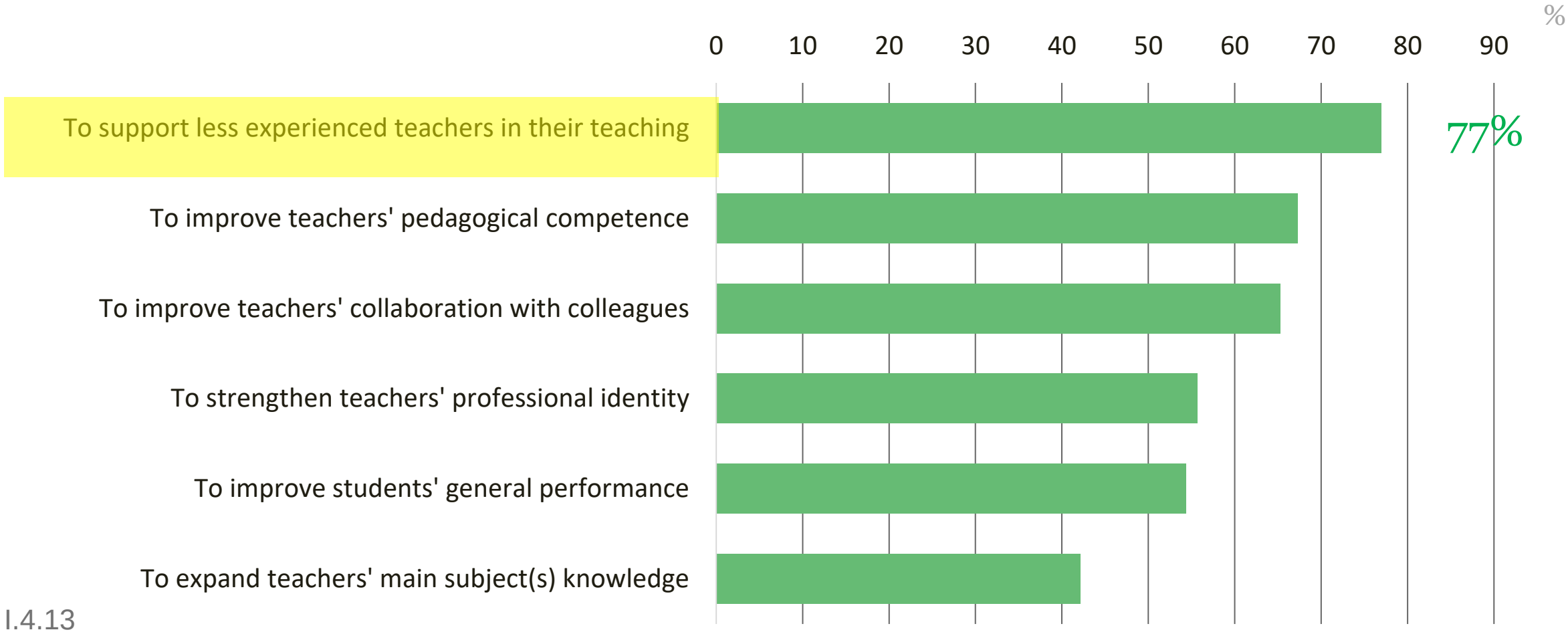


Fig I.4.13

… but few teachers have a mentor

Percentage of teachers who have an assigned mentor as part of a formal arrangement at the school, by teachers' teaching experience

