Effective Intervention Strategies for Students at Risk of Early Leaving

Discussion Paper

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Executive Summary

Young people today need higher levels of education and training than previous generations if they are to make successful transitions from school to work. For this to happen, Victorian schools must work hard to retain students in education or training until at least the end of Year 12 or its equivalent. Disengagement from school and early leaving tend to be concentrated among particular groups of young people. These include students from indigenous backgrounds, those with integration needs, low achievers, those from low socio-economic status (SES) backgrounds, children in families under stress, and young people living in neighbourhoods of high poverty or in remote locations. Relatively little Australian research exists on the strategies schools can use to improve student engagement and increase participation in post-compulsory education for children in such at-risk categories. This project set out to identify effective intervention strategies that are known to work to improve student engagement and increase completion of school for at-risk students.

An extensive review of the national and international literature on school completion and early leaving was conducted to identify strategies that address key risk factors for early leaving. Included in the review was an evaluation of the quality of the evidence used to measure the effectiveness of intervention strategies. The aim was to identify the strategies that have been shown empirically to lift engagement and completion. In addition to the review, an intensive study was conducted in 25 government secondary schools in Victoria that had better-than-expected student completion rates, or that were recognized as working innovatively to engage students. Principals, members of the leadership group and welfare staff at the schools were interviewed to identify the strategies and factors staff saw as vital to improving engagement and completion.

From the literature review and the survey of schools what emerged as central to improving school engagement and completion for at-risk students was a series of targeted interventions and programs underpinned by a school-wide commitment to improvement and success (a supportive culture or climate). The targeted initiatives include student-focused strategies such as:

- mentoring,
- early and more intensive pathways and careers planning,
- careers guidance managed by appropriately qualified staff,
- fine-grained co-ordination of welfare needs,
- outreach,
- case management, and
- targeted assistance for skill development among low achievers.

They also include school-wide strategies:

- familial-based forms of organisation such as mini-schools,
- team-based approaches to teaching, learning and pastoral care,
- early intervention to support literacy and numeracy skill growth,
- project-based and applied approaches to learning,
• broad curriculum provision with strong VET options, and
• high expectations on attendance and behaviour.

The schools with the greatest success in improving student retention combine a range of these strategies, working to develop whole-of-staff commitment to engaging students, and constantly refining approaches as student and parent needs shift.
1. Introduction

This paper sets out the findings from a project undertaken to identify effective intervention strategies that schools can use to help improve student engagement and increase rates of school completion for students at-risk of early leaving. It is written as a discussion document to present the findings from the project and to stimulate discussion and feedback from interested groups including schools. To help facilitate this, several workshops will be conducted with relevant stakeholders.

The paper is divided into several sections. The first section provides a brief background to the project outlining some of the issues around early leaving and its importance and some recent developments. Following this is an outline of how effective interventions were identified and how information about them was collected. Section 3 presents a framework for thinking about effective interventions and how to group them. Section 4 provides an outline of effective interventions identified through the project and discusses their likely impact. Section 5 presents the various effective interventions, providing details on each of the main types in turn. The remaining sections discuss aspects of the programs and what makes them successful in schools, how to measure potential impact, and some of the barriers that may reduce the efforts of schools to increase student engagement and retention.

1.1 Background

Failure to complete school or gain equivalent qualifications carries serious consequences for young people. Not completing school and failing to gain equivalent education and training qualifications is associated with poorer labour market outcomes and greater insecurity in building careers. Consistently, research in Australia and overseas shows that early leavers are more likely to become unemployed, stay unemployed for longer, have lower earnings, and over the life-course accumulate less wealth (for example, see Rumberger & Lamb, 2003; OECD, 2001; Barro, 1997). They also more often experience poorer physical and mental health, higher rates of crime and less often engage in active citizenship (Owens, 2004; Rumberger, 1987). In addition to the costs for individuals, there are also social costs associated with increased welfare needs (Owens, 2004).

Addressing the problem of disengagement and early leaving presents a major test for schools and school systems. The key challenge to encouraging more young people to remain at school is finding ways to address the needs of the critical groups of young people who remain at risk of early leaving. Young people who leave school before obtaining an upper secondary qualification tend to come from disadvantaged social backgrounds, they tend more often to have become disengaged from school, are less motivated scholastically, and more often experience personal difficulties and behavioural issues that place them at risk (for example, see Lamb et al., 2004; Rumberger, 1987; Audas and Willms, 2001; European Commission, 2005). They also tend to have histories of school failure and low academic achievement during the compulsory years.
In recognition of these issues, the Victorian government has set a policy target to have 90 per cent of young people completing Year 12 or its equivalent by the year 2010. If this goal is to be achieved, it is essential that schools develop, implement and enhance strategies that effectively address the factors that lead students to disengage from school and dropout. This will be far more difficult in some schools than in others. That is because early leaving and the groups most affected by it tend to be spread unevenly across geographical areas and schools. Some schools have very high concentrations of disadvantaged students — those most at risk of early leaving. Addressing the problem of disengagement and early leaving will fall heavily on these schools, because families in disadvantaged settings are most dependent on the quality of schools to promote success for their children.

Relatively little Australian research exists on the strategies schools can use to improve student engagement and increase participation in post-compulsory education for children in such at-risk categories. However, the past decade has seen the implementation of a number of retention initiatives, both in Australia and elsewhere. In Victoria, for example, there has been the implementation of the Managed Individual Pathways (MIPs) program and the recent development of the Students at Risk Mapping Tool to help schools identify students at risk of disengagement and early leaving. Also in recent years a number of research projects have focused on the factors influencing student retention, including factors over which schools have some control (see, for example, Lamb et al., 2004).

In order to help the students most at risk, schools need to be able to draw on this body of work to identify the best means of engaging and supporting students. This project set out to identify effective school intervention strategies that are known to work to improve student engagement and retention for at-risk students. It aims to provide an analysis and summary from local, national and international sources on the most effective means secondary schools have available to help engage at-risk students so that they can gain most from school.
2. Method for identifying effective interventions

The aim of the project is to identify successful programs and strategies or interventions that schools can use to target the needs and improve the outcomes of the students most at risk of early leaving. To do this, two key tasks were undertaken. The first involved an extensive literature review to discover what national and international research identifies as the most successful initiatives to improve student engagement in school and reduce early leaving. The focus of the review was on identifying programs for which there was clear documented empirical evidence of improvements in student engagement and reductions in early leaving. There is a very large number of dropout prevention programs and initiatives reported in the literature. However, only a much smaller number have valid empirical assessments that measure and report actual improvements in engagement and school completion. It is only the initiatives that have been shown to lead to improvements that are reported here. The review identified a number of effective programs and strategies from around the world, and a list of strategies that could be implemented by schools was developed.

It was also important to discover successful strategies or initiatives local Victorian schools have developed and implemented to increase student engagement and retention. The second key task was to survey Victorian government schools on interventions or initiatives that they have found to be effective in improving outcomes for at-risk students. The task was undertaken in two stages. In the first stage, an e-mail was sent from the Department of Education and Early Childhood Development (DEECD) to all government secondary schools receiving supplementary Student Resource Package (SRP) funding to assist with disadvantaged students. Approximately 50 per cent of all secondary schools receive some form of Student Family Occupation (SFO) funding to help target the needs of disadvantaged students. The schools were asked to provide information on the sorts of programs and strategies they had in place to assist at-risk students, particularly those they had found successful in improving outcomes.

The second stage involved intensive interviews with a group of schools that had proven very successful in reducing early leaving despite having large numbers of disadvantaged students. On-site interviews were conducted with principals, senior management team members and welfare staff at 25 country and metropolitan secondary schools. The schools were targeted for one of two reasons:

1. The school had much higher-than-expected student retention rates, taking into account the socio-economic student profile, location, and size of the school measured through an appropriate ‘value-adding’ regression procedure. The selected schools were those with the best results (more than a standard deviation above predicted rates) among the schools with the highest densities of disadvantaged students measured on the SFO (SES-intake) scale (12 schools); or

2. The school was identified by Regional DEECD staff as having been particularly innovative or creative in developing initiatives to improve student engagement and retention for at-risk students (13 schools).
The interviews were used to collect information on successful innovations, initiatives or interventions that schools had put in place and which had worked to improve student outcomes.

Information collected from both stages of work — the extensive literature review and the intensive school surveys — has been used to compile a list of effective programs and strategies that schools can use to help improve student engagement in school and reduce early leaving.
3. Framework for grouping interventions

Research evidence and social theory strongly suggests that dropping out of school is the cumulative result of many factors that reach back a considerable distance into a student’s life — predictive factors can emerge very early on in primary school and even before. Recent thinking about the process of disengagement and early leaving points to the processes beginning early. Some have described understanding of the process as needing a ‘life course perspective’, which takes the focus away from the decision to leave school early to major precursors — academic achievement, behaviour, and engagement (see Audas and Willms, 2001). They suggest that the very final decision to dropout of school is much less important to study than the gradual withdrawal from school that most early leavers tend to exhibit long before the actual decision to leave. It points to a need to understand the origins and development of low achievement, risk-taking behaviour, and disengagement from school that tends to occur at different phases of a child’s schooling, sometimes evident quite early. It is then possible to identify ways of being able to intervene, address the issues and produce change.

What the research and thinking does suggest, based on this view, is that schools can intervene and bring about change. While the evidence shows that children from lower socioeconomic backgrounds are much more likely to become early school leavers, recent literature has also emphasized that the context in which a child develops has important effects beyond family background. Schools can play a role in reducing the effects of social background and improving outcomes for at-risk students. This can be achieved through targeted interventions and strategies.

Life-course theories point to the interrelated effects of various levels of influence, of context, including the family, school, system, and broader economic and political settings. Figure 1 presents, in diagram form, some of the levels or layers of context shaping students’ school experiences. The diagram is a simple, one dimensional, representation of a complex set of interrelated social contexts. However, it serves the purpose of displaying some of the areas or domains of influence on student experiences and decisions. Intervention to help improve outcomes for at-risk students can occur within or across the various levels of context. This project is particularly interested in the initiatives that schools can implement to improve engagement and retention for students at-risk of early leaving. This means that the initiatives reported in the paper will relate mainly to the school context and the school policies targeting students and their families. Initiatives implemented at a system level or in a wider community and socio-political-economic context will not be discussed.

