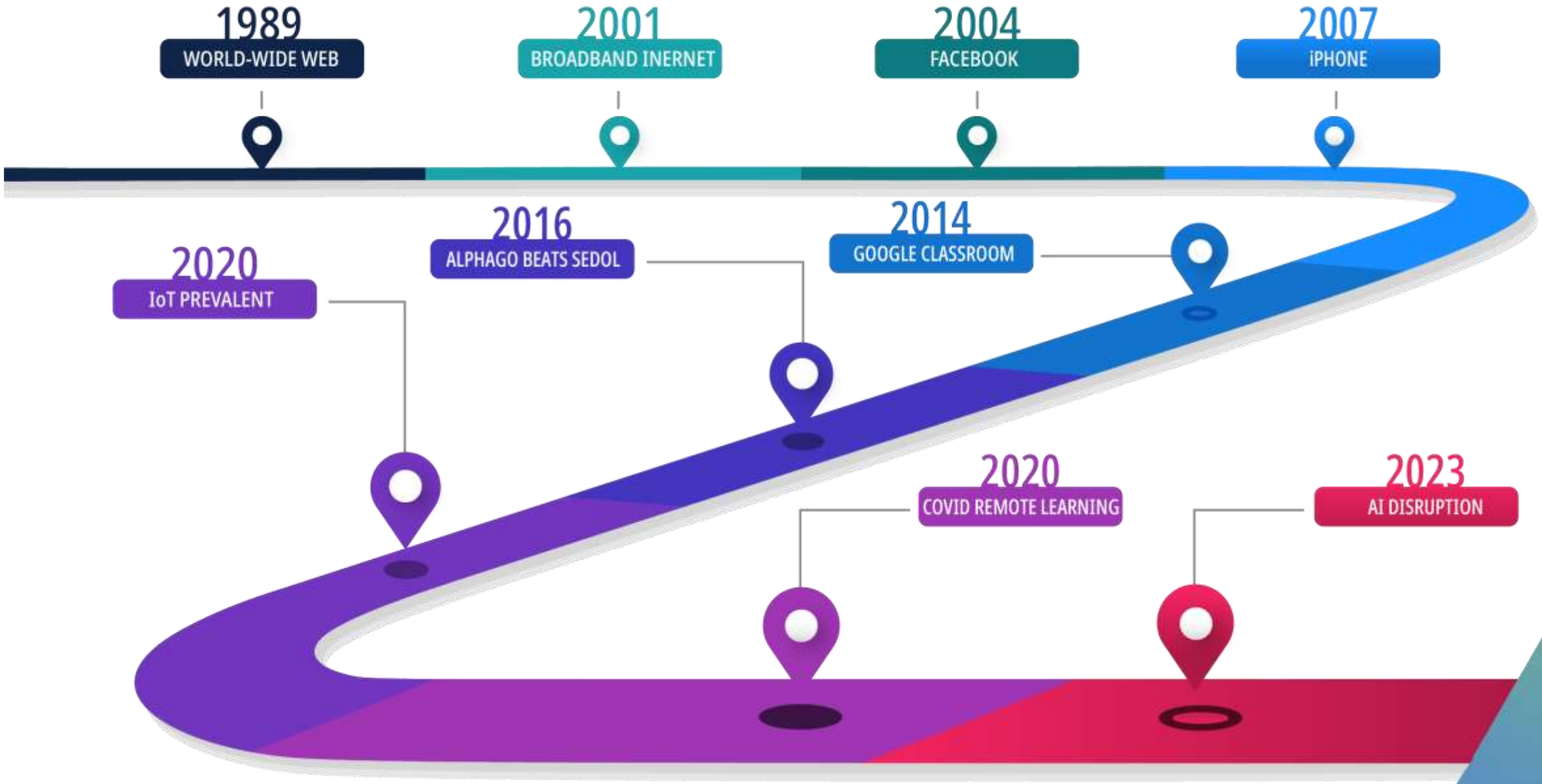
Students, digital devices and success

OECD Directorate for Education and Skills

The digital education transition is accelerating



PISA participants

Around 690,000 15-year-old students in 81 countries and economies took PISA 2022

PISA Newcomers: El Salvador, Jamaica, Mongolia, the Palestinian Authority and Uzbekistan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EN English (United Kingdom)
Tech enablement
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Tech enablement

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EN English (United Kingdom)

