Year 12 subject selection broadens

Australia's Year 12 students have broadened their subject selections over the past decade. More Year 12 students have turned to vocationally oriented subjects and away from traditional key learning areas of English, mathematics, society and environment and the sciences. This is among the key findings of a new study of Year 12 participation and subject selection released by ACER on 21 August.

"Over the period from 1990 to 2001 we have seen a growth in student enrolments in computer studies, technical studies and the arts and a shift away from subjects such as economics and accounting and towards areas such as business studies," said ACER chief executive Professor Geoff Masters. "At the same time there has been a decline in the number of students enrolled in the humanities social sciences, biological sciences and physical sciences."

In the early 1990s the four largest key learning areas of English, mathematics, society and environment and the sciences accounted for 76 per cent of all Year 12 enrolments. By 2001 this had fallen to 71 per cent.

A decline in the number of students taking two subjects from traditional areas of specialisation such as two mathematics subjects, the combination of physics and chemistry or two subjects from the humanities and social sciences field was also noted.
Professor Masters said that the results raised the question of whether there will be enough students undertaking subjects in the sciences to meet demand in these professions should these trends continue.

Differences associated with gender, earlier achievement and social background are evident in the patterns of subject participation. For example males are more likely than females to be enrolled in advanced mathematics, physics, chemistry, technical studies and computer studies. Females are more likely than males to be enrolled in arts and home sciences.

Students with higher levels of earlier achievement, as well as those with aspirations to higher education, were more likely than other students to be enrolled in advanced mathematics, chemistry and physics. Students with lower earlier achievement levels were more likely to be enrolled in technical studies, computer studies and home sciences. Students with an Asian background were more likely than any other cultural group to enrol in advanced mathematics, chemistry and physics.

The report also documents the differences in Year 12 participation rates. Those more likely to participate in Year 12 are females, students from higher socio-economic backgrounds, students from non-English speaking backgrounds and those who had a higher level of earlier school achievement.

The report also documented differences in Year 12 participation rates. Overall participation rates in Year 12 have doubled over the past 20 years. Those more likely to participate in Year 12 are females, students from higher socio-economic backgrounds, students from non-English speaking backgrounds and those who had a higher level of earlier school achievement.

The report, *Patterns of participation in Year 12* by Sue Fullarton, Maurice Walker, John Ainley and Kylie Hillman, is research report number 33 in the *Longitudinal Surveys of Australian Youth (LSAY)* research program jointly managed by ACER and the Commonwealth Department of Education, Science and Training (DEST).
ACER-led delegation investigates US teacher quality practices

The issue of teacher quality is at the heart of all major efforts to improve educational opportunities for students. It has become a hot topic of discussion among various education stakeholders including teachers, administrators and teacher unions.

Some see the phrase ‘teacher quality’ as threatening, saying that it provides a basis for teacher bashing. But, for most people who are concerned about school education, the concept poses some serious questions: Just what do we mean when we talk about teacher quality? How do we know it when we see it? How can it be demonstrated?

Research has confirmed our intuitive understandings about the positive relationships between good teaching and improved student learning, but what complexities underlie these relationships? How can we make sure that our children are receiving the best possible teaching? How can teachers be encouraged and helped to improve the quality of their work?

In an attempt to find and share answers to questions such as these, ACER recently invited representatives of various state and independent education systems and organisations, including teacher unions, to participate in a week long study tour to Washington DC to observe the work of the National Board for Professional Teaching Standards (NBPTS) and to meet with representatives of several peak bodies that accredit university teacher preparation courses and make decisions about teacher licensure. Visits were also arranged with senior staff of the two major US teachers unions and George Washington University, an institution recognised for the quality of its graduates in teacher education and its work in cooperation with NBPTS.