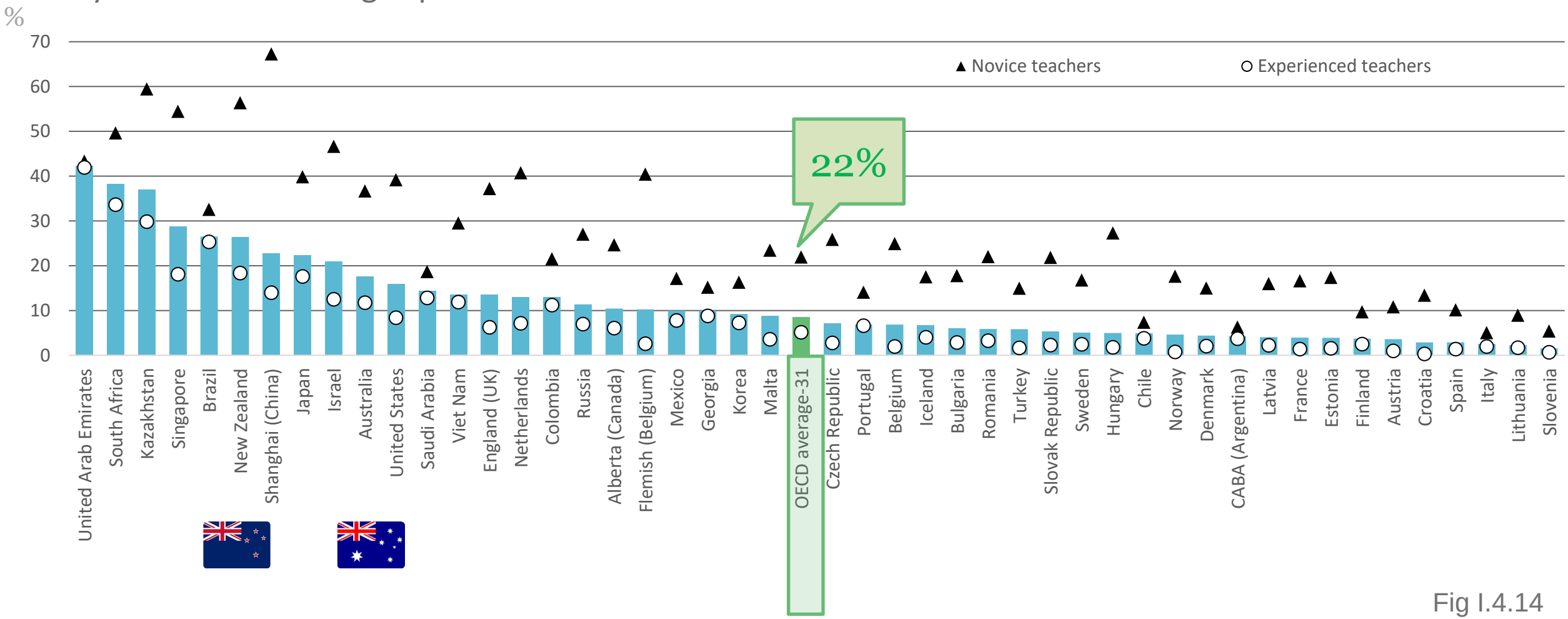
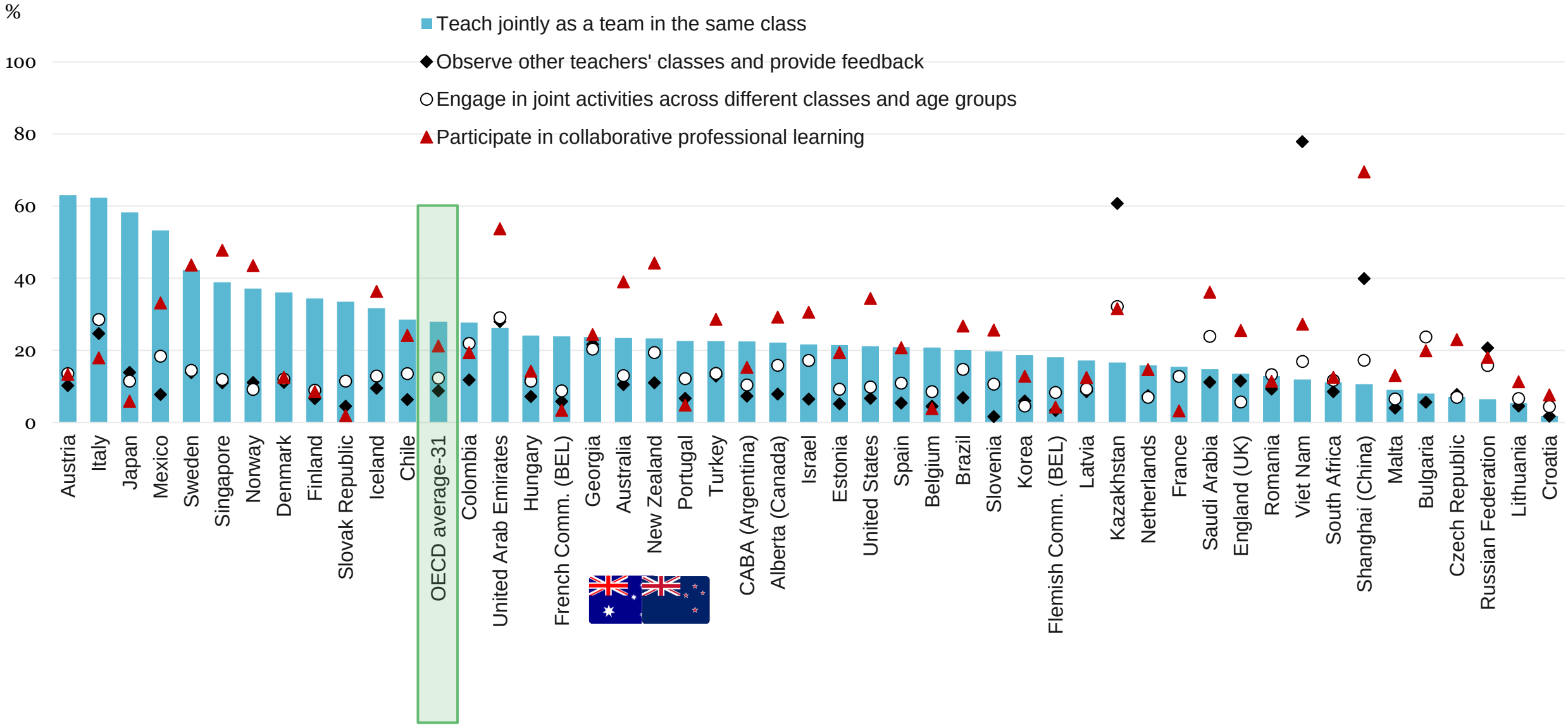


