



# How Well Does Hong Kong's Education Work?

PISA 2006

The Programme for International Student Assessment (PISA) is a project led by the Organisation for Economic Co-operation and Development (OECD). PISA takes place every three years starting from 2000, assessing the knowledge and skills of 15-year-olds in scientific, reading and mathematical literacy. More than 400,000 students from 57 countries/regions participated in PISA 2006.

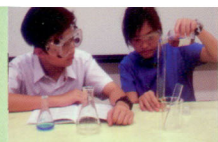
## Top 10 countries/regions in PISA 2006

Country/Region	Science	Reading	Mathematics
Finland	563	Korea 556	Chinese Taipei 549
Hong Kong-China	542	Finland 547	Finland 548
Canada	534	Hong Kong-China 536	Hong Kong-China 547
Chinese Taipei	532	Canada 527	Korea 547
Estonia	531	New Zealand 521	Netherlands 531
Japan	531	Ireland 517	Switzerland 530
New Zealand	530	Australia 513	Canada 527
Australia	527	Liechtenstein 510	Macao-China 525
Netherlands	525	Poland 508	Liechtenstein 525
Liechtenstein	522	Sweden 507	Japan 523

Note: Shaded area indicates scores significantly different from those of Hong Kong.

## Performance Trend of Hong Kong Students

	Science	Reading	Mathematics
PISA	Score	Score	Score
2000+	541	525	560
2003	539	510	550
2006	542	536	547



## Student Performance in PISA 2006

### Scientific Literacy

Hong Kong students are relatively strong in *explaining phenomena scientifically*, but relatively weak in *identifying scientific issues* and *using scientific evidence*. Despite that, Hong Kong students still outperform most of their international counterparts in all three scientific competencies.

### Reading Literacy

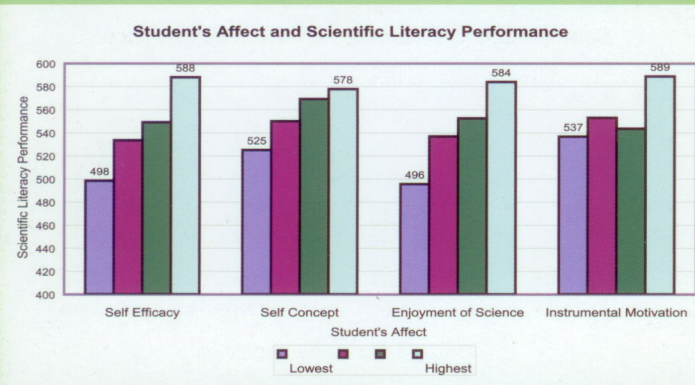
Hong Kong students made a remarkable improvement in PISA 2006. The better performance of students at all levels of proficiency, especially among the low achievers and high achievers, accounted for this improvement.

### Mathematical Literacy

Hong Kong shares the top tier with three other countries/regions.

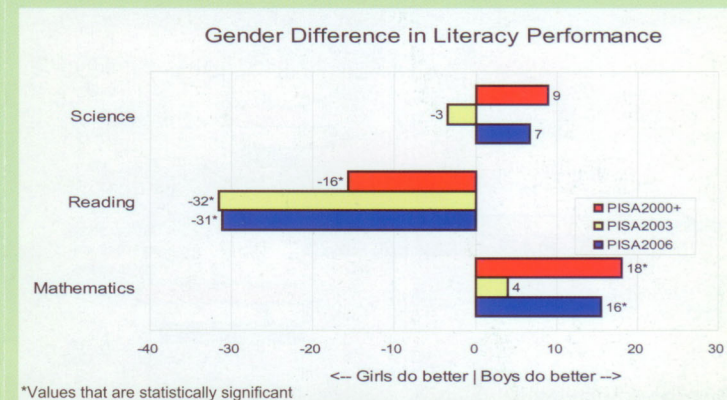
## Who are doing better in science?

- Students who are more confident.
- Students who enjoy science activities.
- Students who believe learning science is worthwhile for future career.



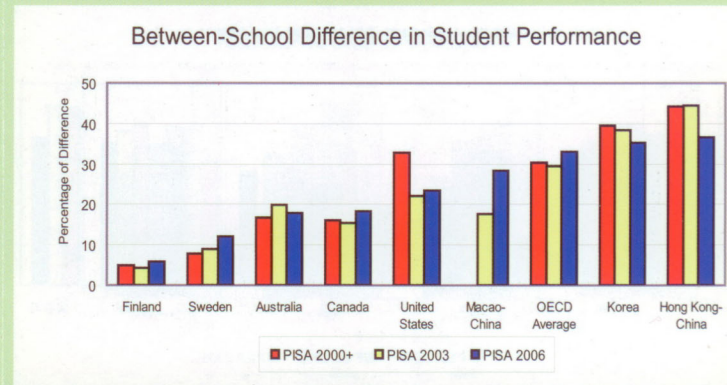
## Who are doing better, boys or girls?

- Boys and girls do similarly in science.
- Girls do much better than boys in reading.
- Boys do better than girls in mathematics.



## Can difference between schools reduce further?

- Hong Kong schools show considerable difference in student performance, especially when compared with those in Finland.
- This difference is slightly reduced in PISA 2006.
- For all schools to excel, could this difference be further reduced by reworking the Secondary School Places Allocation System or the Medium of Instruction Policy?



## Hints for Educators

- Hong Kong students consistently do very well in cognitive tests, but they have low self-concept in reading, mathematics and science. Feeling good as well as doing well are conducive to cultivating students' confidence and passion for lifelong learning.
- The cognitive and affective domains of scientific literacy are inter-related. The nurturing of students' affection is most effective through experiential learning or action in real-life context.
- Considerable gender difference has persisted, with boys performing poorer than girls in reading and girls performing poorer than boys in mathematics. Therefore, encouraging boys to enjoy reading and helping girls to reduce their anxiety in learning mathematics should be on the agenda for further improvement and research.
- Although the gender difference in science performance is not significant, girls tend to have lower self-confidence in doing science and regard it as not-so-practical and rather difficult subject. Girls also have lower aspiration in science-related careers. Educators should be aware of the possible bias of interaction unfavourable to girls in science classroom.



## Hints for Parents

Things you can do to promote your child's interest in science:

- Watch TV programmes about science with your child
- Read books on scientific discoveries with your child
- Visit websites about science with your child
- Encourage your child to join science clubs
- Talk with your child about environmental issues

Things you can do to promote your child's learning:

- Discuss with your child about school life
- Keep contact with other parents in your child's school
- Discuss your child's learning progress with teachers
- Attend parent seminars or parent education programmes
- Volunteer in school activities and Parent Teacher Association

Organiser of PISA in Hong Kong:  
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(Programme Commissioned by Education Bureau)

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Education Bureau



The Chinese University of Hong Kong



Hong Kong Institute of Educational Research

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

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

Cognitive and affective outcomes are equally important for children's lifelong learning.