

What have we learned from TIMSS?

Change over time

From TIMSS we learn that the performance of Australian students on tests of mathematical and scientific knowledge has remained largely static over the past decade whereas achievement levels in many other countries have increased. The result is that some countries which were below or equal to Australia a decade ago in school science achievement (eg, Hong Kong SAR and England) and school mathematics (eg, England and Hungary) now outrank us.

Gender differences

Although there is no gender difference obvious in science achievement at Year 4, by Year 8 Australian boys substantially outscore girls in science.

TIMSS data also indicate that boys and girls have different attitudes and beliefs towards science and mathematics. Boys tend to be more confident and are interested in and enjoy science and mathematics more than girls.

In science, boys are more likely to agree a lot that they...

	Girls	Boys
...usually do well in science	24%	31%
...enjoy learning science	24%	30%
...learn things quickly in science	17%	25%
...need science to learn other subjects	14%	20%

In mathematics, boys are more likely to agree a lot that they...

	Girls	Boys
...usually do well in mathematics	28%	35%
...learn things quickly in mathematics	15%	23%
...need mathematics to learn other subjects	29%	35%
...need maths to get into the university they want	39%	51%
...would like a job involving mathematics	10%	18%
...need maths to get job they want	30%	45%

Self-confidence in mathematics and science had one of the strongest relationships with achievement.

Computer use

Australia had one of the highest proportions of students reporting that they had a computer in the home. More Australian students report having a computer at home than having a study desk or table for their use. Using a computer both at home and at school was positively related to mathematics performance at Year 4 and Year 8.

Important TIMSS dates

2006

March–April
Field Trial

October–November

Main Study takes place in Australia

2007

March–June

Main Study takes place in the Northern Hemisphere

2008

International and national reports released

TIMSS is:

- a project of the International Association for the Evaluation of Educational Achievement (IEA), an independent, international cooperative of national research institutions and governmental research agencies.
- jointly funded by the Australian, State and Territory Ministers for Education.
- organised by the Australian Council for Educational Research (ACER).

For more information,
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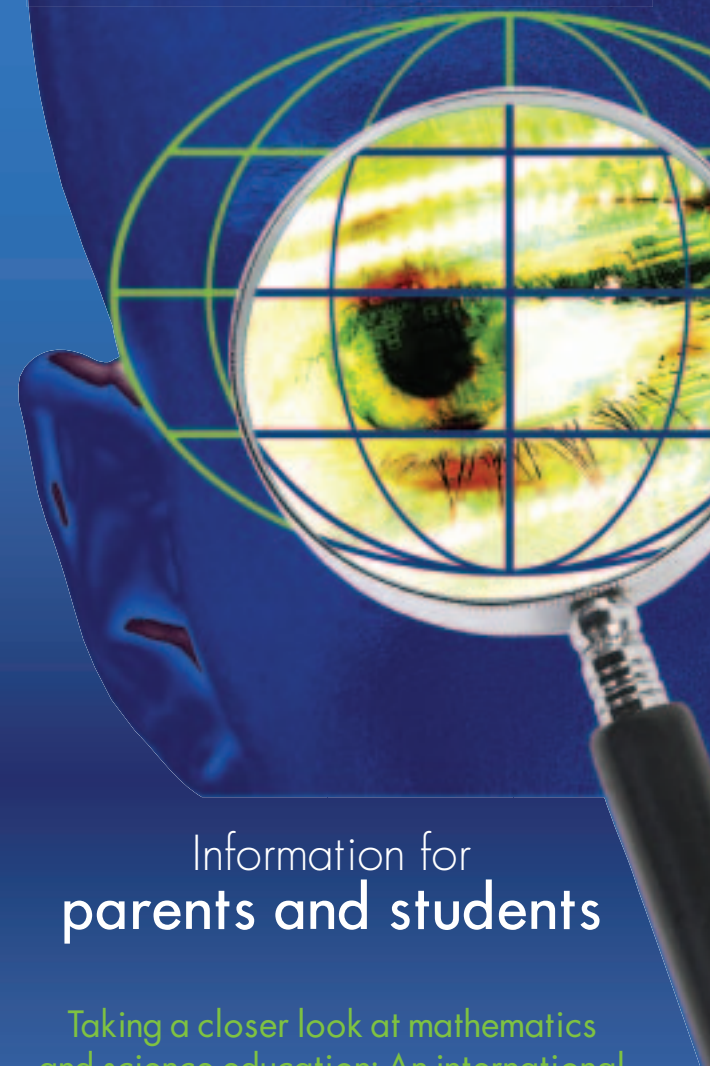
or visit

www.timss.acer.edu.au

*Thank you for supporting TIMSS
and representing Australia in the world's longest
running survey of mathematics and science.*

