



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **Interventions early in school as a means to improve higher education outcomes for disadvantaged (particularly low SES) students**

## **Component C: Case studies of selected Australian university outreach activities**

Sam Sellar, Robert Hattam, Dianne Bills, Barbara Comber, Deborah Tranter and Trevor Gale

COMMISSIONED BY

THE DEPARTMENT OF EDUCATION, EMPLOYMENT  
AND WORKPLACE RELATIONS

The views and opinions in this document are those of the author/project team and do not necessarily reflect the views of the Australian Government or of any Minister, or indicate the Australian Government's commitment to a particular course of action.

## About this report

This report was commissioned by the Department of Education, Employment and Workplace Relations (DEEWR) in July 2009. The University of South Australia was contracted to undertake the research and produce the report.

## Acknowledgements

The Department of Education, Employment and Workplace Relations would like to thank the National Centre for Student Equity, University of South Australia, for undertaking this project.

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ISBN 978-0-642-77886-4

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## Executive summary

Many outreach activities currently being conducted by Australian universities are making successful contributions to the goal of increasing the participation of disadvantaged (especially low SES) students in higher education. However, these contributions have often been isolated and difficult to sustain both over time and across the higher education sector. This report comprises seven case studies of effective programs and constitutes Component C of the DEEWR-funded research project *Interventions early in school as a means to improve higher education outcomes for disadvantaged (particularly low SES) students*. These case studies represent leading practice in the sector and, together, illustrate a range of outreach approaches tailored to the needs of different groups and contexts.

Some case studies focus on programs in terms of a specific outreach activity. Others focus on broader programs that include a suite of complementary activities. Each case study comprises discussion of the program context, activities, evaluation and concluding remarks that identify key program characteristics. Data was gathered from semi-structured interviews and focus groups with a range of participants, including university equity staff and academics, university student mentors, school students, teachers and parents. Print and web-based materials describing the programs and their contexts were also consulted. In each case challenges have been identified in consultation with program staff.

The findings of this report suggest that a combination of key program characteristics, supported by a coherent university-wide equity orientation towards policy and outreach, holds the strongest promise for designing and implementing effective early interventions.

Earlier components of this study identified 10 characteristics that typify programs successfully fostering higher education participation for disadvantaged students. Nine characteristics were described in Component A: *collaboration; early, long-term and sustained; people-rich; cohort-based; communication and information; familiarisation/site experiences; recognition of difference; enhanced academic curriculum; and financial supports and/or incentives*. A further characteristic was identified in Component B: *research-driven interventions*. The success of the case study programs appears to depend on the presence of several of these characteristics (at least half of the set). It is not appropriate to prioritise the characteristics according to their relative importance. Rather, the most important feature of successful interventions is the *combination* of many characteristics in response to the particular requirements of different student and institutional contexts.

The characteristics are general principles that can be implemented from diverse policy orientations. However, a further common feature of the case studies is an *equity orientation* that underpins the different combinations of characteristics found in the various programs. This orientation is informed by three specific equity perspectives: *researching 'local knowledge' and negotiating local interventions; unsettling deficit views; and building capacity in communities, schools and universities*. The conjunction of this underlying equity orientation with the combination of multiple characteristics provides a focus for the design and evaluation of interventions.

The report finds that there is no simple formula for successful outreach activities. Strong early intervention strategies require a suite of multifaceted responses to the particular needs of different groups. Strategies should be developed and implemented in partnership with a range of

stakeholders, supported by secure funding sources and informed by a sophisticated equity orientation. Many case studies demonstrated the benefits of interventions commencing in the early phases of schooling, ideally the primary years, and progressively supporting students as they make the transition through the middle years into senior secondary school. A coherent approach to developing and implementing interventions with these qualities, both within universities and across the Australian higher education sector, is required to sustain more systemic increases in the participation of disadvantaged students in higher education.

## Introduction

This report comprises seven case studies of effective programs and constitutes Component C of the DEEWR-funded research project *Interventions early in school as a means to improve higher education outcomes for disadvantaged (particularly low SES) students*. The case studies provide rich descriptions of university-initiated collaborative programs with schools that aim at increasing higher education participation and outcomes for disadvantaged (particularly low SES) students.

From the many excellent examples of early intervention programs gathered through the survey component of this study (Component B), the selection of programs to include in this report was made with several principles in mind. In keeping with the project brief, the primary selection criteria were interventions that target students prior to Year 11 and that focus on those under-represented in higher education—principally, students of low socioeconomic status (SES), Australian Indigenous students and regional students, with an overall bias towards the first of these. Other selection criteria included the variety of effective programs evident across the higher education sector.

Each case study depicts a program designed for a particular context and, accordingly, each has slightly different goals, strategies and outcomes. Some interventions seek to enhance access and aspirations, while others focus on supporting academic achievement. As individual case studies, they are distinct examples of effective practice; together, they provide evidence of a diverse repertoire of productive strategies that are useful in educational interventions. Among other things, they show how the location and intent of a program influence the scope and intensity of the intervention that occurs. In many instances, they also show how programs begin modestly and then diversify and multiply, targeting more students earlier in their learning years or adding other strategies and components to the program.

While the programs studied in each case focus on a selected group of schools, in some instances the number of schools involved is higher than in others. Where it is a large number of schools, programs are more likely to offer information sessions and university ‘taster’ experiences, designed primarily to make universities familiar to as many students and families as possible. Where the objective is to strengthen students’ academic achievement, the intervention is more likely to involve smaller numbers of schools and/or students and to occur through intensive curriculum interventions such as summer schools or through long-term pedagogical relationships.

