PISA 2025 (Hong Kong) Press Conference

PISA 2025 Project Team
The University of Hong Kong
Faculty of Education

8 September 2026

Commissioned by Education Bureau, HKSAR Government

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PISA 2025

Press Conference Rundown

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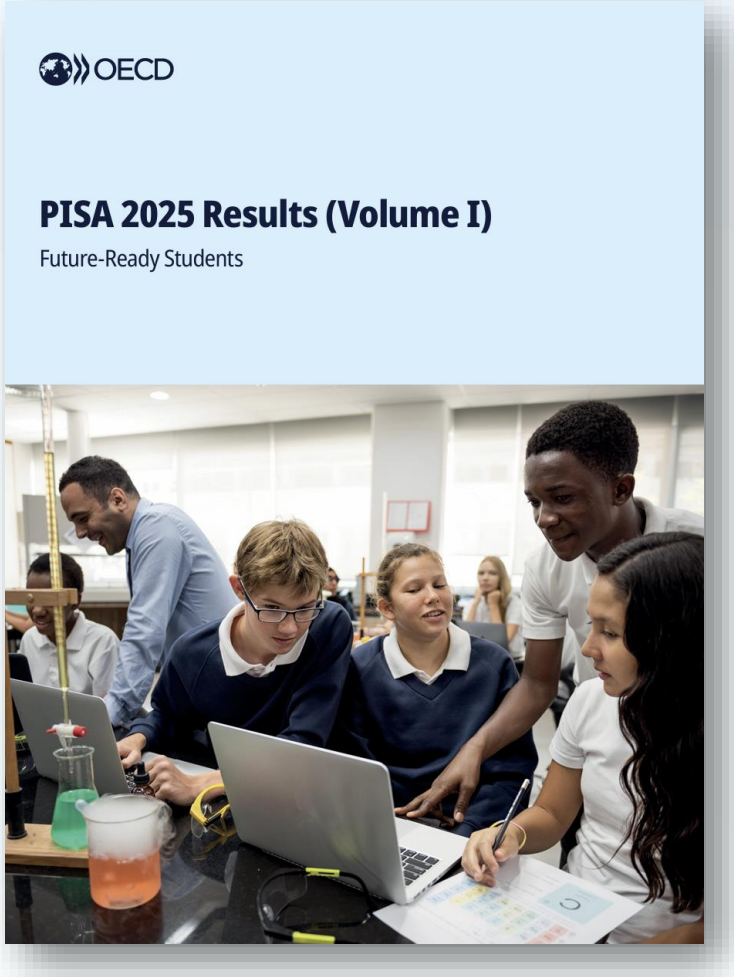
- Understanding PISA: What the Study Tells Us
- Learning in the Digital World: A Strength for Hong Kong Students
- Science, Mathematics and Reading: Students' Performance in the Core Domains
- Understanding the Results: Factors
- Summary

Preface

- 91 countries/economies participated in PISA 2025, with more than 760,000 students took part in the study
- Hong Kong participated in PISA **since 2000**.
- The Hong Kong sample included students from **local and non-local schools**.
- A total of 230 schools and **6,445 students were included** in the final sample.
- Grades of students: S1 to S5 (with **61.1% of students from Secondary 4**)
- Proportion of boys and girls: **52% boys and 48% girls**
- Fieldwork period: **19 May 2025 – 31 July 2025**



Understanding PISA: What the Study Tells Us

PISA 2025

Introduction

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- The OECD Programme for International Student Assessment (PISA) assesses the extent to which **15-year-old students** near the end of their compulsory education have acquired the **knowledge and skills that are essential for full participation in modern societies**.

- PISA results should therefore be interpreted as **one source of evidence for reflection and improvement**, rather than as a gold standard for measuring the quality of education in Hong Kong.

Introduction

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Curriculum independent
(AIMS)

Low-stakes
(SAMPLING)

Regular International data collection (CROSS-SECTIONAL DATA)

Linked items across studies
(TREND ANALYSIS)

Introduction

- PISA focuses on students' **future readiness**.

- PISA emphasises broader competencies, such as the application of knowledge, analysis and reasoning, and problem-solving, as encapsulated in its **innovative concept of "literacy"** for the 21st century.

Introduction

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- PISA 2025 “not only assesses whether students can reproduce knowledge, but also whether they can **extrapolate** from what they have learned and **apply their knowledge to new situations**. It emphasises the **mastery of processes**, the understanding of concepts, and **the ability to function in various types of situations**” (OECD, 2023, p.11).

- PISA also surveys students and schools about **factors relevant to lifelong learning**, such as students’ motivation to learn, self-beliefs, learning strategies, and learning contexts.

Introduction

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- **Student agency** is at the heart of the PISA framework.
- Student agency helps students act with **a sense of purpose** and enables students to **take ownership of their futures**.
- By becoming **active agents** in their learning, students are more likely to have **“learned how to learn”** – an invaluable skill that they can use throughout their lives.

Introduction

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- PISA **regularly updates its assessment frameworks** for the core domains, science, mathematics, and reading, to reflect **changing societal needs and future-readiness priorities**.

- PISA focuses on three core domains: (1) Science, (2) Mathematics, and (3) Reading and introduces an “innovative domain” in each cycle.

- In 2025, this domain is ***Learning in the Digital World***.

Learning in the Digital World: A Strength for Hong Kong Students

PISA 2025

Defining ‘Learning in a Digital World’

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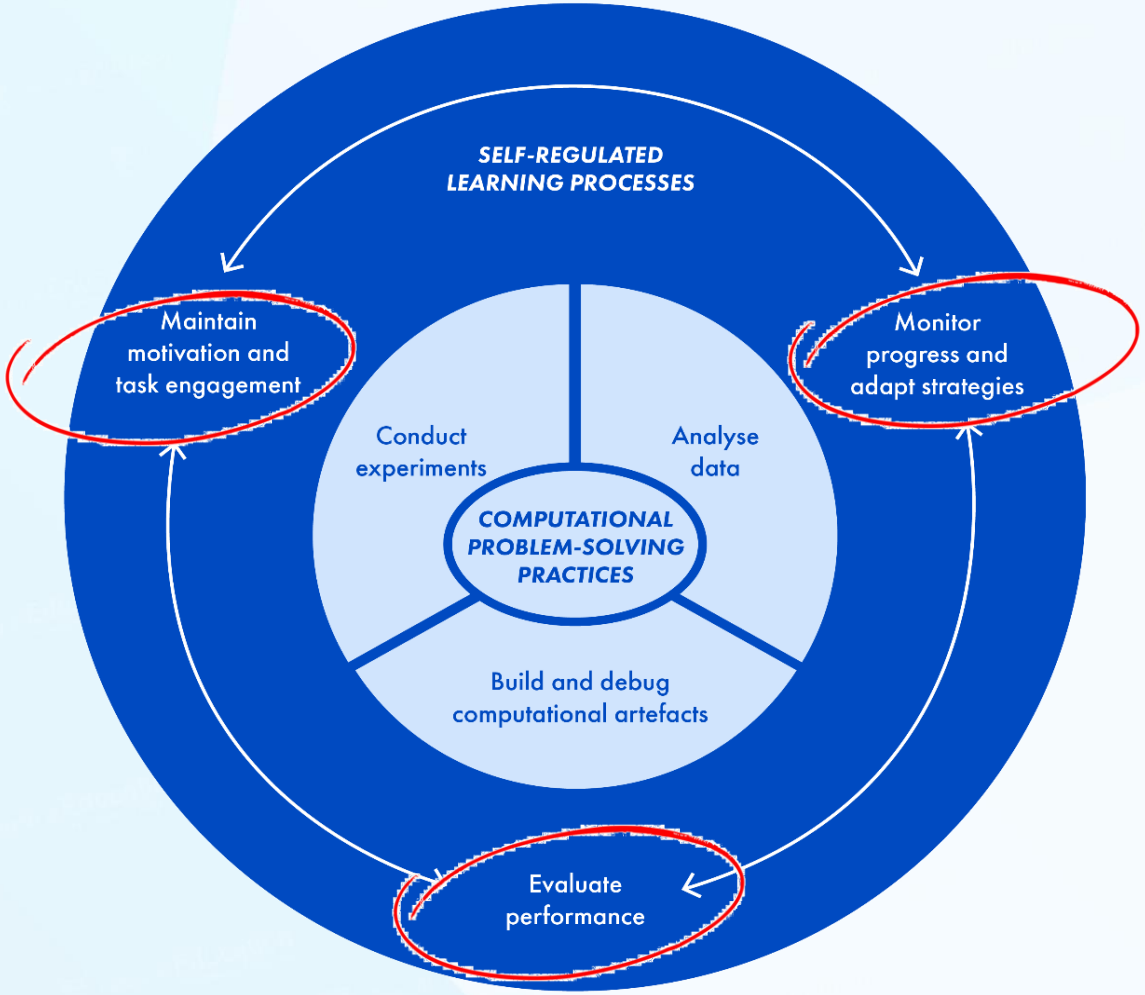
The capacity to engage in
an *iterative* and *self-regulated process* of
knowledge building and *problem solving*
using *computational tools* and *practices.*

PISA LDW Assessment Framework



- Students' performance on the computational problem-solving scale describes the extent to which students can
  - SOLVE problems using computational tools, such as modelling or programming tools,
  - THROUGH computational practices such as:
    - conducting experiments,
    - analysing data, and
    - building and debugging computational artefacts.
  - EXERCISING Self-regulated learning in the process

Graphical elaboration of the LDW competency model

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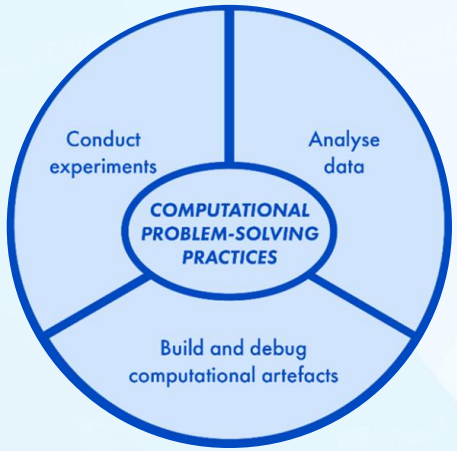
Programming tools

Modelling tools

Computational tools

through



Computational practices

Maintain Motivation

Monitor

Self-regulated process

Evaluate

Using

Engage in

Knowledge building and problem solving

Iterative process

Structure an LDW test Unit in four types of computational problem-solving phases

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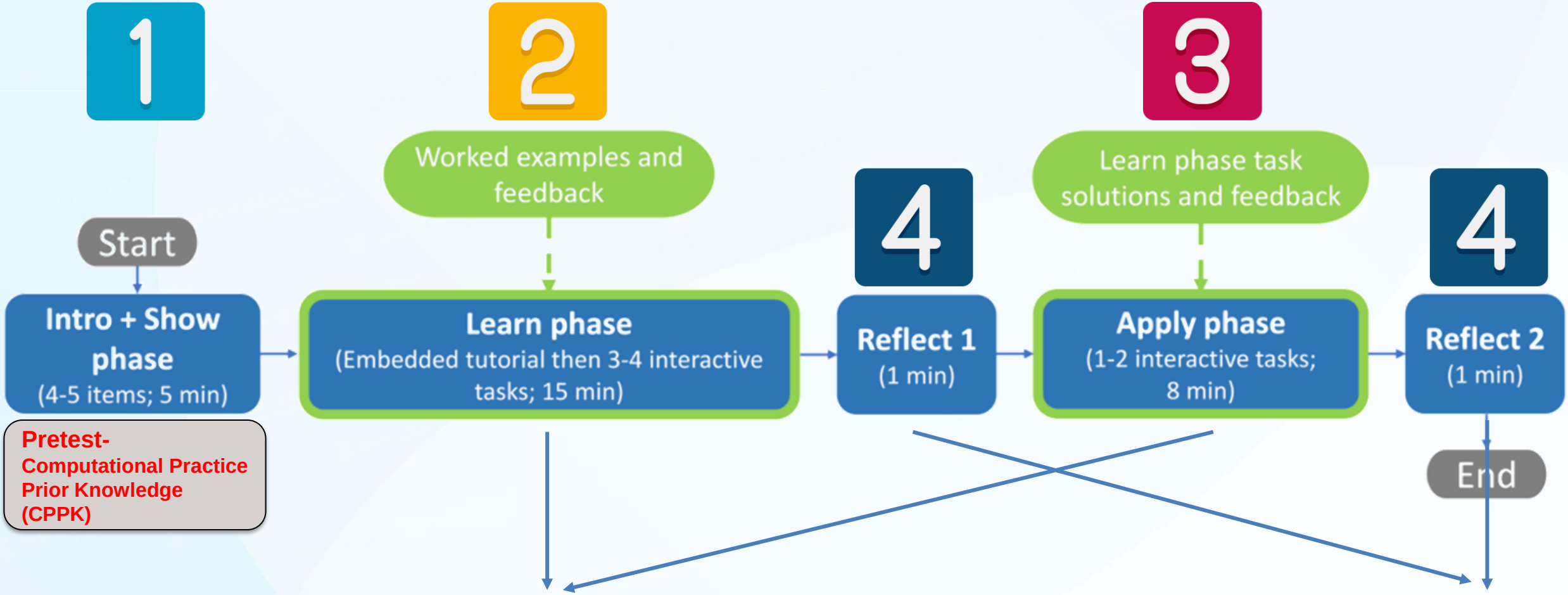

