

Attitudes, Intentions and Participation in Education: Year 12 and Beyond

Many developments in educational policy and practice in recent times have been designed to encourage young people to complete Year 12, and to continue to further education or training beyond secondary school. Central to many of these developments have been the curriculum and organisation in the post-compulsory years of schooling and on encouraging greater diversity in post-secondary education. In addition to the diversification of curriculum provisions in the senior secondary years of school—including the introduction of new subjects and VET in Schools programs—there have been initiatives intended to encourage students in the junior years of secondary school to see the benefits of further study.

Historically, student achievement in earlier years has often been identified as one of the strongest predictors of continuation with study (Astone & McLanahan, 1991; Kaplan, Peck & Kaplan, 1997, although see Fullarton, Walker, Ainley & Hillman, 2003 and McMillan &

Marks, 2003 for evidence that this relationship has declined in more recent years). Other research, however, has suggested that socio-emotional factors may also be important in encouraging young people to continue studying; factors such as students' attitudes to and engagement with school can influence their progress through secondary school and into further study. Finn (1989) argued that alienation or feelings of estrangement contribute to the likelihood that a student will leave before Year 12. According to Finn's 'participation-identification' model, disengagement in the early secondary years has a long-term effect on identification with school, as well as on behaviour and achievement in the later years. A number of research studies have linked poor school performance to declining motivation to learn, disengagement from school and early leaving (Astone & McLanahan, 1991; Kaplan et al, 1997). Research into student engagement distinguishes between behavioural engagement (participation in

This paper is part of a series of LSAY Briefings produced by the Australian Council for Educational Research (ACER), drawing on data from the Longitudinal Surveys of Australian Youth (LSAY), a research program managed by the Australian Government Department of Education, Employment and

Workplace Relations (DEEWR). The aim is to bring summaries of findings from LSAY research to a wider audience and in an accessible format. Key LSAY reports published by ACER on which this paper is based, and related references, are listed at the end of the paper.



Longitudinal Surveys of Australian Youth BRIEFING

HIGHLIGHTS

- Students' intentions to continue their education, as reported in the early years of secondary school, are powerful predictors of their subsequent participation in post-compulsory schooling.
- Positive attitudes towards school, including supportive relationships with teachers, interest in learning and valuing the opportunities to apply learning outside school, are strong influences on intentions to continue study, and through this relationship, also have a significant impact on participation in the final years of secondary school and higher education.
- Students' behavioural engagement with school, such as participation in extracurricular activities, is also related to positive attitudes towards school and learning, with levels of engagement higher in schools where students believed they had high quality teachers, effective discipline, high levels of student learning and a positive school spirit.
- While there are differences in student attitudes and engagement with school, these differences are not very strongly related to earlier achievement or student background characteristics. This finding suggests that policies or interventions aimed at improving student attitudes towards and engagement with school can be of benefit to all students.

school-related and extracurricular activities), emotional engagement (identification with and attitudes to school) and cognitive engagement (intrinsic or self-motivated learning). Both behavioural engagement and emotional engagement are associated with school completion, and it has been suggested that longitudinal research can assist in developing intervention strategies to prevent disengagement and school drop-out.

In the LSAY series, recent findings have demonstrated that that a positive orientation to school, active engagement in academic and extracurricular activities, and intentions to continue with study are all associated with completion of Year 12 and post school education. This *Briefing* explores the relationships between students' emotional and behavioural engagement—in the form of their attitudes to school, intentions to continue study and participation in extracurricular activities—and their later participation in education. This information is drawn from a number of LSAY research reports that have analysed data from two of the LSAY cohorts: students who were in Year 9 in 1995, and students who were in Year 9 in 1998.

The relationships between student attitudes, intentions and participation in Year 12 and further education

In various analyses of the LSAY data, students' intentions for post-compulsory education, reported when they were in Year 9, show strong associations with educational participation, including the completion of Year 12 and participation in higher education. The strength of this association between intentions and participation is evidenced in the following:

- 87% of students who reported in Year 9 that they planned to continue to Year 12 went on to do so;

- 79% of students who reported that they intended to leave secondary school before Year 12 did leave before the final year of school;
- The correlation between intention to proceed to Year 12 and actual participation is very high ($r = 0.80$).