Fig I.4.14

Prevalence of deeper forms of professional collaboration

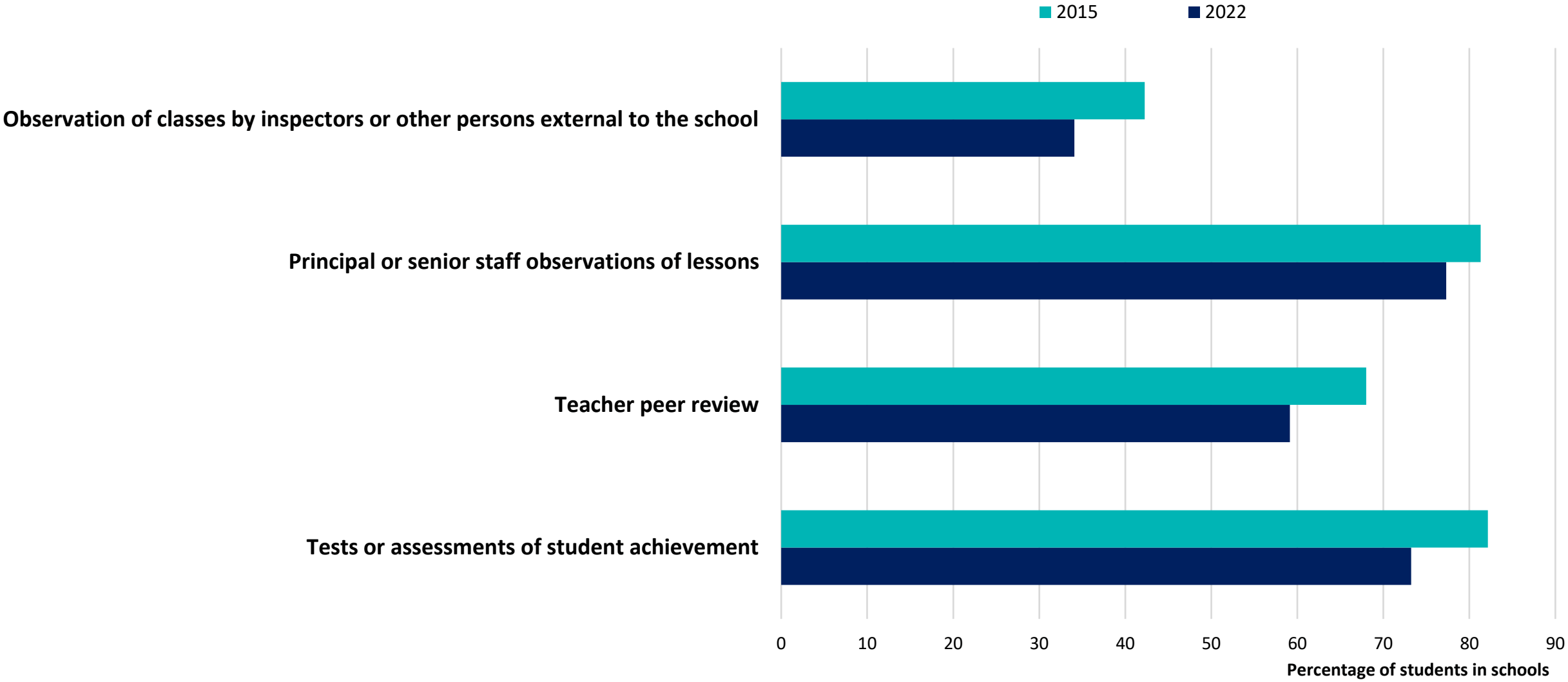
Percentage of lower secondary teachers who report engaging in the following collaborative activities in their school at least once a month



Trends in monitoring teacher practice

Figure II.6.12

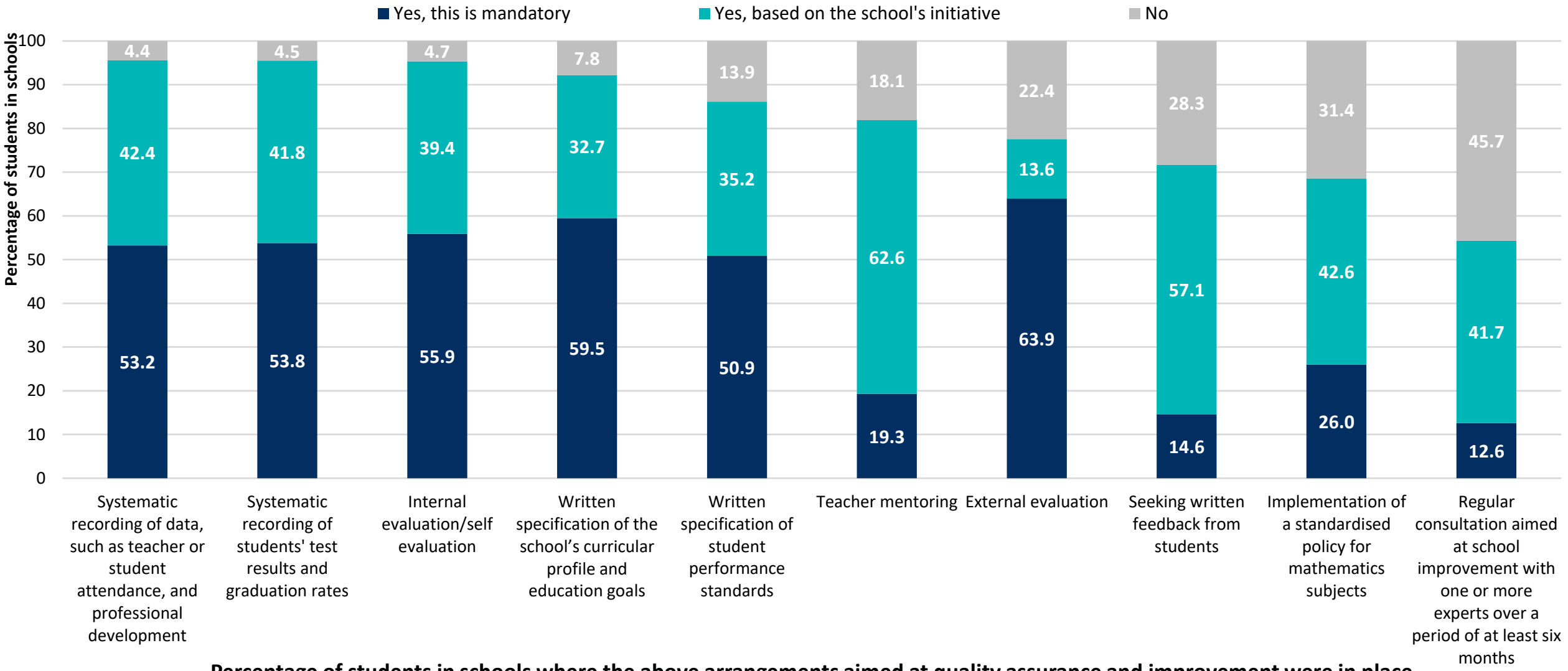
Percentage of students in schools where, during the previous academic year, the following methods were used to monitor the practice of teachers (based on principals' reports); OECD average



Quality assurance and improvement actions at school

Figure II.6.13

Based on principals' reports; OECD average



Percentage of students in schools where the above arrangements aimed at quality assurance and improvement were in place

What does the teachers' room look like in your school?