Strategies covered in this paper therefore tend to fall into one of two categories: strategies affecting the school context and at a school-wide level, and strategies targeting individual student need, although it should be stressed that the boundaries between the two categories are not always clear-cut. Some strategies, for example, may create school-wide change but may also be tailored to individual student requirements.
Figure 1 Four domains of influence in addressing student need

The distinction between school-wide and student-focused interventions will be used in the following sections to categorise the various strategies identified in this project to help improve student engagement and reduce early leaving.
4. **Outline of effective interventions**

The international literature review and the survey of Victorian schools identified a number of strategies to increase student engagement and reduce early school leaving. These strategies formed part of programs for which there was good research evidence suggesting that they reduce rates of early leaving. The main strategies are summarized in Table 1. A full list providing details of programs and descriptions of the research evidence is provided in Tables 1A and 1B in the Appendix. Table 1A presents school-wide initiatives, while Table 1B presents student-focused initiatives. Further information on specific successful integrated programs for which there is strong empirical evidence of success is presented in Table 2A.

The interventions are grouped into three areas:

1. Supportive school culture (school commitment),
2. School-wide strategies (school-level initiatives), and
3. Student-focused strategies (initiatives addressing needs of specific groups of students or individuals).

The first two areas relate to the school context, to interventions or approaches that are school-wide. The first area is about the broad school approach to students, to teaching and learning and addressing the needs of students at risk. It is about management, leadership, school culture and the commitment of the school to improvement for all. It is the commitment of the school at this level that enhances the success of any specific or targeted interventions to produce improvements.

The second area is about specific strategies or initiatives that are adopted school-wide, affecting all students, but which help improve student engagement and reduce rates of early leaving.

The third area (student-focused strategies) relates to interventions that target specific groups of students. These are the programs that attempt to directly address the individual or group needs of at-risk students, rather than the whole student body.

It was clear from both the research literature and the field work in schools carried out for this project that schools are most effective in addressing issues of student engagement and retention when all three areas are addressed: a strong supportive school culture with a commitment to improvement, school-wide strategies addressing quality of provision, and student-focused strategies focusing on individual needs. This relationship is outlined in Figure 2 which shows that the highest impact is likely to occur in schools that have both a strong culture with commitment to improvement for at-risk students and high quality intervention programs or strategies.

However, even in schools which have not yet established a culture or atmosphere that supports improvement it is still better to implement quality programs and strategies to address student need than not, as this is likely to have some impact. A productive and dynamic school culture will maximize effectiveness, but even in schools where this is
not as evident the implementation of appropriate strategies should still be undertaken and is likely to improve retention.

**Table 1  Successful interventions for improving engagement and reducing early school leaving**

| Supportive school culture (School commitment) | Continuous improvement  
|                                              | Commitment to success for all  
|                                              | Flexibility and responsiveness to individual need  
|                                              | High expectations  
|                                              | Encouraging student responsibility and autonomy  
|                                              | Shared vision  
| School-wide strategies (School-level approaches) | Broad curriculum provision in the senior years  
|                                              | Offering quality Vocational Education and Training (VET) options  
|                                              | Programs that are challenging and stimulating  
|                                              | Early intervention to support literacy and numeracy skill growth  
|                                              | Programs to counter low achievement  
|                                              | Pathways planning and quality careers guidance and counselling  
|                                              | Strategic use of teachers and teaching resources  
|                                              | Smaller class sizes  
|                                              | Mini-school or school-within-a-school organization  
|                                              | Team-based approaches to teaching, learning and pastoral care  
|                                              | Priority professional development  
|                                              | Community service  
|                                              | Cross-sectoral initiatives  
| Student-focused strategies (Addressing individual student needs) | Student case management  
|                                              | Mentoring  
|                                              | Attendance policies and programs  
|                                              | Welfare support  
|                                              | Targeted assistance for skill development among low achievers  
|                                              | Tutoring and peer tutoring  
|                                              | Supplementary or out-of-school-time programs  
|                                              | Pathways planning for at-risk students  
|                                              | Targeted financial support  
|                                              | Project-based learning for disengaged students  
|                                              | Creative arts-based programs for at-risk students  

Where school culture and the support for change is weak and there are few interventions in place to assist at-risk students, there is likely to be little or no change to student engagement and retention. Where a school has implemented high quality programs or interventions addressing the needs of at-risk students, even if support for change or school culture is weak, it is likely to have some impact on engagement and retention. Ideally, a strong school-wide commitment to improving student outcomes and school offerings will combine with both school-wide strategies and student-focused strategies to provide at-risk students with the best possible chance of remaining in education.

Figure 2  Interactions between school culture, quality of interventions and effectiveness in increasing school completion

It is now important to consider in more detail the various interventions that have been shown to work in reducing rates of early leaving.
5. Effective interventions: what works

This section presents the various strategies that have shown to be effective in having a positive impact on student engagement and raising levels of school completion. It begins by looking at the need for schools to create a culture that supports engagement and completion. The theory and research literature on differential attainment supports some general points about the overall quality of a school’s internal culture or environment and key features that sustain this. Specific strategies to improve engagement and completion for at-risk students are then presented. The first set is of school-wide strategies or interventions (those affecting all students), but which help improve student engagement and reduce rates of early leaving, particularly important in settings with high concentrations of disadvantaged students. The second set lists the interventions that target specific groups of at-risk students with high-level individual needs.

5.1 Supportive school culture

Interventions and strategies addressing need do not exist in a vacuum, and the quality of school culture plays a critical part in engaging and retaining students. A study by Socias et al. (2007) for the California Dropout Research Project found that schools with significantly better-than-predicted school completion rates, while nominating various interventions as being vital to their success, also stressed the development of a supportive school culture that fostered connections with students, parents and the community, and the creation of a school climate of high expectations and accountability. Croninger and Lee (2001) report that the degree of teacher caring and interaction with students (reported by both students and teachers) have a significant impact on dropout rates, and that the impact is strongest for at-risk students, while Kennelly and Monrad (2007, p.11) note that, “schools successful in dealing with dropout address overall school climate in order to facilitate student engagement”.

Likewise, in a review of effective secondary schools in the US, Lee et al. (1993) found evidence that schools with a common sense of purpose and a strong communal organisation (involving collegial relationships among staff and positive adult-student relationships) are effective in promoting a range of academic and social outcomes reflecting student engagement and commitment.

How schools create such supportive environments — a supportive school culture — remains a matter of debate. There are no universal rules or formulas that can be identified as the sole route to establishing a quality culture or atmosphere that produces strong positive student engagement and high levels of school completion, particularly in schools that have high proportions of at-risk students. However, there are factors that researchers and school systems point to when describing quality schools and the features of the schools that have improved in effectiveness (see, for example, Zepeda, 2004; Brown, 2004; Fullan, 1991). Such features include:

- **Commitment to success for all**: building a shared view that all students can succeed with on-going commitment to identifying the most effective teaching and learning strategies to raise the achievement of at-risk students.
- **Flexibility and responsiveness to individual need**: capacity to respond to varying needs which in addition to welfare and academic might include social, personal and emotional needs.

- **High expectations**: research findings point to the key role played by aspirations and the need to create a climate of achievement through effective leadership and a high level of teacher commitment and expectations on student learning.

- **Shared vision**: building a consensus around the aims and values of the school and developing a sense of community with a shared purpose.

- **Focus on continuous improvement**: continuing to reflect on and monitor the impact of changes and encourage innovation for improvement as well as refine and adjust approaches as student and parent needs shift.

- **Climate of challenging and stimulating teaching**: ensuring that programs engage learners, by being challenging, stimulating, involve opportunities for sharing learning tasks, are satisfying as learning experiences, and have clear and demonstrable benefits beyond school.

- **Strong and fair disciplinary climate**: research on school effectiveness and engagement points to the need for creating a safe school disciplinary climate with clear and fair rules (Rumberger & Thomas, 2000; Wehlage & Rutter, 1986; Willms, 2003).

- **Encouraging student responsibility and autonomy**: building an ethos of students taking responsibility for their own learning and behaviour so that learners accept the idea that their own efforts are important for progress.

These elements were prominent in the schools surveyed for the current project. School A provides an example.

### Case study: School A – The importance of creating a supportive school culture

School A is located in an industrial area of Melbourne with a large number of students from immigrant families, particularly refugees. Its size (450 students) limits its capacity in terms of curriculum breadth and additional programs, but retention rates are good and student and staff morale is high.

At the centre of the school’s success is a focus on relationships between staff and students. Building positive relationships is identified as a priority in the school charter, and the principal stipulates that, as part of this, all staff members must be committed to at least one extra-curricular program, and complete professional development on relationship enhancement. School A has organised teachers into teams focused on cohorts of students to help build relationships. The school has also introduced a separate Year 9 program with its own learning site, a more integrated curriculum, and a small group of teachers responsible for pastoral care and teaching.

The principal stated that most of the initiatives at the school were broad-based, rather than focused on at-risk students. She commented, “It’s not about targeting specific programs to keep high retention, that’s not the main consideration. High retention is a by-product of good overall organisation and provision as well as good school programs.”

**Strategies used:**
- Mini-schools, more time with fewer teachers, reduced class sizes, broad provision, generic work/communication skills programs, community service elements, co-curricular provision, focus on professional development, project-based learning, case management.
In interviews conducted in other Victorian government schools, many of the schools with higher-than-expected retention rates emphasised a culture of continuous improvement, with a school-wide vision and a commitment to the belief that all students can succeed. High expectations were also noted, and the school’s commitment to success for all students was targeted through flexible and responsive program arrangements and a responsiveness to student needs. The principal of one school with many disadvantaged students and yet very high retention noted in reflection on the need to promote success for all, “I tell my staff, ‘You’re a teacher to make things better for the kids’ — for all kids — that’s been central [to our success].”

5.2 School-wide strategies

All of the strategies listed in Table 1 are components of at least one program or initiative for which there is empirical evidence of improvements in engagement and completion. They were also present in one form or another in the Victorian schools surveyed as part of our study. While all of the initiatives have some potential to affect student engagement and school completion, this discussion will focus on those that appeared to be most effective.

1. **Broad curriculum provision in the senior years** is identified in the research literature and in the schools visited as important to improving engagement and retention. Providing a curriculum that is broad (Russell et al., 2005), diverse and flexible (Lamb et al., 2004) that can accommodate a wide range of student interests and skill levels is important. Many of the Victorian schools participating in the study had broad provision including a range of VET and VCAL courses, and identified these as playing an important role in retaining at-risk students. Many participants also emphasized not just the provision of a broad range of subjects, but the extent to which students were able to make choices: in one participating school with high retention rates, the only core subjects at Year 10 were maths and English — all other subjects were electives.

2. **Offering quality Vocational Education and Training (VET) options** is associated with stronger rates of completion (see for example, Bishop and Mane, 2004; Lamb, 2008; Lamb, Long & Malley, 1998; Castellano et al., 2003). International comparisons of school completion and early leaving have found that offering students VET in the senior school years tends to increase school attendance and completion and improve the labor market outcomes of school completers (Bishop and Mane, 2004; Lamb, 2008). VET has been found to have a significant impact on retaining students at risk of early leaving in Australia (Lamb and Vickers, 2006).

