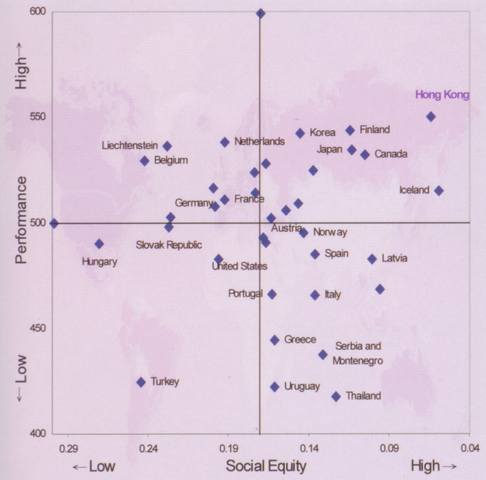
How Well Does Hong Kong's Education Work?

OECD PISA

The OECD Programme for International Student Assessment (PISA) takes place in every 3 years since 2000. PISA 2003 assessed 15-year-old students the literacy domains of Reading, Mathematics, Science, and Problem Solving.

Our education system succeeds generally in maintaining quality regardless of students' socio-economic and cultural background.



Student Performance in PISA 2003

Among some 40 countries or regions, Hong Kong students perform well above the international average, and rank among the top 10 in all four assessment domains.

Mathematical Literacy		Scientific Literacy		Reading Literacy		Problem Solving Skills	
Hong Kong	**(550)**	Finland	(548)	Finland	(543)	Korea	(550)
Finland	(544)	Japan	(548)	Korea	(534)	**Hong Kong**	**(548)**
Korea	(542)	**Hong Kong**	**(539)**	Canada	(528)	Finland	(548)
Netherlands	(538)	Korea	(538)	Australia	(525)	Japan	(547)
Liechtenstein	(536)	Liechtenstein	(525)	Liechtenstein	(525)	New Zealand	(533)
Japan	(534)	Australia	(525)	New Zealand	(522)	Macao	(532)
Canada	(532)	Macao	(525)	Ireland	(515)	Australia	(530)
Belgium	(529)	Netherlands	(524)	Sweden	(514)	Liechtenstein	(529)
Macao	(527)	Czech Republic	(523)	Netherlands	(513)	Canada	(529)
Switzerland	(527)	New Zealand	(521)	**Hong Kong**	**(510)**	Belgium	(525)

Note: Number in bracket denotes mean score of that domain.

Mathematical Literacy

- Hong Kong students outperform their counterparts in other participating countries or regions, and continue to rank top.
- Students in Hong Kong do especially well in 'space and shape' and 'uncertainty' compared to their peers in other participating countries.

Scientific Literacy

- Hong Kong ranked 3rd among all participating countries or regions.
- Hong Kong students do particularly well in 'understanding concepts' and 'identifying evidence' as compared to 'recognizing questions' and 'drawing conclusions.'

Reading Literacy

- Hong Kong ranked 10th, down from 6th in PISA 2000. Compared to the top performing countries or regions, Hong Kong has much smaller proportion of proficient readers.
- The relative performance of Hong Kong students assembles the international pattern in all aspects of reading, namely, retrieving information, interpreting, and reflecting. Nevertheless, Hong Kong students lead their OECD peers more in retrieving information compared to the other two aspects.

Problem Solving Skills

- Hong Kong ranked 2nd in this domain. Over one-third of our students reaches the highest proficiency level and is regarded as 'reflective and communicative problem solvers.'
- Hong Kong students do similarly well in all three problem types: decision making, system analysis and design, and trouble shooting.

Gender Differences

- There is no significant gender difference in the performances of most of the domains except reading where girls outperform boys significantly. However, girls show less confidence in doing mathematics than boys.

Between School Variation

- The performances of individual schools still vary remarkably as compared to that of other high performing systems, reflecting the existence of academic segregation among schools.

Hints for Educators

- Regarding **mathematics**, given our proven strength in cultivating basic knowledge and skills, we should endeavour to bring our mathematics teaching in line with a broader conception of mathematics of the information age by de-emphasising drilling for routine manipulations, and instead, by giving students more opportunities to conceptualise, to analyse, to reason, to argue and to reflect in working out mathematics in the classroom.
- Regarding **science**, to build on the well-established investigative approach, teachers may provide more opportunities for open enquiry in order to develop students' creativity and critical thinking. To do so, we can use generic questions rather than highly structured worksheets in guiding students to design investigations, interpret results and draw conclusions all by their own.
- Regarding **reading**, teachers can initiate students into reading a broader variety of materials in terms of its subject matter, and context and function of use. Besides the general reading skills, teachers can also teach students strategies that facilitate their comprehension of texts of different school subjects (e.g. how the organization of information, or the linguistic clues in a text relate to its purpose). Moreover, reading tasks demanding higher levels of comprehension (e.g. tasks eliciting readers' reflection on the text content or form) can be designed.
- Regarding **problem solving**, given that our students are strong problem solvers, teachers may enhance their ability to understand, analyze and evaluate through the use of cross-subject knowledge and real life cases. This is what Liberal Studies is planned and designed for.

Tips for Parents

Put a "✓" against the activity that you often engage in:

- ☐ Discuss with your child about school life
- ☐ Discuss with your child about school work
- ☐ Spend time chatting or having meals with your child
- ☐ Provide your child a quiet study environment
- ☐ Invest on educational resources for your child
- ☐ Purchasing books and classical literature

As a parent, your involvement has a great impact on the child's learning. The more ✓ you get, the more you are contributing to your child's education.

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(Programme Commissioned by Education Bureau)

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Without data, you are just another person with an opinion.

Prof. Esther Ho, Director of the Hong Kong PISA Centre

Policy making must be based on evidence and education principles.