The benefits of building a strong and open professional culture

The relationship between overall teacher professionalism and teacher outcomes

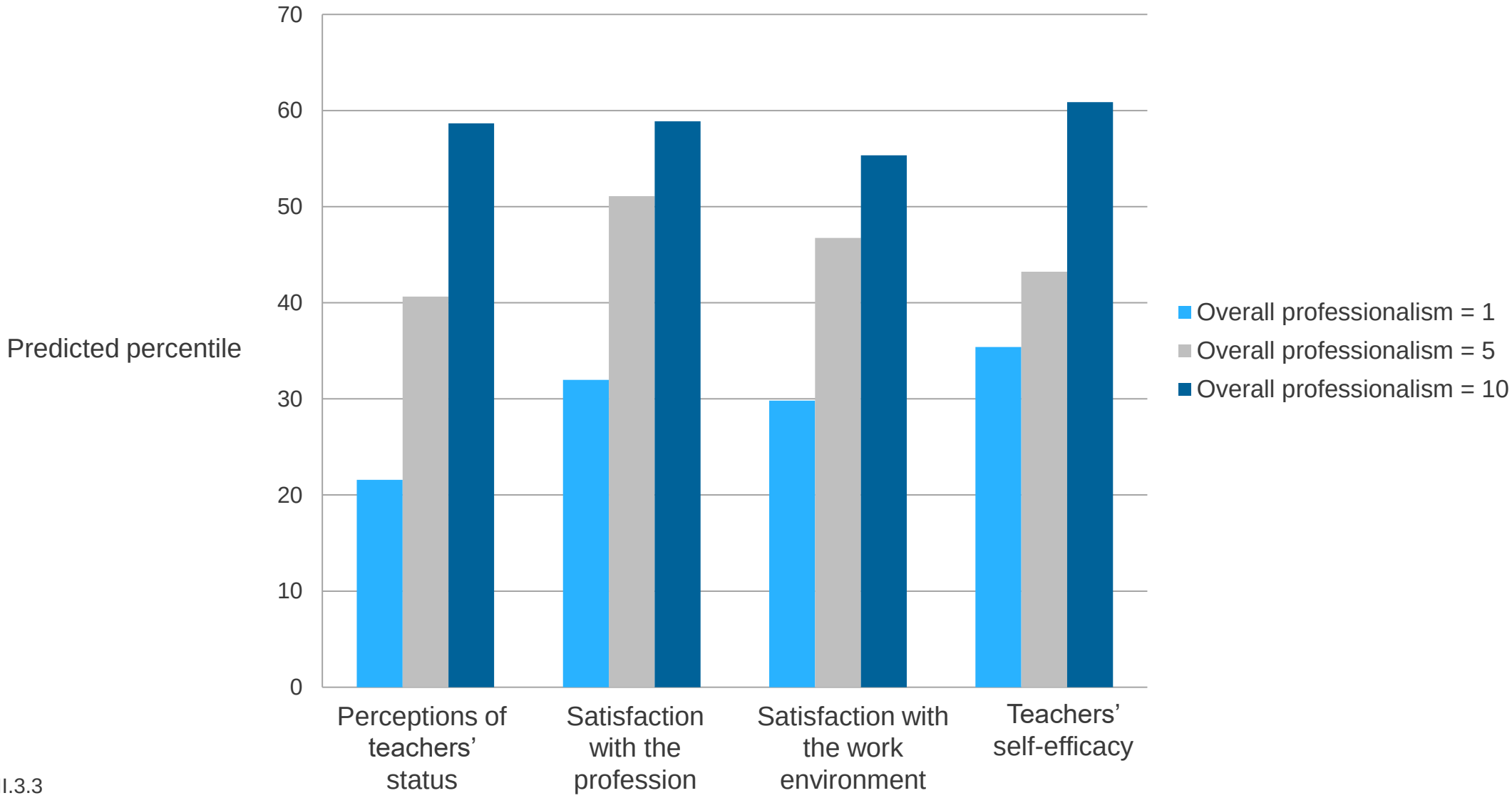
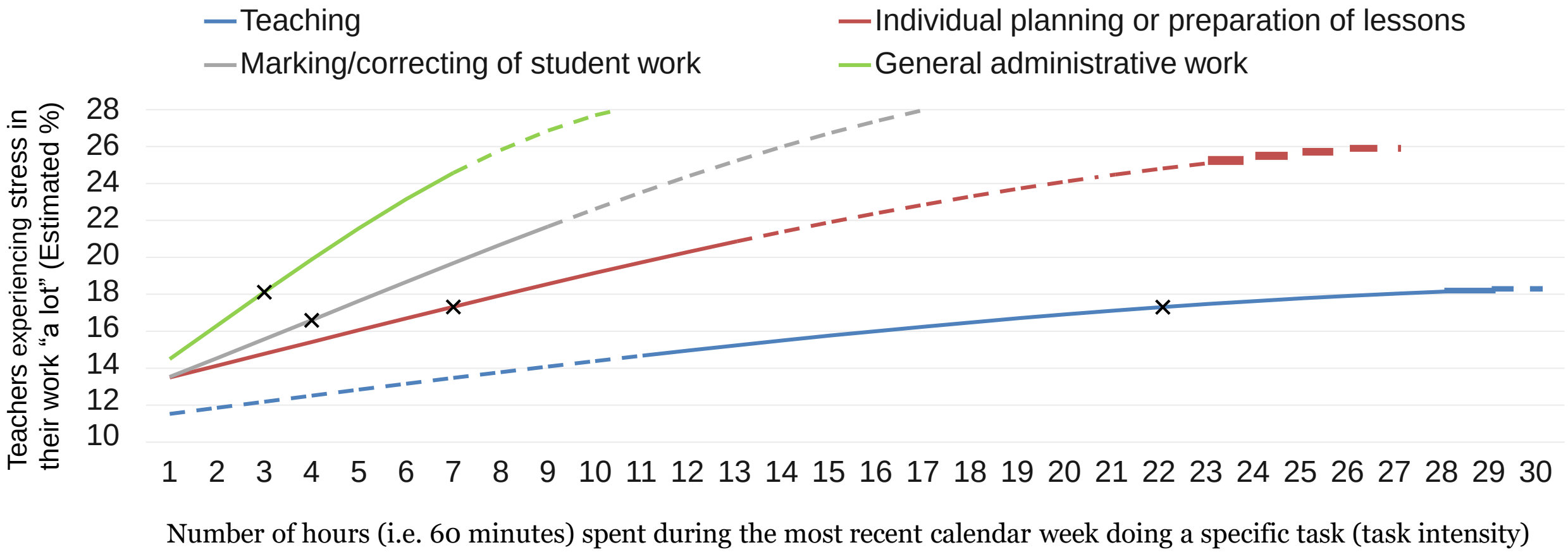