3. **Programs that are challenging and stimulating** are also vital. Offering a range of alternatives and a broad curriculum does not mean that schools should offer programs that do not ‘challenge’ students. Students disengage in schools when there are low expectations (Bryk & Thum, 1989). Programs, even in applied areas, need to be challenging and stimulating because disengagement and early leaving occurs more often in schools where this is not the case (Field et al, 2007).
4. **Early intervention to support literacy and numeracy skill growth** is a feature of schools successful in raising achievement and reducing early leaving. Some schools achieve this through offering weekly timetabled literacy and numeracy classes for students in the junior year-levels (Years 7 and 8) or even across the whole school. The sessions run for 2 to 4 normal class periods per week. Through these common programs assessments are undertaken to identify levels of skills and targeted assistance provided to students who have poorly developed skills. The research suggests that the earlier such programs are implemented the greater the success (Dickinson & Neuman, 2006; Field et al., 2007). Continuous monitoring of skills is also important.

5. **Programs to counter low achievement** have been tested in a number of school settings. Several programs (for example, transition programs in English and Maths, talent schemes for disadvantaged students, homework centres) have been reported as successful in raising levels of achievement and reducing levels of early school leaving for at-risk students (Balfanz, Legters & Jordan, 2004; Field et al., 2007; Lamb et al., 2004; Rumberger, 2004). The programs tend to focus on subjects such as mathematics, English and science. They often involve additional time for teaching and learning. One example is the *Transition to Advanced Maths* program in the United States which is designed for students who have fallen well behind in maths (Center for Social Organisation of Schools, 2008). Students undertake a year-long “double dose” of instruction in mathematics which is designed to prepare students for a more advanced sequence of high school mathematics.

6. **Pathways planning and quality careers guidance and counselling** are key initiatives in schools that are successful in promoting engagement and reducing early leaving. Pathways planning is organised in Victorian schools through the Managed Individual Pathways (MIPS) scheme which offers all students aged 15 and over individual assistance to develop pathways plans in Years 10, 11 and 12. A review of the scheme found that many schools reported that MIPS had improved student engagement, staff student relations, increased the responsiveness of school staff to the needs of all students, and raised completion (Asquith Group, 2005). However, there is wide variation in how the program is implemented and how successful it is. In some schools, careers education forms an important part of timetabled careers education programs from Year 7 through to Year 12. In some others, there is no regular timetabled provision and any input is achieved by targeting mainly at-risk students. Some of the successful Victorian schools visited as part of the current project organized careers education around pathways planning through MIPS, but began pathways planning and support much earlier than at age 15, operating the program as early as Year 7 and particularly for students at-risk.

According to a study in the United Kingdom, the most successful approaches to careers education are found in schools where responsibility for delivering and monitoring the quality of provision is clearly identified, and where senior management and guidance staff co-operate closely to ensure that the various elements of careers education are effectively co-ordinated (Morris, 2000). Some evidence also indicates that pupils respond best where they have experienced careers education as part of their normal curriculum. Other work points to the
quality of careers teachers as a fundamental issue to success. While a well-resourced, regularly updated and easily accessible careers centre or library is important, equally vital is the quality of careers advisors. Successful careers counselling in assisting at-risk students is linked to the experience, qualifications and training of careers officers. The UK review also reported that schools had variously adopted a range of successful strategies, using careers education and guidance as a means of:

- *enhancing student self-esteem or motivation.* Schools pointed to the motivational potential of careers education and guidance and some had made quite concerted efforts to capitalise on this aspect.

- *promoting lifelong learning and of reducing early school leaving.* Although all schools worked to reduce rates of early leaving, successful schools tended to make links between careers planning and the development of better lifelong learning skills.

- *creating curriculum relevance.* Many of the schools in the study had set in place strategies to re-motivate disaffected students and bring about greater social inclusion. This included making a more overt link between careers education and the wider curriculum as well as differentiating provision in ways that would motivate a larger number of students (Morris, 2000).

School B highlights a successful approach to careers planning and guidance, through the establishment of a well-resourced careers and welfare centre with dedicated and appropriately trained staff.
Case study: School B
– Strong careers planning integrated with welfare support

School B is a country school catering for around 1100 students, a large percentage of whom are eligible for Education Maintenance Allowance. A substantial group of students are identified as having serious welfare issues ranging from drug abuse to mental health problems.

In recent years, the school has established a careers and welfare centre that provides substantial pathways planning support as well as welfare and health co-ordination. Previously welfare support had been delivered by staff through the school’s mini-schools, but the principal felt that this was “just putting out fires.” Students were presenting with a complex range of needs, and careers planning could not be disentangled from social issues impacting on students.

The school’s careers and health centre is staffed by a full-time coordinator, a part-time nurse, a full-time student counselor and a full-time Careers/VET coordinator. The Careers co-ordinator is a trained specialist. In terms of health and welfare, a local GP visits one day per week and bulk bills. While the centre is accessed by all the school’s students, it provides intensive case management for around 50-60 students who have been identified as being high-risk.

Along with this support, MIPs is implemented from Year 7, and a transition team works to strengthen MIPs work with students. There is a special MIPs plus program for students with disabilities.

The school believes it is providing broad support and a range of programs and pathways for a very diverse group of students. It claims many successes in keeping high-risk students engaged in meaningful pathways.

Strategies:
- Mini-schools, careers and health centre, MIPS from Year 7, broad program of VET options, programs to improve students’ work or social skills, creativity programs, co-curricular programs, project-based learning, coordination with other educational providers, case management, attendance programs, welfare coordination.

7. **Strategic use of teachers and teaching resources** can help schools improve student outcomes. A recent review of government school funding in Victoria, the Student Resource Package (SRP), found that secondary schools which concentrate their resources in the senior years at the expense of the junior years tend to have poorer student outcomes (Lamb, 2007). Schools which allocated their least experienced teachers (‘graduate’ and ‘accomplished’ teachers) to the junior years (Years 7 and 8) and allocated their most experienced teachers (‘expert’ and ‘leading’) to the final years (a common model) tended to promote poorer student outcomes. Since disaffection with school tends to increase across schooling, if younger students are allocated less experienced staff this may contribute to greater disaffection leading to higher rates of early leaving. The SRP review found that schools which had a more balanced allocation of teachers and intervened earlier through the placement of experienced teachers in junior year-levels tended to promote higher levels of achievement, student engagement, and school completion, all else equal.

8. **Smaller class sizes** can contribute to better relationships between teachers and students, better quality instruction and improved outcomes if teachers adjust their styles (Pritchard, 1999). In Victorian secondary schools the largest class sizes are in the junior year-levels (Years 7 and 8), on average (Lamb, 2007). A feature of some of the successful schools visited as part of the current project was a policy
of smaller class sizes in the early years. This is consistent with research showing that higher teacher to student ratios reduce the odds of early leaving for at-risk students (Lamb et al., 2004; Rumberger, 1995, 2004; Rumberger & Thomas, 2000). Additional support staff are also relevant (Lamb et al., 2004).

9. **Mini-school or school-within-a-school organisation** is a more familial based approach to pupil management involving year-level cohorts or vertically-grouped teams of students organised in a school-within-a-school arrangement. Mini-schools usually have a separate location on the school site, with a dedicated team of teachers, and aim to create a more welcoming and personalized environment. U.S. research has found that mini-schools can lower dropout rates (Kerr and Legters, 2004). They are a feature of two programs for which there is strong empirical evidence of success: Career Academies and Talent Development High Schools (see Table 2A in the Appendix). The approach is being used in a number of the Victorian schools successful in reducing early leaving.

10. **Team-based approaches to teaching, learning and pastoral care** are linked to the mini-school approach. Positive teacher-student relationships are enhanced where arrangements in schools allow teachers to develop better individual knowledge and understanding of students (Russell et al., 2005). Organisational models such as mini-schools, and strategies such as having a group of teachers dedicated to a group of students for all teaching and pastoral care, have the capacity to foster better relationships between staff and students. Where small groups of teachers are allocated to a cohort of students for all of the teaching and for pastoral care, and become responsible for the delivery of service to the students, improvements are gained in quality of relationships leading to enhanced student engagement and gains in school completion (Russell et al., 2005). School C, one of the Victorian schools that participated in the study, a school which had very high retention rates despite being one of the most disadvantaged schools (retention rates well above what would be expected given the numbers of at-risk students), identified these strategies as important factors in its success.

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**Case Study: School C**

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**– Structural reform and a commitment to all students**

School C is a large, multi-campus, multi-ethnic school in Melbourne. The school’s Student Family Occupation (SFO, a measure of student social intake or SES), indicates a high level of student disadvantage, and there have been problems with violence in the local area. Yet the school’s retention rate is well above the average for similar schools and above the average for all government secondary schools.

The principal reported that the school is strongly student-centred, and has a philosophy that all students should be provided for, and that all students can succeed. He spoke against schools implementing policies that “weed out” less desirable students, noting that, “We take all comers, but we have strong expectations of them”.

He believed the school’s middle-years philosophy and structure had been vital in increasing student engagement and retention. Starting in the late 1990s, the school restructured to group students in Years 7 to 10 into teams. There are teams for Years 7 and 8, and teams for Years 9 and 10. Each team of students is taught by a small group of teachers, and teachers usually teach at least 2 subjects to their team (for example, maths and science). Lesson times were increased to allow for more in-depth teaching and the development of better relationships. Each student team was physically located in a
teachers on a given team also shared a staff room, breaking down some of the subject area rivalries that have traditionally plagued secondary schools, and fostering a more pastoral, student-centred approach.

Both principal and teachers believed that these structures and processes allowed students and teachers to get to know one another very well, and staff were certain this allowed them to pick up on student problems, both personal and academic, much more quickly. Student and parent feedback about the school is very positive, and staff morale is high.

Overall, the school documented an extraordinary range and breadth of interventions, and was clearly committed to continuous improvement of both programs and staff. Staff emphasized that establishing all the improvements they described had been a process of change over eight to ten years.

Strategies:

- Mini-schools, longer lesson times, smaller groups of teachers allocated to teams of students,
- strong VET provision, extensive range of post-compulsory options, programs for generic social skills, project-based learning, pedagogical improvement, off-campus provision, coordination with other service providers, case management, remediation, attendance programs, welfare coordination, early intervention for literacy and numeracy, MIPS implemented early in secondary school, strong focus on careers counselling, and financial sponsorship.

11. **Priority professional development** was a feature of a number of the participating Victorian schools. They highlighted a very strong commitment to ongoing and targeted professional development for teachers. Three areas of professional development were particularly mentioned by a number of principals. These were making teaching more student-centred, building relationships with students, and improving teachers’ classroom management skills. A fourth area mentioned in some schools was training in literacy and numeracy teaching and provision, with the training provided to all staff.