Young people's intentions for further study were also associated with their eventual participation in university study:

- 52% of students who reported in Year 9 that they planned to study at university went on to fulfil this ambition;
- Only 14% of students who did not intend to study at university went on to enrol at university after completing secondary school;
- The correlation between intention and entry to higher education is moderately strong ($r = 0.59$).

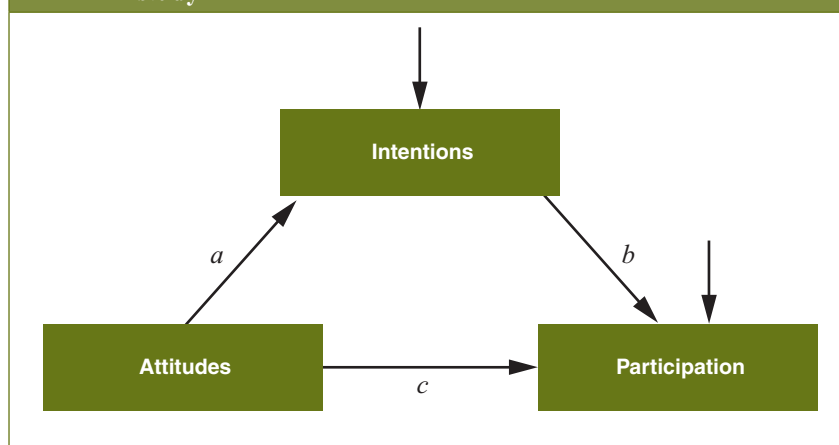
Students' plans for further study after school may be influenced by a number of factors, including previous achievement at school, parents' attitudes to education and expectations for further study, the level of qualification required for the student's preferred occupation, and the emphasis the student's school and teachers place on different post-school pathways. The level to which the student has enjoyed their previous schooling and how valuable they see what they have

learnt so far, in other words, positive attitudes towards school, are another important potential influence on students' plans and intentions.

One LSAY report (Khoo & Ainley, 2005), using data from the 1995 Year 9 cohort, investigated whether students' attitudes to school directly influence their participation in study, or if these attitudes influence the students' intentions to participate in further study, which in turn influences their actual participation. The difference in these relationships between attitudes, intentions and participation are shown in Figure 1. If positive attitudes towards school influence later participation **directly**, then path *c* describes the relationship between these factors. If the influence is **indirect**—through intentions and from there to participation—then path *ab* is the more appropriate summary of the relationship.

The results of analyses that compared the statistical strength of each pathway indicated that having positive attitudes towards school in Year 9 does have a significant influence on whether a student continues through to Year 12 and beyond, but that this influence is largely **indirect** - it operates through the development of an intention to continue with school which then influences participation. This indirect, or mediated effect, of positive attitudes towards schooling on later participation

Figure 1 A simple mediation model of the relationships between students' attitudes, intentions and participation in further study



through intentions (path *ab* in Figure 1) accounted for over 95% of the measured relationship in the statistical model for Year 12 participation. There were other smaller, direct influences on participation in Year 12 from student background characteristics, such as language background and location and earlier achievement, but none of these relationships was as strong as the relationship between students' intentions and participation (path *b* in Figure 1). Positive attitudes towards school were a significant influence on developing intentions to remain to Year 12 (path *a* in Figure 1), and were only weakly associated with student background characteristics, such as socioeconomic status, location and earlier achievement.

The relationships between students' attitudes and their intentions and actual participation in Year 12, tertiary education (university and technical and further education) and higher education (university only) were all modelled, with similar results. In summary, the relationships between students' attitudes, intentions and participation in post-compulsory education followed the same path:

- Students' attitudes to school in Year 9 significantly predicted their intentions to participate in further study (path *a* in Figure 1);
- Intentions to participate, in turn, significantly predicted students' actual participation in further study (path *b* in Figure 1);
- The direct effect of attitudes to school on actual participation was not statistically significant (path *c* in Figure 1); and
- The indirect effect (path *ab* in Figure 1) was significant for all forms of study investigated.