Measuring **Computational Problem-solving, CMPS: Programming + Modelling**

Measuring **Self-regulated learning** (to release in 2027)

Structure an LDW test Unit in four types of computational problem-solving phases

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1

2

3

Start

Intro + Show phase
(4-5 items; 5 min)

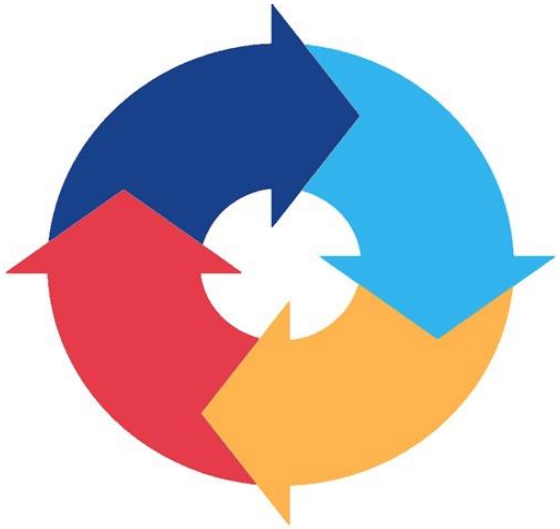
Pretest-Computational Practice Prior Knowledge (CPPK)

4 Reflect

1 Show

3 Apply

2 Learn



4

Reflect 2
(1 min)

End

Measuring **Computational Problem-solving, CMPS: Programming + Modelling**

Measuring **Self-regulated learning** (to release in 2027)

An example LDW task (Modelling)

https://conservation.netlify.app/?unit=Conservation&item=P1M401

Figure 3.6. Introduction page of the "Conservation" unit

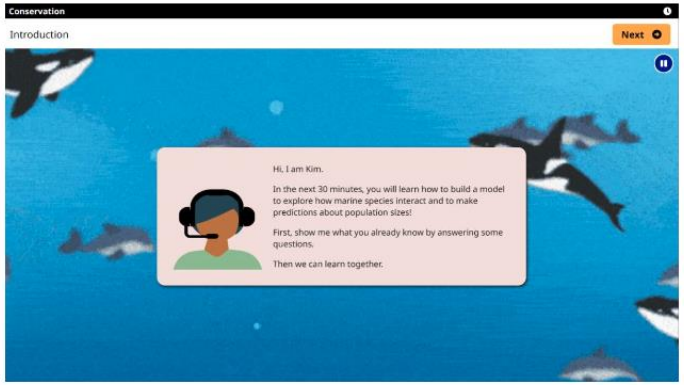
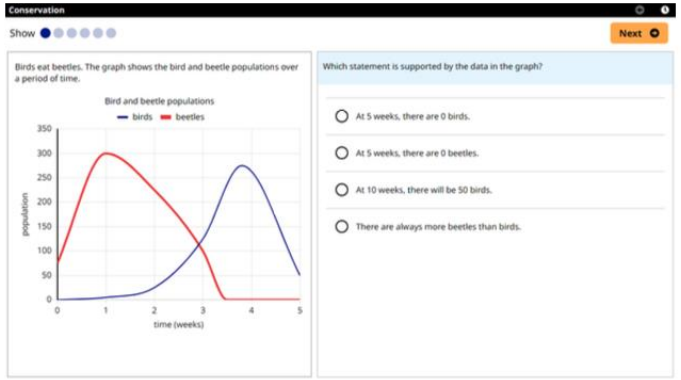


Figure 3.7. Example multiple-choice pre-test item on graph literacy in the "Conservation" unit



Show phase

Pretest on the problem domain & show how the application works

Figure 3.8. Screenshot of scaffolded tutorial segment from the "Conservation" unit

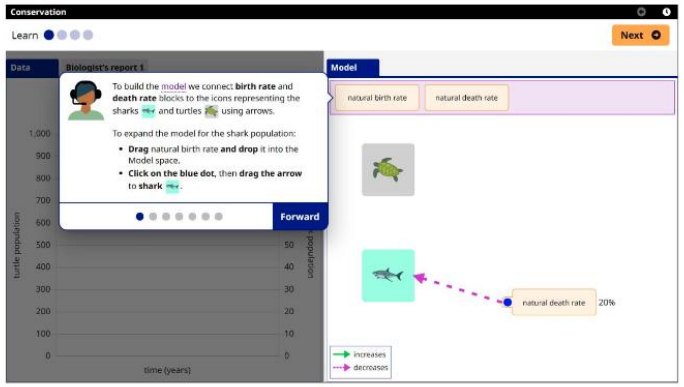
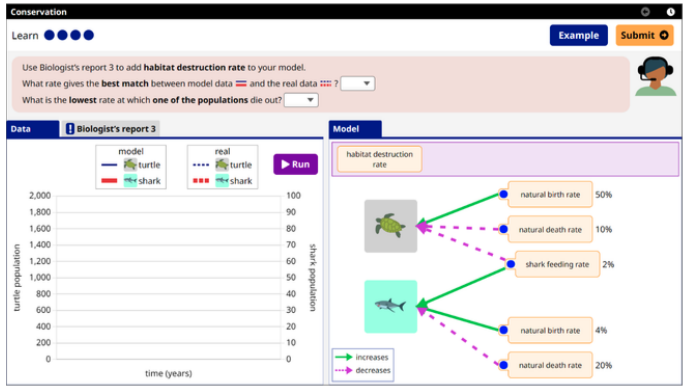


Figure 3.9. Last task in the "Learn" phase of the "Conservation" unit



Learn phase

Scaffolded learning phase—Giving instructions to the student on how to use the interaction tool to explore and problem solve.

Figure 3.13. Part 1 of the "Apply" phase in the "Conservation" unit

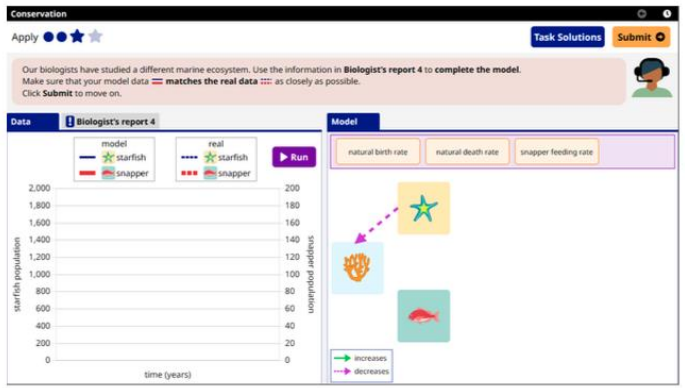
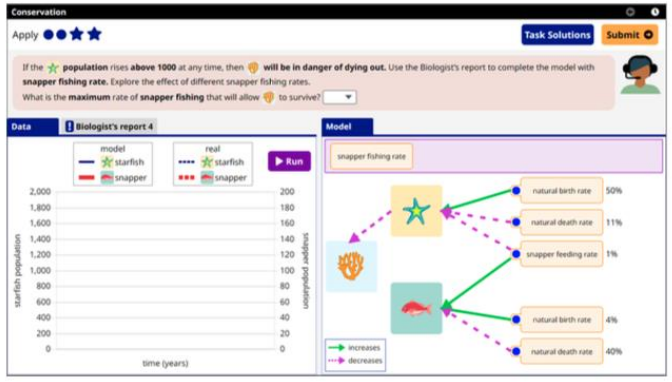


Figure 3.14. Part 2 of the "Apply" phase in the "Conservation" unit



Apply phase

Apply the computational problem-solving Practices learnt to a more complex problem in the same domain.

Students were required to take two units, 1 programming & 1 modelling

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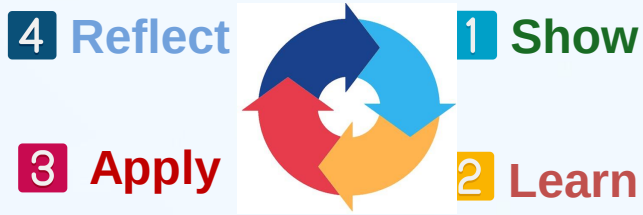


PROGRAMMING UNIT

Recycling Claw, or
Nature Pod, or
Digital Art

Released Unit

MODELLING UNIT

Fitness App, or
Art Exhibition , or
Safe Landing

Released Unit

Released Unit

Testlet #1

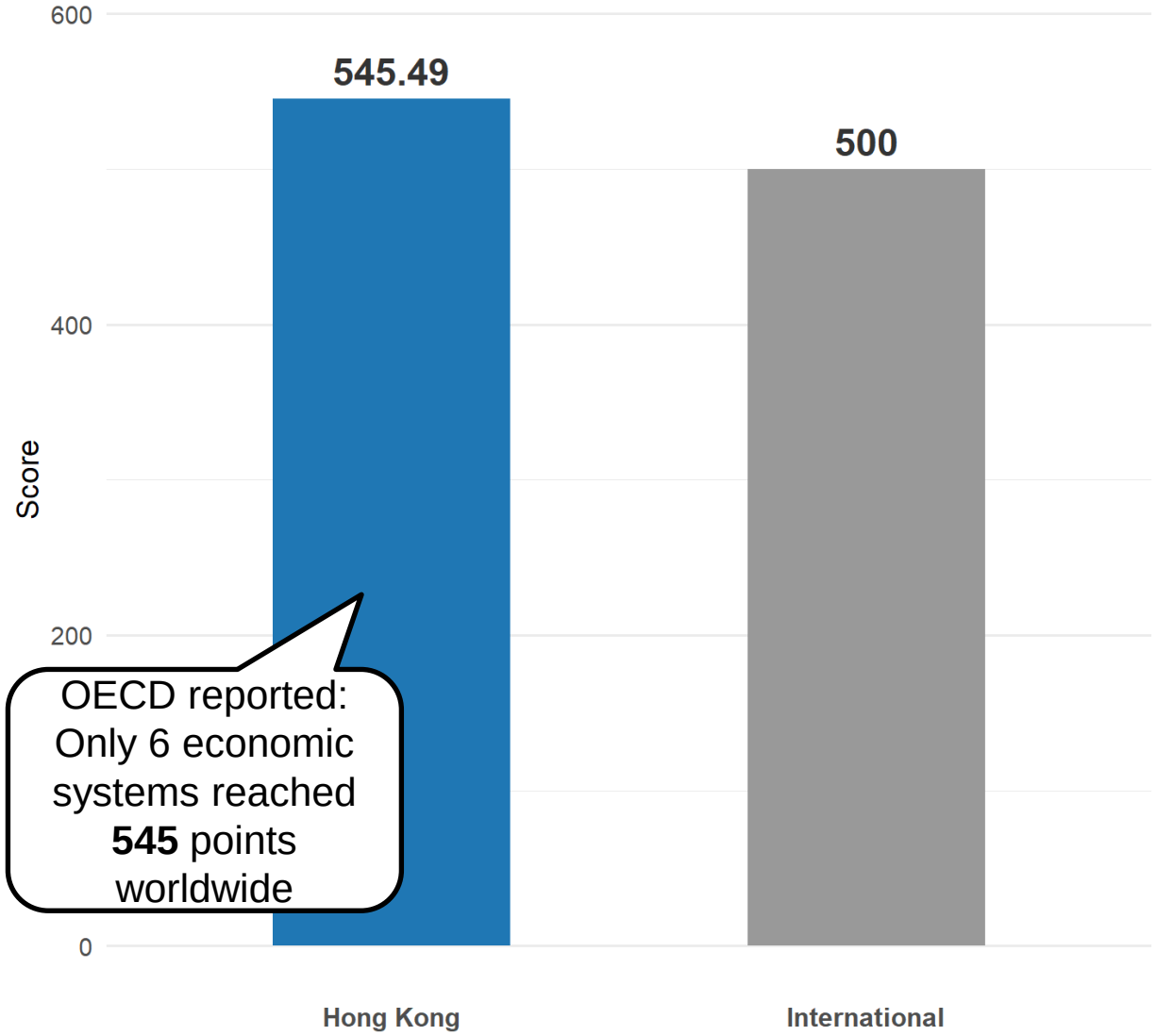
Testlet #2

Released units: https://www.oecd.org/content/dam/oecd/en/about/programmes/edu/pisa/pisa-test/PISA%202025%20LDW%20Released%20Items%20Descriptions.pdf

Hong Kong's Excellent Performance in Learning in the Digital World (LDW)