12. **Community service** is another strategy used in a number of successful overseas programs, notably the Quantum Opportunities Program and the Teen Outreach Program (Eccles and Templeton, 2002). A number of schools in this study either had community service programs or incorporated community service elements into other programs, and believed they increased engagement by fostering connections to the community and raising students’ self-esteem. At least one of the schools surveyed as part of this project had a Community Elective program at Year 9, where students participated in volunteer work in external organisations such as primary schools, kindergartens, aged care homes, or animal care facilities, while another school involved students with a local special school.

13. **Cross-sectoral initiatives** are those involving partnerships with other community agencies and shared resources. Cross-sectoral initiatives were mentioned by a number of the schools that had improved student retention rates and innovative programs. Both Local Learning and Employment Networks (LLENs) and regional Youth Commitments were valued by schools seeking to address completion and engagement issues, allowing schools to draw on resources and expertise within the broader community. The Regional Youth Commitments are coordinated arrangements within a region or community across all providers of education and training, as well as agencies involved in career and transition support, to improve education and training outcomes for young people at risk of not completing Year 12 or equivalent qualifications.
5.3 Student-focused strategies

While reform of school programs and curricula is important in increasing student completion, at-risk students often struggle with a variety of social and personal issues that affect engagement and the quality of learning. Individual-level strategies seek to address these problems. The provision of strategic, targeted welfare and skill programs can have a substantial impact on the capacity of at-risk students to remain in education.

1. **Student case management** is one of the most effective strategies for directly assessing individual student need, targeting appropriate assistance and monitoring progress. Case management can be organised in different ways. In Victorian schools, careers teachers often work as case managers through their roles in the MIPS program. The most successful schools implemented the program from Year 7 in order to identify and assess individual student needs as early as possible, particularly for students at risk, and providing intensive and ongoing intervention through case management. Welfare staff played this role in some schools. Evaluations of various programs that use case management as a key feature often report positive gains (see, for example, Gandara, Larson, Mehan & Rumberger, 1998; Strategic Partners, 2001). The review of various programs established as part of the Full Services School Program in Australia reported that In looking at features and outcomes across all schools, the evaluation reported that case management was the major factor in the most effective projects developed to help retain students in education and training and promote successful transitions to further study and work (DETYA, 2001). Effectively targeting greater resources to case management for at-risk students is likely to have a positive impact on student retention.

2. **Mentoring** provides one-to-one support for students that can encompass guidance on study and school work, assistance with homework, career and financial planning, or social and emotional support. It is one of the most commonly used strategies in effective programs found to keep students in school and engaged. Programs that have used mentoring to increase student retention and engagement include Big Brother, Big Sister, the Check and Connect program and the Twelve Together initiative (WWC, 2007; Tierney, Grossman and Resch 1995, cited in Cunha and Heckman, 2004). In the schools visited as part of this study, mentoring beyond what happens through MIPS was reported by eight schools as improving retention. Some schools used teaching and welfare staff for mentoring purposes, others were assisted by outside welfare agencies. Mentoring was targeted to students deemed at risk, particularly where there were social problems — one school targeted mentoring to students who were seen as quiet, lacking resilience and unconnected to other students or staff. One effective overseas program using a blend of mentoring, case management and attendance monitoring is described in the case study below.
Case study: Effective mentoring program – Check and Connect

Check and Connect is an example of a program that is targeted at the most at-risk students, and there is good research evidence supporting its effectiveness in engaging and retaining these students (Sinclair et al, 2005).

Each at-risk student is assigned a monitor whose primary goal is to promote regular school participation and to focus on the student’s education. The monitor uses individual intervention strategies to help the student develop habits of learning and successful engagement. Relationships are established with both the student and the student’s family. Monitors check on student attendance and academic performance regularly, provide feedback to the student about their progress, model the use of problem-solving skills, communicate frequently with families, and listen to students’ personal concerns.

The program uses a blend of case management, mentoring, encouragement and focuses on attendance and reducing absenteeism, together with helping students develop better strategies for solving problems and developing relationships.

Strategies:
Case management, mentoring, attendance programs, programs to improve students’ work or social skills.

3. Attendance policies and programs are an important feature in several of the schools which had achieved high retention rates despite having large numbers of at-risk students. In each school there was an attendance requirement of 85 or 90 per cent of classes to pass a subject, though students were able to make up classes after school or at lunchtimes to reach the attendance requirement. Each school also designated a staff member part-time (usually around 0.5) to follow up on student attendance with telephone calls to parents. Staff members were certain that this has had a major impact on student achievement and on the capacity of the teachers to cover the curriculum in depth. One student was reported as saying, “It used to be OK to be away, because the teachers would go over the work because so many kids had missed it, [but] now the teacher moves on”. These schools each had an average student absence rate of around seven days per year, well below the state mean of 12 days. Several studies recommend intensive attendance monitoring (Rumberger, 2004; Rumberger & Thomas, 2000) as a way of increasing achievement and engagement.

4. Welfare support is essential for students who have high levels of need associated with family or personal problems. Such problems as poverty, drug or family abuse, teenage pregnancy, and homelessness can be substantial barriers to engagement in school. Integrated service models and on-site support services have a positive impact on engagement (Lamb et al., 2004). One of the schools visited as part of the current study, innovative in this area, had established a welfare centre with a welfare co-ordinator, school nurse and a visiting GP. The centre provides co-ordinated services for students in need as well as operating programs on interpersonal and social issues. Another school (School D described below) with a strong focus on welfare offers similar programs.
Case study: School D –
A focus on welfare.

School D is located in a regional centre of Victoria. The school receives SFO equity funding because it serves a largely disadvantaged community in SES terms.

The school has a strong focus on student welfare. Welfare initiatives include an elective program for at-risk students in Year 9, which focuses on interpersonal and social issues. Students in the program discuss relationships and the transition from Year 8 to Year 9 with a small group of staff that includes the welfare coordinator and the school nurse. There is also an intensive mentoring program for at-risk students in Year 8, in which trained mentors talk with students about career options, self-esteem and family issues. Mentors also assist with schoolwork.

The school also runs a breakfast club for students which fosters relationships and allows some students a healthier start to the day. There is intensive pathways work for at-risk students in Years 10 to 12, and a special engagement program for the school’s Koorie students, of whom there are around 40.

The school has worked hard to forge strong links with a range of welfare and support providers.

While the school believes much progress has been made, it has struggled to overcome some obstacles. It pointed to a large number of students from stressed family circumstances, many of whom end up living independently or in foster care from a very young age. Staff commented that in these circumstances it can be extremely difficult to promote regular attendance patterns and good study habits.

Strategies:
- Mini-schools, small team of teachers allocated to a group of students, vocational provision, programs for generic social skills, teacher professional development, off-campus provision, coordination with other service providers, mentoring, case management, welfare coordination.

5. **Targeted assistance for skill development among low achievers** can help improve the academic skills and achievement of at-risk students. Low achievement is strongly associated with early school leaving. Targeted assistance, whether individual or group, preferably in the early years of secondary school, is one means of addressing this. Academic programs that counter low achievement, such as literacy and numeracy courses, homework centres, and remediation programs in key subject areas, can be successful (Field et al., 2007; Lamb et al., 2004; Rumberger, 2004).

6. **Tutoring and peer-tutoring** are mechanisms for providing targeted academic support for at-risk students. One-on-one tutoring is a strategy for providing extra help to disadvantaged students at all levels of school. With the recruitment of adult volunteers and various peer-tutoring strategies, schools can provide many underachieving students with the type of one-on-one instruction to raise their skill levels and achievement. An evaluation of 65 rigorous studies of the impact of tutoring programs found varying, but positive, achievement effects across all of the studies (Cohen, Kulik, and Kulik, 1982).

7. **Supplementary or out-of-school-time programs** are those offered by schools as after-school programs or programs run during the holidays to supplement the
education of low-achieving and at-risk students. The programs, usually school-based, often focus on reading, literacy, numeracy and cultural enrichment. A review of 35 studies of supplementary programs for assisting at-risk students in reading and mathematics found small positive effects on student achievement and larger effects for targeted programs such as tutoring in reading (Lauer et al., 2006).

8. **Pathways planning for at-risk students** needs to begin early. Careers and pathways planning are important elements in helping keep students engaged (Morris, 2000). Effective careers education with early pathways planning for at-risk students can help students plan and help identify areas that require assistance or focus. Successful careers counselling in assisting at-risk students is linked to the experience, qualifications and training of careers officers (Morris, 2000). In the survey of Victorian schools undertaken for this study, effective schools, in terms of promoting student engagement and completion rates, implemented pathways and careers planning, MIPS, for at-risk students in the junior years (Years 7 and 8) and supported their effort through having dedicated staff with appropriate qualifications and training.

9. **Targeted financial support** is important to students where their own or their family’s need for more income becomes a powerful incentive to leave school. Financial sponsorship can be an important means of allowing such students to remain in school. Five of the participating schools mentioned that they used scholarships from philanthropic organizations such as “Western Chances” to help students remain at school where financial matters were placing the students at risk of dropping out. Some charitable organisations provide mentoring support along with financial support, and this also helps students stay in school. For example, a program of student support by an Australian non-government agency is the *Learning for life program* developed by the Smith Family (Smith Family, 2000). *Learning for Life* provides two types of assistance for students: (1) financial assistance to cover the costs of textbooks and incidentals such as excursions and transport costs; and (2) case management of each student and their families.

10. **Project-based learning programs for disengaged students** attempt to re-engage school students who have largely become disengaged from learning, have fallen behind and are at risk of dropping out. There are several examples. One is entitled “Hands-on Learning” and was employed in one of the Victorian schools visited as part of the study. The program is designed for at-risk students in Years 7 to 10. Students enrolled in the program attend their regular school four days per week, and the *Hands on Learning* program (which runs on-site at their school) for one day per week. The project is staffed by one teacher and one artisan, a person with practical skills in building and design. During their *Hands on Learning* day each week, students work on real-life construction projects such as building a fence for a community organization, or creating a mosaic footpath for a local kindergarten. Work is commissioned by schools or local organizations, which provide materials, and the program focuses on ‘learning by doing’. A strong emphasis is placed on relationship building, which is seen as central to the program’s philosophy. Students are placed in small multi-age groups of 8-10 students, older students are encouraged to take on leadership roles,
and past students are encouraged to mentor current students. Generally, students join the program for around two terms, although some students can remain in the program for up to two years. The project is currently undergoing a formal evaluation, but school and project staff believe the project has been highly successful in reengaging students and building their skills and self-esteem. They report increased attendance for participating students (both for the Hands on Learning program and regular classes) and improved behaviour. Participating students report higher levels of interest and engagement in school, and an increase in interpersonal skills.

