School leavers can do well in the workforce

Many early school leavers progress well in the first few years after leaving school, according to the latest report from the Longitudinal Surveys of Australian Youth (LSAY). The findings question the widespread belief that students who leave school before Year 12 struggle to make a successful transition to the workforce.

The large-scale national study compared the post-school experiences of students who did not complete Year 12 (non-completers) with those who completed Year 12 but did not enter university (completers).

The study is based on recent data on the post-school outcomes of a group of almost 8000 young Australians who were in Year 9 in 1995. Their transitions from school to work were followed annually until late 2000, when most of the participants were 19.

Of the young people in the 1995 Year 9 cohort, 9 per cent left school on or before the completion of Year 10 (early school leavers) and a further 13 per cent left before the completion of Year 12 (later school leavers). Seventy-nine per cent of the cohort remained in secondary school until the end of Year 12 (completers). Around 40 per cent of the students who were originally surveyed in Year 9 in 1995 completed Year 12 and went on to higher education. At the time that the data collection for this study was completed in 2000, those young people were engaged in higher education and were therefore not included in the analysis of post-school outcomes conducted for this report.
The findings show that there are both positive and negative outcomes for school non-completers in the early post school years. Unemployment rates were higher for non-completers. However, those non-completers who had successfully gained employment were more likely to be working full-time, received higher earnings, displayed greater job stability and reported being in the type of job they would like as a career.

A large majority of school non-completers left school for positive reasons such as a desire to secure an apprenticeship or other employment. This was the case with over three quarters of the study's participants. A small minority of participants, six per cent, opted out of school for reasons such as performing poorly in school, not enjoying school or being dissatisfied with the courses offered by their school.

The report also noted that disengagement from school is not the same as disengagement from education. In the year after leaving school, around half of all non-completers were engaged in some form of education or training. Apprenticeships were found to provide an important pathway between school and the workforce and reduced the risk of unemployment for school non-completers by half.

One likely explanation for the advantages experienced by some non-completers is the additional time spent in the workforce. In late 2000, the majority of the completers in the sample had been out of school for two years and non-completers had been out of school for up to five years. Having spent more time in the workforce, non-completers had gained more work experience than completers and therefore had advantages in competing for jobs and in achieving higher incomes. The 1995 Year 9 cohort was also making the transition from school to work in the late 1990s and benefited from the improved, post-recession economic conditions.

The study shows that it is not all 'doom and gloom' for school non-completers. They face a number of advantages over their former classmates who did complete Year 12. There are some areas of concern including higher unemployment, especially for those who do not have an apprenticeship. It must also be remembered that this study takes a small, five-year snap shot of the lives of this group of young Australians. Most were only 19 at the end of this particular study.
More research will be required at a later day to determine if the economic advantages experienced by some school non-completers in the early post-school years will be maintained in long-term.

The report, *School Leavers in Australia: Profiles and Pathways* by Dr Julie McMillan and Dr Gary Marks, is research report number 31 in the Longitudinal Surveys of Australian Youth (LSAY) research program jointly managed by ACER and the Commonwealth Department of Education, Science and Training (DEST).
Year 8 mathematics students may not be challenged enough

The findings of the TIMSS 1999 Video Study suggest that Australian mathematics teachers may be underestimating the ability of Year 8 students and not challenging them enough in class.

This finding is among those contained in the new report, Teaching Mathematics in Australia, released on 9 July. The report provides an Australian-focused analysis and discussion of the results from the international study, Teaching Mathematics in Seven Countries: Results from the TIMSS 1999 Video Study, which was released in Washington in March.

The international report studied 638 randomly selected eighth-grade lessons in Australia, the Czech Republic, Hong Kong SAR, Japan, the Netherlands, Switzerland and the United States. Lessons were videotaped for analysis and comparison across the countries involved to investigate similarities and differences in teaching practices. studied mathematics lessons in the seven countries.

No single best method of teaching eighth-grade mathematics in high achieving countries was identified. Rather the report found that each country shared some general features of eighth-grade mathematics teaching. However, each country combined and emphasised instructional features in various ways, sometimes differently from all the other countries, and sometimes similarly to some countries.

A typical Australian lesson began with a review of previously learned content (an average of 36 per cent of lesson time), followed by the introduction of new content (30 per cent of lesson time), and the practising of this new content (26 per cent of lesson time).

