Australian students perform well in mathematical literacy

The findings from the latest OECD Programme for International Student Assessment (PISA) cycle of testing were released on 7 December.

ACER led the consortium that conducted PISA internationally and also implemented the assessment within Australia. ACER released a report detailing Australia's results in PISA 2003.

Fifteen-year-old students in 41 countries were assessed in mathematical, reading and scientific literacy as well as problem solving. The Australian component of PISA 2003 involved a randomly selected sample of just over 12 500 students from 321 schools from all states and territories and school sectors.

The study found that Australia's results were above the OECD average in each of mathematical, scientific and reading literacy as well as in problem solving and in each of four mathematical literacy subscales: quantity, space and shape, change and relationships and uncertainty.

Four countries (Hong Kong-China, Finland, Korea and the Netherlands) performed significantly better than Australia in mathematical literacy.

The spread of scores between Australia's highest and lowest achieving students was less than the OECD average.

In reading literacy only Finland achieved significantly better results than Australia. Three countries (Finland, Japan and Korea) outperformed Australia in scientific literacy.

ACER chief executive Professor Geoff Masters said the results were largely positive for Australia although there are some areas of concern.
"Australia's PISA results for mathematical literacy are encouraging. Australia's results are significantly higher than the OECD average and similar to or higher than most other countries with which we would usually compare ourselves."

Professor Masters cautioned that the lower level of performance by Australia's Indigenous students continues to be a concern.

"While some Indigenous students performed well in PISA mathematical literacy, this was a very small proportion of the overall sample and a much greater proportion was performing at the lower proficiency levels," he said.

"While there are no significant gender differences overall in mathematical literacy, boys tend to be over-represented in the upper levels of achievement while girls appear to be less engaged, more anxious and less confident in mathematics than boys."

Further information is available in the full Australian report, *Facing the future: A focus on mathematical literacy among Australian 15-year-old students in PISA 2003*, by Sue Thomson, John Cresswell and Lisa De Bortoli. The report is available for download from the ACER website. Print copies can be purchased from ACER Press (phone 03 9277 5447 or email *(JavaScript must be enabled to view this email address)*).

The full international report is available from the OECD website at [www.pisa.oecd.org](http://www.pisa.oecd.org).
Australia overtaken in Year 4 and 8 mathematics and science achievement

Australian Year 4 and Year 8 students' achievements in mathematics and science have remained much the same over the past eight years while a number of other countries have made substantial improvements over the same time, raising their position relative to that of Australia, according to the latest findings from the Trends in International Mathematics and Science Study (TIMSS 2002/03).

The study found that Australian students performed moderately well in mathematics with the average scores achieved by Australian students about the same as the international average for Year 4 and significantly higher than the international average for Year 8. In science, Australian students achieved above the international average in both year levels.
ACER UPDATE

Australian Principals Centre to join ACER

ACER is pleased to announce that the Australian Principals Centre (APC) will be joining ACER from early 2005. The incorporation of the Australian Principals Centre will broaden ACER’s activities to support the professional learning and work of school principals, strengthen our connections with individual schools and principals' associations and enhance ACER's impact on educational outcomes in schools.

Verification and process development for performance and development accreditation of schools

ACER's Teaching and Leadership research program has been contracted by the Victorian Department of Education and Training to conduct the 'Verification and Process Development for Performance and Development Accreditation of Schools' project.

This project, to be undertaken in collaboration with the Australian Principals' Centre, will develop and trial specifications for the external verification process for the school performance and development accreditation scheme. In providing an accreditation system for schools that attain a performance and development culture DE&T is providing principals and teachers with both direction and recognition for evidence of improved school functioning. The project is likely to run until May 2005.
Research Developments Issue 12 now available

The latest edition of ACER’s newsletter Research Developments is now available in print form and online. Articles in this edition look at issues in early childhood education and care; research into why parents choose a public or private school; an evaluation of school-based arts programs; and what research tells us about the importance of reading for enjoyment. View Research Developments Issue 12. To join the mailing list to receive print copies of Research Developments send an email to (JavaScript must be enabled to view this email address) with your name and postal address. Please clearly state that you would like to join the Research Developments mailing as ACER has many publications and several different mailing lists. The next edition of Research Developments is due in late March/early April of 2005.

Copyright © Australian Council for Educational Research 2015

All rights reserved. Except under the conditions described in the Copyright Act 1968 of Australia and subsequent amendments, no part of this electronic publication may be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without written permission. Please address any requests to reproduce information to communications@acer.edu.au

Subscribe

Australian Council for Educational Research
Private Bag 55, Camberwell, Victoria Australia 3124
Tel: + 61 3 9277 5555
Fax: + 61 3 9277 5500
Web: www.acer.edu.au

ACER eNews December 2004 page 5