Another example is the Schools-Community Water Resources Project (SCWRP) which targets at-risk students in Years 8 to 10. While students from any background can participate, there has been a particular emphasis on involving indigenous students. A number of secondary and special schools are involved as well as many community organizations. The project aims to foster student retention and engagement, develop links with the community and improve students’ employment outcomes. It also aims to assist the local communities to address skills shortages. While the project appears to operate in distinct ways in each school setting, the focus is on improving employability skills through work on a range of land- and water-based projects in the community or at the school. At-risk students are counselled to select the project as an elective, and classes form part of the normal school timetable, usually for around one period per day throughout the year. As with Hands on Learning, SCWRP engages students in project-based learning involving genuine projects with tangible outcomes. Projects have included garden development, greenhouse construction, tree planting and water-watch programs.

11. Creative arts-based programs for at-risk students have been tried in schools both in Victoria and overseas. The Creative Partnerships program in the United Kingdom, for example, is a government-funded schools program organized by Arts Council England. The program aims to improve the achievement and engagement of children, particularly at-risk students, through the establishment of collaborative partnerships between schools and creative and cultural organisations and individuals. Creative practitioners (artists, landscapers, architects, designers, dancers, film-makers etc.) work in selected schools with groups of disadvantaged or at-risk students who have tended to become disaffected with school. The practitioners establish projects lasting from a few months to several years with selected groups of students. The aim is to engage students in team-based creative arts projects which help foster greater self esteem, success, creativity and positive attitudes towards learning. The focus is on re-engagement of the disaffected. Evidence from evaluations of the UK program suggests some success in raising levels of student satisfaction in school, engagement, and achievement. For example, a study by the National Foundation for Educational Research (NFER) reported that compared with similar young people in the same schools, those who participated in Creative Partnerships activities performed slightly better at each of the key stages of learning and assessment (Eames et al., 2006).
6. Qualities of effective interventions

Common strands appear to run through the most effective programs and strategies. The most effective programs appear to do the following:

- **Foster connectedness.** Many of the initiatives, such as mini-schools, are ways of reducing students’ social isolation and strengthening relationships between students, parents, staff and the broader community. Participants commented that some of the most at-risk students have poor social skills and limited connections beyond their immediate family, and effective programs enabled students to increase both the number and quality of the connections they had with the school and the local community. In both this and other studies, schools with high retention had also worked hard to increase parents’ involvement and connectedness with the school. Relevant strategies include mini-schools, smaller class sizes, mentoring, student case management, peer tutoring, community service and supplementary or out-of-school-time programs.

- **Increase the trust placed in students.** Because of low achievement or poor behaviour, many at-risk students have experienced verbal or non-verbal messages from adults communicating low expectations and low trust. Having high expectations of students sends a powerful message that staff believe students are not limited by past behaviour or achievement, and can do more. Strategies and school cultures that give students real power and responsibility also tell students that the school believes they can do the right thing. Strategies such as community service or cross-age tutoring can allow students who have usually been on the receiving end of help to see themselves as capable of offering help. Relevant strategies include community service, peer tutoring, and some project-based learning.

- **Provide tasks with immediate, tangible benefits.** Some at-risk students, particularly those from abusive backgrounds, can find it very difficult to trust adults, and given their past experiences this may be a wise response. Yet the traditional abstract secondary school curriculum and examination structure requires students to place a lot of trust in teachers and schools – to believe that apparently irrelevant learning will have some application later, and that learning abstract skills and knowledge now will have a payoff years hence. Offering project-based learning and vocationally-oriented coursework allows students to participate in learning that is immediately relevant and provides students with concrete evidence of achievement. Relevant strategies include project-based learning, offering quality VET programs and creative arts-based programs.

- **Make spaces within schools and curricula for diverse student needs.** Many strategies, such as off-campus provision or programs for teen parents, recognize the diversity of student needs and interests. Schools that had achieved significant increases in retention also spoke about flexibility as a key aspect of school culture – a willingness to alter school practices to meet student needs. Relevant strategies include offering quality VET options, broad curriculum provision in the senior years, and cross-sectoral initiatives.
• **Address poor achievement.** There are strong links between students’ levels of achievement and the likelihood they will remain in school. Substantial remediation programs, professional development to improve the quality of teaching, placing strong teachers with low achievers and student attendance programs work to improve student achievement. This in turn has an impact on retention. Relevant strategies include targeted assistance for skill development among low achievers, strategic teacher placement, programs to counter low achievement, tutoring and peer tutoring, priority professional development, and attendance policies and programs.

• **Address practical personal obstacles to staying at school.** Many at-risk students face practical barriers to remaining in education, ranging from the problems of living independently to lack of funds for textbooks or activities. Strategies such as case management, welfare support and financial scholarships enable students to deal with some of these issues. Relevant strategies include welfare support, case management, attendance programs and financial sponsorships.
7. Making interventions work

While this paper has identified that schools can take quite diverse approaches to addressing the needs of at-risk students, there are some common aspects to schools that have been successful. Rumberger (2004a), a leading researcher on factors affecting student completion, noted that for schools to reduce early leaving, they need to address academic and social behaviour, focus on both individual and institutional factors, and begin early in students’ academic careers. The international literature review conducted for the study highlighted that schools which successfully address engagement and completion issues often share certain characteristics, and these were also apparent in the most successful schools that participated in the survey of Victorian schools undertaken for this study.

Early intervention is best

The most effective schools in the study were proactive in their approach to students, identifying problems at an early stage in their secondary school careers and working to address them before students had become disengaged. This could be seen in practices such as providing substantial remedial programs from Year 7, forging strong links to feeder primary schools, and starting MIPs planning with at-risk students at Year 7 or 8, rather than waiting until Year 10. Again, this is in keeping with research suggesting that earlier intervention with at-risk students has more impact and is more effective than late intervention (Cunha and Heckman, 2006).

Schools need to ensure interventions are sustained

Schools visited as part of this project reported that program continuity and long-term support for students were vital. A number of principals commented that they allowed time and funding for initiatives to be embedded in the school culture and then modified to maximize their impact. Principals also stressed the importance of funding stability and staffing stability in creating the necessary environment for change. One principal of a school with unusually high student retention commented, “One-year programs are a waste of time – it has to be longer term.” Another commented, “The belief system behind all of this is that for whatever reason, our children do not have the social capital to manage this movement from Year 7 to Year 12 in an independent manner. They need props, supports, models at every step.”

This is in keeping with research on some overseas interventions indicating that, while the programs have positive effects, these effects are often not sustained over time if the intervention is abandoned (Gandara, 1998, cited in Belfield and Levin, 2007; Cunha and Heckman, 2006).

Schools need to adopt multifaceted approaches

In most effective schools, staff report that no single strategy works alone to increase student engagement and retention, although some strategies are more important than others. Rather, it is important to approach different needs associated with engagement and retention using a combination of strategies, using a multi-faceted rather than singular approach. For example, the literature on schools successful in reducing early leaving shows that while individual mentoring may be one program that keeps at-risk
students connected to school, professional development to improve the quality of teaching is also important, as are many other strategies. The most effective programs identified in the literature review tended to involve several approaches or strategies. It means that schools need to consider using an integrated, multi-strand approach to addressing the needs of at-risk students. This could mean, for example, addressing social issues and practical problems, using strategies such as individual case management, while also putting in place strategies that improve the school’s program provision, such as broadening the curriculum and strengthening teachers’ teaching and class management skills.

**Context sensitivity is essential**

Although many of the strategies identified in the paper were seen in a range of school settings, staff interviewed for the project commented frequently on how important it was to adjust strategies according to the needs of the local students and parents. So, while virtually all the identified schools had worked to improve connections with parents, in the case of one school with a large number of parents from non-English speaking backgrounds, this had taken the form of developing a very visual newsletter with many photos, which allowed students to translate for their parents, explaining events and identifying people at the school. Schools that had increased engagement and retention adjusted strategies to fit with students and parents.

**Supportive school culture greatly improves effectiveness**

While the paper has discussed specific intervention strategies, principals in schools achieving high retention rates here and overseas (Socias et al., 2007) were clear that these should not be implemented *ad hoc*. Those schools which were most successful in raising student retention had an integrated approach, underpinned first, by a well-articulated philosophy that drove all aspects of provision and second, by a culture of continuous improvement. Principals and staff at these schools stressed that all students were able to achieve, that if students were not engaged then the school needed to change what it did, and that while successes were celebrated, every initiative was there to be built upon. In the most successful schools there was school-wide ownership of student engagement and achievement.

### 7.1 Planning for success

For schools to increase student participation in the senior years of school, two processes need to be put in place at the school level. First, schools need to seriously consider and plan to create an effective school culture. The elements of the type of culture that is likely to strengthen student retention are graphically presented in the following diagram:
Thus, schools need to be working to develop a school climate that is built on a shared vision of success for all students, a culture that holds high expectations of staff and students but is responsive to student needs. Schools need to provide opportunities for students to move towards adulthood by giving them a degree of autonomy and responsibility, and the whole school needs to monitor and change its offerings as needs are identified or shift, continually improving staff and programs.

Second, schools need to consider some of the strategies outlined in this paper, identify where these might meet student needs in their school, and develop and implement a whole-of-school plan to increase student engagement. It may be useful for schools to consider which particular needs from the following diagram are strongest in their setting, and choose strategies accordingly.
7.2 Responding to school size and location

School location may affect the capacity of the school to implement some of the interventions and initiatives outlined above. Schools in rural and remote areas, for example, may be more limited in their capacity to access, for example, off-campus provision or some types of teacher professional development than schools in urban centres.

School size may also place some restrictions on the feasibility of implementing some of the strategies. A small school may face, for example, more difficulties in offering students a full or broad range of subjects and vocational courses in the senior years, and smaller schools are more limited in the staff they can draw on to offer additional supports such as co-curricular activities. However, small schools, particularly those in rural areas, may have less need for some of the strategies that work to foster connectedness, such as mini-schools, because of the relationships that teachers can promote with a smaller number of students.

Schools need to bear in mind that not all the strategies described in this paper will necessarily be appropriate for their particular setting.
8. Measuring potential impact

This paper has presented a range of initiatives that have been identified from research as successful in improving student outcomes or are currently being used by schools successful in reducing early leaving. There is evidence to suggest that they work. But the strategies to improve outcomes for at-risk students involve a major investment of resources, time and energy on the part of schools. Effective implementation will require careful planning and design, but also careful evaluation. It is important for schools to be able to evaluate whether or not the initiatives they implement are working.

