PISA shows Indigenous students face substantial disadvantage

A summary of Indigenous students’ results in international tests of reading, mathematical and scientific literacy suggests that initiatives to improve the education of Indigenous students have, to date, had little effect. According to the achievement of Australia’s Indigenous students in PISA 2000-2006 released by ACER on 13 July, Indigenous students remain overrepresented at the lower levels and underrepresented at the upper levels of proficiency. The performance of Indigenous students has not improved over the time from 2000 to 2006.

The report brings together analyses of the achievement of Indigenous students in reading, mathematical and scientific literacy in each of the three cycles of the OECD Programme for International Student Assessment (PISA) conducted in 2000, 2003 and 2006.

In conducting PISA, a special focus for Australia has been to ensure that there is a sufficiently large representative sample of Australia’s Indigenous students so that valid and reliable analysis can be conducted. This has been achieved in each cycle of PISA. In 2000, 493 Indigenous students took part in PISA followed by 815 in 2003 and 1080 in 2006. Among participating Indigenous students, there were similar numbers of male and female students in each cycle. The distribution of Indigenous students by socioeconomic background was found to be substantially skewed, with 44 per cent of Indigenous students classified in the lowest socioeconomic group, compared to 25 per cent of students overall in Australia.

The report shows that, across the three PISA cycles, Indigenous students have performed at a substantially lower average level in reading, mathematical and scientific literacy than their non-Indigenous peers. In each domain, the average for Indigenous students was more than 80 score points (or more than one proficiency level) lower than non-Indigenous students and more than 50 score points lower than the OECD average. In terms of proficiency levels, Indigenous students are overrepresented at the lower levels and underrepresented at the upper levels in reading, mathematical and scientific literacy.

“In terms of years of schooling, this represents a gap of around two years between Indigenous and non-Indigenous students,” said Dr John Ainley, ACER’s Deputy CEO (Research). “In terms of future opportunities, a large number of Indigenous students remain at a substantial disadvantage.”
The performance of Australian Indigenous students in PISA continues to raise concerns about the educational disadvantage faced by these students. From an international perspective, they are performing well below the OECD average and from a national perspective, they are achieving well below the performance of non-Indigenous students.

Of particular concern, more than one third of Indigenous students did not achieve a proficiency level in reading, mathematics and science literacy considered to be the minimum level necessary to meet the challenges faced in life beyond school.

"While lower average performance and attainment among Indigenous students in Australia in comparison to their non-Indigenous peers is not a new finding, these findings reinforce the need for this disparity to be addressed," Dr Ainley said.

The achievement of Australia’s Indigenous students in PISA 2000-2006 by Lisa De Bortoli and Sue Thomson is available from the ACER research repository.

A further report to be released later in 2009 will examine both the attitudes of Indigenous students towards school and the extent to which socioeconomic background and other factors explain their low average levels of achievement.
The future of higher degrees by research

Australia’s economy is increasingly reliant on highly skilled workers, so it is crucial that supply keeps pace with demand. Governments and industry stakeholders need to understand the relevant issues across industries and disciplines in order for Australia to remain internationally competitive.

A recent report Supply, Demand and Characteristics of the Higher Degree by Research Population in Australia examines those in Australia who have a higher degree by research, with particular emphasis on involvement in the labour force and future levels of supply and demand.

The Australian government has a target for at least 40 per cent of 25 to 34 year olds to have a bachelor level or higher qualification by 2025, up from the 2006 level of 29 per cent. If this is achieved, there would be notable increases in the number of students in the higher education sector, which would require more academic staff with higher degrees.

The research found that in the past decade there has been notable growth in the number of completions of higher degree qualifications by research at Australian universities and given recent policies relating to increasing support and funding for research in universities, that this growth could be expected to continue.

Among those in Australia who have a doctorate, this research shows high labour force participation and low unemployment, suggesting that there is a relatively strong demand for people with these qualifications. Among those employed, there are good links between the qualifications and the employment they are engaged in.

The research also explored estimates of future workforce, finding that the workforce in Australia with this level of qualification is projected to grow at a faster rate between now and 2020 than overall workforce growth.

ACER Senior Research Fellow Dr Daniel Edwards said, “The findings in this research highlight the potential importance of the PhD in building the Australian economy in the future. This report provides an important basis for further exploration of the extent to which Australia’s training capacity needs to be adjusted in order to meet the demands of a skilled and innovative workforce in the future.”