Reimagine space, time, pedagogy, relationships

Tech enablement

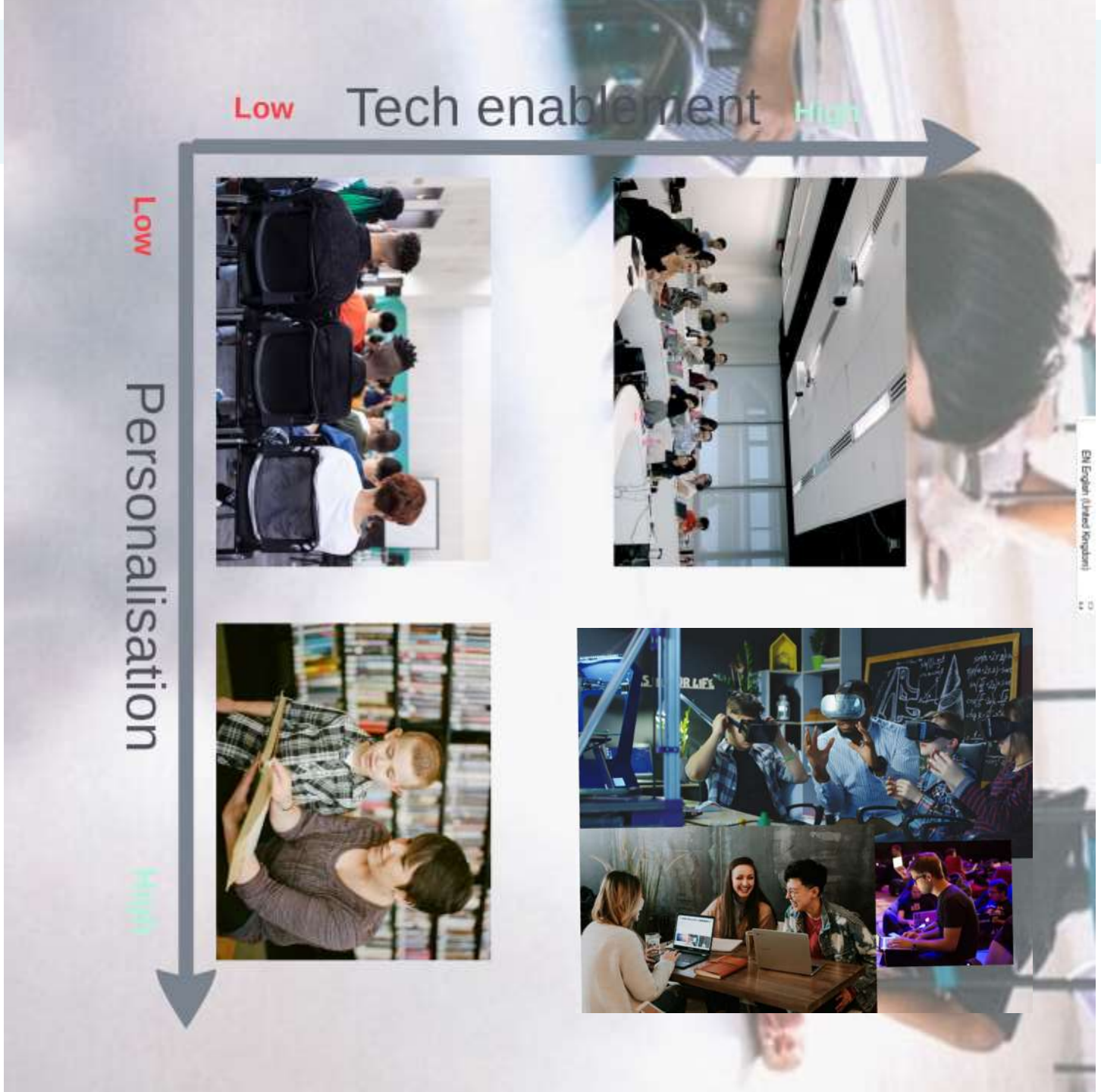
High

Low

Low

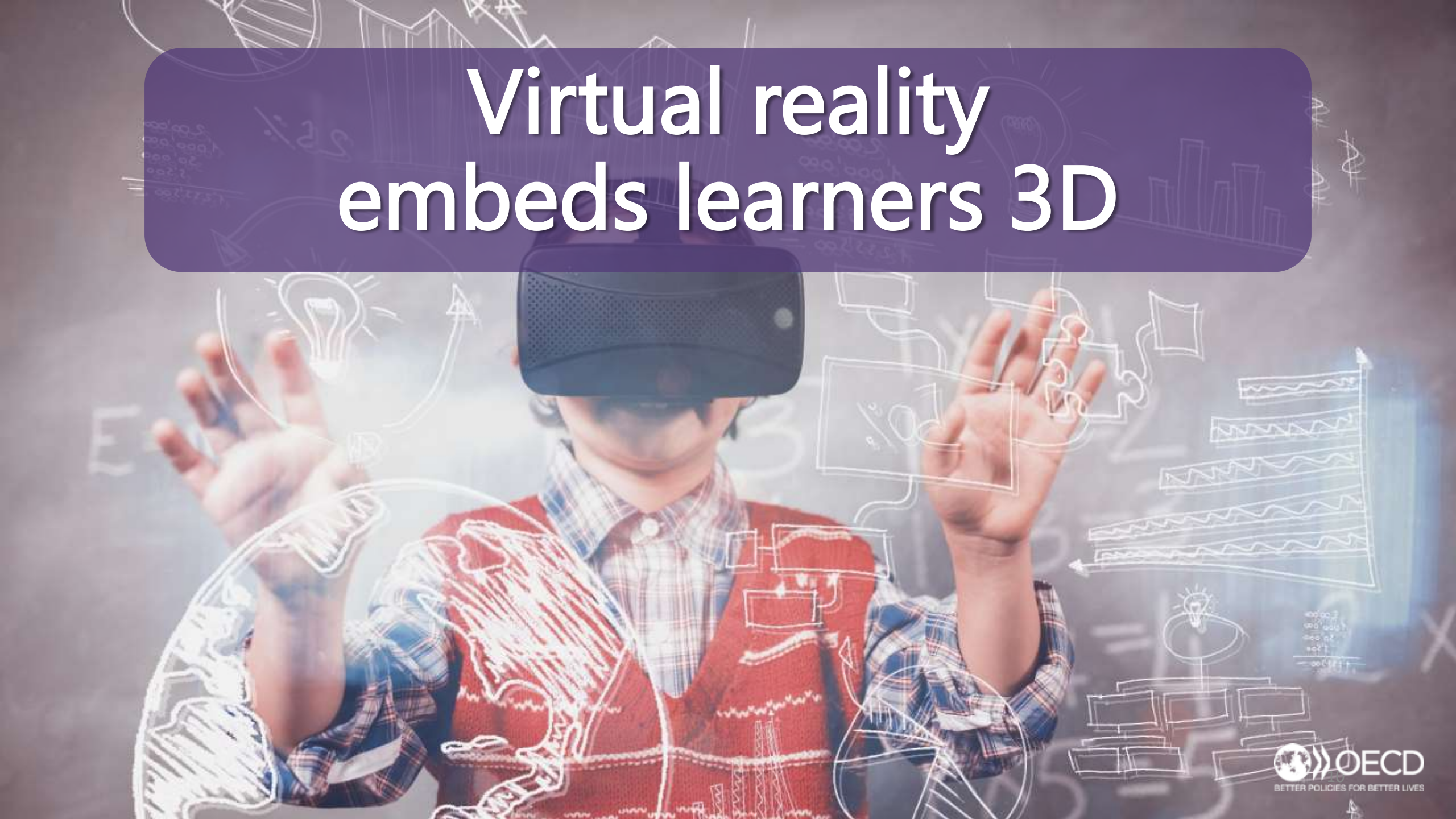
Personalisation

High



Reconfiguring spaces, people, time, technology, relationships

Virtual reality embeds learners 3D



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BETTER POLICIES FOR BETTER LIVES