In planning and design there will be a need to decide on what outcomes the school would expect to see as a result of implementing the initiatives to address the needs of at-risk students. In the context of evaluation, these ‘indicators’ reflect what the program will accomplish and what outcomes will result for the participants, including teachers, support staff and the school as well as the at-risk students. Progress against these indicators can be assessed by identifying an appropriate ‘measure’ or ‘measures’ which are recorded at different intervals, according to what is being evaluated. Measures may be quantitative or qualitative.

Data collected by the system on student, staff and parental satisfaction, the regular AIM achievement assessments at Years 7 and 9, data on student absences, as well as measures of retention (apparent and real) and senior school certificate results can be used to help evaluate a range of the interventions, particularly those at a school-level, though also for those targeting specific groups of at-risk students. The school level annual reports on performance provided to each school also provide useful information for measuring change and progress. The system-collected data can be supplemented with program specific measures within schools including monitoring of progress through reports from key participants, information on attendance and absences for students, teacher provided data on classroom behaviour and progress, regular monitoring of student progress, and, where appropriate, data collected from questionnaires or interviews with participants, depending on the type of intervention.

Measures of impact and progress will need to be sensitive to the time over which change can be expected. Some interventions, particularly school-wide initiatives, may take several years to display effects. Others, such as those addressing the welfare needs of individual students or groups of students may show more immediate effects in terms of changes in student engagement, as well as longer term consequences associated with school completion.

It is also important to recognise that some interventions may show limited impact for a variety of reasons, not all of which are related to the quality of the intervention. Evaluation needs to include reflection on the program or intervention process itself — management, finances, implementation, training, staffing, context and operation.

Schools will need to plan how to evaluate program impact. Some evidence is available on the likely impact of different interventions from various program evaluation studies in the research literature. This work may help schools decide on which interventions to consider implementing. Table 2 presents some interventions.
associated with well-researched or documented programs and the potential impact that might be gained, based on the findings from rigorous research evaluations. The impact is presented in terms of improvements in rates of school completion among disadvantaged students. The source of the assessment is also provided.

**Table 2  Potential impact of selected programs subject to empirical evaluation**

<table>
<thead>
<tr>
<th>Features of intervention</th>
<th>Example of program</th>
<th>Potential impact based on research evidence</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring Attendance monitoring Remediation Programs to improve students’ social skills Family interventions</td>
<td>Achievement for Latinos through Academic Success (ALAS)</td>
<td>Raise completion rates by 5 -10 %</td>
<td>Belfield and Levin, 2007, What Works Clearinghouse, 2007</td>
</tr>
<tr>
<td>Mentoring Attendance monitoring</td>
<td>Check and Connect</td>
<td>Raise completion rates by up to 20%</td>
<td>Sinclair et al., 2005, Belfield and Levin, 2007, What Works Clearinghouse, 2007</td>
</tr>
<tr>
<td>Small learning communities More time with fewer teachers Mentoring Teacher advocacy Rigorous curriculum/high expectations Teacher professional development</td>
<td>First Things First</td>
<td>Raise completion rates by up to 20%</td>
<td>Belfield and Levin, 2007, Quint, 2005</td>
</tr>
<tr>
<td>Mini-schools Longer lesson times Fewer teachers teaching a group of students Providing vocational courses Remediation</td>
<td>Talent Development High Schools</td>
<td>Not known</td>
<td>What Works Clearinghouse, 2007</td>
</tr>
<tr>
<td>Mentoring Case management Remediation Family interventions</td>
<td>Talent Search</td>
<td>Raise completion rates by 10 – 15 %</td>
<td>Belfield and Levin, 2007</td>
</tr>
<tr>
<td>Peer support Mentoring</td>
<td>Twelve Together</td>
<td>Raise completion rates by 10 – 15 %</td>
<td>Belfield and Levin, 2007</td>
</tr>
</tbody>
</table>
9. Barriers to success

Changing how schools operate and what they offer their students is rarely a problem-free process. Participants in this study were asked to describe barriers that they had encountered in implementing change, or that were currently operating to reduce the effectiveness of their programs. Table 3 lists the types of barriers mentioned by participating schools.

### Table 3  Barriers to developing successful interventions

<table>
<thead>
<tr>
<th>Resources</th>
<th>Insufficient funding</th>
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<tbody>
<tr>
<td></td>
<td>High cost of VET provision</td>
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<td></td>
<td>Additional family costs of VET</td>
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<td></td>
<td>Inadequate or inappropriate facilities</td>
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<tr>
<td></td>
<td>Lack of funding continuity</td>
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<tr>
<td>Attitudinal barriers</td>
<td>Subject and course status (VET/VCAL seen as lower status)</td>
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<tr>
<td></td>
<td>Low student aspirations</td>
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<td></td>
<td>Low parental aspirations</td>
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<td></td>
<td>Resistance to change (Students/parents/teachers)</td>
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<td></td>
<td>Excessive parental aspirations</td>
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<td>Parent lack of knowledge</td>
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<td></td>
<td>Low teacher expectations</td>
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<tr>
<td>Staffing and staff skills</td>
<td>Finding appropriate staff</td>
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<tr>
<td></td>
<td>Retaining appropriate staff</td>
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<td></td>
<td>Accessing teacher PD for VCAL or VET</td>
</tr>
<tr>
<td>Organisational barriers</td>
<td>Timetabling issues</td>
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<tr>
<td>Systemic or regional issues</td>
<td>Lack of allied support staff</td>
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<td></td>
<td>Site rather than system view (encouraging competition)</td>
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<tr>
<td></td>
<td>Competition with non-governmental schools for students and/or staff</td>
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<tr>
<td>Other issues</td>
<td>Lack of options for students under 15</td>
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<td></td>
<td>Student transport to other sites</td>
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<td></td>
<td>Small school size limits breadth of subject offerings</td>
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<td></td>
<td>Student transience/mobility</td>
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<td></td>
<td>Lack of coordination across providers and government departments</td>
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<td></td>
<td>Students’ home/family circumstances</td>
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</tbody>
</table>

A lack of funds was the most commonly-cited barrier to increasing student retention. Concerns included funds to implement new courses, train staff, or simply address the multiple social needs presented by at-risk students. One principal commented,

“We need more funding for welfare issues. There is little recognition of the social capital issues impacting on schools like ours – drug dependency, family violence, single parenting and so on. It can be very hard work shifting cultural things like the attitude to attendance.”
Another participant talked about the level of community poverty affecting the school’s capacity to raise funds through contributions, and summed up by saying, “They’re poor, we’re poor”.

The barrier posed by the cost of VET courses was raised by many participants. Comments included,

“VET is a fantastic vehicle for these kids, but the cost is prohibitive for low income families.”

“We need greater VET resources, lots of kids do a more academic course than they’d like.”

“VET costs are a problem, the school is a deficit school, we can’t afford to subsidise the cost. VET fees are a big barrier.”

Attitudinal barriers were also frequently mentioned. A number of schools reported that parents with low levels of education sometimes believed that leaving early had done them no harm, and so would not harm their children. In contrast, other schools reported that some parents’ refusal to countenance anything other than a university career for their children meant that students inappropriately took a VCE pathway, struggled, then dropped out. The lower status of more vocational pathways was a real attitudinal barrier for some schools. Attitudinal barriers on the part of some staff could also be a problem. One principal commented, “If you have a high retention rate, you’re retaining the students who are hard work. Some staff have issues with this – they feel it’s to the detriment of other students. These teachers find these [at-risk] students challenging.” Amongst both teachers and principals, there can sometimes also be the belief that leaving to go to a job is a good outcome (New Zealand Ministry of Education, 2006). While undoubtedly it is a better outcome than unemployment, nevertheless research indicates that jobs for those who have not completed secondary education tend to be the first to disappear in times of recession, and the last to return when the economy recovers. Principals, teachers and parents need to become aware of the importance of aiming to retain all students in education and training until the end of Year 12.

There was a particular cluster of barriers reported by rural schools. One major problem was lack of access to allied support staff, such as school psychologists or youth workers, and high turnover of these staff, making it difficult for students to establish ongoing relationships with them. One principal noted,

“Stable support people are really important, but we don’t have the numbers to do it, it makes it really hard. Kids build up rapport with someone and then they go, the kids give up because the relationship has been dropped.”

Rural schools (and some outer suburban schools) had difficulties transporting students to other education providers such as TAFE, and this limited the breadth of what they could offer students. Work placements for VCAL and school-based apprenticeship placements were limited by the breadth of industry available in rural towns. The very high cost of students leaving town to attend a university was also felt by some participants to limit some rural students’ aspirations.
Attracting and retaining appropriate teaching staff was a problem for both rural and metropolitan schools. This in turn placed limits on the breadth and quality of the programs schools were able to offer. Smaller schools also reported problems providing a broad curriculum, though many creative provision arrangements with other schools and providers were discussed. A number of participants mentioned the difficulty of competing with other schools for good staff, and losing staff to non-government schools offering teachers higher pay, or to government schools which sought to cater for the least challenging students. This linked to concerns about how schools position themselves. The principal at one school noted, “…some schools will increase their profile at the expense of other schools by selecting out [certain] students. Some schools won’t run disability and integration programs, they discourage these kids from coming.”

A final important barrier identified by participants was the lack of alternative options for students below the age of 15. While these students could move into TAFE or ACE courses once they reached this age, there was a general perception that this was often “too little, too late”. A number of participants felt that alternative learning pathways with a hands-on focus needed to be developed for students in Years 7 to 10.
### Table 1A  Initiatives to improve the outcomes for students at risk of early leaving: school-wide initiatives

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Examples</th>
<th>What the research says and comments</th>
</tr>
</thead>
</table>
| Separate mini-schools within the one school site (“school within a school”) | *Career Academies* (U.S.)  
*Talent Development Middle Schools/Talent Development High Schools* (U.S.)  
*School Transitional Environmental Program* (STEP) | Kerr and Legters (2004) found that Maryland schools using mini-schools have lower dropout rates, when controlling for other factors such as student cohort characteristics. |
| Longer lesson times                                                         | *Talent Development Middle Schools/Talent Development High Schools*       | TDHS show some success in increasing student progress in school with positive impact on maths achievement and attendance (Herlihy & Kemple, 2004). |
| Smaller groups of teachers responsible for teaching and pastoral           | *Talent Development Middle Schools/Talent Development High Schools*       | TDHS show some success in increasing student progress in school with positive impact on maths achievement and attendance (Herlihy & Kemple, 2004). |
| Strategic teacher placement                                                | Quality staff at all levels of school                                     | Victorian research suggests that secondary schools which place their most experienced teachers in the early as well as the later years tend to increase student achievement and retention (Lamb, 2007). |
| Lower student:teacher ratios, smaller class sizes                          | *Student Teacher Achievement Ratio (STAR)* project, Tennessee             | Finn et al. (2005) find students in smaller classes more likely to graduate, although the program was implemented at primary school and effects were seen in secondary.  
Pritchard (1999) found that smaller class sizes can contribute to better relationships between teachers and students, better quality instruction and improved outcomes if teachers adjust their teaching styles. |

