The Use of PISA Data for Enhancing STEAM Education in Hong Kong

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The Importance of PISA at Policy Level

- Ensure students are equipped with 21st century skills
- Provide scientifically-based evaluation of educational outcomes
- Benchmark students' performance against the international norm

Insights from PISA Results

- Assess students' achievements
- Analyse the strengths and weaknesses of students
- Identify the factors affecting the performance of students
- Conduct longitudinal comparison

STEAM education
“for all”, “for fun” and “for diversity”

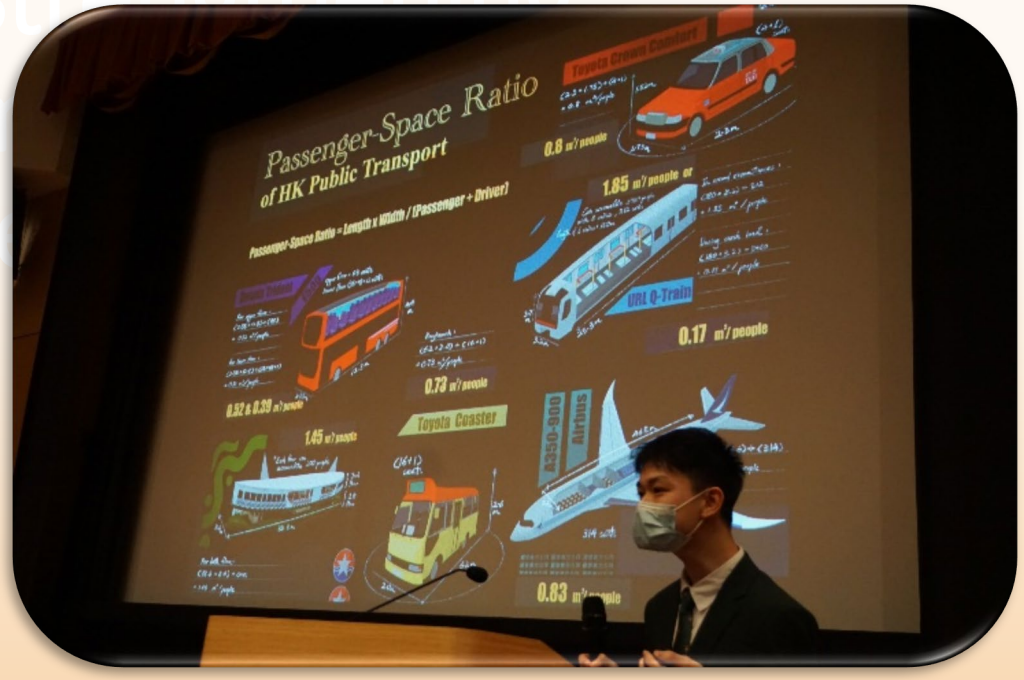
- Educational equity: distinguished feature of Hong Kong education system
- Nurturing curiosity and intrinsic motivation
- Success for all: differentiated scientific activities to stretch students’ potential