Augmented reality superempowers the real world

Classroom analytics: make visible what's invisble

Source: Raca, Kidzinski and Dillenbourg, 2015

Input
(sensors)

A. Regulating teachers' attention using Lantern devices

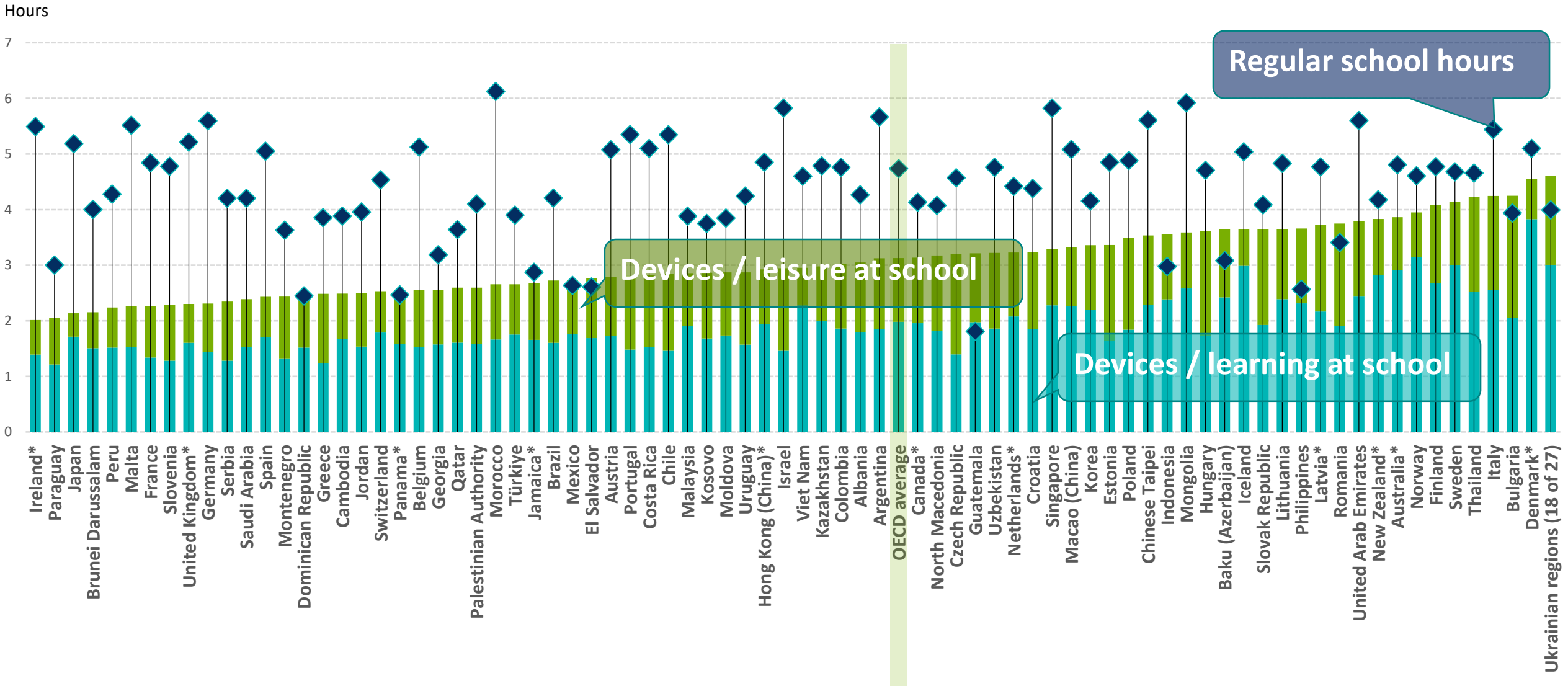
Source: (Alavi and Dillenbourg, 2012[22])

Output
(dashboard)

Time spent at school in regular lessons and on digital devices (PISA 2022)

Figure II.5.15

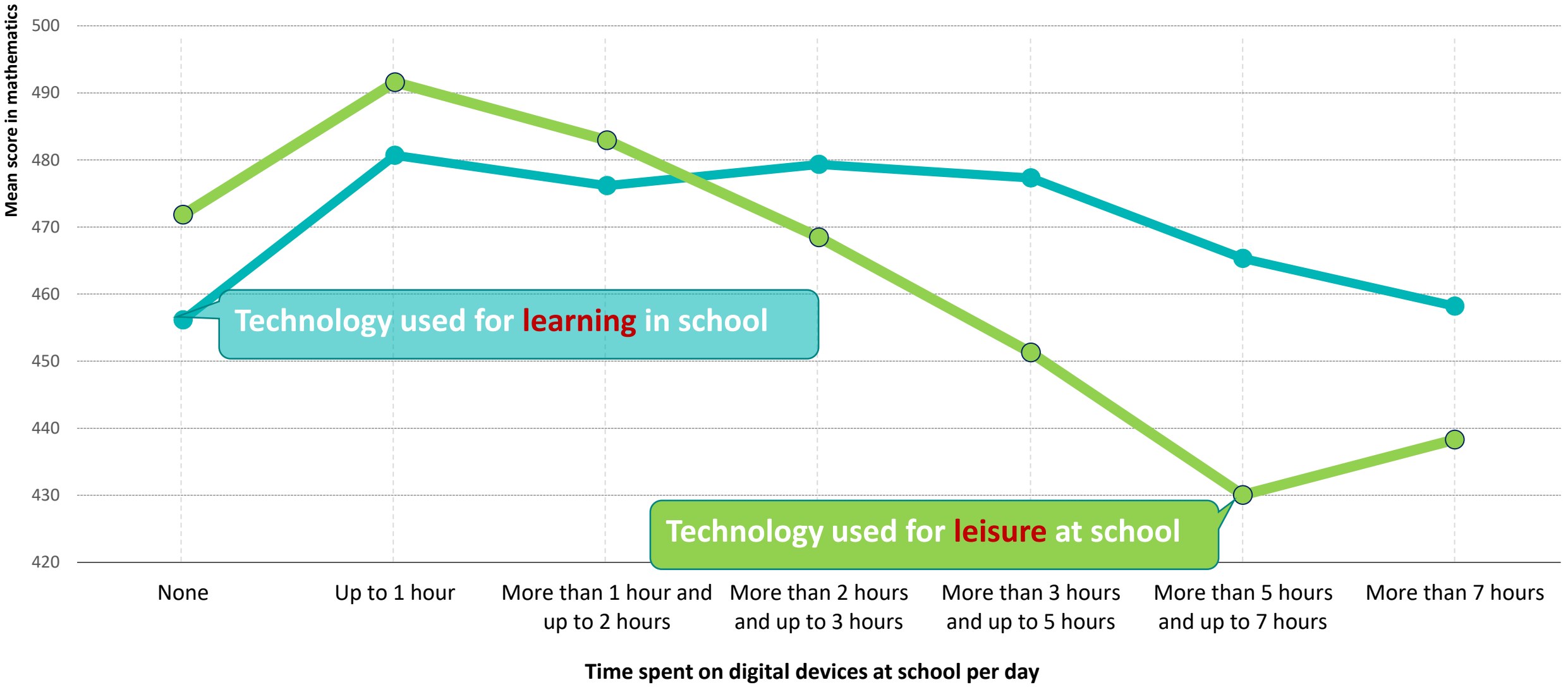
Time spent per day by students (in hours)