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1 The focus of the initiatives outlined is prevention – holding students in schools, rather than “rescuing” those who have already dropped out. In practice the boundary between the two types of programs may be blurred.
| Table 1A cont. | Provision of vocational education and training, including structured workplace learning. | Career Academies (U.S.)  
Specialist High Skills Major, Ontario  
Secondary Tertiary Alignment Resource (STAR), New Zealand  
Learning To Work (New York)  
VET, VCAL | Bishop and Mane’s (2004) analysis of international data shows that offering VET at secondary level tends to increase student retention.  
Plank et al. (2005) find that the addition of career and technical education courses appears to reduce the risk of dropping out, but only for students who are the same age as their cohort. Where a student is older (likely to have repeated) there are no effects.  
James et al. (2001) find potential early school leavers were positive about vocational programs with workplace component. |
| Programs to improve students’ general work or social skills | Achievement for Latinos through Academic Success (ALAS)  
Twelve Together  
Teen Outreach program  
Career Academies | Gandara et al. (1998) find ALAS impacts positively on retention.  
Dynarski et al. (1998) find Twelve Together reduces dropout.  
Eccles and Templeton (2002) cite evidence that Teen Outreach programs reduce suspension and increase achievement.  
Career Academies improve retention and increase academic progress (WWC, 2007). |
| Community service programs | Teen Outreach Program  
Quantum Opportunities Program | Eccles and Templeton (2002) cite evidence that Teen Outreach programs reduce suspension and increase achievement, while the Quantum Opportunities Program reduced dropout. |
| Co-curricular programs | Homework clubs, centres and support  
Extended service schools, UK  
Breakfast clubs  
Peer tutoring  
Extra-curricular programs  
After-school and summer programs | Pocklington (1998) evaluated a 2-year study of school improvement with a range of revision classes, coursework clinics and homework centres and found higher achievement and engagement for participants.  
Students who participate in extra curricular activities both inside and outside school have lower odds of dropping out (Finn, 1989; Rumberger, 1995)  
Some schools provide targeted programs that are often run as extra-curricular activities. Students may take part in peer tutoring, mentor programs or programs aimed at improving self confidence (Artelt et al., 2003). These show evidence of helping to reduce early leaving.  
A review of 35 studies of supplementary programs for assisting at-risk students in reading and mathematics found small positive effects on student achievement and larger effects for targeted programs such as tutoring in reading (Lauer et al., 2006). |
### Table 1A cont.

<table>
<thead>
<tr>
<th>Teacher professional development to improve teaching and learning</th>
<th>Targetted professional development:</th>
<th>Wenglinsky (2000) found that certain types of professional development may have an impact on student achievement. Students whose teachers received professional development in working with diverse student populations are ahead of their peers in maths. Students whose teachers receive professional development in higher-order thinking skills gain over students whose teachers lack such training in mathematics.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relationships with students</td>
<td>First Things First, U.S. is a whole-school reform initiative designed to increase achievement and engagement in secondary schools. There is a strong professional development component for teachers. There is evidence of increasing school completion rates (Quint et al, 2005, cited in Belfield and Levin, 2007).</td>
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<td></td>
<td>Classroom management skills</td>
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<td></td>
<td>Literacy and numeracy</td>
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<tr>
<td>Coordination with other providers, including cross-sectoral initiatives</td>
<td><strong>Student Success Lighthouse Projects in Ontario</strong></td>
<td>Some of the Student Success Lighthouse Projects made links with universities and offered some courses on campus to motivate students to continue to university, and to familiarise them with the environment. Dual credits are given – students earn a credit towards their high school diploma, and a college credit.</td>
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<td></td>
<td><strong>Learning to Work, New York</strong></td>
<td>Learning to Work is offered within GED programs, transfer high schools and Young Adult Borough Centers. It is a combination of career planning, job and internship placements, tutoring, counselling and support, and attendance monitoring.</td>
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<td></td>
<td><strong>Targeted Youth Support Pathfinders (UK)</strong></td>
<td>Targeted Youth Support Pathfinders (TYSP) is a multi-agency approach to youth support involving a range of education and welfare staff, including school nurses, housing officers, police youth workers, drugs workers, the Youth Service, Connexions, Behaviour Support Worker; teenage Pregnancy Worker; etc. The target group is youth aged 10 to 19. There are three different models: Multi-agency panel (members remain within their agencies but meet regularly) Multi-agency team (members are seconded or recruited into the team with a common purpose and a leader) Integrated service (different services are co-located to form a highly visible hub in the community)</td>
</tr>
</tbody>
</table>
Table 1A cont.

<table>
<thead>
<tr>
<th>Coordination with other providers, including cross-sectoral initiatives</th>
<th>Connexions (UK)</th>
<th>Connexions is a government service providing advice and support to youth aged 13-19 in Britain. It includes a website, access to personal advisers (PAs), and partnerships with local authorities, health authorities, the police, the probation service, employers, the voluntary sector and young people. Each school negotiates with their Partnership to determine reporting arrangements and the PA skills needed for their cohort.</th>
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<tbody>
<tr>
<td>Pathways planning and careers education</td>
<td>Managed Individual Pathways</td>
<td>Pathways planning is organised in Victorian schools through the Managed Individual Pathways (MIPS) scheme which offers all students aged 15 and over individual assistance to develop pathways plans in Years 10, 11 and 12. A review of the scheme found that many schools reported that MIPS had improved student engagement, staff-student relations, increased the responsiveness of school staff to the needs of all students, and raised completion (Asquith Group, 2005). The effects varied across schools depending on the way the program was implemented. A study in the United Kingdom, found that the most successful approaches to careers education are in schools where responsibility for delivering and monitoring the quality of provision is clearly identified, and where senior management and guidance staff co-operate closely to ensure that the various elements of careers education are effectively coordinated (Morris, 2000). The study also indicates that pupils respond best where they have experienced careers education as part of their normal curriculum. It also points to the quality of careers teachers as fundamental to success.</td>
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<td>Careers education</td>
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<thead>
<tr>
<th>Intervention</th>
<th>Examples</th>
<th>What the research says and comments</th>
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</thead>
<tbody>
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<td></td>
<td><em>I have a dream (U.S.)</em></td>
<td>Johnson (1996) used matched samples to find increases in college attendance and achievement for Sponsor a Scholar (cited in Cunha and Heckman, 2004).</td>
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<td></td>
<td><em>Big Brother/Big Sister program (U.S.)</em></td>
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<td></td>
<td><em>Sponsor a Scholar (Philadelphia)</em></td>
<td>Eccles and Templeton (2002) cite evidence that the Quantum Opportunities Program reduced dropout.</td>
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<td></td>
<td><em>Quantum Opportunity Program (U.S.)</em></td>
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<td></td>
<td><em>Check and Connect</em></td>
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<td></td>
<td><em>Twelve Together (U.S.)</em></td>
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<td></td>
<td><em>Helping one student to succeed (HOSTS)</em></td>
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<td></td>
<td><em>Cross Phase Mentors (Manchester, UK)</em></td>
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<tr>
<td></td>
<td></td>
<td>The focus of the initiatives outlined is prevention – holding students in schools, rather than “rescuing” those who have already dropped out. In practice the boundary between the two types of programs may be blurred.</td>
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</table>

2 The focus of the initiatives outlined is prevention – holding students in schools, rather than “rescuing” those who have already dropped out. In practice the boundary between the two types of programs may be blurred.
<table>
<thead>
<tr>
<th>Buddy systems, including cross-age tutoring</th>
<th>Valued Youth Programs</th>
<th>In the VYP program secondary students at risk of dropping out serve as tutors of primary students who have also been identified as being in at-risk situations. While students are tutors in the program, they participate in a special tutoring class that serves to improve their basic academic and tutoring skills. Each student works with three primary students at one time for a minimum of four hours each week. The student tutors are paid a minimum-wage stipend for their work and attend functions held to honor and recognize them as role models to the younger students. There is some evidence in quasi-experimental studies for increased retention (Eccles and Templeton, 2002).</th>
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<tbody>
<tr>
<td>Family interventions</td>
<td>ALAS (Achievement for Latinos through Academic Success)</td>
<td>In the ALAS program, parents received training on accessing community resources, as well as training on how to support behavioural changes, how to assess adolescent engagement in school, how and when to participate in school activities, how to review report cards and school credits, and how and when to contact teachers and administrators. Parents also received information on a broad range of community resources, such as psychiatric and mental health services, alcohol and drug counselling, social services, child protective services, parenting classes, gang intervention projects, recreation and sports programs, probation, and work programs. (Note: the ALAS program had a number of other aspects in addition to these). ALAS has been found to improve retention (Belfield and Levin, 2007; WWC, 2007). Extended Service (ES) Managers were appointed across the local authority (LA). They provide home-school liaison, parenting support and improved family learning support.</td>
</tr>
<tr>
<td>Pathways planning and careers education</td>
<td>MIPS in the early years (Years 7 and 8) for at-risk students</td>
<td>Careers and pathways planning are important elements in helping keep students engaged (Morris, 2000). Effective careers education with early pathways planning for at-risk students can help students plan and help identify areas that require assistance or focus. Successful careers counselling in assisting at-risk students is linked to the experience, qualifications and training of careers staff (Morris, 2000).</td>
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</table>
| **Individual or group skills training (remediation)** | **Regular timetabled literacy and numeracy classes in Years 7 and 8) or even across the whole school.**  
**Continuous monitoring of skills.**  
**Intensive subject-specific coursework training include additional time** | **Low achievement is strongly associated with early school leaving. Targeted remediation, whether individual or group, preferably before the middle years of secondary school appears to be one means of tackling this.**  
**Cunha and Heckman’s (2004) meta-analysis indicates that late adolescent and young adult remediation programs are costly and mostly ineffective. “Returns are low (and sometimes negative) and even when they are positive they do not lift most persons treated out of poverty…Adolescent remediation programs are effective for a targeted few who use them as second chance opportunities. They are not effective for the rest” (p.28). They suggest that individual remediation is more effective and more cost-effective earlier in school.**  
**The research suggests that the earlier such programs are implemented the greater the success (Dickinson & Neuman, 2006; Field et al., 2007).**  
**One example is the Transition to Advanced Maths program in the United States which is designed for students who have fallen well behind in maths (Center for Social Organisation of Schools, 2008). Students undertake a year-long “double dose” of instruction in mathematics which is designed to prepare students for a more advanced sequence of high school mathematics.**  
**Helping One Student To Succeed (HOSTS) is a model that helps schools create tutoring programs for at-risk students using a mentoring approach. HOSTS schools provide one-to-one, usually after-school tutorial services to at-risk students in elementary through high school who are performing below the 30th Percentile (Fashola et al., 1997).**  
**The Athena Intervention program is a pupil intervention program which works to raise attainment in literacy and numeracy in late primary school. Participants are identified through analysis of QCA tests, learning style tests and self esteem findings at the end of year 5. Children then attend literacy and numeracy sessions at the ATHENA Learning Resource Centre up until their SATS in the summer term. The program makes heavy use of ICT and aims to cater for individual learning styles.**  