Computational Problem-Solving (CMPS) Score

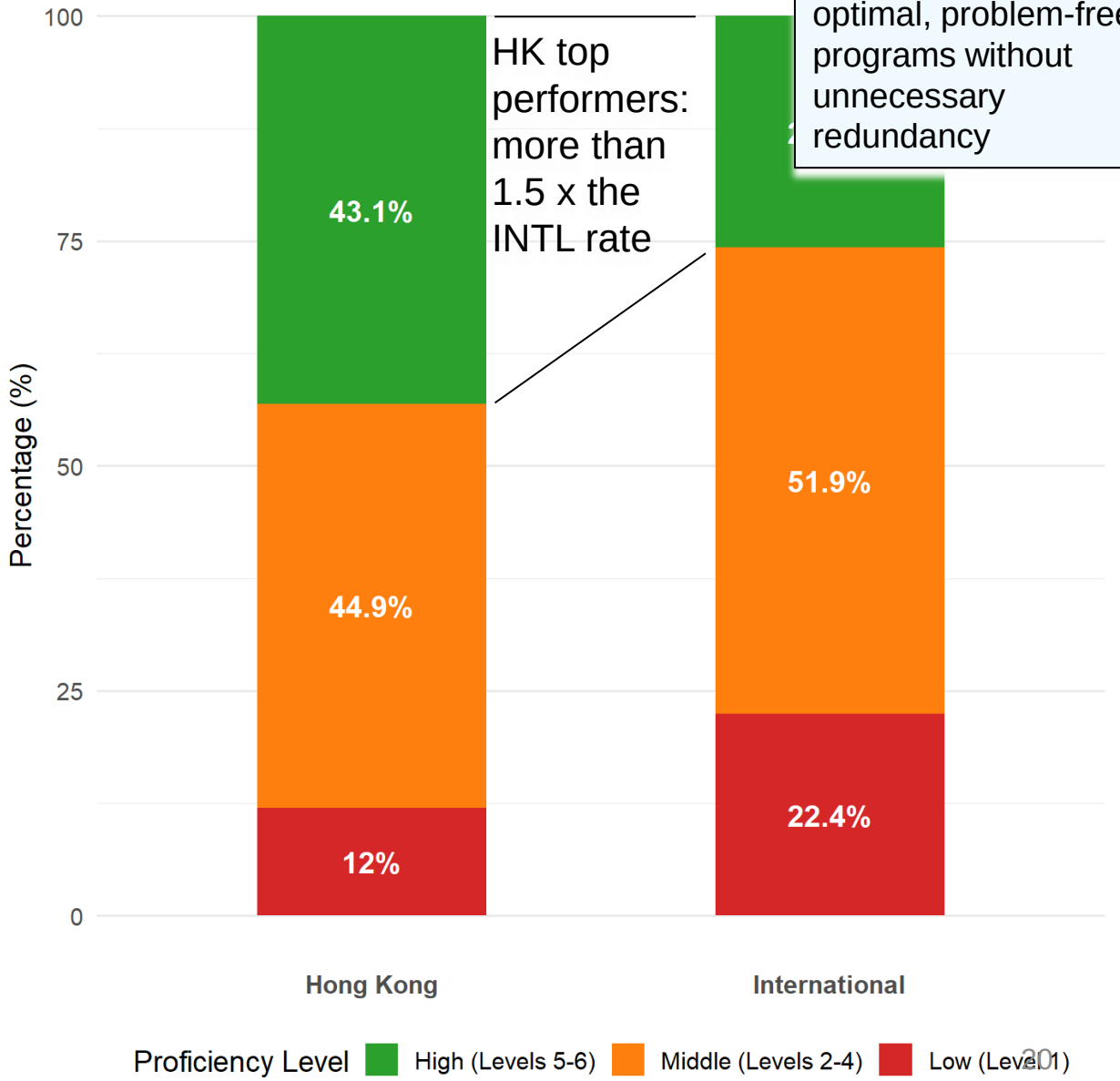
PISA 2025 Average Scores



OECD reported: Only 6 economic systems reached **545** points worldwide

Distribution of Proficiency Levels

Percentage of Students



HK top performers: more than 1.5 x the INTL rate

High performers are efficient computational problem solvers who produce optimal, problem-free programs without unnecessary redundancy

Transferable capacities across domains

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Transferable capacity	LDW constructs	Corresponding cross-domain competency
• Formulating or representing a problem	• Computational modelling: constructing digital representations of ideas and systems.	• Mathematics: Formulating situations mathematically
• Logical and analytical reasoning	• Computational problem solving: solving problems with computational logic.	• Mathematics: Reasoning
• Applying and evaluating a solution	• Computational problem solving: developing strategies and monitoring or evaluating progress.	• Mathematics: Interpreting, applying and evaluating outcomes
• Testing possible solutions	• Computational problem solving in an iterative digital learning environment.	• Science: Evaluating designs for scientific enquiry
• Evaluating evidence	• Computational and scientific inquiry practices using digital tools.	• Science: Evaluating scientific information for decision making
• Interpreting information	• Computational problem solving used as a broad cross-domain LDW basis.	• Reading: Integrating and generating inferences
• Evaluating source quality	• Computational problem solving used as a broad cross-domain LDW basis.	• Reading: Assessing quality and credibility
• Reconciling conflicting evidence	• Computational problem solving used as a broad cross-domain LDW basis.	• Reading: Corroborating and handling conflict

Reflection after *Learn* Phase: Evaluate Own Performance

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07:49

Reflect

Next

Now I need your help to solve a more complex task.
You will apply what you have learnt so far.
You will be able to click on a **Task Solutions** button to view solutions to the previous tasks.

First, select answers for the questions below.

1. How easy or difficult did you find the learning activities?

2. How confident do you feel about solving a more complex task?

- not at all confident
- not very confident
- quite confident
- very confident

Reflection after *Apply* Phase: Evaluate Own Performance

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Conservation

Reflect

Next

Thanks for your work! Before you finish, answer some final questions.

How would you describe your solution to the complex task?

Select one option from each row.

	I accomplished this	I did not accomplish this	There was not enough information to tell
I created an accurate model using snapper feeding rate.	○	○	○
I extended the model correctly to use snapper fishing rate.	○	○	○
I kept the snapper and starfish alive.	○	○	○
I kept the coral alive.	○	○	○

Reflection after *Apply* Phase: Monitor own affective state in Self-regulated Learning

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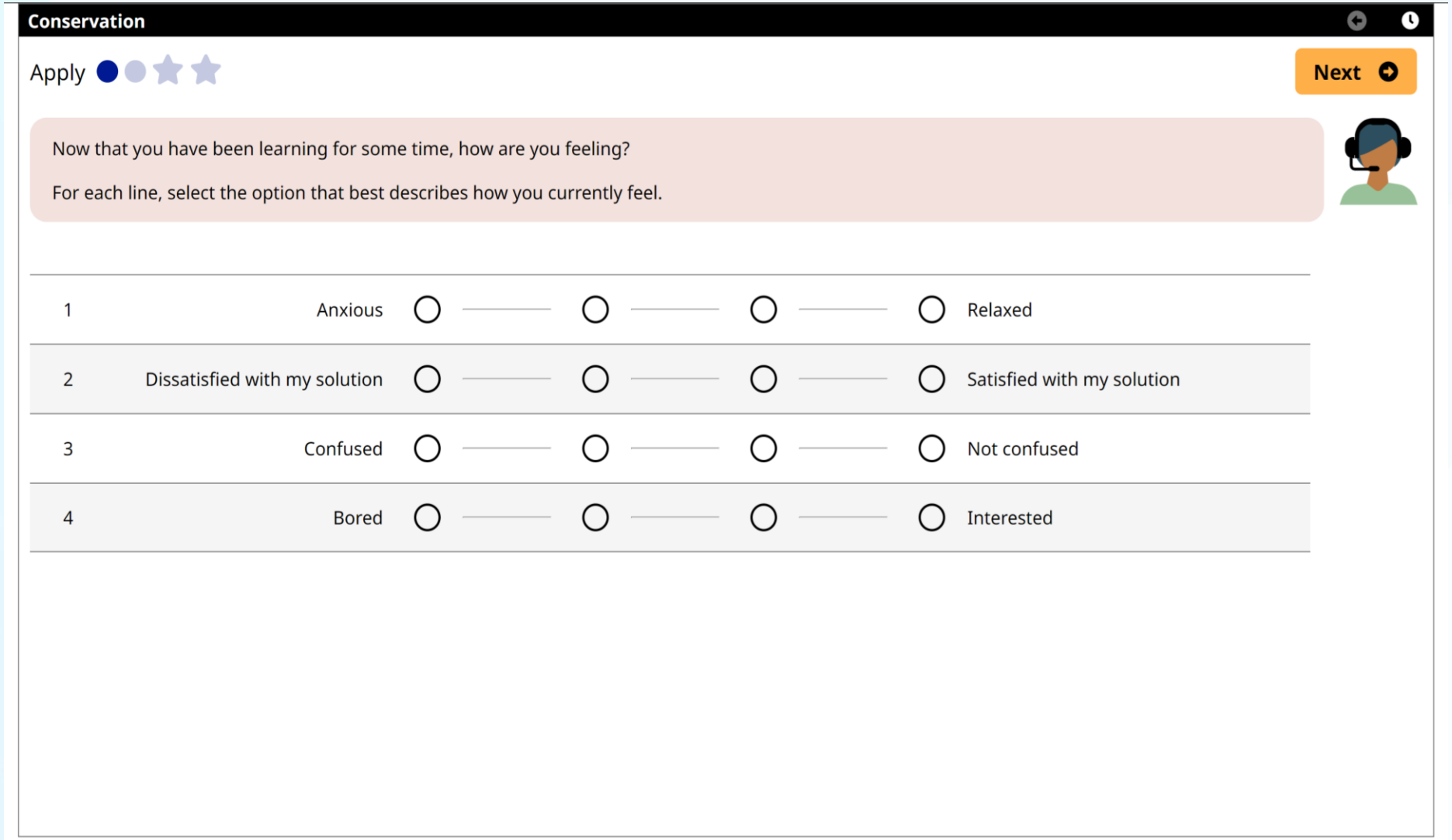

(OECD, n.d.)

Reflection after *Apply* Phase:
How students maintain motivation and task engagement

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Conservation

Reflect

Select an answer for each question.

1. How did you find the complex task?

2. How much effort did you put into solving **all** the tasks?

- no effort
- limited effort
- moderate effort
- a lot of effort

Self-Regulated Learning:
Key for Learning to Learn

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Self-Regulated Learning

- Monitor & evaluate own performance
- Monitor own affective state during learning
- Maintain motivation and task engagement

Learner Agency in AI Age

- Take cognitive responsibility
- Avoid metacognitive laziness
- Empowered judgement and decision making in using AI tools

Science, Mathematics and Reading: Students' Performance in the Core Domains

PISA Assessment Foci in the Core Domains

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- **Science Domain (Major domain):**
  - PISA defines “a scientifically educated person as someone who can engage in reasoned discourse about science, sustainability and technology to inform action” (OECD, 2023, p.9).
  - Accordingly, PISA measures “the competencies to explain phenomena scientifically; to construct and evaluate designs for scientific enquiry and interpret scientific data and evidence critically; and to research, evaluate and use scientific information for decision making and action” (OECD 2023, p.13).

PISA Assessment Foci in the Core Domains

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Year	International Average Score (OECD Average-23)	Competencies
2006	503	• Identify scientific questions, explain everyday scientific phenomena and use scientific evidence in real-world situations.
2009	506	
2012	505	
2015	497	• Explain scientific phenomena, evaluate and design scientific investigations, and interpret data and evidence scientifically in real-world situations.
2018	493	
2022	491	
2025	486	• All of the above, as well as **use scientific knowledge and evidence to make decisions and take action in complex social, environmental, and information-rich situations**.

Note: OECD Average-23 (Long-Term Trends): This metric restricts the calculation to a consistent set of 23 countries, allowing researchers to evaluate very long-term trends across all PISA cycles from 2000 to 2025.

PISA Assessment Foci in the Core Domains

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Year	International Average Score (OECD Average-23)	Competencies
2006	503	• Identify scientific questions, explain everyday scientific phenomena and use scientific evidence in real-world situations.
2009	506	
2012	505	
2015	497	
2018	493	real-world situations.
2022	491	
2025	486	• All of the above, as well as **use scientific knowledge and evidence to make decisions and take action in complex social, environmental, and information-rich situations**.

Reflect the need to develop **informed trust in science** in **an age of misinformation and disinformation** rapidly disseminated through social media and the internet.

Note: OECD Average-23 (Long-Term Trends): This metric restricts the calculation to a consistent set of 23 countries, allowing researchers to evaluate very long-term trends across all PISA cycles from 2000 to 2025.