In other words, among members of the 1995 Year 9 LSAY cohort, those who had positive attitudes to school when they were in Year 9 were more likely to intend to continue at school to Year 12 and beyond, and those who intended to remain at school and go on to further study were more likely to do so. Furthermore, students' attitudes to school were

only weakly associated with their background characteristics and previous achievement, indicating the formation and encouragement of positive attitudes to school can provide a vehicle for influencing educational intentions and subsequent participation through to the final year of school and into further study.

The importance of developing positive attitudes to school amongst students is highlighted by the finding that attitudes to school were in fact more strongly related to educational intentions than any aspect of student background included in the analysis, including socioeconomic background.

Differences in student attitudes to school

Attitudes to school in the LSAY program are based on student responses to a set of 30 items (see Box 1 for details). The five domains of attitudes to school include students' *General Satisfaction* with school, their interest or *Intrinsic Motivation*, their attitudes to their teachers (*Student-Teacher Relations*), their views on the relevance of schoolwork for their future lives (*Opportunity*), and their sense of their success in school work (*Achievement Orientation*). Different reports have used different

Box 1: Attitudes towards secondary school in LSAY

Young people in the LSAY program respond to the following items about their school experiences in the first few years of interviews:

My school is a place where...

Positive affect or General satisfaction – students' general wellbeing

I feel happy
I like learning
I get enjoyment from being there
I really like to go each day
I find that learning is a lot of fun
I feel safe and secure

Intrinsic motivation – students' self-motivation for learning

The work we do is interesting
I like to ask questions in class
I enjoy what I do in class
I always try to do my best
I get excited about the work we do
I like to do extra work

Opportunity - students' beliefs about the relevance of learning

The things I learn are important to me
The work I do is good preparation for the future
I have acquired skills that will be of use to me when I leave school
I am given the chance to do work that really interests me
Things I learn will help me in adult life
The things I am taught are worthwhile learning

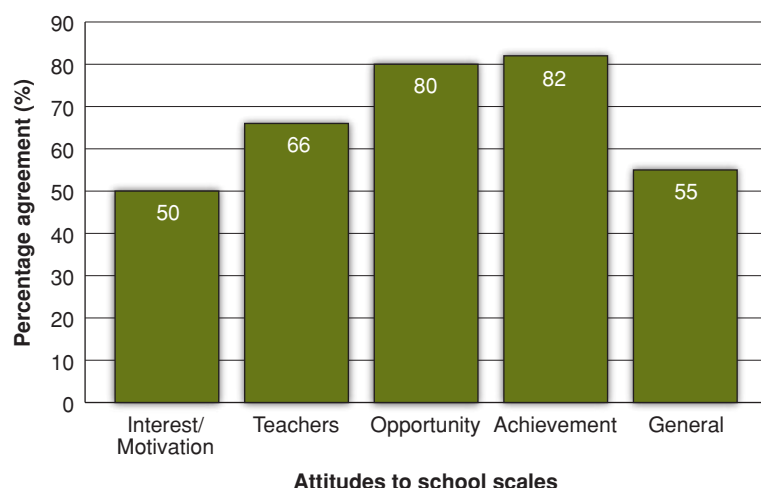
Achievement Orientation - student's sense of their success in school work

I have learnt to work hard
I achieve a standard in my work I consider satisfactory
I always achieve a satisfactory standard in my work
I know how to cope with the work
I know I can do well enough to be successful
I am a success as a student

Student and Teacher relationships – students' views of their relationships with teachers

Teachers are fair and just
Teachers listen to what I say
Teachers give me the marks I deserve
Teachers take a personal interest in helping me with my school work

Figure 2 Attitudes to school, Year 9 in 1995 cohort



combinations of these scales; in some analyses all scales are included independently and in other analyses the scales are added together to form an overall or combination measure of student attitudes.