Mathematics performance in Hong Kong in PISA 2022

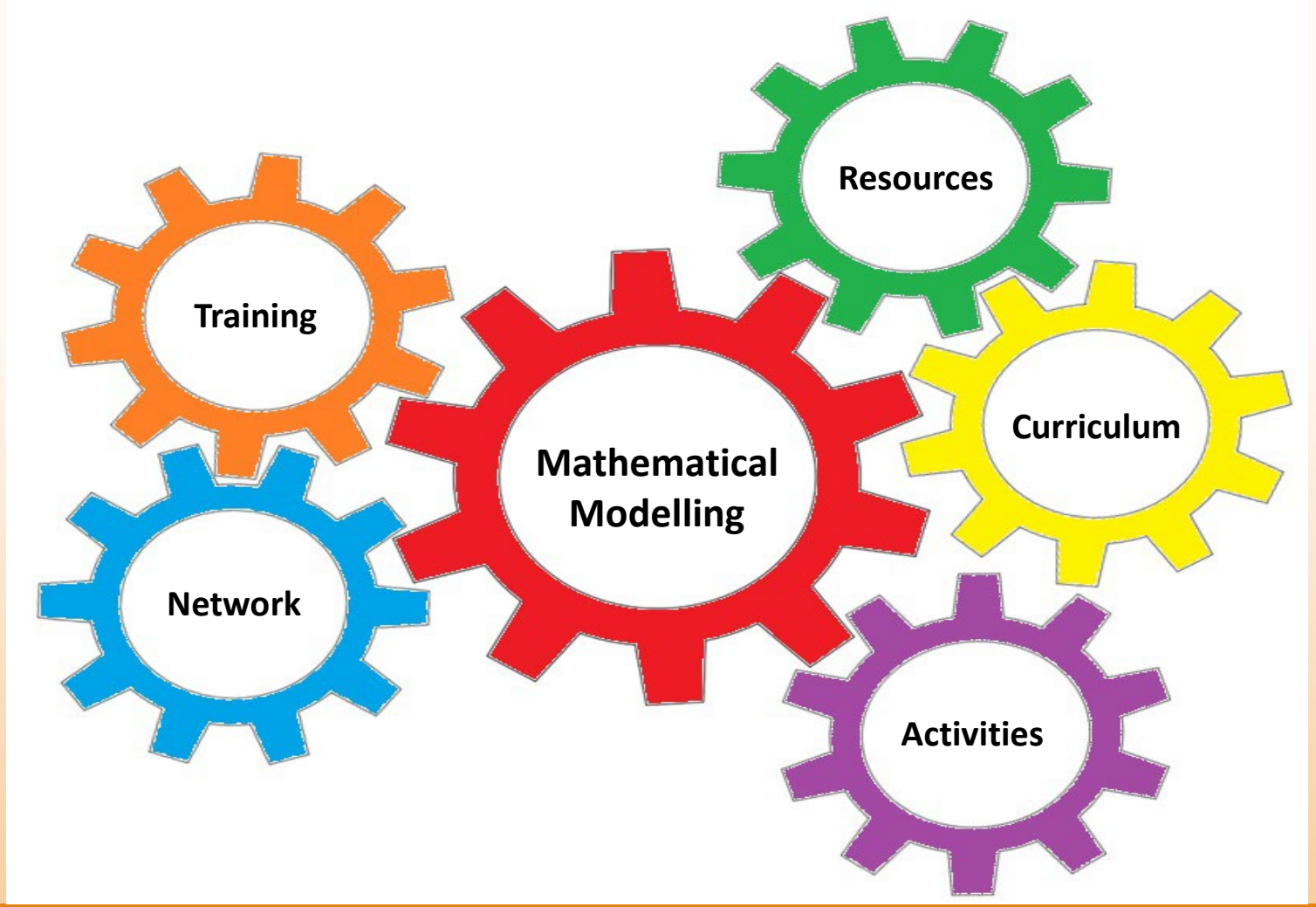
Students performed best in

Employing and **Quantity**

Nurturing students' ability in mathematical modelling and data literacy



All-round supports for teachers to promote mathematical modelling and data literacy



Renewal of Science Curriculum: Early Cultivation of Scientific Thinking and Innovation

- Be scientifically literate and equipped with 21st-century competencies

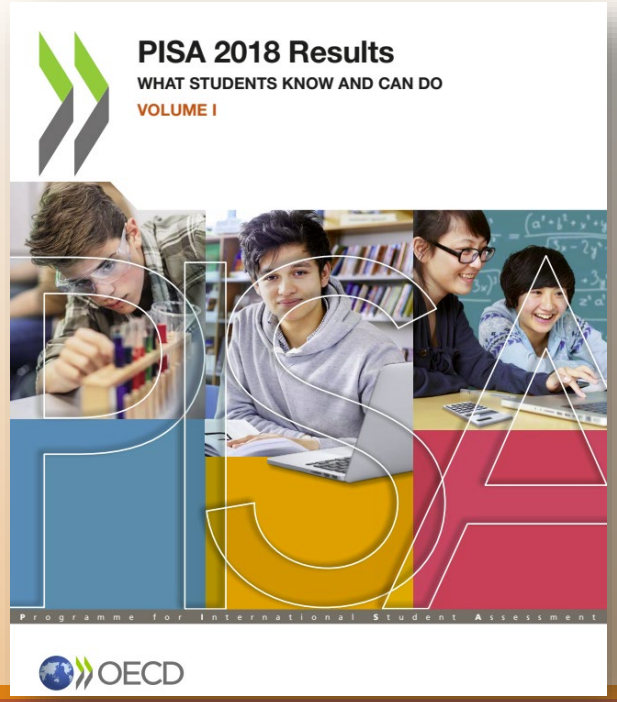
  - **Building a seamless science education journey**: from the **new Primary Science framework** to the **renewed Junior Secondary Science curriculum**
  - Greater emphasis on **scientific inquiry**, **cross-disciplinary connections** and **innovation**