Time spent on digital devices at school and mathematics performance

Figure II.5.14

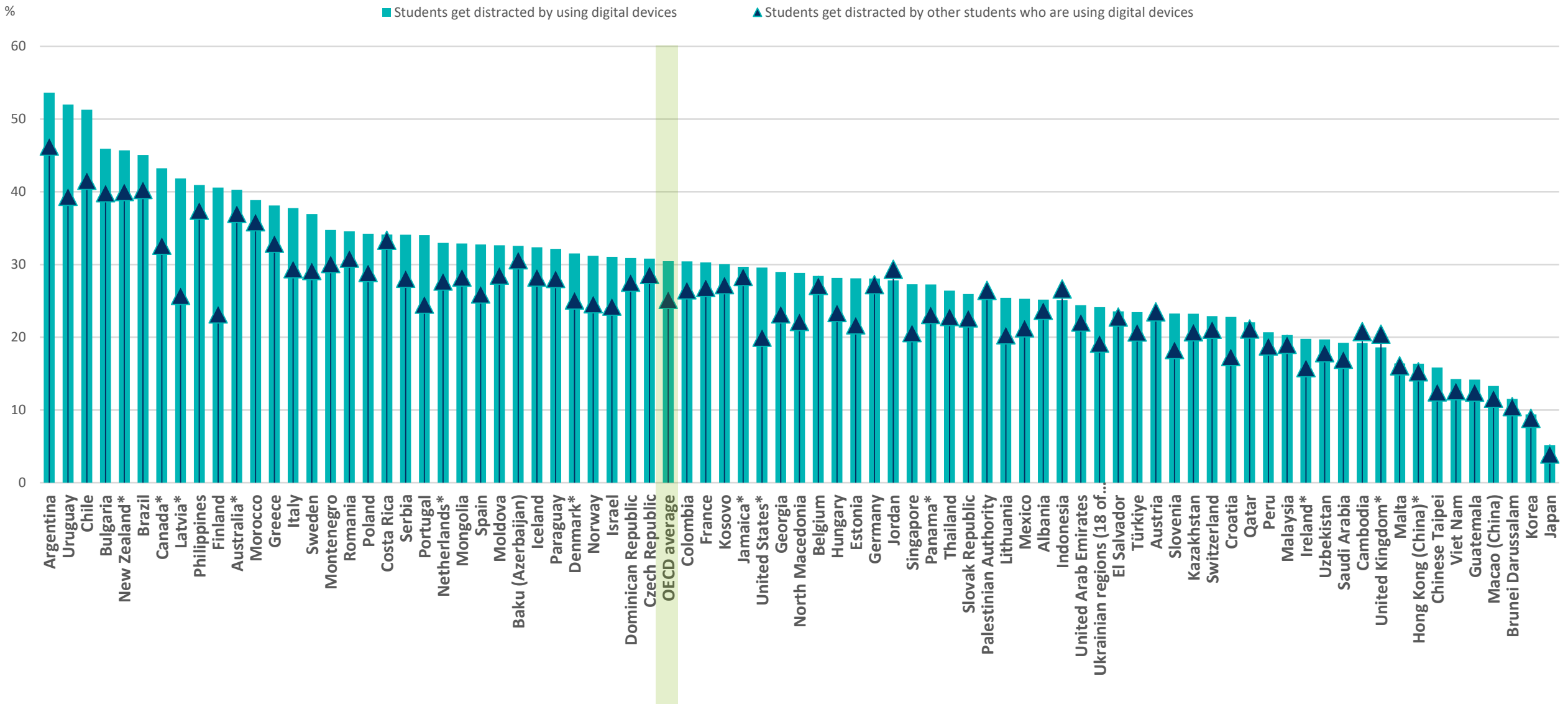
Based on students' reports; OECD average