Figure 2 presents the average percentage agreement, combining responses of strongly agree and agree, to the attitudes to school scales for the 1995 Year 9 cohort in their first survey. Agreement was much stronger on the Opportunity and Achievement Orientation scales than on items pertaining to how students felt about their teachers (Student-Teacher Relations), or on Intrinsic Motivation for Learning scale.

An early study using data from the 1995 Year 9 cohort examined three aspects of students' attitudes to school life: possible changes over time, the influence of individual and school-level variables on attitudes, and the effect of these attitudes on self-concept of ability and leaving school before Year 12 (Marks, 1998). That study found that:

- Female students showed higher levels of general satisfaction with school life, were more positive about their teachers (Student-Teacher Relations) and were more satisfied with their achievement at school (Achievement Orientation);
- Students with more highly-educated parents were generally

more satisfied with school (General Satisfaction);

- Students from non-English speaking backgrounds showed higher levels of satisfaction with school on all the attitude dimensions;
- Indigenous students showed no difference compared to other students on the General Satisfaction, Student-Teacher Relations and Opportunity scales, but were less satisfied with their achievement at school (Achievement Orientation);
- Students from Catholic and Independent schools had higher levels of General Satisfaction and reported better relationships with their teachers (Student-Teacher Relations).

The main findings from the analyses on the consequences of attitudes to school life on self-concept of ability in Year 10 and leaving school before Year 12 were:

- Students with higher scores on the General Satisfaction and Achievement Orientation scales in Year 9 also reported higher self-assessed achievement in Year 10; and
- Only the Achievement Orientation dimension influenced leaving school during Year 10.

Thus, students who responded more positively to such items as 'My school is a place where I

get enjoyment from being there' (General Satisfaction) and 'My school is a place where I have learnt to work hard' (Achievement Orientation) were also more likely to report that they were achieving at or above the level of most of their so-students, while those who responded less positively to such items as 'I have learnt to work hard' and 'I know how to cope with the work' (both Achievement Orientation items) were more likely to have left school during Year 10.

Student engagement with school

Behavioural engagement has been investigated in the LSAY program by measuring students' participation in a number of extracurricular activities that are commonly offered by Australian secondary schools. It has been argued that with such participation comes identification with school, a 'belonging' that can help to promote a feeling of self-worth and assist students to become resilient learners, particularly if they are part of a group at risk of leaving school before completing Year 12. This kind of behavioural engagement with schooling, as compared to the emotional engagement encompassed in attitudes and attachment to school, was investigated using data from the 1998 Year 9 cohort that were collected when the cohort was in Year 10 (Fullarton, 2002). Students were asked about their participation in a number of extracurricular activities, including sport; music, band or orchestra; debating; drama, theatre, dance or school plays; and community and support work at school.

The study investigated individual and school-level differences in students' levels of engagement. Some groups of students were found to be more engaged than others. In particular:

- Females had higher engagement levels than males. This was apparent in government, Catholic and Independent schools, and at all achievement levels;

Table 1 Correlations with engagement for student attitudinal variables and achievement, 1998 Year 9 cohort

	Correlation with engagement
Perception of class climate	.14
Perception of school climate	.21
Self-concept of ability	.16
Achievement in Year 9	.09
Attitudes to school	
Intrinsic motivation	.22
Opportunity	.13
Achievement	.15
Positive Affect	.23

- Students from higher socioeconomic backgrounds and those with professional parents had the highest levels of engagement with school;
- Students at single-sex schools were more highly engaged than those at co-educational schools; and
- Students who intended to enrol in tertiary study had higher engagement levels than those who planned to leave school and go to work.

In addition to the associations between background characteristics and engagement discussed above, the study also found relationships between students' attitudes and self-concept, and their levels of behavioural engagement with school.

Table 1 presents the correlations between engagement and the attitude variables, self-concept of ability and achievement as measured in Year 9 (see Box 2 for a short explanation of correlations). There are positive correlations between engagement and all of the attitudinal variables, as well as with the continuous measure of achievement. The strongest correlations are between engagement and school climate, intrinsic motivation and positive affect. Not surprisingly, those students who see their school as having a positive and supportive environment, and enjoy school and learning participate more frequently in extracurricular activities.

