

Pathways from School to Further Education or Work: Examining the Consequences of Year 12 Course Choices

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EXECUTIVE SUMMARY

At the end of secondary school, most students complete a Year 12 certificate. The subjects that they choose to study for this certificate have a major influence on the educational and career options open to them after finishing school. Some students choose subjects that are related in some way, forming a course of study in which concepts from one subject inform studies in other subjects. Other students choose subjects that are unrelated, according only to their preferences or what is available in the school. While there is an enormous number of possible subject combinations, prior research has found that there are certain combinations that are traditionally taken by students in senior secondary school.

In particular, the advanced mathematics-physical sciences combination of subjects appears to be an enduring facet of senior secondary education. Other analyses have drawn together clusters of manual skills subjects, humanities and social sciences subjects, and technical and applied studies subjects. However, schools now retain a much greater proportion of their students to Year 12, resulting in a wider range of ability and interests being present in more recent Year 12 cohorts. Studies of subject choice of these cohorts have found an increase in the number of students taking *mixed* courses, courses with no defined area of specialisation (Ainley et al, 1994; Fullarton et al, 2003).

Particular subjects or subject combinations are traditionally 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 or perhaps to unemployment. In general, tertiary or vocational qualifications facilitate the transition to work, and graduates earn significantly more than those who enter the workforce directly from school. However, some groups of students are less likely to participate in further education and training, including low achievers and those from lower socioeconomic backgrounds. The literature has pointed to differences in curriculum participation according to background variables such as social background and gender. If these choices lead to different but equal outcomes then there is no problem: there are just different choices. If, however, such differences lead to better or poorer outcomes for particular groups, then it is important that such issues be explored and exposed. Some subject groups may just appeal more to males or females, but is it likely that some subject groups would appeal more to those from high socioeconomic backgrounds than low socioeconomic backgrounds? Do some schools provide better opportunities for their students, and if so, which schools and how? These are the types of questions this study has addressed.

The major findings of this report are:

Courses of study at Year 12

- Cluster analysis 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 science* group, and a *mixed eclectic* group for which no major focus was identifiable. From the 1995 cohort to the 1998 cohort, subjects settled into clusters that were easier to identify; however, fewer students were able to be classified into the seven major courses, with 45 per cent of Y98 students being classified into the three '*mixed*' groups, compared to 30 per cent of the Y95 cohort.
- Profiles were derived for each course according to gender, achievement, parents' occupational group, school location, school sector and home language background. Males were more likely than females to participate in the *advanced mathematics-physical sciences* and the *technical*

vocational courses. Females 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 dominating characteristics in determining course participation. Students from high achievement levels dominated the areas of *advanced mathematics-physical sciences*, and the *mixed* area that included *mathematics-physical sciences*, and *social sciences and humanities*. Students from lower achievement levels were more likely to be doing courses with a *vocational* focus.
- Socioeconomic status had little effect once other confounding factors were removed. In general, those from higher socioeconomic levels were more likely to be engaged in the *physical sciences* courses and least likely to be engaged in any of the *vocational* courses.
- Students in government schools were more likely than those in other sectors to be undertaking courses in *service-clerical* and *technical vocational* studies, and *other sciences*.
- Language background had some effect on course choice, with students with a language background other than English more likely to study in the *mathematics-physical sciences* and *business studies* areas.

Pathways to further education and training

- Those courses that were the best pathways to higher education, with more than half of their participants moving on to university, were *advanced mathematics-physical sciences*, the *mixed* group including *advanced mathematics-physical sciences*, and the *social sciences and humanities* course. The first of these was dominated by males, the last by females; all three were dominated by those from higher achievement levels.
- The course areas of *business studies*, *other sciences* and *technical vocational* in particular provide some alternative pathways for a broad range of students, both in terms of ability and social status, language background and gender.
- The courses that provided the poorest pathway to further education and training of any type, were the *service-clerical vocational*, *mixed-eclectic* and *visual and performing arts* courses. All of these are dominated by female enrolments, and generally by those in lower achievement levels.

Science students

- Most students who took a course in the sciences in secondary school continued their education at university rather than at TAFE. These students were primarily enrolled in the tertiary areas of natural and physical sciences, engineering and health.

Moving into the workforce

- Most students who left school immediately after completing Year 12 moved into low-level positions, primarily in the areas of retail trades, accommodation, cafes and restaurant, and manufacturing. The course of study that appeared to lead most often to poor outcomes — unemployment, part-time work or not in the labour force was the *service-vocational* area.

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 course choices seem to be ‘dead ends’ for many of those who choose them. Students who choose subjects at Year 12 level without some thought as to the ramifications of such choices may find themselves unable to participate in further education and in a very vulnerable position in the labour force. Those students whose parents are well educated or in professional jobs have role models from whom to receive advice about which subjects work together and which ones are likely not to do so. There are sections of the population who do not have such role models, and it is imperative that schools fulfil this role. Clear careers advice and guidance are vital at this stage of young people’s lives.