Distraction from digital devices in mathematics lessons

Figure II.3.4

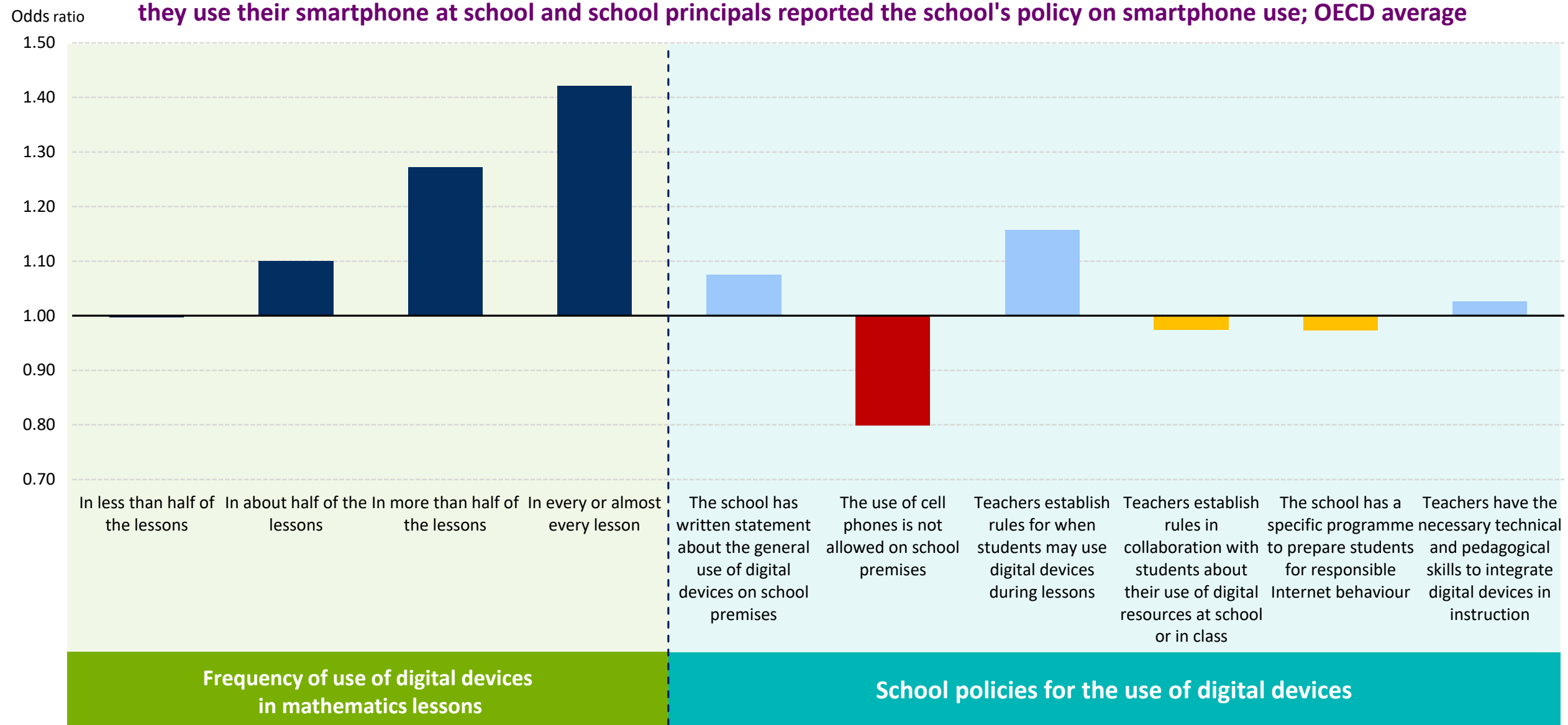
Percentage of students who reported that the following happens in every or in most of their mathematics lessons



Digital devices, distraction and school policies

Figure II.5.9

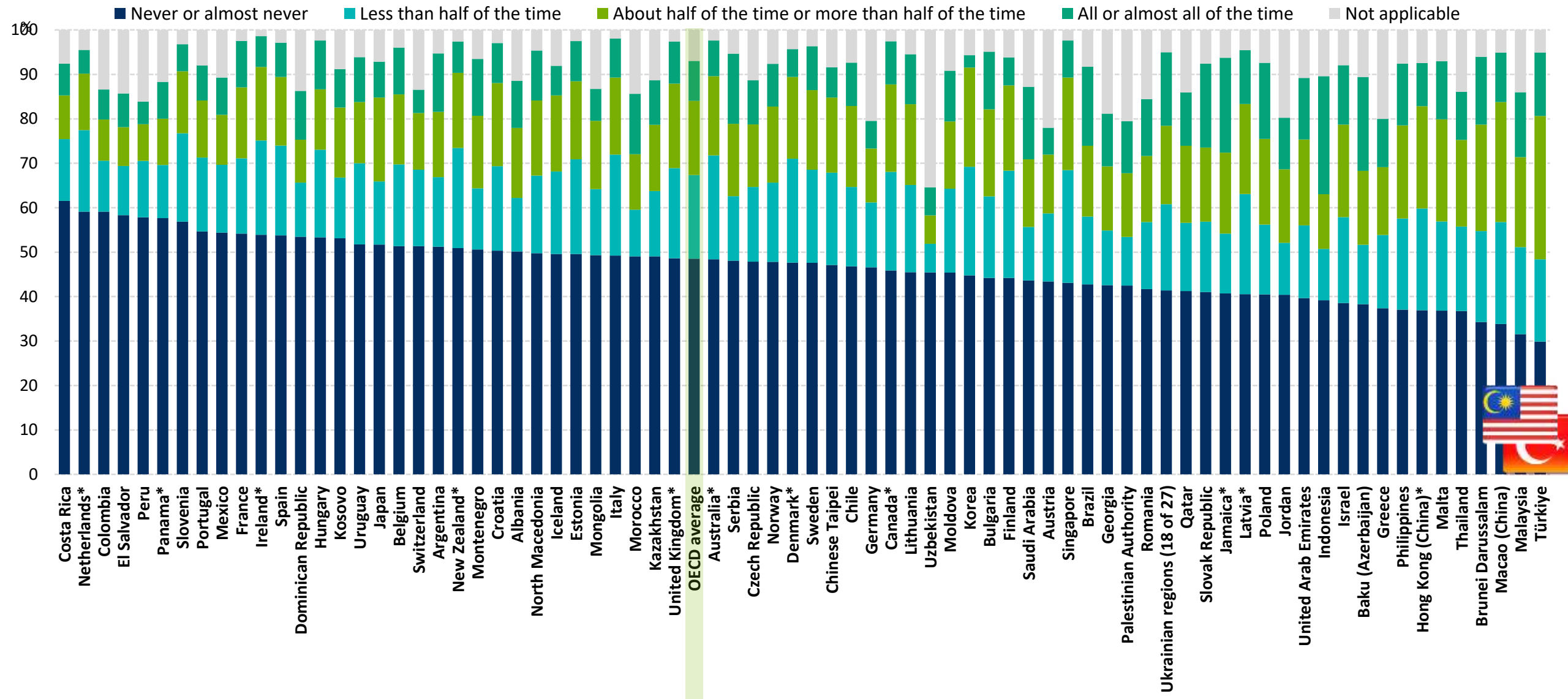
Change in the likelihood of students becoming distracted by using digital devices in mathematics lessons when students reported that they use their smartphone at school and school principals reported the school's policy on smartphone use; OECD average