PISA Assessment Foci in the Core Domains

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- **Mathematics Domain:**

  - PISA measures “an individual’s capacity to reason mathematically and to formulate, employ and interpret mathematics to solve problems in a variety of real-world contexts. The framework includes concepts, procedures, facts and tools to describe, explain and predict phenomena. It assists individuals in acknowledging the role that mathematics plays in the world and to make the well-founded judgements and decisions” (OECD 2023, p.13)

PISA Assessment Foci in the Core Domains

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Year	International Average Score (OECD Average-23)	Competencies
2003	502	• Use school mathematics, including computations, procedures, and representations, to solve real-life problems and reflect on problem-solving processes.
2006	501	
2009	502	
2012	499	• Formulate real-world problems mathematically, apply mathematics to solve them, and interpret and evaluate the results.
2015	496	
2018	496	
2022	480	• All of the above, as well as use mathematical reasoning to solve and judge solutions to complex, data-rich and changing real-world problems.
2025	469	

PISA Assessment Foci in the Core Domains

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Year	International Average Score (OECD Average-23)	Competencies
2003	502	• Use school mathematics, including computations, procedures, and representations, to solve real-life problems and reflect on problem-solving processes.
2006	501	
2009	502	
2012	499	• Form appl evaluate the results.
2015	496	
2018	496	
2022	480	• All of the above, as well as use mathematical reasoning to solve and judge solutions to complex, data-rich and changing real-world problems.
2025	469	

- Reflect the need to develop **ability to reason with complex data in real-world** mathematics problems.

PISA Assessment Foci in the Core Domains

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- **Reading Domain:**
  - PISA measures “an individual’s capacity to understand, use, evaluate, reflect on and engage with texts in order to achieve one’s goals, develop one’s knowledge and potential, and participate in society” (OECD 2023, p.13)

PISA Assessment Foci in the Core Domains

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Year	International Average Score (OECD Average-23)	Competencies
2000	500	• Understand, use and reflect on print-based text with graphs and charts, for reading as key skill for real-life purposes.
2003	497	
2006	495	
2009	499	• Understand, use, reflect on, and engage with both print and digital texts, including webpages and charts for real-life purposes and active participation in society.
2012	501	
2015	497	
2018	493	• Understand, use, evaluate, reflect on, and engage with multiple print and digital texts, especially online texts, to judge information, build meaning and participate in society.
2022	482	
2025	466	

PISA Assessment Foci in the Core Domains

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Year	International Average Score (OECD Average-23)	Competencies
2000	500	• Understand, use and reflect on print-based text with graphs and charts, for reading as key skill for real-life purposes.
2003	497	
2006	495	
2009	499	
2012	501	
2015	497	
2018	493	• Understand, use, evaluate, reflect on, and engage with multiple print and digital texts, especially online texts, to judge information, build meaning and participate in society.
2022	482	
2025	466	

• Reflect the need for broader **information-search behaviours** and the ability to **navigate digital and multiple sources of information**.

Overview of Performance

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- The scores in the three core domains **are all statistically significantly higher** than the international averages.

	Science	Mathematics	Reading
Hong Kong (China)	496	522	480
International Average	482	463	461

Overview of Performance

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- Scores in science, mathematics and reading were 18 to 24 points lower than those in PISA 2022.

Hong Kong (China)	Science	Mathematics	Reading
PISA 2025	496	522	480
PISA 2022	520	540	500

Science Proficiency Levels

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Higher proportion of top performers and lower proportion of low performers in Hong Kong than international average

Proficiency Level	Hong Kong		Int'l Avg.	Description
Levels 5 & 6 **Top performers**	9.1%	>	7.2%	• Students can think and reason like advanced science users. They can build explanations, critique methods and evidence, handle complex information, and justify decisions in uncertain or unfamiliar contexts.
Levels 2–4	70.0%	>	67.1%	• Students can use science in practical ways like explaining everyday phenomena, reading evidence, judging simple claims and sources, and making basic evidence-informed decisions using relevant and credible information.
Below Level 2 **Low performers**	20.9%	<	25.7%	• Students can often spot the right science idea when it is simple and familiar, but they are not yet reliably using science to explain, evaluate evidence, or support decisions.

Mathematics Proficiency Levels

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Remain competitive internationally

Proficiency Level	Hong Kong		Int'l Avg.	Description
Levels 5 & 6 **Top performers**	20.7%	>	7.8%	• Students can work through abstract and complex problems with creativity and flexible thinking; apply non-specified procedures in non-standard contexts; use systematic, well-planned strategies for challenging tasks.
Levels 2–4	62.3%	>	57.4%	• Students can work effectively with explicit models for complex concrete situations; devise solution strategies with sequential decision-making or flexibility; evaluate reasonableness of results and select and interpret multiple representations (e.g., graphs, tables, diagrams).
Below Level 2 **Low performers**	17.0%	<	34.9%	• Students can answer questions in simple contexts with relevant information given; carry out simple routine procedures and calculations.

Reading Proficiency Levels

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Higher proportion of top performers and lower proportion of low performers in Hong Kong than international average

Proficiency Level	Hong Kong		Int'l Avg.	Description
Levels 5 & 6 **Top performers**	5.8%	>	5.5%	• Students can locate and organise several pieces of deeply embedded information, inferring which information in the text is relevant, deal with concepts that are contrary to expectations.
Levels 2–4	72.2%	>	63.5%	• Students can locate, and in some cases recognise the relationship between several pieces of information that must meet multiple conditions. They integrate several parts of a text in order to identify a main idea, understand a relationship or construe the meaning of a word or phrase.
Below Level 2 **Low performers**	22.0%	<	31.0%	• Students can locate one or more independent pieces of explicitly stated information. They can recognise the main theme or author's purpose in a text about a familiar topic, or make a simple connection between information in the text and common, everyday knowledge.

Summary of Hong Kong Students' Performance

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- Across the three core PISA domains, Hong Kong students continued to perform above international averages.
- Scores in science, mathematics and reading were 18 to 24 points lower than those in PISA 2022.
- Most students attained Levels 2 to 4, showing that most students possess the basic abilities and solid foundation needed for everyday problem-solving and for further learning.

- Judging simple claims and sources, and making basic evidence-informed decisions
- Devise solution strategies with sequential decision-making
- Make a simple connection between information in the text and common, everyday knowledge.

Level 2 to Level 4 Proficiency

Uncertain, non-routine and unfamiliar contexts

- Critique methods and evidence
- Handle complex information
- Work through abstract and complex problems with creativity and flexible thinking
- Apply non-specified procedures in non-standard contexts
- Organise several pieces of deeply embedded information
- Infer which information in the text is relevant

Level 5 to Level 6 Proficiency

To help more students advance to Level 5 and Level 6 proficiency, they may need to further strengthen the following abilities: addressing complex problems, critically evaluating information, and reasoning and justify evidence-based conclusions independently..

Understanding the Results: Factors associated with PISA performance

Future Readiness

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Thrive:

- The capacity to flexibly apply and extrapolate disciplinary knowledge to unfamiliar, real-world challenges within a rapidly changing, highly interconnected, and complex world undergoing AI and digital transformation.

Eventually lead:

- Students leading their own learning and taking "ownership of learning"—actively directing what, how, where, and when they learn. Through self-regulated learning strategies, they become the primary drivers of their own lifelong learning, embodying a high degree of **Student Agency**.

PISA strictly categorises variables into <u>two conceptually distinct sets of factors</u> based on their analytical function and policy malleability to answer the ultimate policy question.

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How effectively are schools and teaching practices compensating for structural, socio-demographic background barriers to help all students thrive and lead?

as crucial **Educational Goals** that policymakers, principals, and teachers can turn

1 **Student Agency** — Malleable, changeable Behavioral, Cognitive, & Educational Factors

2 Socio-Economic Status (ESCS) — e.g. Gender, Immigrant Background — Non-malleable, immutable Structural Background Characteristics

Predict → Future Ready

treated as control variables to measure **Educational Equity**

What is Student Agency in PISA?

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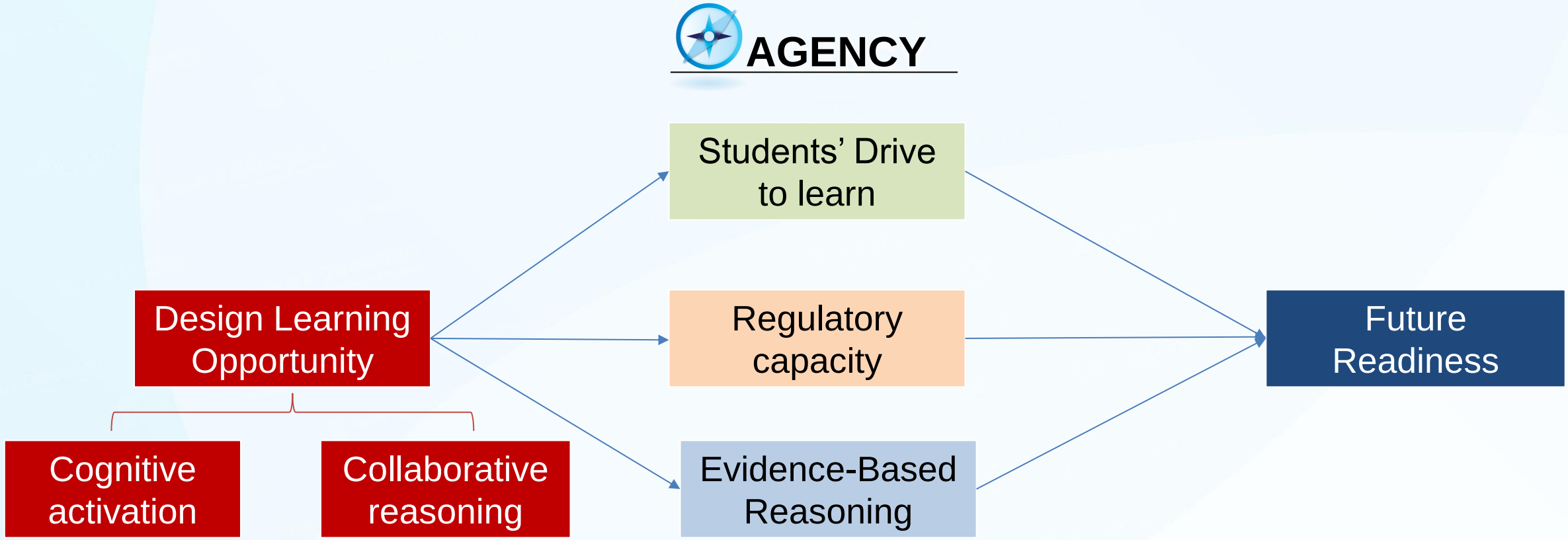
Student Agency

The capacity of learners to:
act purposefully, autonomy & volition, context-dependent, and make proactive, constructive contributions to their learning and their world.

Enabling pedagogy creates the conditions for student agency; agency operates through the interplay of learning purpose, self-regulation learning and evidence thinking; together, they drive holistic future readiness.



How Does Agency Help Students Perform Better?

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Students' Drive to learn

- Drive of agency.
- **Curiosity** sparks the initial interest,
- **goal-setting** provides the target,
- **perseverance** provides the stamina, and
- **enjoying problem-solving** turns inevitable challenges into engaging puzzles rather than roadblocks.

Regulatory capacity

- Drive isn't enough; agentic learners must **self-regulate** their learning.
- With a **growth mindset**—believing abilities develop through effort—
- they use **cognitive adaptability** to adjust strategies and self-regulation to monitor progress.

Evidence-based Reasoning

- Agency builds true future readiness by fostering **self-efficacy**,
- **enjoyment in science**, and
- environmental awareness.
- Crucially, it develops strong **epistemic beliefs**—where students understand science, math & reading not as static facts, but as an active, evidence-based, and continuously evolving process.

