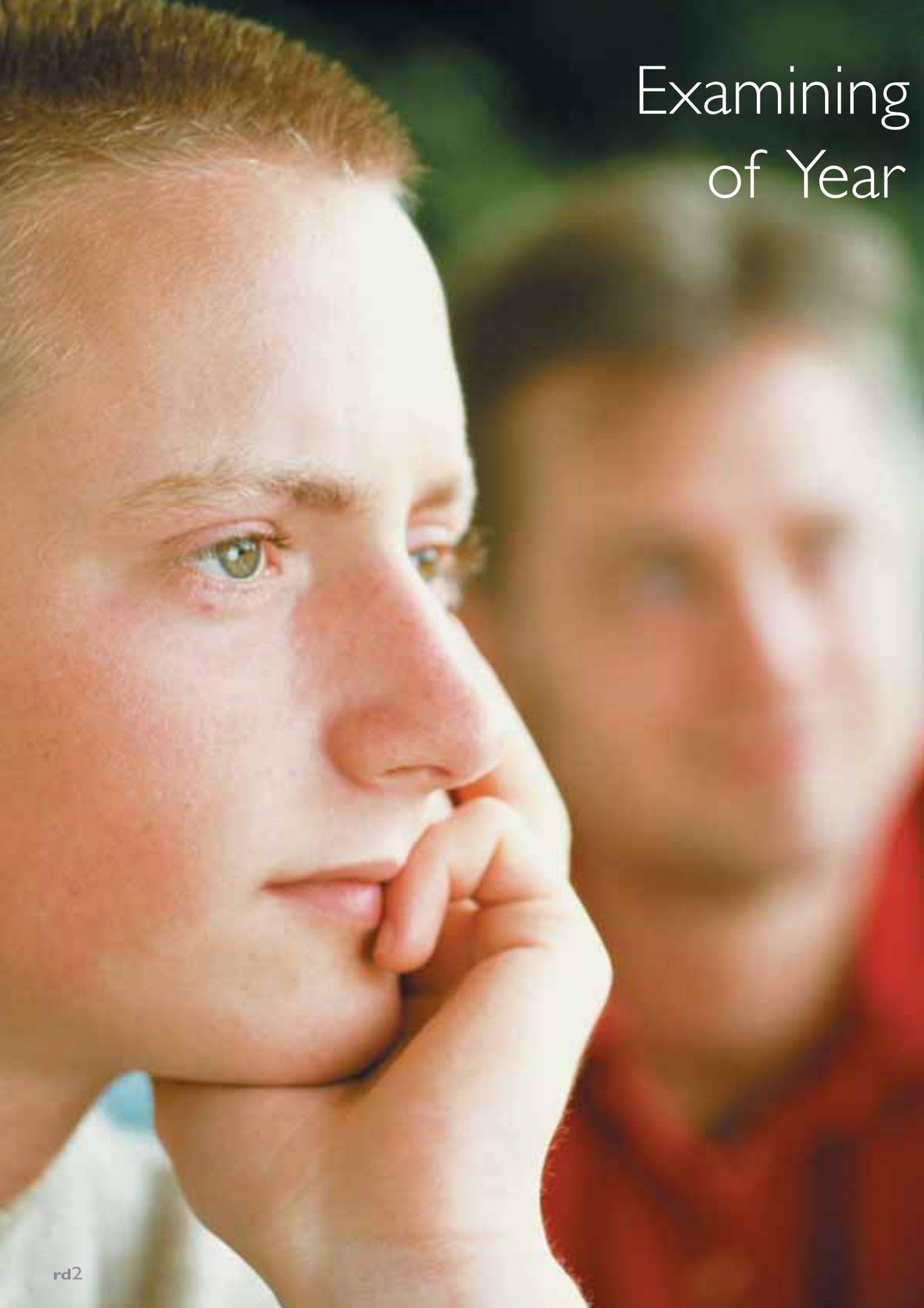

Examining of Year

the consequences 12 course choices

By Dr Sue Thomson

Sue is a Principal Research Fellow at ACER

At the end of secondary school, most students complete a Year 12 certificate. The subjects that students choose to study for this certificate can have a major influence on the educational and career options open to them after finishing school. ***Dr Sue Thomson*** *explains how particular subjects or subject combinations are more likely to act as gateways to higher education or to vocational education and training, while other combinations are more likely to lead to the workforce.*

The important role of subject selection in creating post-school study and employment options was the subject of a recent research study by ACER that investigated the patterns of course choice in Year 12 and the consequences of these choices. The study addressed a range of questions including: What are the typical 'clusters' of subjects or course types studied by Year 12 students and have they changed over the last few years? Are there particular courses that are more likely to be studied by males or females, or those from different social backgrounds? Into which field of study or work do students from particular course types tend to move and do some courses lead to better outcomes than others?

To find answers to these and other questions ACER conducted a study of two cohorts of students who were in Year 9 in 1995 (Y95) and 1998 (Y98). They were in Year 12 in 1998 and 2001 respectively. The students were first surveyed in Year 9 and then tracked annually to gather data on their Year 12 subject choices and their pathways from school to further study, training or the labour force.

The report revealed that not all Year 12 courses are equal in terms of the options they create for students. In fact, inappropriate course selection in Year 12 can place serious limitations on students' study and employment options.