Fig II.3.3

The importance of reducing unnecessary administrative work

Estimated percentage of teachers experiencing stress in their work "a lot", by task intensity (OECD average-31)



Note: the "X" in the figure represents the share of teachers experiencing stress in their work "a lot", given an average task intensity (OECD average-31)

Preparing, developing and growing school leaders

How does your identity shows up in your leadership?

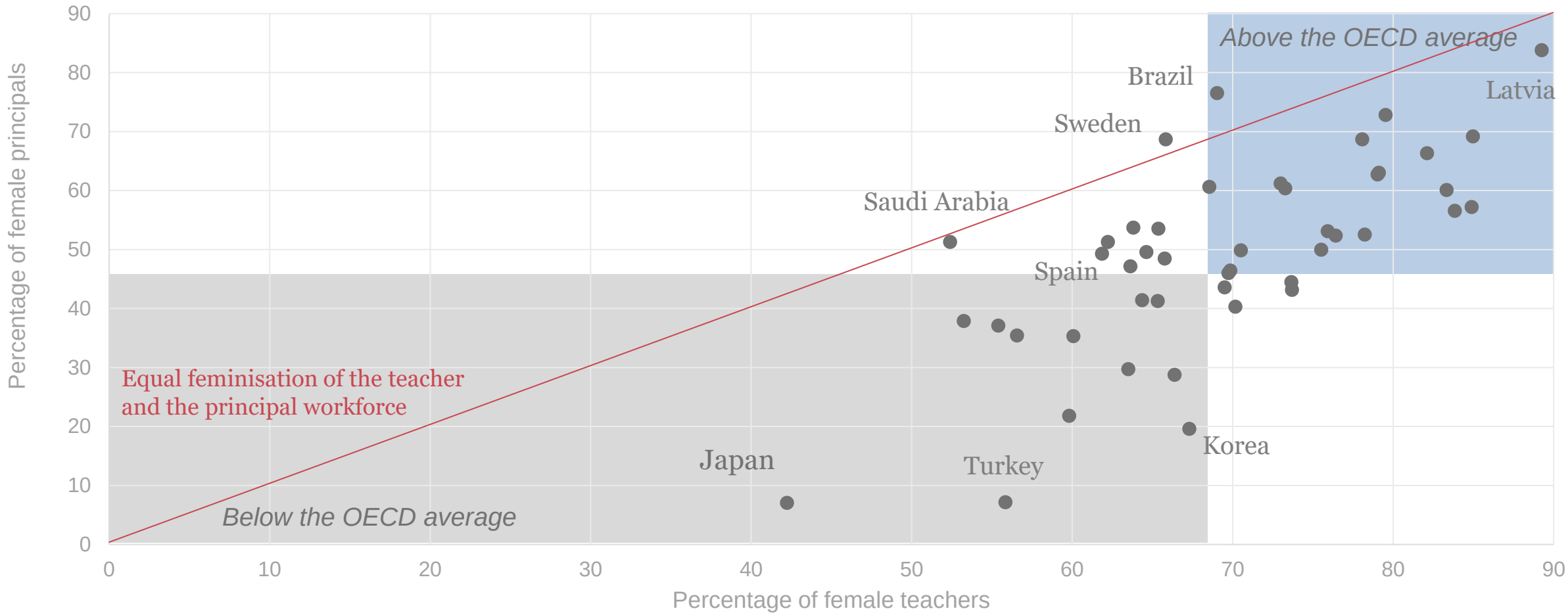
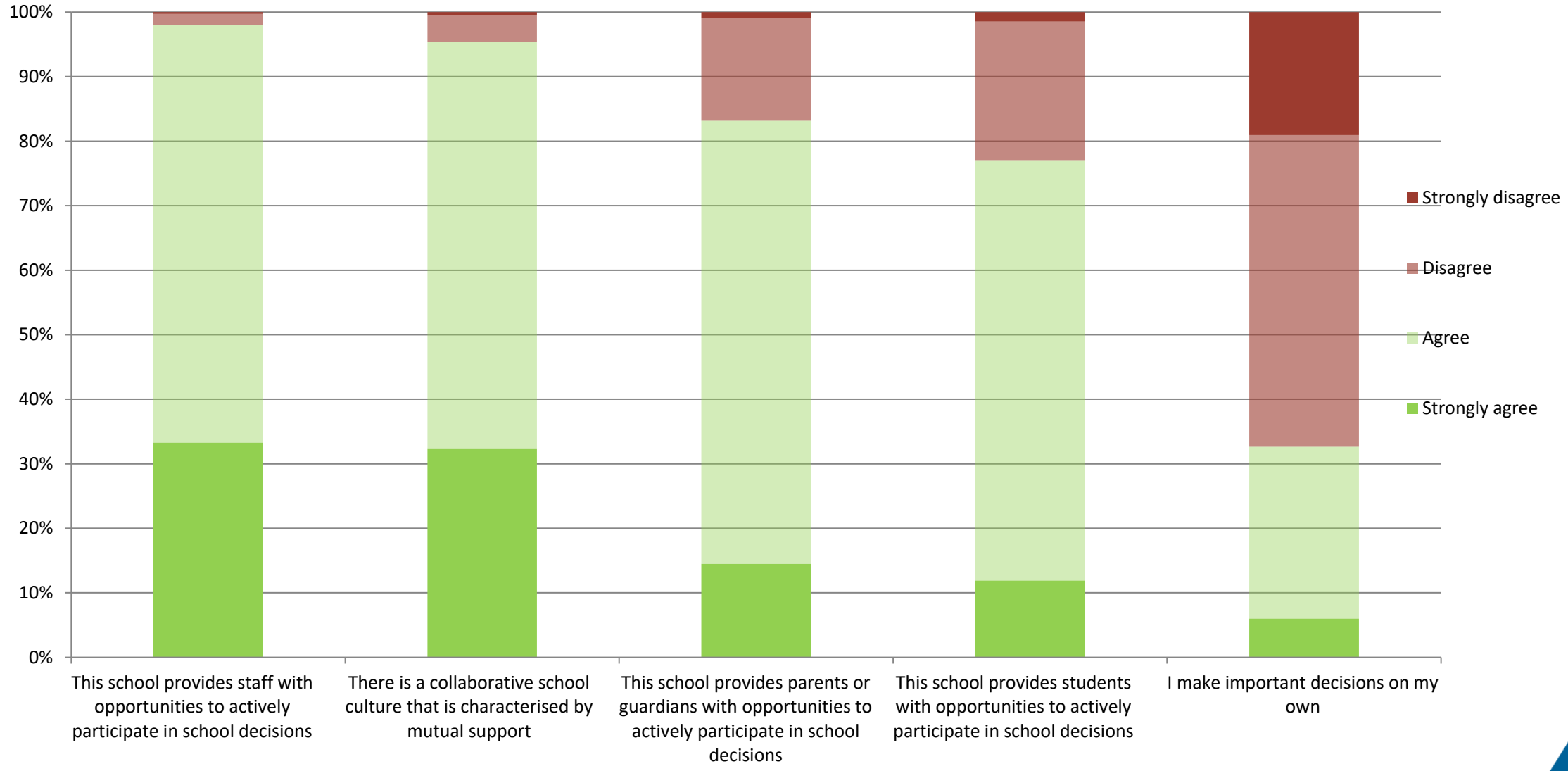


Fig I.3.5

Is leadership a lonely job?

Percentage of lower secondary principals who "strongly disagree", "disagree", "agree" or "strongly agree" with the following statements about their school



Preparing school leaders for the role

Percentage of principals for whom received training before taking up their role as a principal