Student Agency Factors Influencing Science Performance in PISA 2025

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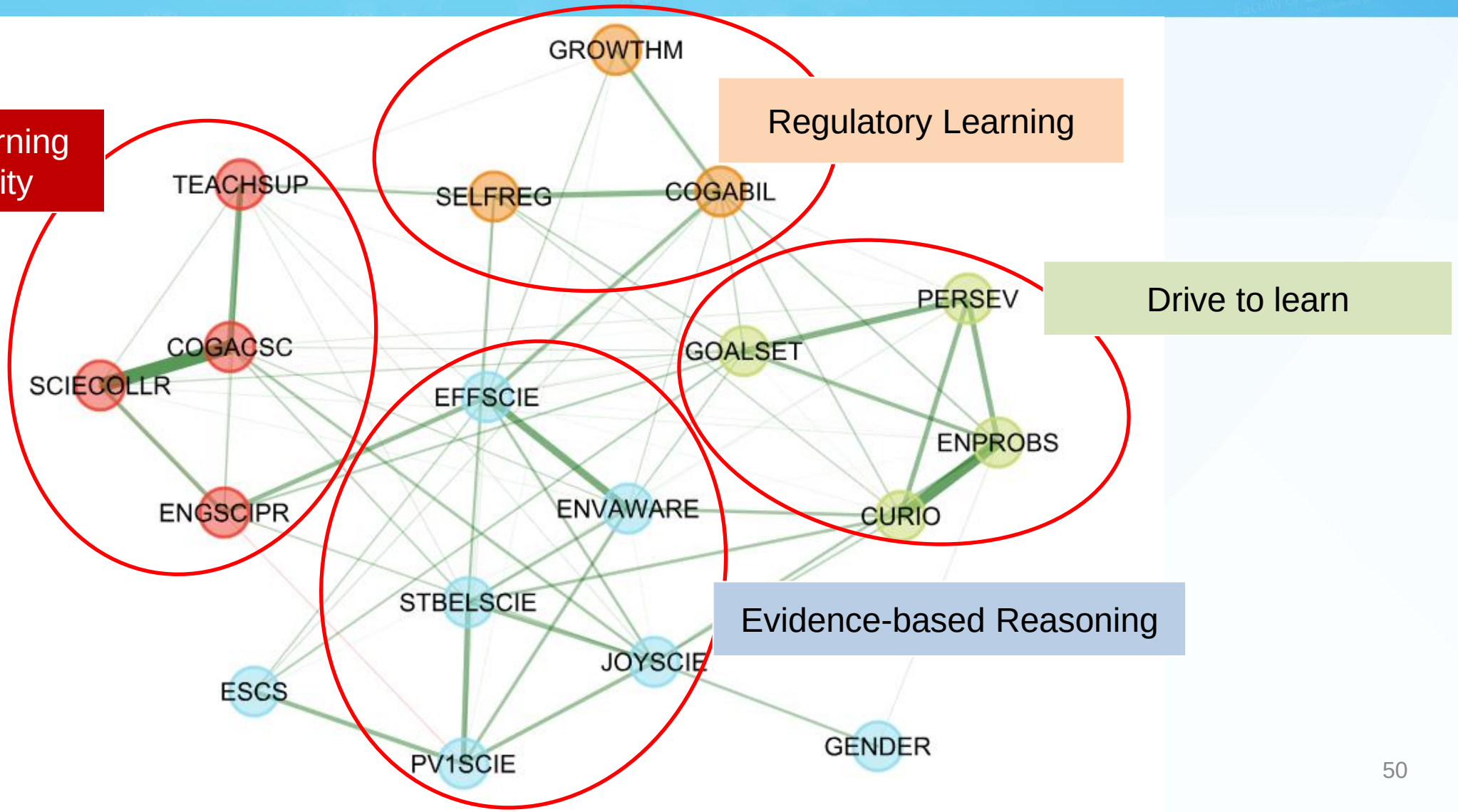

The strongest predictor of Science Performance: Scientific Profiles, Epistemic Beliefs, Students' beliefs about the nature of science

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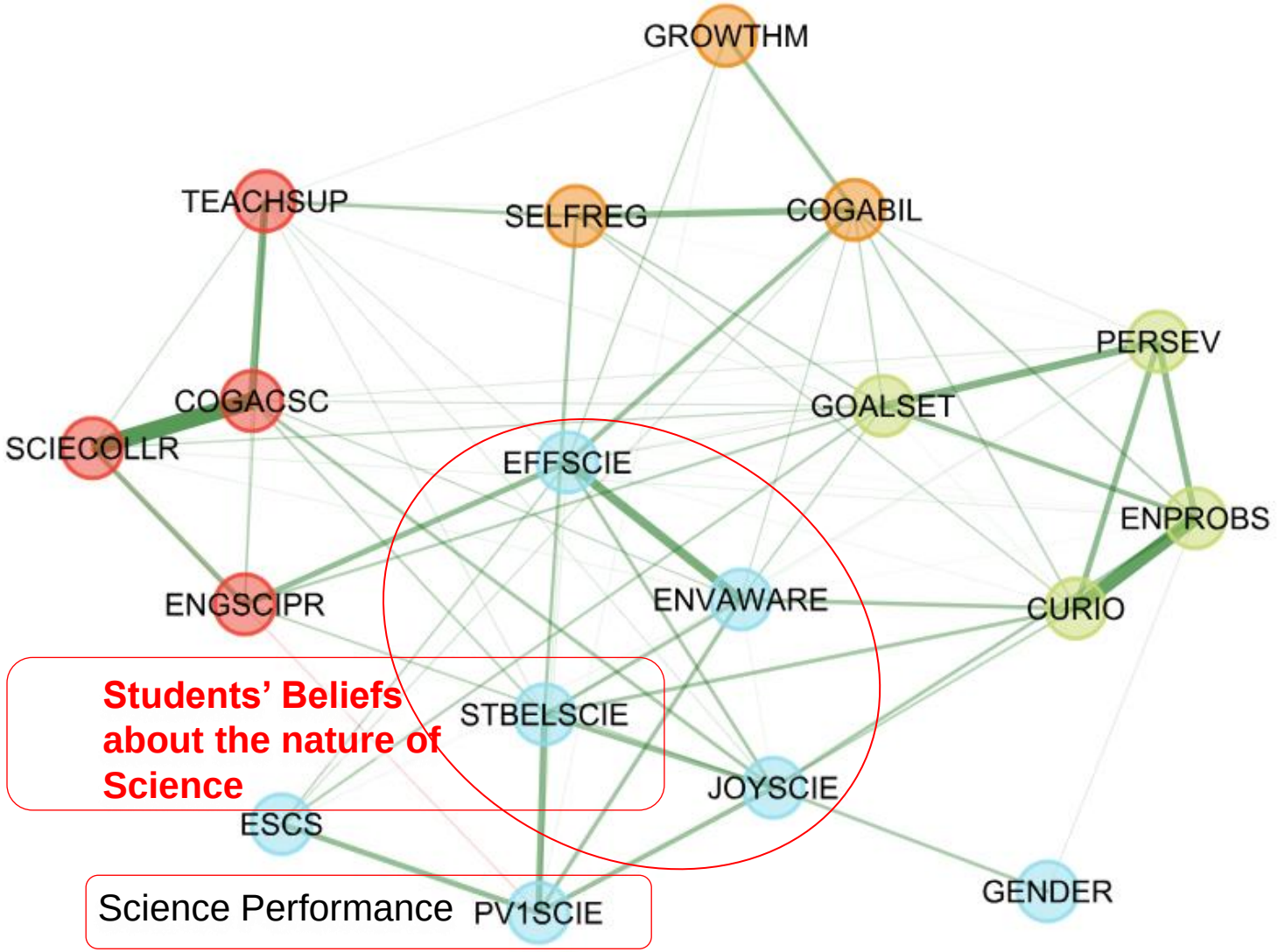

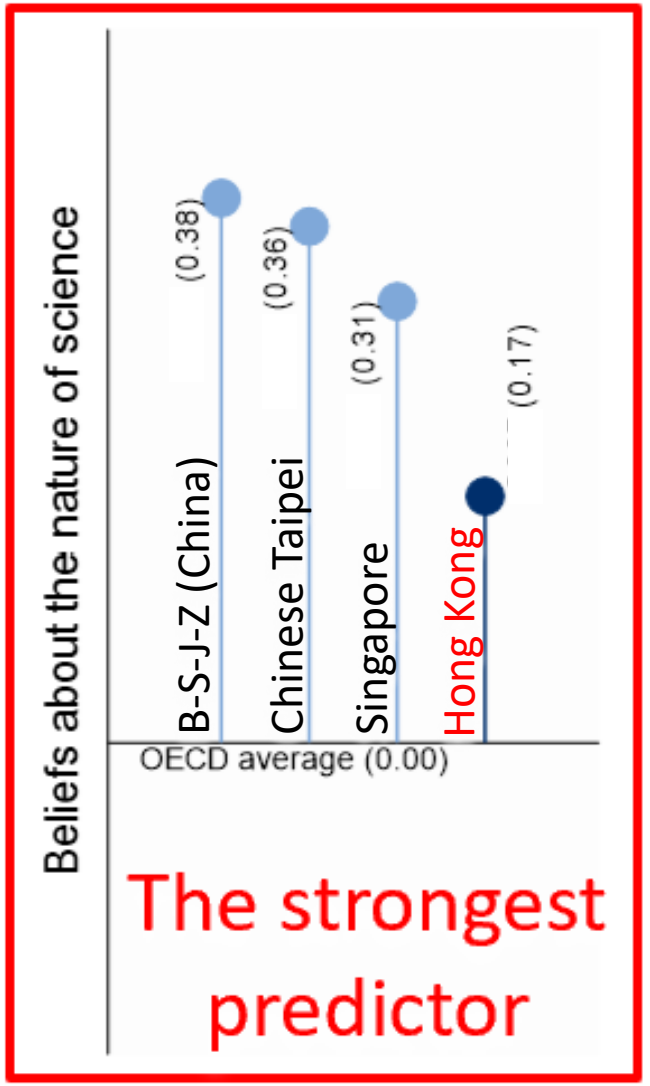

Category A: Beliefs → science

ST131 **How much do you disagree or agree with the statements below?**

(Please select one response in each row.)

		Strongly disagree	Disagree	Agree	Strongly agree	
ST131Q02TA	Good answers are based on evidence from many different experiments.	☐ 01	☐ 02	☐ 03	☐ 04	+ve
ST131Q04TA	One important part of <broad science> is doing experiments to come up with ideas about how things work.	☐ 01	☐ 02	☐ 03	☐ 04	+ve
ST131Q10TA	Information from one source should be checked from a range of other reliable sources before it is accepted.	☐ 01	☐ 02	☐ 03	☐ 04	+ve
ST131Q12TA	There are some questions that scientists cannot answer.	☐ 01	☐ 02	☐ 03	☐ 04	+ve
ST131Q13TA	New discoveries can change what scientists think is true.	☐ 01	☐ 02	☐ 03	☐ 04	+ve
ST131Q17TA	We should rely more on common sense and less on scientific studies.	☐ 01	☐ 02	☐ 03	☐ 04	-ve

PROFILE: Source-Checking item

PROFILE: Common Sense vs. Science item

The higher the scientific epistemic belief index, the better the science performance

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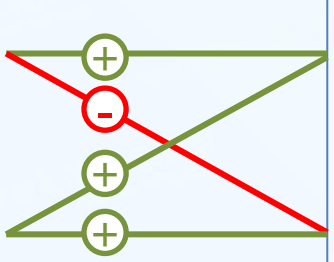
Epistemic Beliefs about the nature of science

Scientific Profile



1. **Evidence-oriented:** Good answers rely on diverse experimental evidence.
2. **Experimental inquiry:** Experiments are key to understanding how things work.
3. **Source verification:** Always cross-check information with reliable sources.
4. **Scientific limitations:** Science cannot answer every question.
5. **Knowledge evolution:** New discoveries can change accepted truths.
6. **Beyond common sense:** Trust scientific research over common sense.

Hong Kong

Profile	%	SCIE	READ
Non-restrictive	46.3 %	469	455
Strong Scientific	44.5 %	542	528

Is scientific knowledge a "dynamic construct requiring active testing, argumentation, and continuous revision," or is it a "fixed fact requiring passive acceptance"?

For every one unit increase in the science belief index, how much does the science score improve? Hong Kong: 29; OECD: 33

PISA2025 Performance

Hong Kong's excellent teacher support (TEACHSUP) is a strong cornerstone for promoting inquiry-based teaching. The teacher support perceived in Hong Kong science classrooms ranks among the top internationally; teachers are very willing and adept at providing guidance to students.

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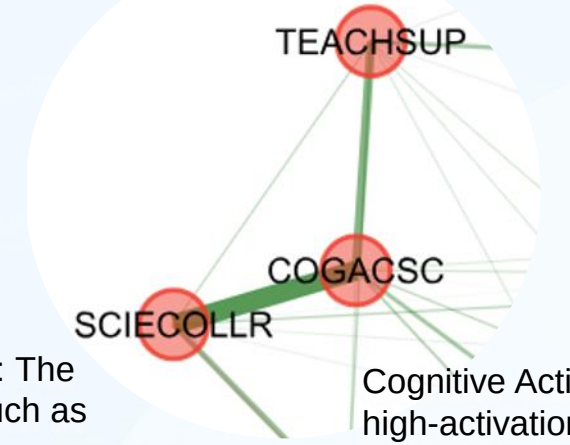
To cultivate students who "Thrive and lead", the advantages of teacher support (TEACHSUP) must be transformed into cognitive activation (COGACSC) and scientific collaborative reasoning (SCIECOLLR).

Teacher Support: The frequency of teachers' care for student learning, resolving doubts, and providing opportunities for expression.



Collaborative Reasoning: The frequency of practices such as peer discussions, debating scientific issues in class, and teachers explaining principles to the whole class or through group collaboration.

Cognitive Activation: "High-difficulty, high-activation" teaching practices where teachers promote students' deep thinking, connect new and old concepts, explain principles, and overcome problem-solving difficulties.

With high levels of teacher support guiding students in group inquiry, questioning intuition, and evaluating conflicting views, students' science learning can be transformed into "in-depth independent inquiry and lifelong learning student agency.

TEACHER SUPPORT	Hong Kong		OECD 2025 AVG
	2015	2025	
Showing Interest in Learning	72%	81%	69%
Continuing Teaching Until Understand	72%	75%	66%
Giving Extra Help When Needed	75%	82%	73%

Efficacy of Teacher Support: For every one-unit increase in teacher support in Hong Kong, students' science scores improve by 9 points, which is about double the OECD average efficacy.