Feeling nervous/anxious when digital devices are not near

Figure II.5.16

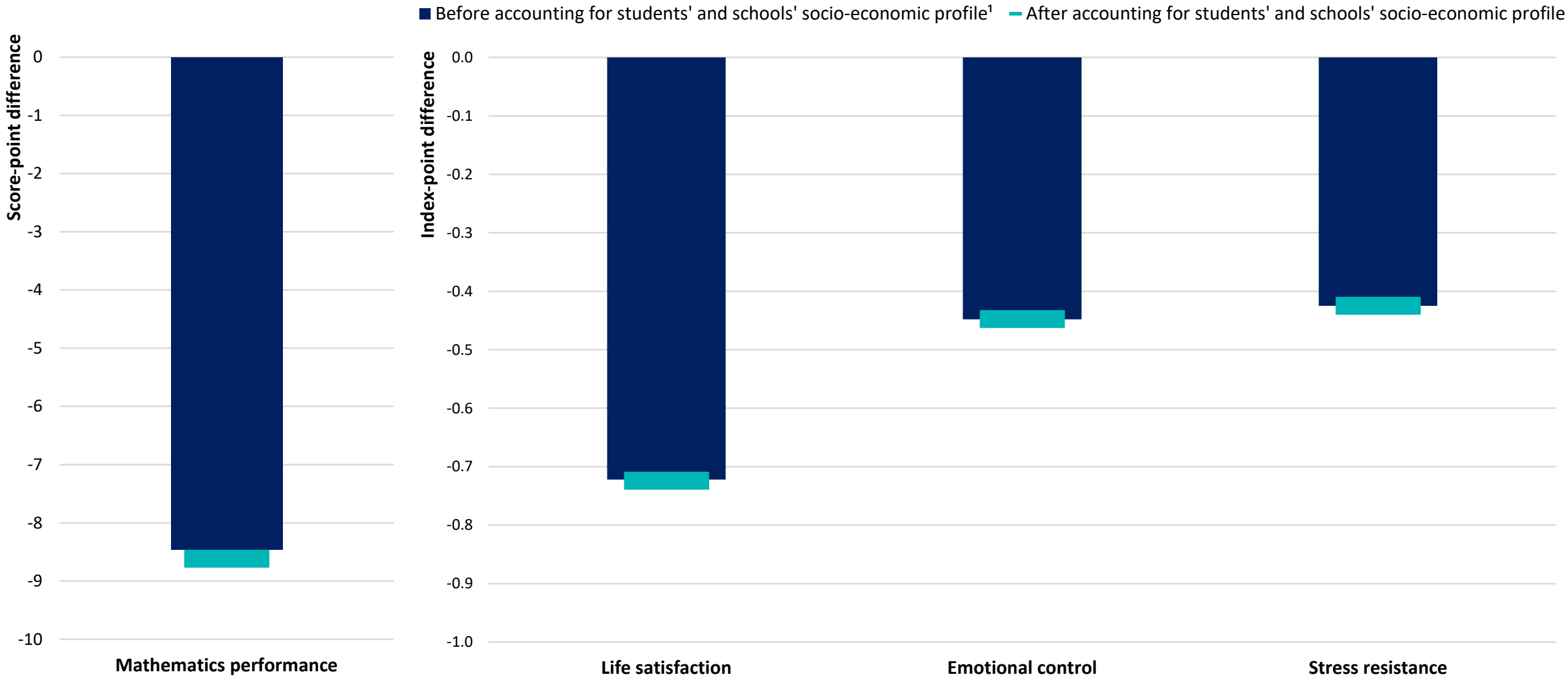
Based on students' reports



Outcomes of feeling nervous/anxious when digital devices are not near

Figure II.5.17

Based on students' reports; OECD average



Seizing the opportunities of AI and digital technology in education…

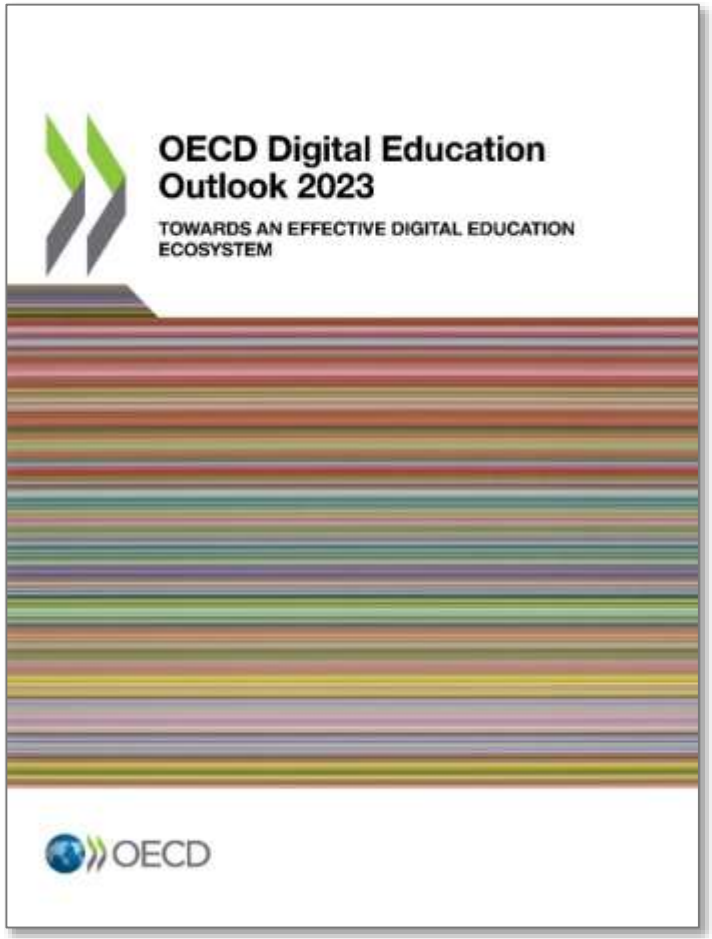
- **Personalising** learning and education
- Fostering **inclusion and equity**
- Enhancing the **quality of teaching**
- Improving **efficiency**
- Enhancing **research and innovation**
- Making **education more relevant** to modern times (e.g. generative AI apps)