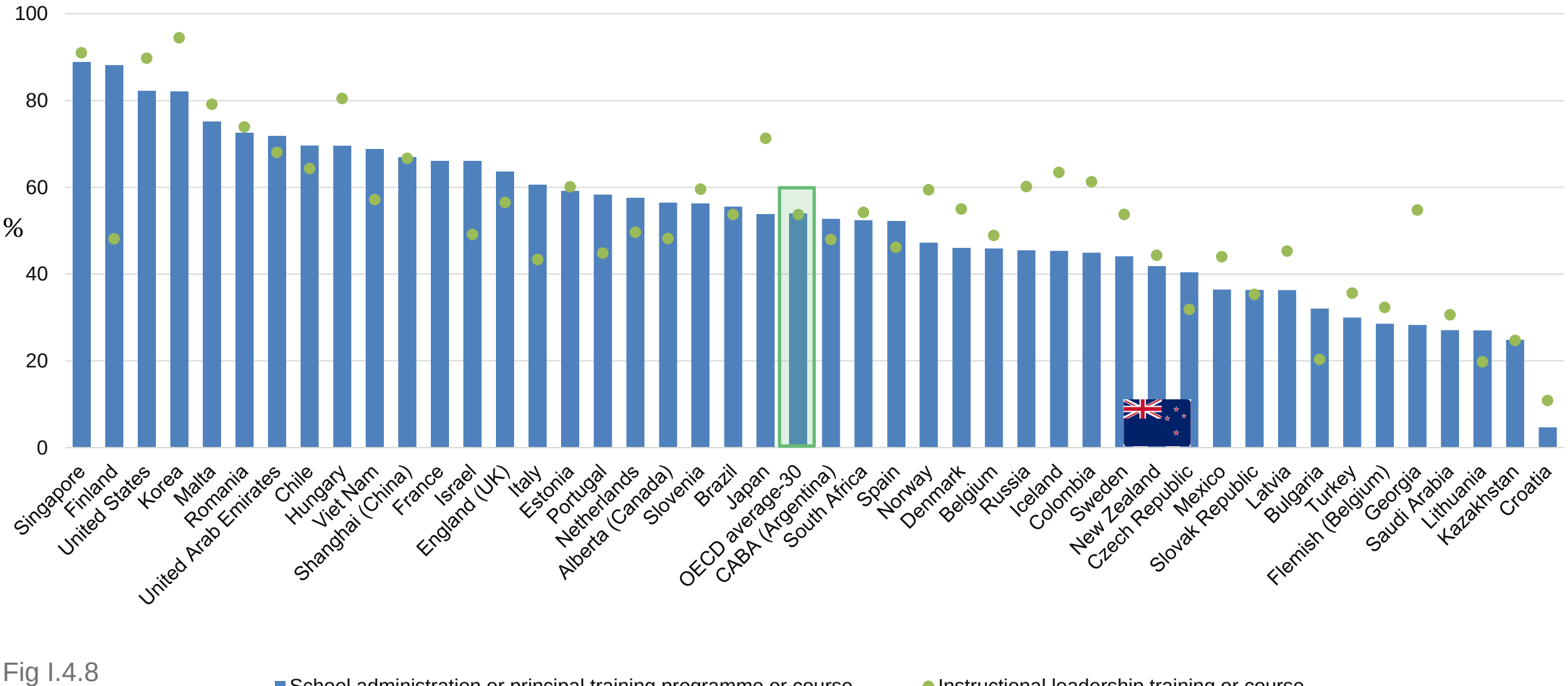


Fig I.4.8

Instructional leadership is important to quality education

Percentage of principals reporting that the following shortages of