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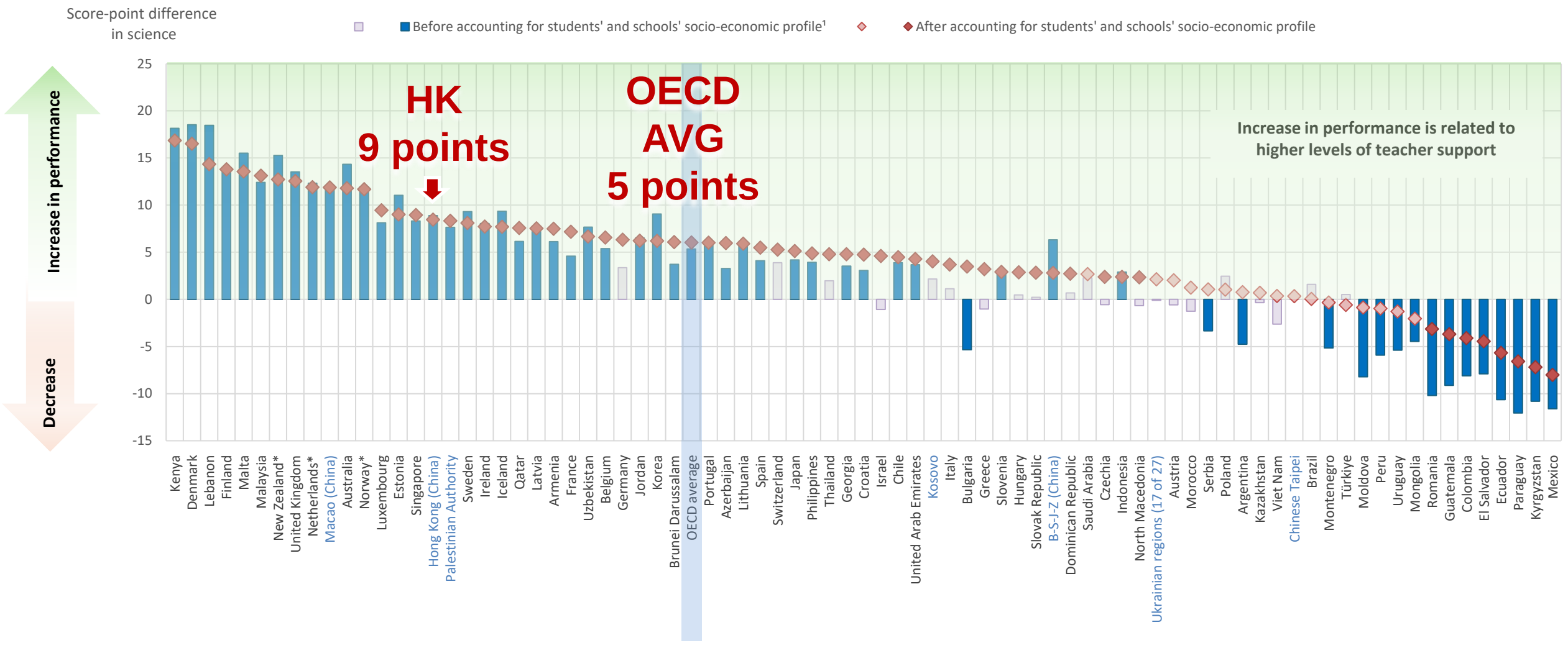

Two conditions for PISA 2025 science performance: "Gender" and "Economic, Social and Cultural Status" (ESCS)

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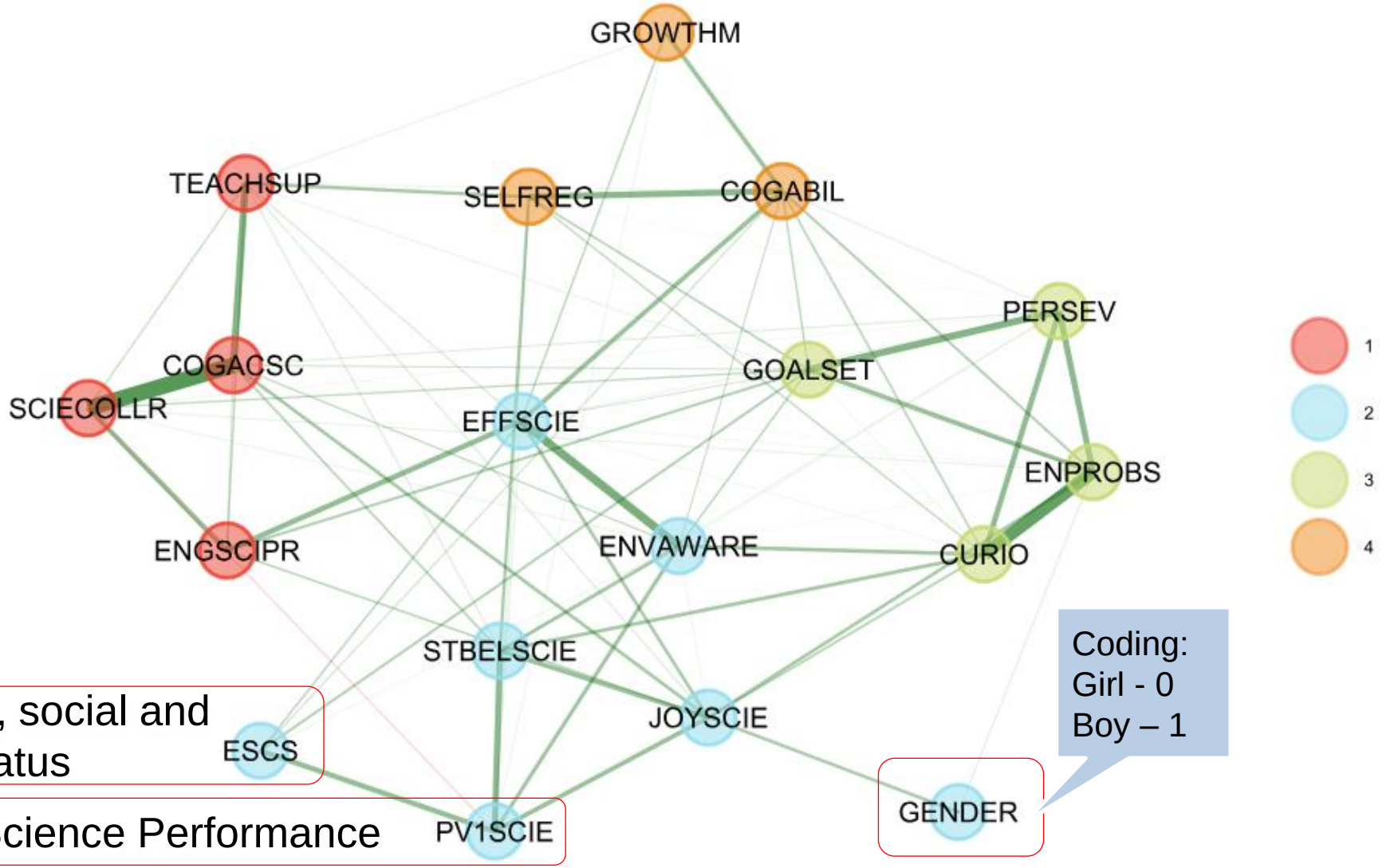
The ESCS score was based on 3 indicators (the big 3):

- highest parental occupation status (HISEI)
- highest education of parents in years (PAREDINT), and
- home possessions (HOMEPOS)