The tour took place in mid July. The delegation of eleven included senior policy officers from Commonwealth, state and Catholic education departments, representatives of the Australian Education Union ad Independent Education Union of Victoria and of the independent schools sector.
The NBPTS was founded in 1987. Its mission is threefold: to establish high and rigorous standards for what accomplished teachers should know and be able to do; to develop and operate a national voluntary system to assess and certify teachers who meet these standards; and to advance related education reforms. Board certification is highly prized among American teachers. Each year, thousands of teachers voluntarily submit for assessment comprehensive portfolios of evidence of the quality of their teaching that include lesson and unit planning, examples of students' work and videos that demonstrate the quality of their teaching. The evidence is assessed by trained peer teacher assessors against Board professional teaching standards that were established by teachers, teacher educators and subject matter experts in up to thirty-one teaching fields. The assessment is rigorous, but successful teachers are rewarded in a variety of ways, including substantial pay rises and bonuses.

Members of the visiting delegation spent time at Howard University, Washington DC observing groups of 'assessors' were being trained to conduct assessments for NBPTS certification. A notable feature of the sessions was that all participants - trainers and assessors in training were practising teachers.

Observing selected 'benchmark' training videos of teachers' classroom performance from high to low levels, in conjunction with the teachers' own commentaries, was enlightening. For those teachers whose performance was benchmarked as 'high,' there was strong correlation between their written reflections on the video lesson and the video performance itself. These teachers understood the standards, were able to demonstrate the standards in their teaching, and could reflect on their own performance in relation to the standards. The written reflections of the lower benchmark samples that clearly did not demonstrate the standards tended, on the other hand, to show the teachers' lack of insight into their own teaching and the effects it was having on the students. All of this had powerful implications for teacher professional development, as well as identifying the quality of professional practice.

Even more interesting was the observation, made by one tour group member, that some of the teachers in the less successful video examples could have been representative of any teacher considered to be 'good' in any school. These teachers looked good, they appeared to have good classroom control and they were articulate.
But, according to the profession-defined standards and the assessment of their peers, these people were not pedagogically competent and their students were probably not learning much. This posed the questions, how many such teachers do we have in Australian schools and what is being done to recognise them and help them improve?

As well as observing the training sessions of the NBPTS, the tour groups visited various influential education organisations, including the two major US teacher unions. Although these organisations differed greatly in their functions and purposes, the glue that appeared to bind them together was their commitment to high teacher quality. The degree of consensus on the meaning of 'teacher quality' among these diverse groups of people was remarkable. However, members of the tour group were told that fifteen years ago, when the work of the NBPTS began, things were very different.

'It was like the Cheshire Cat,' said Joan Baratz-Snowden of the American Federation of Teachers (AFT) ‘When you don't know where you're going, any path will take you there.'

'In 1987, the unions were highly suspicious of the motives of the Board and there were many competing agendas with people caucusing all over the place.' Gradually though, as the Board, with its majority of teachers, led the standards, a professional consensus around issues of teacher quality was built, and the various stakeholders, unlike poor Alice, became empowered to follow a common path to a worthwhile destination.'

Professor Mary Futrell, the African-American former National President of the National Education Association who is now Dean of Education at George Washington University advised the delegation to look forward. 'Don't think about the past,' she advised.

'Don't work in the reactionary mode. Stop saying what you're against. Start saying what you're for. I have big serious challenges right here, right now, never mind what's gone on before. My energy is all directed towards encouraging my staff to meet those challenges in the strongest, most pro-active ways possible.'
There are lessons in those statements for all of us who care about teacher quality in Australia. Teacher unions in particular need to recognise that defensive rhetoric alone will not allow teaching to make the transition from an occupation to a true profession in the eyes of the public. Current state and national initiatives to codify the knowledge and expertise of teachers and to find means of recognising those teachers who are able to demonstrate their expertise and knowledge deserve full and active support.

Elizabeth Kleinhenz, July 2003
ACER Data Interpretation Service

ACER now operates a Data Interpretation Service (DIS) for schools, to assist school leaders and teachers monitor the academic achievements of all their students, in terms of ability, gender and year level.