resources hinder the school's capacity to provide quality instruction "quite a bit" or "a lot"

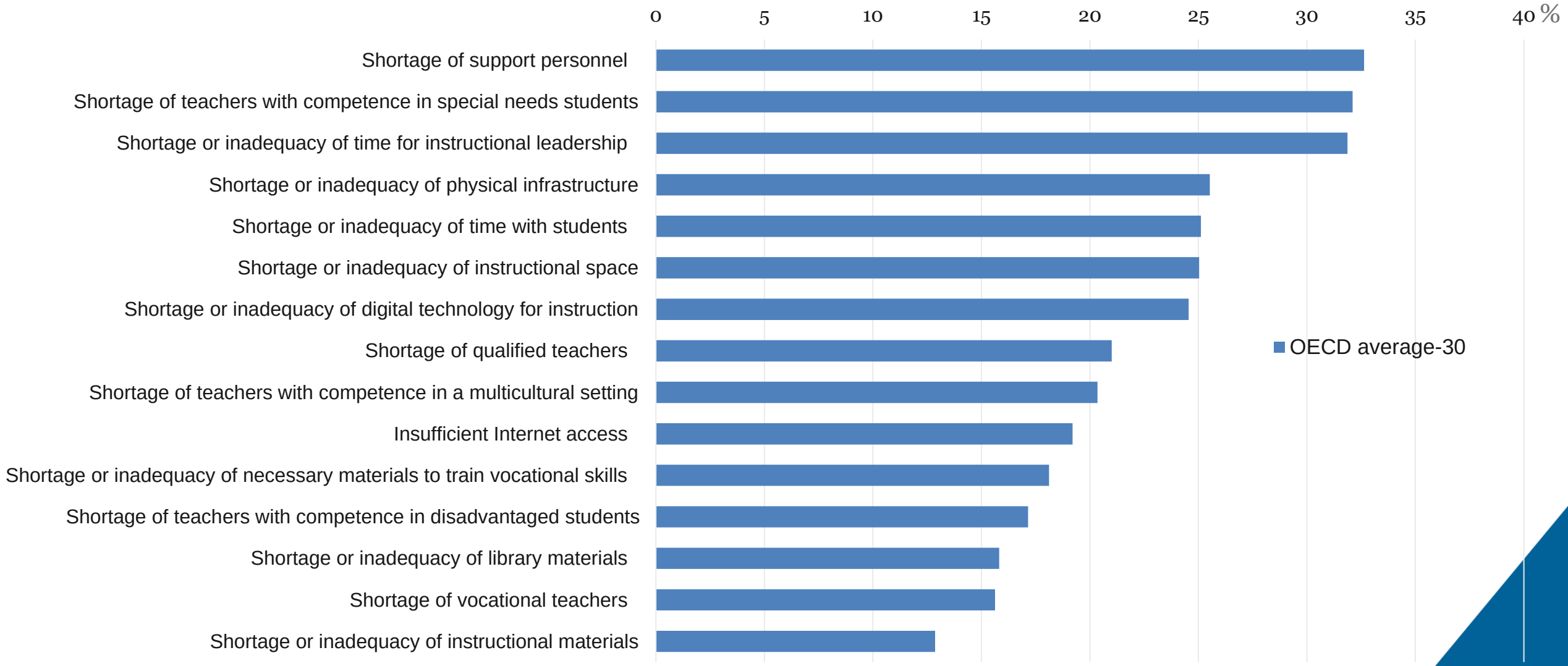
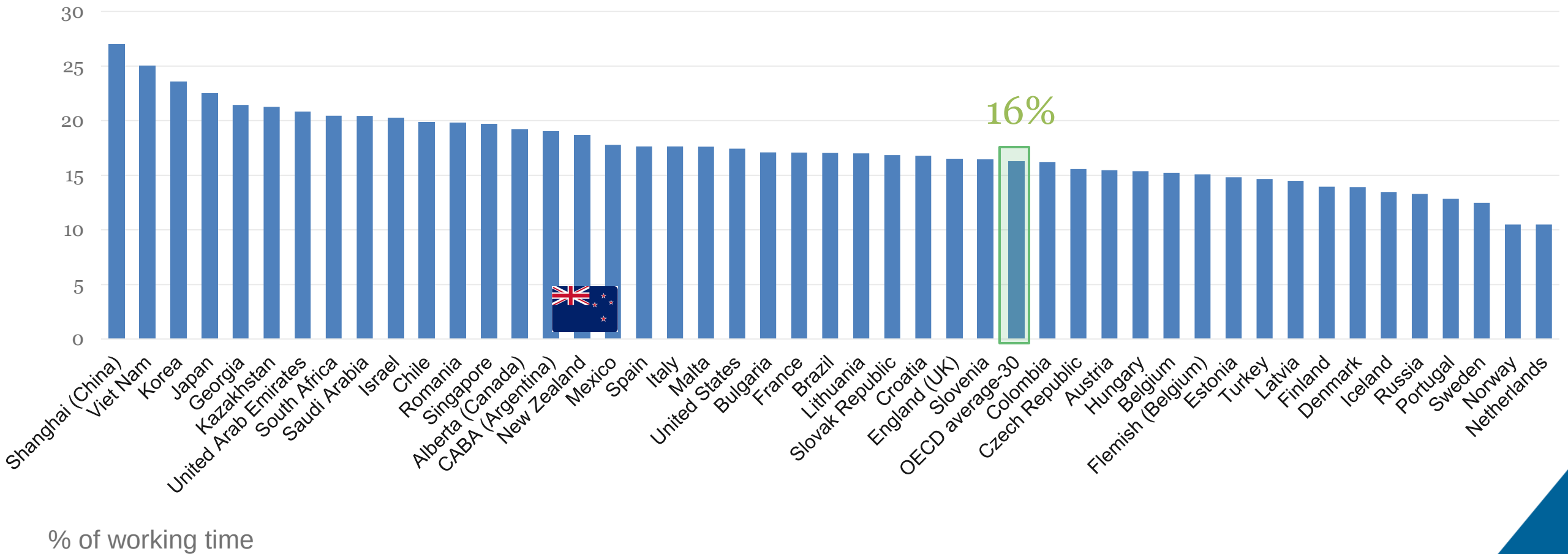