Course selection

At Year 12, some students chose a course of subjects that were related to each other in some way while others opted for subjects that were unrelated, according to their preferences or what was available in the school. Analysis of the subject selections made by participants in the study found seven identifiable 'clusters' of subjects: advanced mathematics-physical sciences, business studies, humanities and social sciences, arts, technical vocational studies, service-clerical vocational studies and other sciences. As well, three mixed groups were defined: one which had two major foci, including subjects from the mathematics-physical sciences group, one which had two major foci but none from the mathematics-physical sciences group, and a mixed eclectic group for which no major focus was identifiable.

In the three year period between the two cohorts completing Year 12, there were substantial changes in patterns of course selection. Of the seven defined clusters in each analysis, two remained the same between cohorts: the physical sciences and the visual and performing arts clusters. The areas that appeared to change the most were the areas of business, other sciences and, to a lesser extent, humanities and languages. The changes in the way that subjects cluster together reflects different choices made by students as to their course of study, and it appears that far fewer students are choosing the more defined courses of study.

For both cohorts, male students were more likely than female students to participate in the advanced mathematics-physical sciences and the technical vocational courses. Females on the other hand were more likely to be enrolled in social sciences and humanities, arts, the mixed-eclectic courses and the service-clerical vocational subjects.

Level of achievement was one of the primary defining characteristics in determining course participation. Students from high achievement levels dominated the areas of advanced mathematics-physical sciences, in the mixed area that included mathematics-physical sciences, and in the social sciences and humanities. Students from lower achievement levels were more likely to take any of the vocational courses.

Pathways to further study or employment

Although most Year 12 students made a successful transition to tertiary study or work, some parts of the Year 12 curriculum acted as better pathways to post secondary education and training than others. Further study and employment outcomes were clearly best for those students who had included some advanced mathematics and physical sciences subjects in their Year 12 studies and worst for those undertaking clerical and services vocational subjects.

The courses that provided the best pathways to higher education, with more than half of their participants entering university, were advanced mathematics-physical sciences, the mixed group of subjects including advanced mathematics-physical sciences, as well as social sciences and humanities courses. In contrast, the courses that provided the poorest pathway to further education and training of any type were service-clerical vocational, mixed eclectic and visual and performing arts courses.

Around 80 per cent of students in the advanced mathematics-physical science group went on to higher education. No other grouping of subjects acted as a gateway to higher education to the same extent. For both cohorts of students (Y95 and Y98), the humanities and social sciences courses also provided quite strong pathways to higher education. Around 60 per cent of the students enrolled in this course entered higher education in the year after completing Year 12.

Other courses were less successful as conduits to higher education. Fewer than half of the students studying courses such as business studies and other sciences or the mixed general course (with no advanced mathematics or physical sciences) gained entry to higher education in the year after they completed Year 12. For both cohorts, around one-third of students from the visual and performing arts and mixed-eclectic course groupings did not continue on with any further study. This is of some concern particularly for the younger cohort as the mixed-eclectic grouping is the second largest in terms of numbers of participating students.

Outcomes for those students who did not enter further education and training after completing Year 12 were not as positive as for those who did. Around half were in full-time employment, mostly working in low-level positions primarily in the areas of retail, accommodation, cafes and restaurants and manufacturing. Typically they worked as clerks, data entry operators, cashiers, kitchen hands, waiters and bar attendants. The other half were engaged in 'marginal' activities: employed part-time, unemployed or not in the labour force.

Subject choice in Year 12 appeared to influence whether a student went on to full-time employment or marginal activities. Again, outcomes were the best for those students who had included some advanced mathematics-physical sciences in their Year

12 course. For these students, only six in one hundred of the original group of students was in the marginal activities category, a very strong outcome. Other good outcomes were found for students of humanities and languages, business, other sciences, and mixed-general courses, with around 10 per cent of students in each of these groups having marginalised transitions to the workforce.

For the Y95 cohort, full-time employment rates were highest for those who had been in business studies and other sciences, lowest for visual and performing arts. For the Y98 cohort, highest full-time employment rates were achieved by those in the other sciences and visual and performing arts, and lowest rates for those in social sciences and humanities. Full-time employment rates had declined for almost all of the Year 12 course of study areas.

Conclusions

Over recent years the range of Year 12 options available to students has broadened significantly as schools have introduced courses to cater for those who aim for vocational education and training: whether TAFE studies, an apprenticeship or traineeship, or for those who simply want a general education before leaving school and entering the workforce. This research raises the question as to whether some of the courses of study are meeting the needs of all students who take them. While it is encouraging that so many of our students do go on to further studies or to work, it is of concern that some courses provided limited options for many of those who chose them.

The results of this study suggest strongly that the decisions students make about the courses they take in their senior years of school do make a difference to their chances of successfully entering further study or employment. Clearly, some parts of the Year 12 curriculum act as better pathways to different aspects of post secondary education, training and employment than others.

It is very important that students consider the potential implications of the decisions they make when choosing a Year 12 course. Schools have a responsibility to ensure that students are aware of the potential ramifications of their choices. Careers advice and guidance is vital, particularly for those students who do not have appropriate role models outside of school to provide this. Some students, as a result of their subject selection, may find themselves unable to participate in further education and in a very vulnerable position in the labour force. ■

Further information

The full report, *Pathways from school to further education or work: Examining the consequences of Year 12 course choices,* by Sue Thomson is Research Report 42 in the Longitudinal Surveys of Australian Youth (LSAY), a program conducted jointly by ACER and the Australian Government Department of Education Science and Training (DEST). This report and previous LSAY reports are available for download from the ACER website at *www.acer.edu.au*