The research was conducted by ACER for the Department of Innovation, Industry, Science and Research in June 2009. Read the full report by Daniel Edwards, Ali Radloff and Hamish Coates can be accessed from the ACER research repository.
ACER UPDATE

PISA 2009 testing underway

Testing for the 2009 cycle of the OCED Programme for International Student Assessment (PISA) began in Australia on 23 July. Testing will continue until 2 September. Approximately 18,500 students from 356 schools across Australia are taking part in PISA 2009. PISA assesses how far students near the end of compulsory education (students are aged 15 years when they participate in the assessments) have acquired some of the knowledge and skills that are essential for full participation in society. In all cycles, the domains of reading, mathematical and scientific literacy are covered not merely in terms of mastery of the school curriculum, but in terms of important knowledge and skills needed in adult life. In 2009 Reading Literacy is the major domain being assessed.

ACER is again conducting the Australian national component of PISA on behalf of the Commonwealth and State and Territory Governments. ACER also ACER leads a consortium of research and educational institutions and eminent individuals and holds the major contract to deliver the International PISA project on behalf of the Organisation for Economic Cooperation and Development (OECD). The results of PISA 2009 are due to be released in December 2010.

Further information on the Australian national component of PISA
Further information on ACER’s role in conducting the international PISA study

ACER Research Conference 2009

Research Conference 2009, Assessment and Student Learning; collecting, interpreting and using data to inform teaching, will be held in Perth from August 16-18. Keynote addresses will be delivered by Geoff Masters, Margaret Forster, Helen Wildy (UWA) and Patrik Scheinin (University of Helsinki). The conference will be attended by more than 650 delegates from across Australia with international representation from New Zealand, India, Indonesia and Chile. For further information on the conference program please visit the conference web page.

Schools First award applications closing soon

Schools throughout Australia are invited to apply for a Schools First award and be in the running to share in the $5 million pool of award money. Award applications are now open and close on 14 August.

Schools First, developed by NAB, ACER and the Foundation for Young Australians, is designed to recognise excellence in school-community partnerships. It is Australia’s largest ever corporate-backed education initiative and is open to all schools around the country. To find out more about Schools First and to download application forms, awards criteria, guidelines and Terms and Conditions visit www.schoolsfirst.edu.au or call 1800 649 141.
ARACY Conference 2009

The Australian Research Alliance for Children and Youth (ARACY) will hold its 2009 National Conference in Melbourne from 2-4 September. ACER is an institutional member of ARACY. Dr John Ainley, ACER Deputy CEO (Research) is a founder of ARACY and current member of the scientific committee.

ARACY Conference 2009 will focus on how we can best learn from one another and work together to innovate and take action to improve outcomes for young Australians. The Conference aims to build links between international and national experts, researchers, policy makers, practitioners, social entrepreneurs, marketers, business and financiers. It will explore pathways to success, and showcase preventive innovations that are improving the lives of children and young people. For further information please visit the ARACY conference website.

Master class in assessment

ACER will be hosting a Master Class in Assessment in Brisbane on Saturday 19 September. The Master Class will be delivered by Dr. Randy Bennett from Educational Testing Service in the US and Dr Yoav Cohen and Dr Anat Ben-Simon both from the National Institute for Testing and Evaluation in Israel. The 3 key focus areas of the Master Class will be “Marking practices with particular reference to multiple marking”, “Assessment of Learning Difficulties: diagnostic issues, provision of test accommodations and regulatory procedures” and “Moving existing assessments to computer and using the computer to measure new things”. The Master Class is designed for those with deep involvement in assessment. For further information contact Margaret Taylor at the ACER Centre for Professional Learning on by phone on (03) 9277 5544 or by email to  (JavaScript must be enabled to view this email address).

Research Developments issue 21 now available

Issue 21 of Research Developments, ACER’s news magazine, is now available both online and in print. The cover story for this edition features a case by ACER against the use of simple league tables to compare schools. Other articles include our recent research into the use of Indigenous languages in Australia, the recommendations of the review of primary school education in Queensland by Geoff Masters and a review of evidence into the effectiveness of middle schools. Research Developments issue 21 can be read online. If you would like to join the mailing list to receive print copies, please email your contact details to  (JavaScript must be enabled to view this email address).