When a number of influences on student engagement were considered together, the relationship between

student attitudes and engagement remained quite strong. In particular:

- Levels of engagement were found to be higher where students believed that their school had high quality teachers, effective discipline, high levels of student learning and a positive school spirit;
- Students who were generally happy with school and with learning (as measured by the General Satisfaction scale) were more engaged than those who were not; and
- Students who scored higher on the Intrinsic Motivation scale were found to be more engaged than those who were not so intrinsically motivated.

Conclusions

It is important to understand the connections between student attitudes, intentions and subsequent educational participation. If those connections are strong, as suggested in the results of the reports summarised here, it can be inferred that policy changes and actions intended to increase participation in post-compulsory education need to include attention to what happens in the formative school years, to how students feel about their school's environment and how their plans for further study develop over these years.

The research summarised here has shown conclusively that, other things being equal, students who are positively oriented to their schools and are actively engaged in its academic work and other extracurricular activities are more likely to develop an intention to continue through school and beyond, and then go on to fulfil that intention. Many of the aspects of students' backgrounds that are generally excepted as having a relationship with participation in Year 12 and education beyond school also operate by influencing students' intentions, which later become manifest as their participation in educational activities.

Box 2: Correlations

A correlation between two variables, for instance engagement in extracurricular activities and attitudes to school, tells us that these two elements are associated—that as one increases, the other also increases (in the case of a positive correlation) or that as one increases, the other decreases (in the case of a negative correlation). Correlation coefficients (in this case, Pearson product-moment correlations) can range from +1.0 to -1.0. A perfect correlation of +/-1.0 indicates that the value of one variable can be predicted exactly from knowing the value of the other variable, while a correlation of 0 indicates that there is no relationship between the two variables. A significant correlation does not tell us that one variable is influencing or changing the other variable; positive attitudes towards school do not *cause* students to engage in more extracurricular activities (although if we were to improve their attitudes, we may also witness an increase in engagement).

Perhaps more importantly, the results also show that positive attitudes to school are relatively independent of both student background characteristics and proficiency in literacy and numeracy. In other words, attention to what happens in the middle and early secondary years of school, with a particular focus on nurturing favourable attitudes to school, can influence educational intentions and subsequent participation. While such a focus is likely to be of benefit to all students, encouraging the development of positive attitudes and persistence may be of particular benefit to students who are less academically inclined or who come from backgrounds in which participation in further education has been low historically.

Student attitudes can be regarded as malleable influences on participation, because they are in part formed in response to curriculum, teaching practices and organisational arrangements. Increased participation in post-compulsory education by young people will be supported by attending to those aspects of earlier school experiences and developing policies that acknowledge and make use of the influence of such factors as attitudes, engagement and intentions on educational achievement and participation.

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The Longitudinal Surveys of Australian Youth

The Longitudinal Surveys of Australian Youth (LSAY) is a research program managed by the Australian Government Department of Education, Employment and Workplace Relations (DEEWR). Funding for LSAY is also provided by the Australian Education, Early Childhood Development and Youth Affairs Senior Officials Committee (AEEYSOC).

The program includes more than 20 years of data on young Australians as they move through school and into tertiary education, the labour

market and adult life. LSAY commenced in its present form in 1995 with a national sample of Year 9 students. Another sample of Year 9 students was drawn in 1998; additional samples of 15 year-olds were drawn in 2003, 2006 and 2009. Data are first collected in schools, then by mail and telephone interviews.

Advice and guidance are provided by a Strategic Advisory Committee, with representatives from DEEWR, other Australian Government departments, AEEYSOC, the Chief

Executive Officers of State and Territory training authorities, non-government schools, academics and ACER.

The data collected through LSAY are deposited with the Australian Social Science Data Archive for access by other analysts.

Further information on the LSAY program is available from its website at www.lsay.edu.au. Information about ACER's LSAY research can be found at www.acer.edu.au.



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