ICT use and familiarity in Australia

A newly published ACER research monograph describes Australian students’ access to and use of computers raising serious equity issues in the process.

*PISA 2003 Australia: ICT use and familiarity at school and home* uses results from the OECD Programme for International Student Assessment (PISA) 2003 to examine how extensive access to ICT is in schools, homes and other places, how familiar students nearing the end of compulsory education are with ICT and how well they feel they use the technologies that are available. These characteristics are then compared to how well students performed in mathematics in PISA 2003.

The monograph complements the 2005 OECD report *Are students ready for a technology-rich world?: What PISA studies tell us*, which provided a profile of ICT use for the 32 OECD and partner countries that participated in the ICT Literacy option in PISA 2003.

The 2005 OECD report found that Australian students are among the world’s leading users of computers in education both at school and in the home. Specific findings included:

- All Australian students have access to a computer at school.
- Access to computers in Australia is among the highest in the OECD with 94 per cent of Australian students reporting that they have access to a computer at home for school work compared to the OECD average of 79 per cent.
- Australian students were the highest users of computers for word processing with 70 per cent of Australians reporting that they use a computer frequently for this purpose compared to an OECD average of 48 per cent.
In contrast just 10 per cent of Australian students reported frequent use of educational software such as a mathematics program, just below the OECD average of 13 per cent.

Australian students were also among the most frequent users of the Internet. Seventy-four per cent report frequent use of the Internet to look up information about people, things or ideas. The OECD average was 55 per cent.

The new ACER research monograph complements this earlier OECD report by presenting Australian findings by state, gender, Indigenous background, socioeconomic background and geographic location.

It also looks at aspects of the so-called ‘digital divide’, examining access and use of ICT in Australia. The findings raise issues of equity in Australian education that the authors argue need to be addressed.

According to information provided through a questionnaire all Australian students have access to a computer at school and most also have access to a computer at home. However, fewer Indigenous students and fewer students from the lowest level of socioeconomic background have access to a computer at home.

The evidence shows that the minority of students who still lack access to computers are more likely to underperform at school. The data also show that these students are not randomly scattered within the population, but are more likely to belong to particular subgroups of the population. This raises equity issues that need to be addressed.

Access to a home computer can be a reflection of socioeconomic background, although less so in Australia now than previously with home computers now more affordable to a larger cross-section of the population.

Within Australia there was a difference in performance in mathematics between students with access to a computer at home and students without such access. Students with access to computers at home scored, on average, 79 score points higher than those without such access.
Even after accounting for socioeconomic background, the performance difference in Australia was still 35 score points or around half a proficiency level.

After accounting for socioeconomic background, the performance advantage of having a computer at home is statistically significant in four of the eight states and territories. In the ACT, Victoria, South Australia and Tasmania, the performance advantage of having a computer at home is not significant.

The monograph notes that reporting the association between computer access and usage with performance cannot provide evidence of the impact of computers on learning, since the PISA data do not demonstrate causation.

The relationship between student performance and access to computers is ambiguous, and continued research would be needed to investigate how computer use actually impacts on student performance.

_PISA 2003 Australia: ICT use and familiarity at school and home_ by Sue Thomson and Lisa De Bortoli is published as ACER Research Monograph 62. The publication can be downloaded from the [ACER website](https://acer.org). Print copies can be purchased online from [ACER Press](https://acer.org).
What does it mean to be Australian?

A University of Western Sydney/Australian Council for Educational Research study is investigating what it means to be Australian through the first national identity survey.

Professor Rhonda Craven from the Centre for Educational Research at the University of Western Sydney is conducting a nationwide study in conjunction with Dr. Nola Purdie from ACER.

The survey is designed to explore different cultural backgrounds and life experiences and will help to draw a more accurate picture of who we are today and to what extent we identify with our nationality.

The study’s authors say it’s time to provide some real answers about what it means to be an Australian today.

"We really need to know what Australians today - from our young Australians to our elders - think about what it means to be an Australian,” say Professor Craven and Dr Purdie. “Establishing a more realistic and up-to-date picture of who we are as a nation is long overdue.”

"For too long, we have been content with being defined by historical and cultural stereotypes. Traditionally, these have mostly been regarded by Australians with a mixture of amusement, affection and occasional disbelief,” the authors say.

The study has important implications for the well being of individuals and the nation as a whole. Historically national identity has been fundamental to issues as diverse as: education; defending the nation; strengthening social cohesion; formulating economic, social and political policies; promoting Australian industry internationally; and stimulating social action and reform in areas of national interest.
The authors say the goal is to create knowledge about contemporary Australian’s conceptions of national identity.

All Australians of high school age and above are encouraged to take part in the anonymous online survey.
ACER UPDATE

Australian Education Review 52

Australian Education Review 52: Literacy Education in School: Research perspectives from the past, for the future, by Peter Freebody will be published in November.

AER 52 aims to expand our understanding of the nature of literacy at a time when public and private lives have become increasingly literacy-dependent, and literacy demands more complex and sophisticated. This review of the research literature is guided by the view that what passes for effective literacy education will differ depending on language, culture, history and the technologies of communication and knowledge production.

Peter Freebody is Professorial Research Fellow in the Faculty of Education and Social Work at The University of Sydney. Previous editions of Australian Education Review can be downloaded from the ACER website.

It’s on for Young and Old: 2007 CEET conference

The Monash University-ACER Centre for the Economics of Education and Training (CEET) Annual National Conference will be held on Thursday 1 November in Ascot Vale, Melbourne. This year’s conference is titled: It’s on for Young and Old: Education and Training Policies for Young and Older Persons. Keynote addresses will be delivered by Dr Barry McGaw AO, Professor and Director Melbourne Education Research Institute, The University of Melbourne and Peter Dawkins, Secretary, Department of Education and Early Childhood Development, Victoria.

Further information including the conference program and registration details are available from the CEET website.
Longitudinal Study of Australian Children research conference

ACER is a member of the consortium led by the Australian Institute of Family Studies that is conducting the Longitudinal Survey of Australian Children (LSAC) also known as *Growing up in Australia*. The Longitudinal Study of Australian Children Research Conference will be held in Melbourne at The Oaks Hotel on 3-4 December, 2007. The aim of the conference is to provide a forum for the discussion of research based on LSAC data and to highlight its research potential. Attendance at the conference is open to all persons interested in LSAC and longitudinal survey research in general. Further information on the conference is available from the [AIFS website](http://aifs.gov.au).

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