TIMSS 2006/07

Trends in International Mathematics and Science Study



Information for parents and students

Taking a closer look at mathematics
and science education: An international
focus on educational policy
and practice



What is TIMSS?

TIMSS:

- is the world's longest running international study of mathematics and science.
- surveys students in Year 4 and Year 8 in over 60 different countries.
- examines student achievement in relation to different curricula types, instructional practices and school environments.
- provides results which are used by Governments and policy-makers to improve mathematics and science education all over the world.

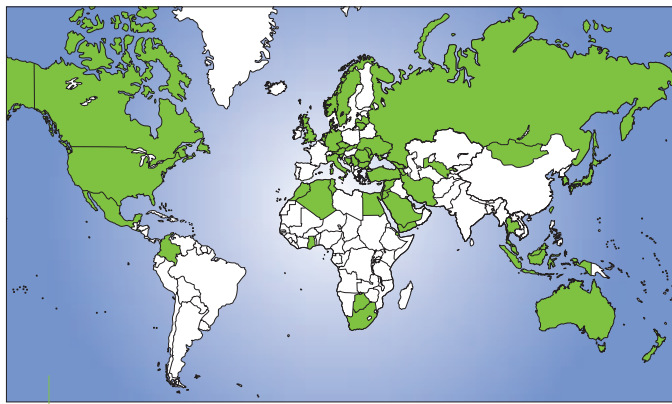
TIMSS then and now...

- TIMSS was conducted for the first time in 1994/95 in more than 40 countries at five year levels in primary and secondary schools. TIMSS Repeat was conducted in 38 countries in 1998/99 at Year 8. The latest round of TIMSS in 2002/03 saw Year 4 and Year 8 students in 46 countries taking part, and in 2006/07 an additional 12 countries will participate at one or both year levels.
- In Australia, more than 10 000 students from over 400 schools took part in TIMSS 2002/03.

Who will be involved in TIMSS in Australia?

- Over 400 schools from all Australian states and territories will be randomly selected to participate in TIMSS 2006/07.
- Whole classes of Year 4 and Year 8 students will be selected from each school to represent Australia in TIMSS.

We look forward to having the selected schools, teachers and students as part of the Australian TIMSS Team.



The highlighted countries will be participating in TIMSS 2006/07.

What will students need to do?

- Students will answer some questions in mathematics and science, as well as some questions about their experiences at home and school.
- There is no need to do any special study.
- The survey will take place during school hours, at a time chosen by the school.
- You can see some examples of the TIMSS questions on the Internet at <http://isc.bc.edu/timss2003i/released.html> or at <http://nces.ed.gov/nceskids/eyk>

What will students and schools receive?

- As well as the chance to represent Australia, students who take part in the TIMSS Main Study will receive a certificate of participation.
- Each school will receive profiles for every student, giving an indication of their performance in relation to all other Australian students who complete the survey.

Is the information gathered in the study kept confidential?

- Yes. All data collected in TIMSS are kept strictly confidential as specified by the relevant Australian, State and Territory Privacy laws.
- While each school will receive its own results, no individual or school will be identified in any report or document arising from the project.
- All staff involved in the project are required to sign a confidentiality agreement agreeing not to divulge any information relating to the study.

What will be done with the results from TIMSS?

TIMSS data will:

- indicate how well Australian students have mastered the factual and procedural knowledge taught in mathematics and science at school.
- allow a comparison of the performance of students from different countries.
- allow areas for improvement to be identified over time.
- be used by governments, education systems and schools to improve equity in education for all Australian students.
- provide a basis for assessment and monitoring of the effectiveness of education systems.