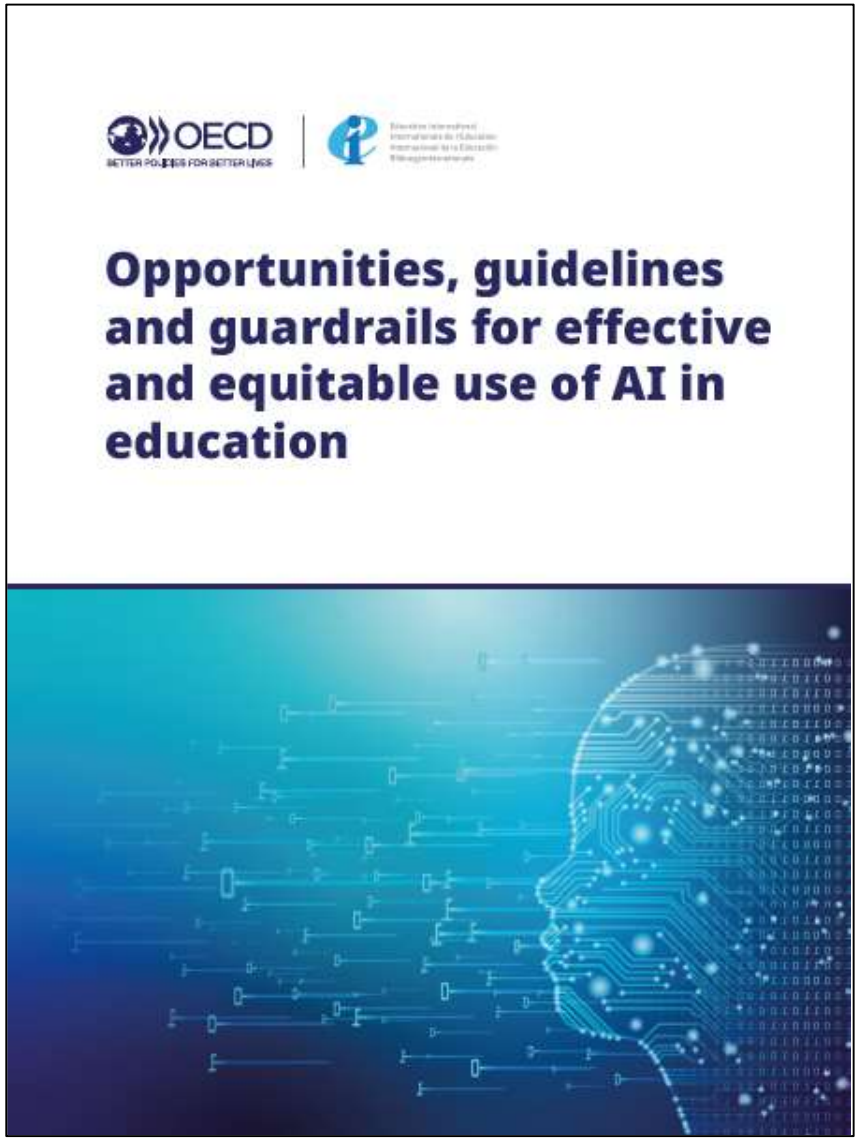
… while mitigating risks and addressing challenges with guardrails

- **Digital divides**: provide equal access
- **Performance of digital tools**: assess the stakes and involve humans
- **New or amplified biases**: ensure not only advantaged students reap the benefits
- **Inefficiencies of a digital ecosystem**: provide what's useful more than just what's possible
- **Privacy and data protection**: cover new possibilities, address new challenges
- **Ethics of AI**: promote adaptive regulation
- **Social acceptance**: communicate benefits while questioning naïve endorsement