<p>| <strong>Transition to Advanced Maths program</strong> | <strong>Helping one student to succeed (HOSTS)</strong> | <strong>The Athena EiCAZ Intervention Programme (Birmingham, UK)</strong> |</p>
<table>
<thead>
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<th>Table 1B cont.</th>
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<tbody>
<tr>
<td><strong>Attendance programs</strong></td>
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<tr>
<td>Birmingham Education Services (Birmingham City Council, UK)</td>
<td>Has a cluster of student support teams working with schools to support attendance:</td>
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<td>- The Pupil Watch Team: targeted contact with children non-attending school.</td>
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<td>- The Pupil Connect Team: works to identify, track and reconnect those children with education.</td>
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<td></td>
<td>- Education Department ITTeam: supports schools in implementing ICT systems for recording and tracking student attendance.</td>
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<td></td>
<td>Uses caseworkers known as Community Advocates, who check with families on repeated absences, and may help them solve problems that are influencing students’ attendance.</td>
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<tr>
<td>Project Respect (U.S.)</td>
<td><strong>Check and Connect</strong> has a strong educational focus – keeping the child in school and keeping education central. The focus is on monitoring student attendance. However, the program also incorporates problem-solving skills and mentors work to improve school-family relationships.</td>
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<tr>
<td>Check and Connect</td>
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<tr>
<td><strong>Welfare coordination</strong></td>
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<tr>
<td>Achievement for Latinos through Academic Success (ALAS)</td>
<td>Through its community component, the ALAS program provided a bridge between students and community services including mental health, social services, drug and alcohol treatment programs, job training, and sports and recreation programs. The ALAS program has been found to impact positively on retention and achievement (WWC, 2007; Belfield and Levin, 2007).</td>
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<td></td>
<td>Some mentoring and case management programs also provide coordinated welfare services.</td>
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<tr>
<td><strong>Financial assistance for disadvantaged students</strong></td>
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<td>The Smith Family’s Learning For Life. I Have a Dream (U.S.) Teenage Parent Demonstration (TPD) Western Chances scholarships, Melbourne Learning, Earning, and Parenting program (LEAP), Ohio.</td>
<td>Costs may include funds for course materials and course fees. The commitment to provide all or part of the cost of university fees may provide some poorer students with the incentive to continue their studies. Some sponsorship programs also provide mentoring (Smith Family, 2000).</td>
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<tr>
<td></td>
<td>Financial incentives for teen parents to stay in school.</td>
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<td>Research evidence shows some potentially small effects of payments to teen parents on retaining students in school, but no effects on school completion.</td>
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### Table IB cont..

<table>
<thead>
<tr>
<th>Programs for teen parents</th>
<th>Young Mothers’ Program, Plumpton High, N.S.W.</th>
<th>With the Young Mothers’ Program, low-cost child care is provided, students are allowed to start school later in the day, work is delivered to them at home if necessary. Counselling is provided.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Learning, Earning and Parenting (LEAP) program, Ohio</td>
<td>No formal evaluation, but around 40 students have completed HSC through the program. LEAP participants were found to be more likely to complete high school.</td>
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<td></td>
<td>Teenage Parent Demonstration (TPD)</td>
<td>More positive impact for those still in school enrolling in LEAP and TPD than for those who had already dropped out. GRADS is a multi-faceted program focusing on positive self esteem, pregnancy, parenting, academic achievement, economic independence and school completion. The program provides home and community outreach and an on-site childcare program. No empirical research, but relatively high numbers complete school or a GED. This uses a case worker approach to connecting teen mothers back into education and training. It should be noted that pregnancy as a reason for leaving school appears to be considerably less common in Australia than in the U.S., which has a greater proportion of teen mothers, especially among ethnic minorities (cf. Lamb et al., 2004 and Rumberger, 2004a).</td>
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<td>Graduation, Reality and Dual Skills (GRADS), Washington</td>
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<td></td>
<td>Reintegration Officer for Pregnant Schoolgirls and Schoolgirl Mothers (Birmingham City Council Education Service, UK)</td>
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<tr>
<td>Creativity programs</td>
<td>Creative Partnerships, U.K.</td>
<td>There is qualitative research indicating the program serves to increase student engagement and satisfaction. There is also quantitative study by the National Foundation for Educational Research (NFER) which reported that compared with similar young people in the same schools, those who participated in Creative Partnerships activities performed slightly better at each of the key stages of learning and assessment (Eames et al., 2006).</td>
</tr>
<tr>
<td>Project-based learning</td>
<td>Project-based learning programs for disengaged students</td>
<td>Middle years research has found the need to provide students with more authentic, cross-disciplinary learning tasks that require higher level cognitive skills (see, for example, findings from the Victorian MYRAD project, 2002).</td>
</tr>
</tbody>
</table>
Table 2A  Some sample programs for which there is documented empirical evidence of success

ALAS (Achievement for Latinos through Academic Success):
In the ALAS program (1990-1995) student attendance was monitored on a period-by-period basis every day, and parents were contacted daily about truancy or cut classes. ALAS counsellors communicated a personal interest that students attend regularly, taking the initiative to help families overcome obstacles that stood in the way, and expecting students to make up missed time. They also helped teachers establish a system of regular feedback to parents and students about behaviour, class work and homework on a monthly, weekly or even daily basis as needed.

Students received ten weeks of instruction in a ten-step problem-solving strategy created by one of ALAS's developers, along with two years of follow-up coaching. During those sessions, counsellors discussed teachers' feedback and coached students in how to use the strategy to think through problems related to attendance, behaviour and academic progress. They also followed up with teachers to keep them informed about how students and parents had decided to address problems.

In addition, counsellors provided parents with direct instruction and modelling on how to participate in their child's schooling and manage adolescent behaviour, as well as helping them to connect with a wide range of community programs and social services. And they provided students with frequent positive reinforcements and group bonding activities, striving to help them feel more connected to school by showing them that caring adults were taking an interest in them.

Career Academies:
Typically serving between 150 and 200 students from grades 9 or 10 through grade 12, Career Academies have three distinguishing features: (1) they are organized as small learning communities to create a more supportive, personalized learning environment; (2) they combine academic and career and technical curricula around a career theme to enrich teaching and learning; and (3) they establish partnerships with local employers to provide career awareness and work-based learning opportunities for students. They aim to prepare students for both vocational and academic/university pathways.

A major evaluation using random allocation to the program found that the program increased career earnings of young men (but not young women) in the Academies following transition to the workforce, and increased hours worked. High school completion rates and post-secondary enrolment rates were higher for students from the Academies. However, educational attainment did not increase. Benefits were concentrated in the high-risk and medium-risk students.

Check and Connect:
Check & Connect is a highly targeted, individualized intervention focused primarily on boosting students' engagement in school. The program's design was heavily influenced by early proponents of the theory that dropping out is a long-term process of educational

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3 These notes are based on Jerald, 2007.
withdrawal preceded by observable, "alterable" warning signs of academic difficulty and disengagement.

Each student is assigned a monitor who acts as a cross between a case manager, mentor, problem solver, coach, and advocate. The position was modeled after the factor most commonly identified by research on resilient children—the presence of a caring, concerned adult. Monitors agree to work flexible hours so they can be "on call" outside of the normal workday all twelve months of the year, and they are employed by the district rather than by a specific school so they can stick with students who transfer. According to the program's developers, continuity is key.

The monitor's primary goal is to promote regular school participation and to keep education the salient issue. The monitor's message is that a caring adult wants the student to learn, do the work, attend class regularly, be on time, express frustration constructively, stay in school and succeed. Maintaining a focus on students' educational progress also serves to keep interventions tightly focused on those factors most amenable to change.

**Talent Development High Schools/Talent Development Middle Schools:**
The Talent Development model was designed to improve achievement and graduation rates in high-poverty urban high schools where many students enter ninth grade one or more years behind grade level in math and reading. Talent Development reorganizes schools into several small learning communities to create a more supportive learning environment with better relationships among teachers and students. Year 9 is restructured as a self-contained school-within-a-school called the Success Academy, where groups of students share the same teachers in interdisciplinary teams. After Year 9, students can choose from among several differently-themed Career Academies that blend career and technical coursework with a rigorous academic curriculum.

The model also incorporates intensive academic supports. During the first semester, Year 9 students take three courses designed to enable them to overcome poor preparation and succeed academically—Strategic Reading, Transition to Advanced Mathematics (TAM), and a Freshman Seminar that develops personal and educational survival skills. Unlike traditional "remedial" classes, Strategic Reading and TAM use specially developed curricula designed to accelerate learning and enable students to “catch up” academically. Year 9 students then take regular academic courses during the second semester.

In order to get students caught up and on track in one year, Talent Development uses block scheduling to double the amount of time year 9 students spend in maths and English. Ninety-minute maths and reading classes during the first semester allow teachers to fit in a full year's worth of catch-up instruction, and "double-dosing" on algebra and English during the second semester allows students to complete a full year's worth of credit-bearing coursework. To prevent students from becoming bored in ninety-minute classes, Talent Development developed curricula that incorporate highly motivational materials and activities designed to appeal to teenagers.

**First Things First**
First Things First is a framework for whole-school reform that aims to help students at all academic levels gain the skills to succeed in post-secondary education. The program places an emphasis on strengthening relationships between students and adults, improving student engagement, and improving the alignment and rigor of teaching and learning in every classroom. The program features:
• Small learning communities in which about 200-325 students remain together for 4 years and take core classes with the same group of 10-15 teachers. These teachers have planning time to discuss individual students, plan group activities and undertake instructional improvement efforts. Each small learning community is centred on a theme such as performing arts, law and government or business and technology. These themes are intended to infuse instruction in the core subjects and guide elective courses of study within the small learning community.

• A family advocate system pairs each student with a teacher advocate who monitors that student’s progress, advises the student when there are problems and celebrates the student’s achievements. Guidelines call for the advocate to meet weekly with each student and at least twice a year with the student’s family. Most teachers and administrators in a school are family advocates.

• Professional development is provided for staff members to improve their instructional capabilities, focusing on actively engaging students in meaningful and rigorous work that is aligned with state standards.
References