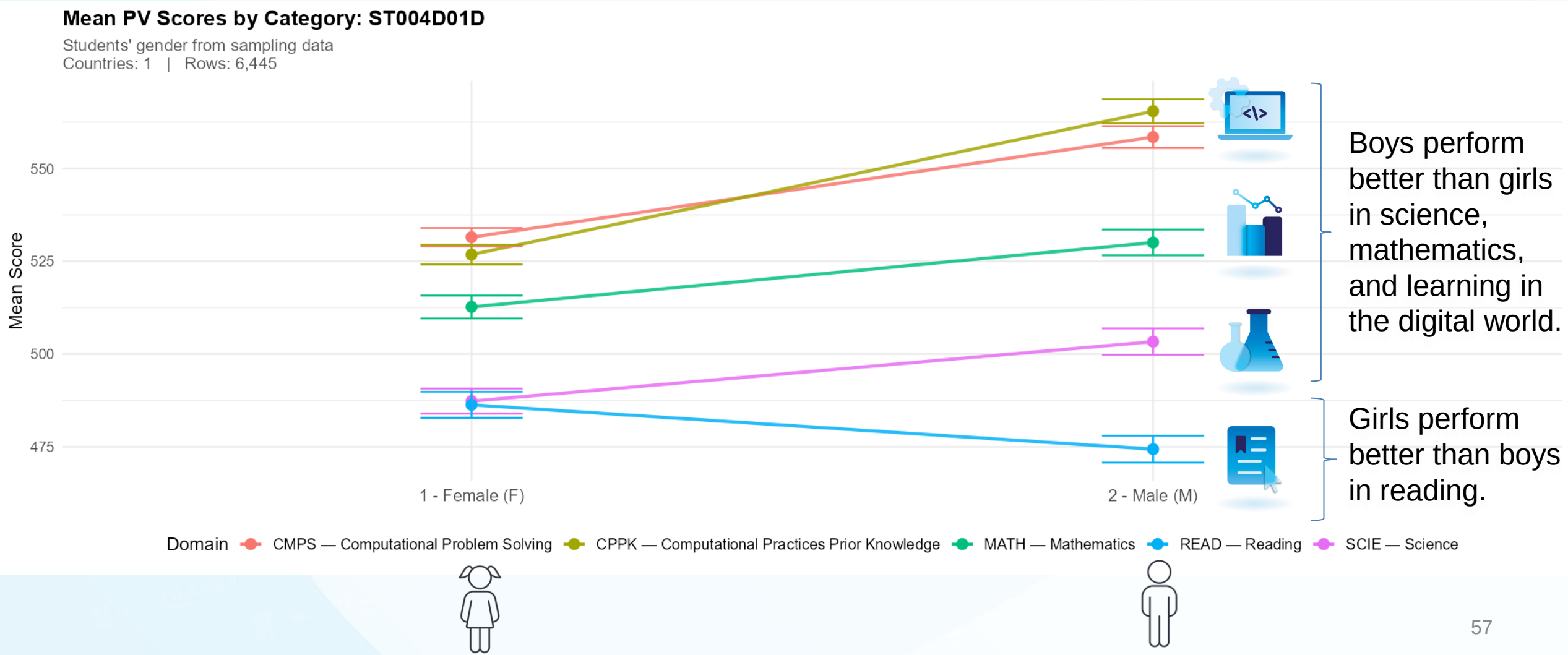


Economic, social and cultural status

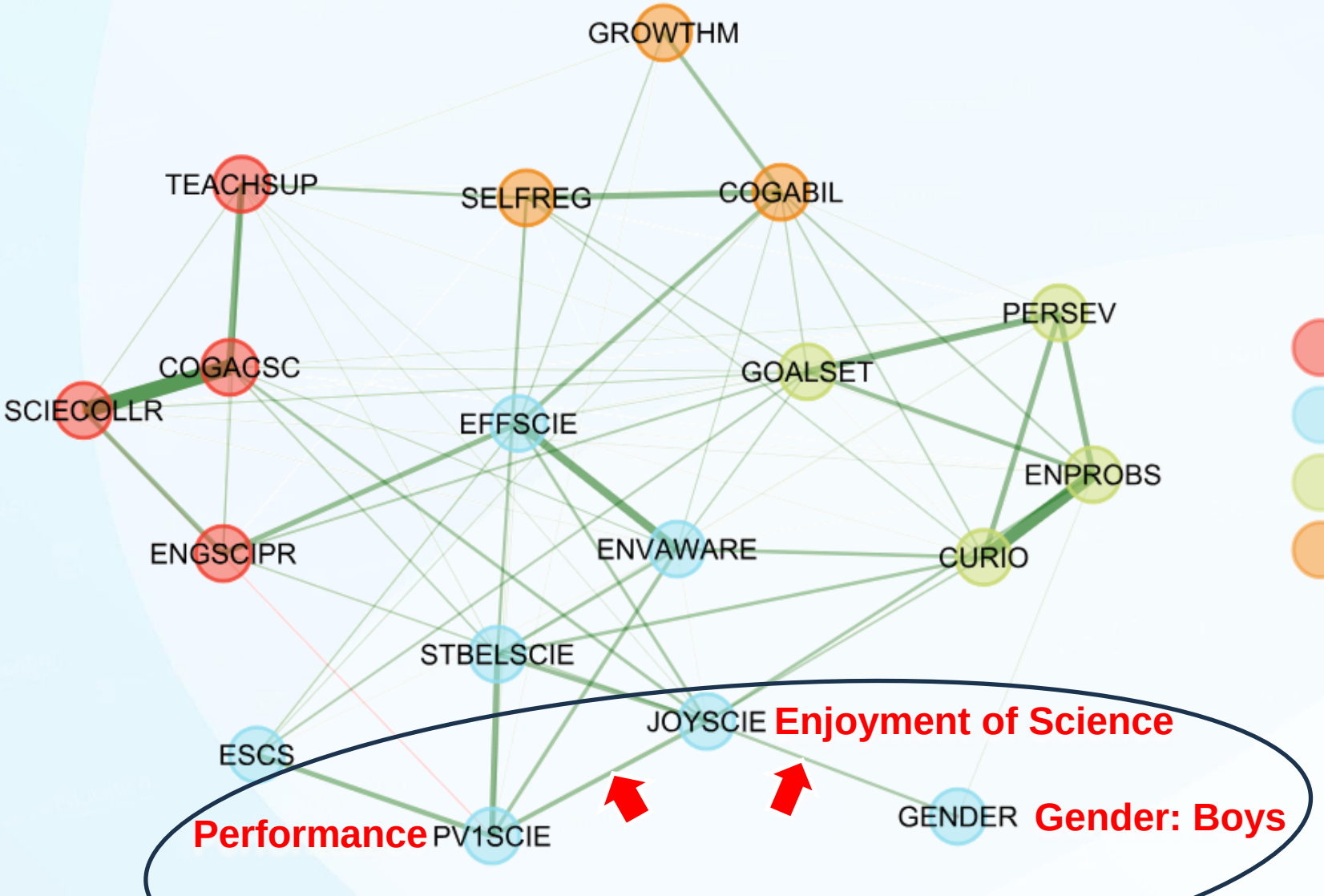
Science Performance

Coding:
Girl - 0
Boy – 1

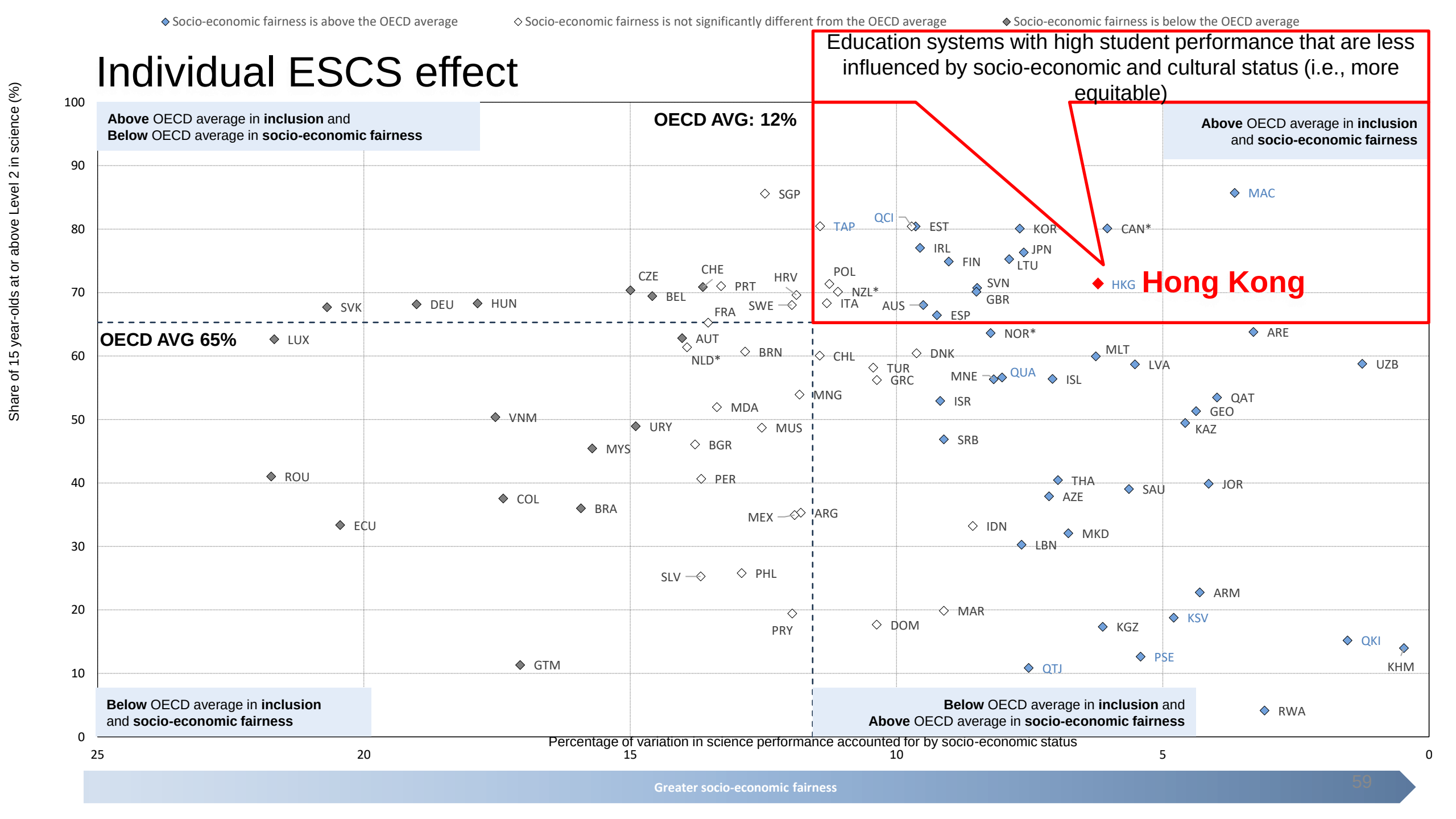
Gender Differences Across Domains



Gender Differences Across Domains



Boys Report Higher Enjoyment of Science: This Single Attitudinal Difference Accounts for 29.4% of the Entire Gender Gap Points.


Socio-economic fairness is above the OECD average
Socio-economic fairness is not significantly different from the OECD average
Socio-economic fairness is below the OECD average
Individual ESCS effect
Education systems with high student performance that are less influenced by socio-economic and cultural status (i.e., more equitable)
Hong Kong
Share of 15 year-olds at or above Level 2 in science (%)
Above OECD average in inclusion and Below OECD average in socio-economic fairness
OECD AVG: 12%
Above OECD average in inclusion and socio-economic fairness
OECD AVG 65%
Below OECD average in inclusion and socio-economic fairness
Below OECD average in inclusion and Above OECD average in socio-economic fairness
Percentage of variation in science performance accounted for by socio-economic status
Greater socio-economic fairness
100
90
80
70
60
50
40
30
20
10
0
25
20
15
10
5
0
SGP
MAC
QCI
TAP
EST
KOR
CAN*
IRL
JPN
FIN
LTU
POL
HKG
CZE
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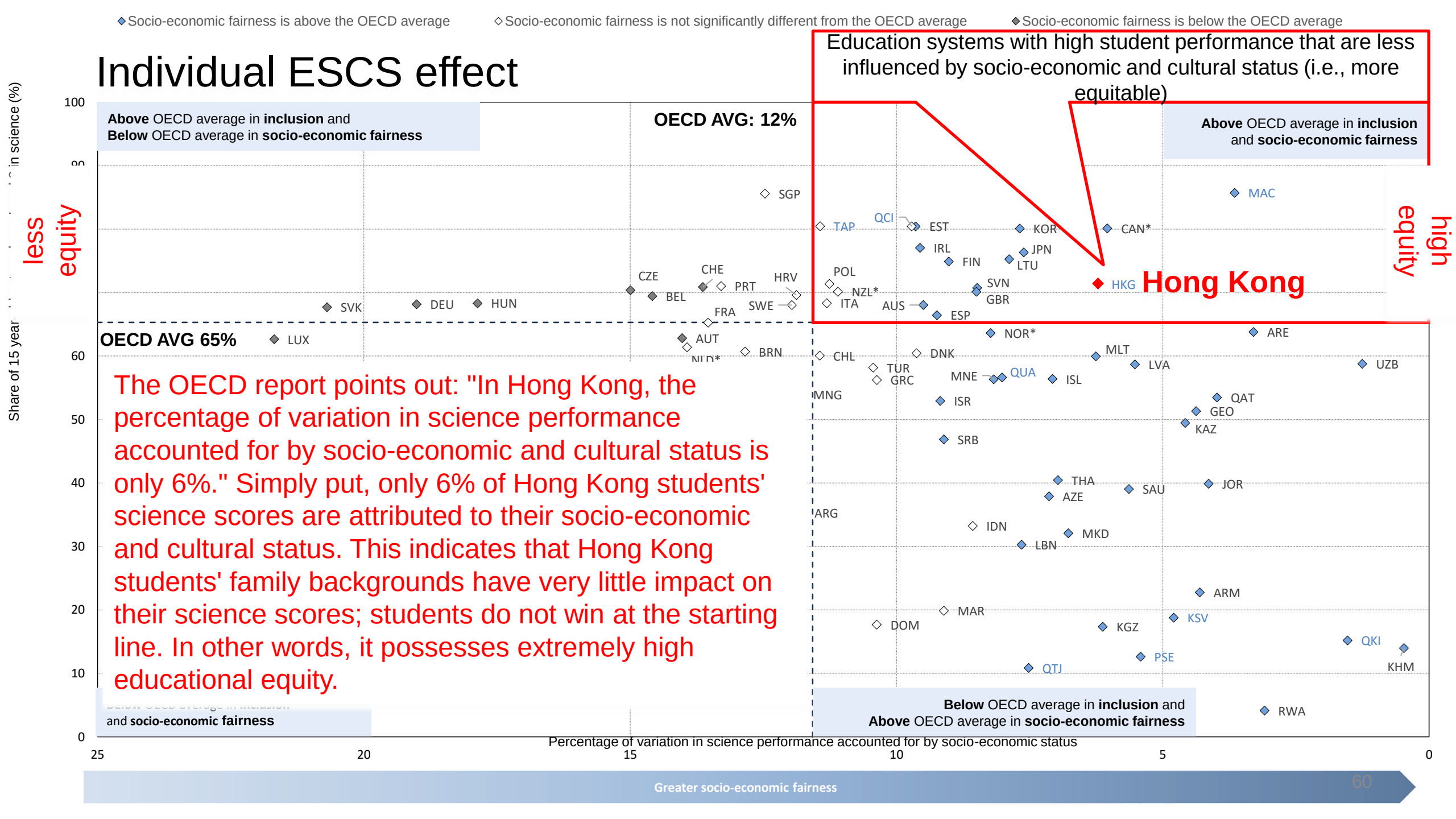
Socio-economic fairness is above the OECD average
Socio-economic fairness is not significantly different from the OECD average
Socio-economic fairness is below the OECD average
Individual ESCS effect
Education systems with high student performance that are less influenced by socio-economic and cultural status (i.e., more equitable)
Share of 15 year ... in science (%)
less equity
high equity
Above OECD average in inclusion and Below OECD average in socio-economic fairness
OECD AVG: 12%
Above OECD average in inclusion and socio-economic fairness
OECD AVG 65%
Hong Kong
The OECD report points out: "In Hong Kong, the percentage of variation in science performance accounted for by socio-economic and cultural status is only 6%." Simply put, only 6% of Hong Kong students' science scores are attributed to their socio-economic and cultural status. This indicates that Hong Kong students' family backgrounds have very little impact on their science scores; students do not win at the starting line. In other words, it possesses extremely high educational equity.
Below OECD average in inclusion and socio-economic fairness
Below OECD average in inclusion and Above OECD average in socio-economic fairness
Percentage of variation in science performance accounted for by socio-economic status
Greater socio-economic fairness
SGP
MAC
TAP
QCI
EST
KOR
CAN*
IRL
JPN
FIN
LTU
POL
SVN
HKG
NZL*
GBR
ITA
AUS
ESP
CZE
CHE
PRT
HRV
BEL
SVK
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SAU
ARG
IDN
MKD
LBN
ARM
MAR
KSV
DOM
KGZ
QKI
PSE
KHM
QTJ
RWA
100
90
60
50
40
30
20
10
0
25
20
15
10
5
0

Up to 15% of disadvantaged students in Hong Kong demonstrate “academic resilience”, significantly higher than the OECD average of 12%. This shows the excellent performance of the Hong Kong education system in helping children from disadvantaged families overcome background limitations.