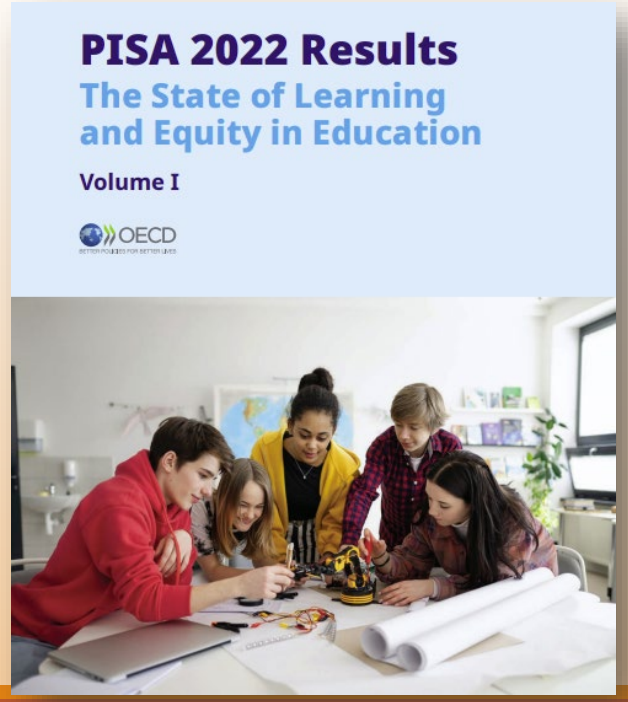
Survey on Information Technology in Education (2023/24)

- **Over 98% schools**: e-learning increased student motivation through active knowledge construction and self-directed learning
- **Over 90% schools**: e-learning strengthens students' critical thinking skills, problem solving skills, computational thinking competency and creativity
- teacher-student and student-student interactions, and collaborative learning among student peers **strengthened**

PISA 2022 vs PISA 2018: Impacts of COVID-19

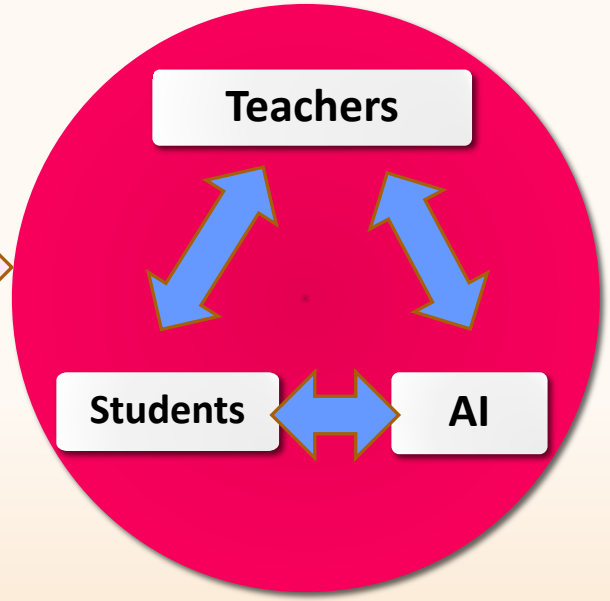
- Worldwide downward trend observed
- Hong Kong
  - Science: improvement in scores
  - Mathematics: relatively milder drop compared with OECD average





Building digital competence for the next generation

A pilot scheme "AI for Science Education" Funding Scheme to promote AI-assisted teaching in junior secondary Science



Pedagogical innovation

Enhance student learning outcomes / effectiveness

The Steering Committee on Strategic Development of Digital Education

Offer advice and suggestions to the Government on promoting digital education at the school level

In Future…

… to learn in the digital world

… to examine, evaluate and monitor effectiveness of education systems

… to leverage the rich insight

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