The DIS project involves the provision of graphs and tables to illustrate patterns of academic performance at all levels - student, class, and subject, and for each key curriculum area, and can be adapted to meet the needs of individual schools. All ability and achievement scores available within the school can be analysed, including teacher assessed grades and exams, national Maths/Science competition results, intake test measures and scores from external standardised assessments. Individual students and classes can be highlighted against a group or year level background, so that examples of relatively strong performance and areas of concern can be noted.

Support with interpretation of all data and analyses is provided to staff as required so that this information can be used positively within the school for staff professional development and the school's strategic planning.

The DIS-V (VCE) and DIS-S (Secondary Years 7-11) services are currently operating in a number of secondary schools in Victoria, with the DIS-P service (P-Yr 6, or K-Yr 6) currently being developed for Victorian primary schools. Plans are underway to extend the service to interstate schools, and future development in 2004 will see the service made available for tertiary institutions when the launch of DIS-T (TAFE and tertiary institutions) is planned. For further information contact ACER Research Fellow Carmel Richardson.
**Hong Kong Institute of Education training program**

ACER recently hosted a group of academic staff from the Hong Kong Institute of Education (HKIEd) who were in Melbourne to undertake professional development in educational assessment.

The Hong Kong group undertook a 17-day training program in late July and early August. They worked with a team of ACER staff headed by Margaret Forster, Research Director - Assessment and Reporting. Staff from the University of Melbourne and Central Queensland University also delivered components of the program.

ACER presented a "Collaborative Assessment" program for the 13 academic staff from the School of Foundations of Education of the HKIEd. The program incorporated workshops in using performance assessments in teaching and learning processes, visits to the University of Melbourne to investigate issues in teacher pre-service training, individual and small team research projects as well as visits to local primary and secondary schools.

The aim of the program was to help the HKIEd staff to keep up to date in the latest developments in educational assessment and to share their new knowledge with colleagues.

This was the second phase of the program. Earlier this year Margaret Forster visited Hong Kong to deliver training workshops entitled 'Conceptual Framework for Assessment' and 'Five Assessment Methods for Student Achievement.'

ACER's Centre for Professional Learning can tailor professional development programs for organisations.
ACER UPDATE

Primary Science Assessment Project Phase II (PSAP II)

This new project is the implementation phase of a test development project undertaken by ACER during 2002. In phase I of the project ACER provided trial items and trialing services to generate a suite of items for two composite test forms. The first is the instrument to provide data for the generation of baseline information regarding the standards achieved by Year 6 students in a nationwide science test. The second test is to be a secure monitoring instrument, calibrated in the first implementation, and used in future programs for equating purposes.

This project involves drawing a national sample, managing all the logistics associated with printing, distribution and collection of student responses, hand-marking extended responses with a marking team representing all states and territories, analysing the results and working with PMRT and BEMU to establish performance standards and statements.

Australian Journal of Education

The latest edition of the Australian Journal of Education, published by ACER, is now available. The August 2003 edition (Volume 47 Number 2) is a special issue devoted to principal recruitment with Peter Gronn as guest editor. For information on subscribing to AJE contact ACER Press on (03) 9277 5447 or (JavaScript must be enabled to view this email address)

Graduate recruitment program

ACER has introduced a Graduate Recruitment Program (GRP) that provides an opportunity for graduates with an outstanding record of academic and personal achievement to join ACER staff, to contribute to projects, and to develop new knowledge and research skills.

Graduates who join ACER will initially participate in a 12-month training and development program. This program includes up to three work placements and access to formal training programs and information sessions. A workplace mentor/coach is appointed to support each graduate during their 12-month program. The inaugural GRP commences on 2 February 2004.
National Awards for Quality Schooling

ACER's work on the National Awards for Quality Schooling has continued through August. ACER has recently hosted panels of judges charged with assessing the more than 200 applications received. ACER and the Australian College of Educators are jointly managing the NAQS project on behalf of the Commonwealth Department of Education, Science and Training (DEST). ACER staff developed the judging strategy for the awards, the criteria applied to shortlisting candidates and has trained the judges.

One million dollars in prize money, provided by DEST, will reward Australian schools, teachers and school leaders for outstanding contributions to schooling.

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