Figure I.3.15

..but instructional leadership is often relegated

Average proportion of time principals report spending on curriculum and teaching-related tasks and meetings

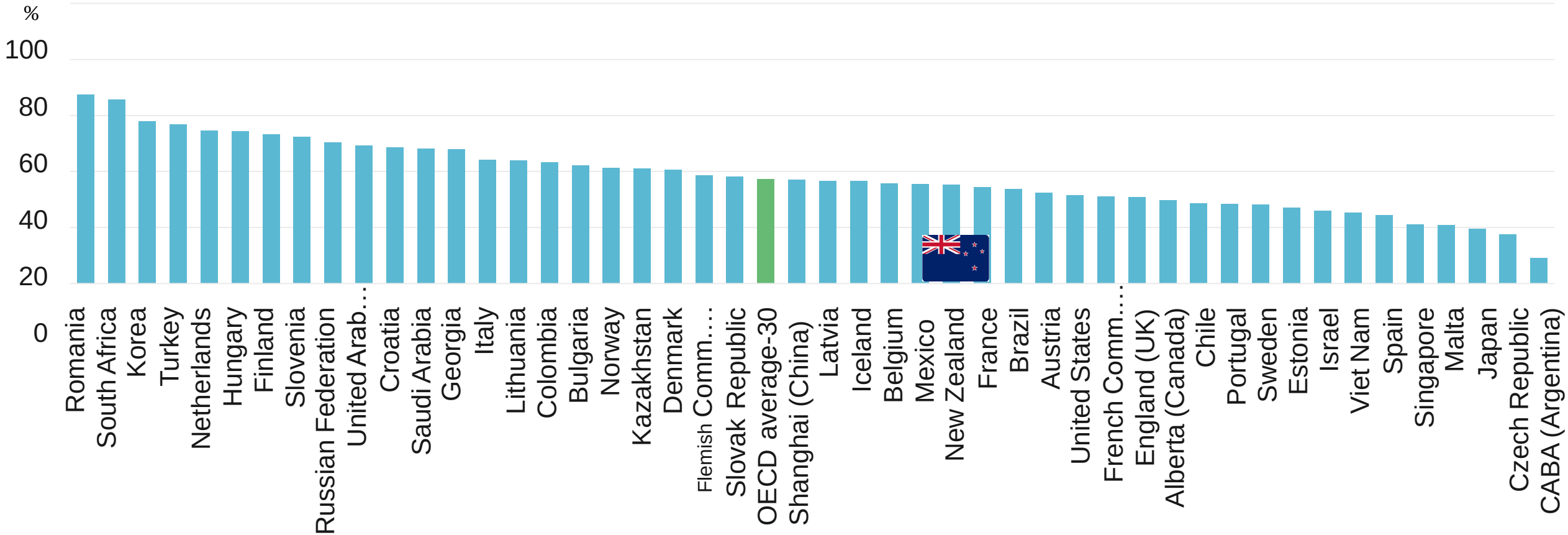


% of working time

Fig I.2.11

Principals' collaboration with other principals

Percentage of lower secondary principals who have "often" or "very often" engaged in collaborating with principals from other schools on challenging work tasks in the 12 months prior to the survey



EDUCATION & SKILLS

Thank you

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Further reading