The new Australian report, written by Hilary Hollingsworth with ACER researchers Barry McCrae and Jan Lokan, examined videotapes of 87 randomly selected Year 8 mathematics classes from around Australia.

Australia was found to have a significantly higher percentage of problems that students worked on for a very short time (less than 45 seconds) than was the case in higher-performing countries.
More than three-quarters of problems set for Australian students to do per lesson were repetitions of one or more problems they had done earlier in the lesson, and a similar proportion could be solved in four or fewer small steps.

The report also notes that Australian teachers very rarely (two per cent of problems per lesson) made explicit the mathematical relationships and connections involved in problems when they discussed them with their classes. Instead, they were generally satisfied with students giving answers only, or simply stating the procedures used to solve the problems.

There were indications also that the curricular level of the Australian Year 8 mathematics lessons, particularly the algebra content, was lower than in most of the other six countries that took part in the study.

Australian students perform well in international mathematics studies. The report's findings suggest that with more exposure to more challenging material, at all levels but particularly in classes of more able students, it seems likely that Australia would perform even better.

Nevertheless, one of the report's authors, Dr Hilary Hollingsworth, says there is no reason for Australian Year 8 mathematics teaching practices to be abandoned in favour of adopting methods used somewhere else. However, there are some strong threads running through the study's findings that indicate that some overhaul of Year 8 mathematics teaching in Australia is warranted.

"Australian students would benefit from more exposure to less repetitive, higher-level problems, more discussion of alternative solutions and the mathematical reasoning involved in the solutions, and more opportunity to explain their thinking," she said.

The international study was conducted by LessonLab Inc., for the US National Centre for Education Statistics (NCES). ACER completed the Australian component of the study with funding from the Commonwealth, states and territories.
ACER conducted the Australian component of the study with funding from the Commonwealth, State and Territory governments, and the U.S. National Centre for Education Statistics.

Download *Teaching Mathematics in Australia* by Dr Hilary Hollingsworth, Dr Jan Lokan and Associate Professor Barry McCrae.

Print copies of the report, which include a CD-ROM containing eight of the lesson videos (four from Australia, and one each from the Czech Republic, Hong Kong SAR, Japan and the Netherlands), can be purchased from ACER Shop.

Contact [JavaScript must be enabled to view this email address](mailto:JavaScript must be enabled to view this email address) or phone (03) 9277 5447.
New edition of TORCH released

ACER recently published the second edition of the popular Tests of Reading Comprehension (TORCH). TORCH is a best selling Australian test used by teachers of students in Year 3 to Year 10 seeking information about the reading comprehension of their students.

The new edition has been thoroughly revised and builds on the popular features of the original test and includes new reading passages including both fiction and non-fiction, and up-to-date normative data. It can be used for assessment at the group and individual level.

The 12 reading tests that make up TORCH have been normed on over 7000 Australian students in Year 3 to year 10. A comprehensive Teacher Manual is also available.

Teachers can select the most appropriate test for their students, and generate both normative and descriptive report on the relative achievement of their students.

For further information contact ACER customer services on email (JavaScript must be enabled to view this email address) or phone (03) 9277 5447.
ACER UPDATE

Smith Family Project

ACER has been commissioned by the Smith Family to investigate the post-school plans, parental education level, family structure and lifelong learning orientation of young people. This forms part of their research program into understanding how children and young people from financially disadvantaged backgrounds build on the different forms of support provided by the Learning for Life program to overcome the limits of their disadvantage to make a successful transition into the world of work. The duration of the study will be from July 2003 to December 2003.

Global Gateways

ACER has been asked by education.au limited to update the publication Global Gateways: A Guide to Online Knowledge Networks, which was published by ACER last year. The Guide looks at education gateways/portals and at broad trends within the industry and in e-learning more generally. Enquiries about the guide are welcome.
WAMSE English 2003

This project is the next in a series of Western Australia Monitoring Standards in Education projects, building on a collaboration that is over ten-years old.

This project has two components:

a) Sampling design and selection of students for Reading and Writing in Year 10 and Speaking and Listening in Years 3, 7 and 10.

b) Data analysis and reporting of the Speaking and Listening data, including equating to the historical scale. The testing of Speaking and Listening was previously undertaken in 1995 and 1999.