Opportunities, guidelines and guardrails

Strong knowledge base about countries' practices and policies

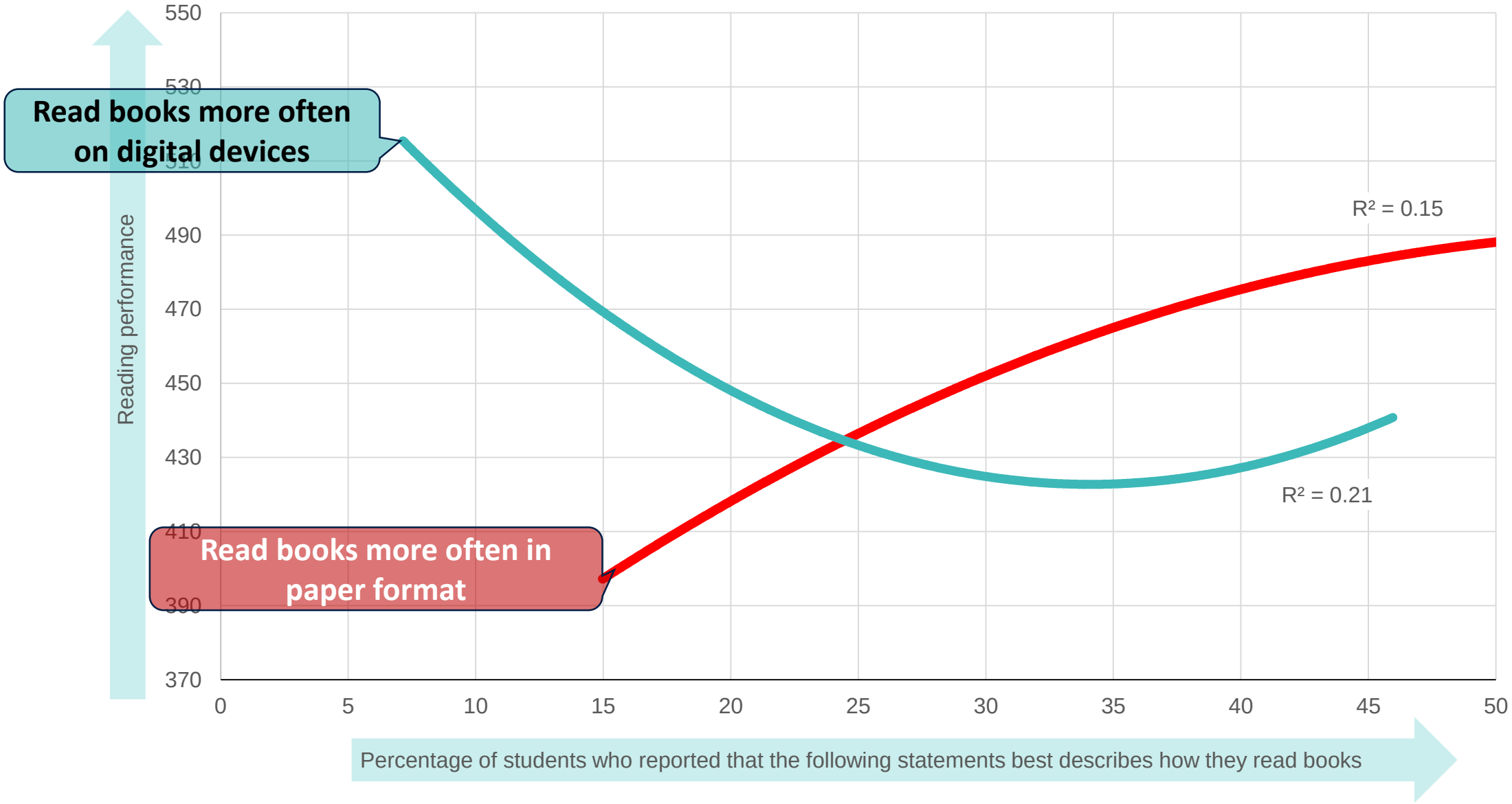




Digital literacy and the format of reading books

System-level analysis (PISA)

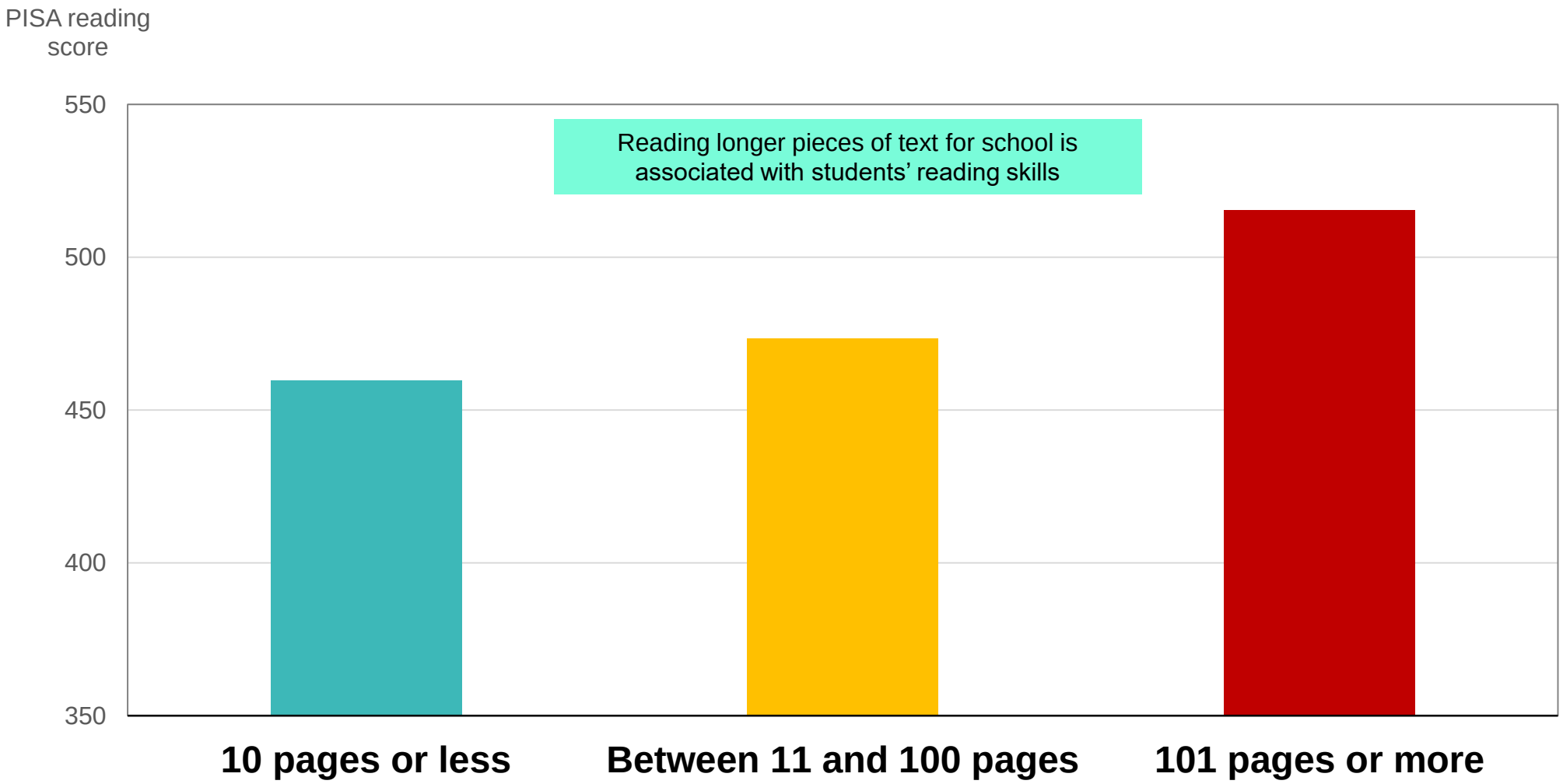
Fig 4.13



Digital literacy, by the length of text read for school

OECD average

Fig 6.6



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