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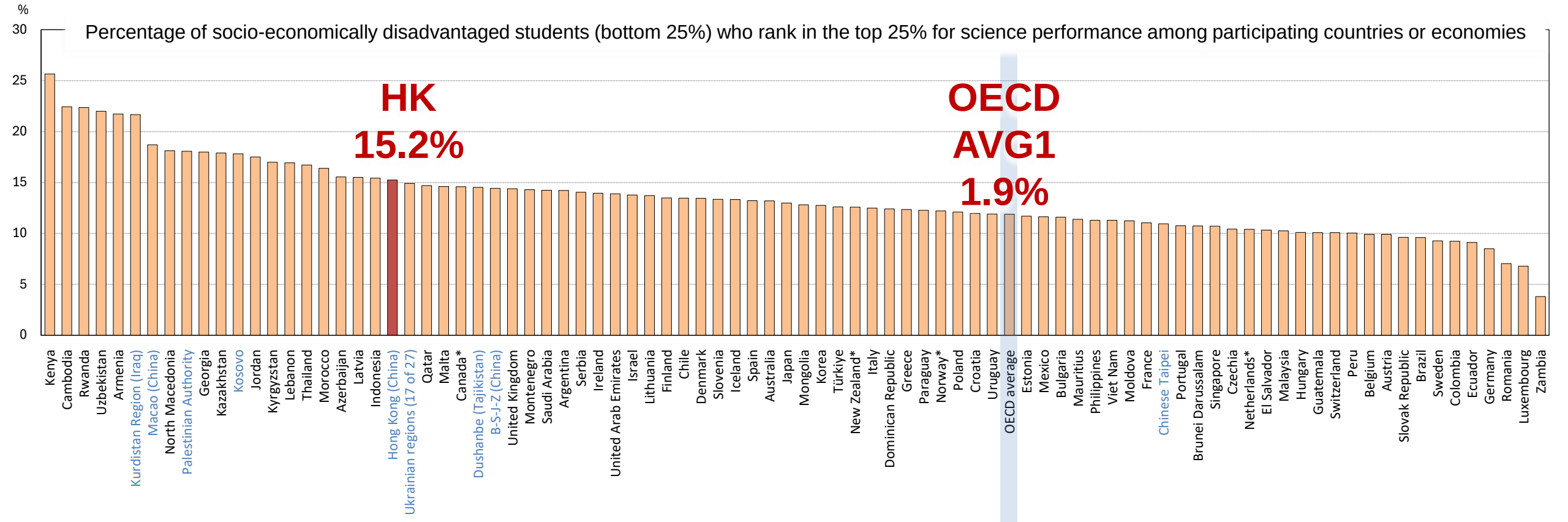
- Academically Resilient Students: Students who are in the most disadvantaged socio-economic status (ESCS) families — the bottom 25% — but whose science performance is at the top level — the top 25%.
- Academic resilience is highly correlated with a "Growth Mindset", believing that one's abilities are not fixed and can be improved through effort and feedback.



Academic resilience is related to a “Growth Mindset”, believing that one's abilities are not fixed and can be improved through effort and feedback.

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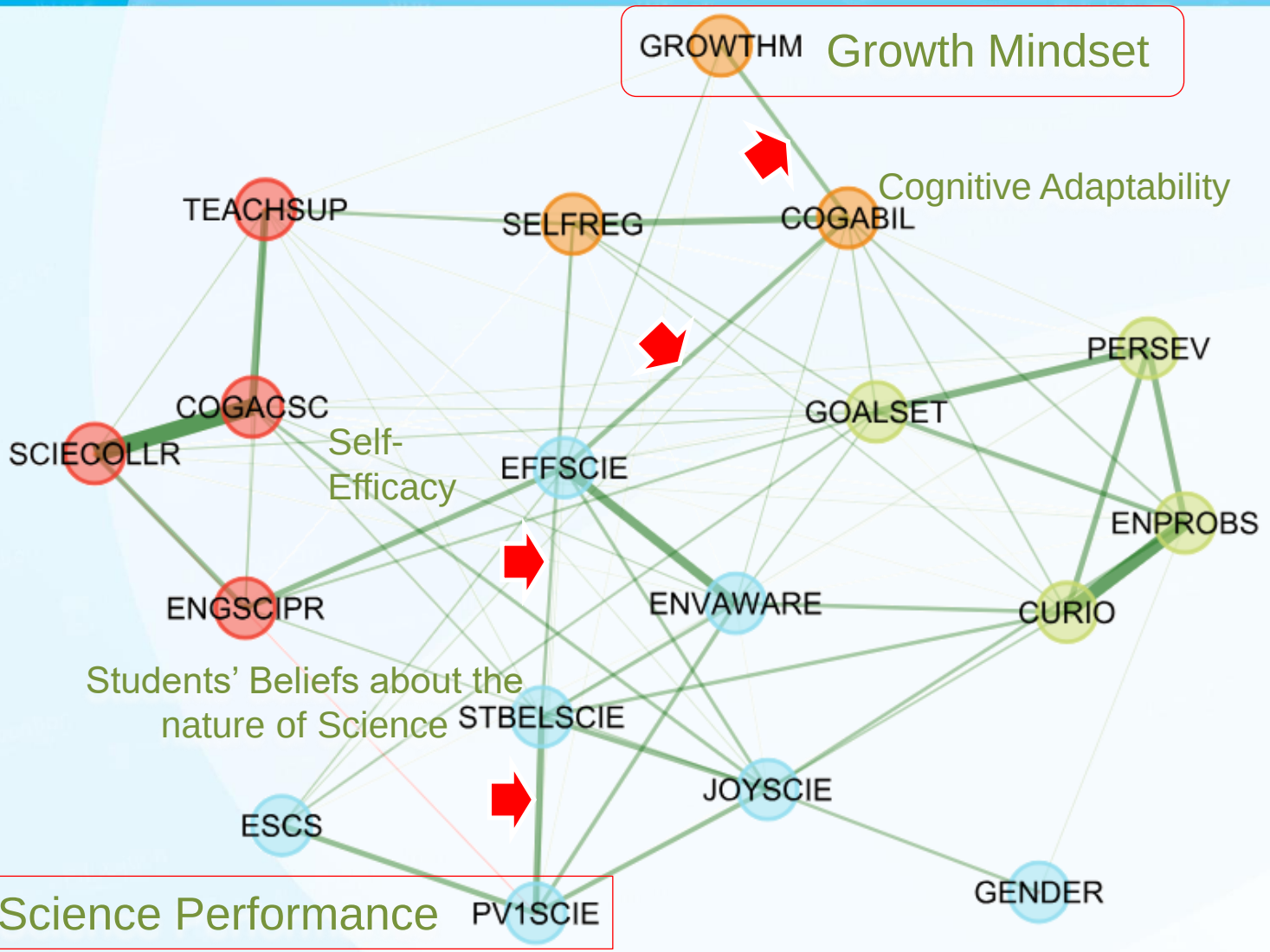

- Academic resilience is highly correlated with a "Growth Mindset".
- The internal belief that "effort and feedback can change talent" can be effectively transformed into an academic advantage.
- In Hong Kong, students with a "growth mindset" score 9 points higher than their peers with a "fixed mindset".

Note: In Hong Kong, there is no statistically significant difference in performance across the four domains between immigrants (first- or second-generation) and native students. Therefore, this factor does not appear in the network analysis, indicating that academic performance is not affected by immigrant background and demonstrating educational equity.

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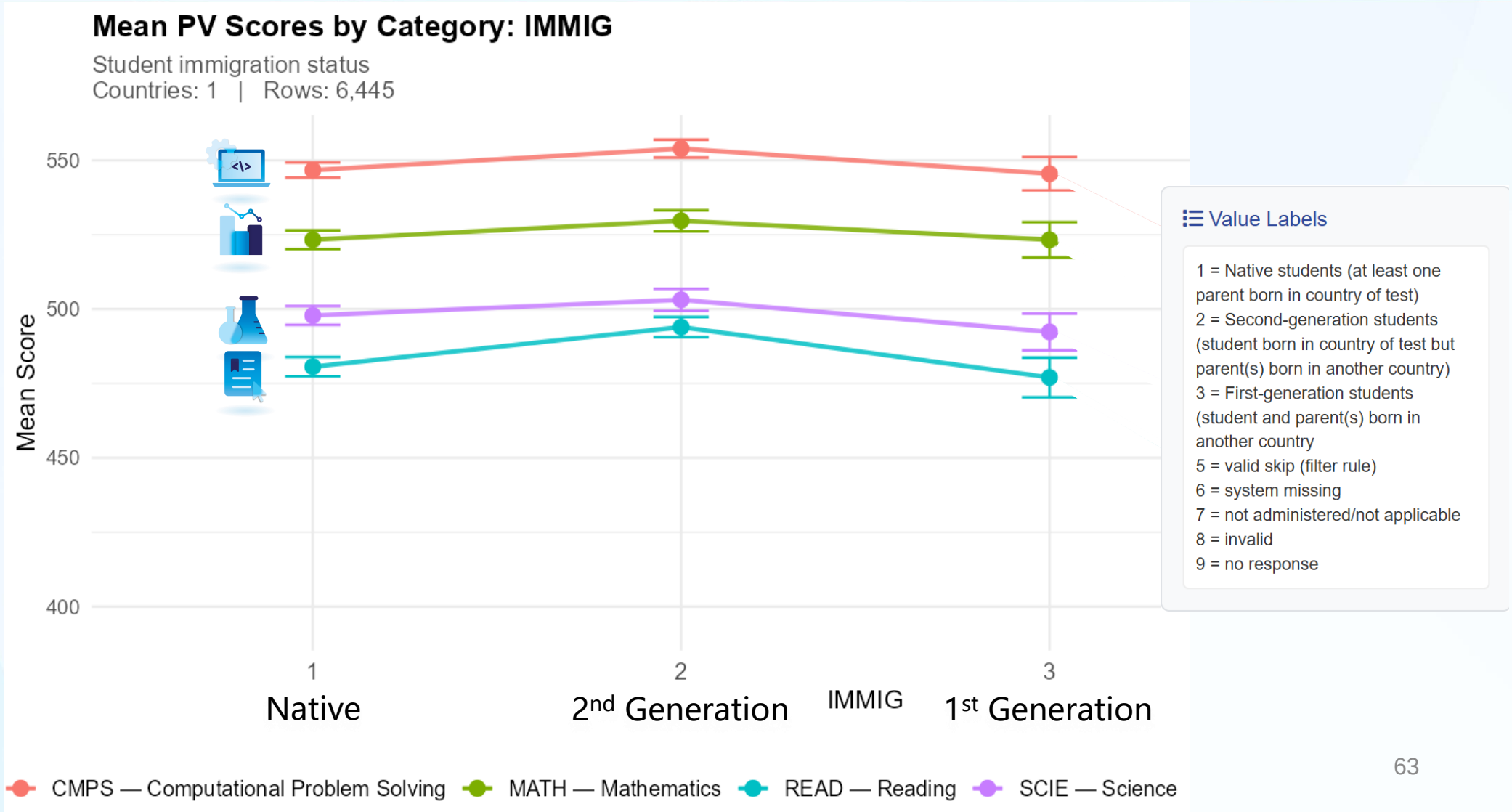

Conclusion

PISA 2025

Conclusion

- **Enhancing student agency** is vital for future readiness in an increasingly complex, unpredictable, AI shaped world.

- Hong Kong students' **excellent performance in *Learning in the Digital World*** shows that many already possess key competencies for developing agency, including modelling, logical reasoning, testing solutions and evaluating information.

- The next step is to help students transfer these strengths more fully to science, mathematics and reading domains.

Conclusion

- Targeted support can not only sustain above-average achievement across the three core domains but also strengthen performance in the upcoming innovative domain (i.e., Media and AI Literacy) of the PISA 2029 cycle.

- Ultimately, student agency empowers students to thrive in and shape their future world.

Reflections and Sharing from Front-line Educators

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Mr. Albert WONG

IT Manager of Ying Wa College

Chairman of Association of IT Leaders in Education (AiTLE)

Dr. Ka Chun SUEN

Principal of Po Leung Kuk Laws Foundation College

Awardee of the Chief Executive's Award for Teaching Excellence (Science Education Key Learning Area)

Mr. Dickson HO

Principal of The Chinese Foundation Secondary School

Awardee of the Chief Executive's Award for Teaching Excellence (Science Education Key Learning Area)

Thank You

Faculty of Education
The University of Hong Kong

Professor Frederick K.S. LEUNG
Project Leader

Professor Wai Ip LAM
Co-Project Leader & Project Team Member (Language and Reading)

Professor Kennedy K.H. CHAN
Project Team Member (Science)

Ms Annie K.L. CHAN
Deputy Project Leader & Project Team Member (Science)

Professor Nancy W.Y. LAW
Project Team Member (Learning in the Digital World)

Dr Alex W.C. TSE
Project Team Member (Learning in the Digital World)

Professor Ida A.C. MOK
Project Team Member (Mathematics)

Professor Biyao LIANG
Project Team Member (Mathematics)

Professor Yongyan LI
Project Team Member (Language and Reading)

Professor Choo Mui CHEONG
Project Team Member (Language and Reading)

Professor Gaowei CHEN
Project Team Member (Research Methodology and Educational Statistics)

Project Manager
Ms Connie LEUNG

Data Analyst
Dr Ken CHOW

Q&A

Press Materials

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- Scan the QR code to download the press release statements and related materials.

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Media Enquiries

- For enquiries regarding the PISA results or further information, please contact:
  - Ms Connie Leung
  - Ms Carmen Chu

- Email: pisa@hku.hk
- Telephone: 3917 4248