Some programs are initiated by university-wide equity units with a broad equity brief, while others are developed in academic schools, faculties or departments and take discipline-based approaches to intervention. Most programs incorporate some level of consultation with significant others (parents, teachers, community leaders and advisers), while some also include professional development for participants (teachers, teacher assistants, university staff and students).

Seven programs were identified for particular examination in this report. They demonstrate different effective ways of approaching the task of improving higher education participation and outcomes for disadvantaged students.

At Victoria University, the Access and Success project targets students in the western suburbs of Melbourne. The initiative is multidimensional, with university staff and students working with school students and teachers on a range of projects. Together, the projects span early childhood, primary

and secondary schooling, and often involve pre-service teachers actively engaging with teachers, parents and communities. Research is a core component of the project, contributing to teacher professional development and to project evaluation.

At Griffith University, the Uni-Reach program provides outreach services to Year 8–12 students in 12 secondary schools in Griffith’s southern corridor catchment area. University students mentor Year 11 and 12 students in schools and during on-campus programs, an interactive drama production about going to university (Uni-Reach Drama) is provided to Year 8 students by Bachelor of Education Applied Theatre students, and Year 10 students receive an information booklet (*Griffiti*) designed for use in career planning. The Mata I Luga (Looking Up) pilot program provides a combination of in-school and on-campus visits for Year 10 Pacific Islander students in a school with a high Pacific Islander population.

At Wollongong University (Shoalhaven Campus), the Uni Connections program targets Year 8–12 students in nine schools in the Shoalhaven City Council area. The various aspects of the program involve university students mentoring and tutoring school students in a range of academic fields, university staff providing on-campus workshops, and the provision of on-campus activities specifically for Indigenous students and their families. The program seeks to maintain strong engagement with Indigenous communities and engages in active consultation with school communities to ensure that program activities are contextualised.

At RMIT University, the Koori Express program provides numerous activities for regional Indigenous school students. Indigenous university students are involved in mentoring programs in schools and are actively engaged in an on-campus introductory experience that involves several buses bringing Indigenous students and their parents to the university Open Day.

At the University of Technology, Sydney, the Make it Reel program involves around 30 students in Years 9–10 from priority schools in a three-week intensive film-making program. UTS undergraduate students studying film provide mentoring for students attending the program, which aims simultaneously to improve students’ literacy skills and strengthen their university aspirations.

At Queensland University of Technology, the YuMi Deadly Maths program involves academic staff providing professional development in mathematics education to teachers and teacher aides in Indigenous schools in rural and remote areas of Queensland. The program is focused on whole-school change and reform, is designed in consultation with Indigenous leaders in the communities, and aims to improve the mathematics learning of Indigenous students in order to strengthen higher education pathways.

At Ballarat University, the Regional Schools Outreach Program targets regional school students in Years 10–12 across 43 schools in western Victoria. The program has a longitudinal component, providing follow-up activities to Year 10 students when they move in to their final two years of secondary school. Information sessions are also provided for parents. The program is reviewed and developed in response to continuous and broad-ranging research and evaluation that draws on national, state and institutional data.

These case studies have been developed using data—semi-structured interviews, focus groups and documents—collected from February to April 2009. Participants in the studies included those

involved in designing and delivering the programs, program participants (typically school students, but also teachers and teacher assistants) and others associated with the programs (for example, parents, teachers, university students). The voices of students have been highlighted in cases where data collection involved them in interviews and focus groups. Participating program organisers have verified each of the accounts provided in this report.

The case studies identify key characteristics that contribute to program effectiveness. While each of the seven programs selected employs promising combinations of early intervention strategies, there are still substantive contextual challenges to be negotiated. These are discussed in each case, giving particular emphasis to the insights of those involved in program design, management and delivery.

Each case study follows a similar structure: an introduction to the program's context; a description of program activities; a discussion of program evaluation; and concluding comments on the program's most salient characteristics. An overall conclusion to the report follows the case studies and draws out collective lessons to be learned from these programs.



## ***Access and Success (Victoria University)***

Sam Sellar and Trevor Gale

### **Introduction and context**

Victoria University is a multi-sector tertiary education institution that provides both higher education and technical and further education (TAFE). It has more than 50 000 local and international students enrolled at campuses across the city centre and western suburbs of Melbourne. Victoria University has a broad equity and diversity strategy that comprises the Access and Success project in conjunction with a number of other student equity initiatives, including:

- investigation of secondary school for students' aspirations for post-compulsory education
- implementation of strategies to address student finances and financial literacy
- provision of access to information technology resources for low SES students
- provision of inclusive education for students with a disability
- recognition of the cultural diversity of students and their communities, and
- provision of programs designed to increase the participation of students from equity groups through Access and Equity scholarships, and a Portfolio Partnership Program that provides an alternative pathway to university for capable students without a competitive ENTER score (Victoria University undated).

Victoria University's Equity and Diversity Strategy has been designed in response to the specific needs of students and communities in the western region of the Melbourne metropolitan area, which experience below-average educational outcomes in comparison with other regions. The university serves a student population with a higher-than-average proportion of students from low SES backgrounds and backgrounds where a language other than English is spoken (LOTE).<sup>1</sup>

As part of the university's broader equity strategy, the Access and Success project constitutes a major 'research and development initiative, working with schools in the west of Melbourne to improve young people's access to, and successful participation in, post compulsory education and training' (Victoria University 2009a). The project places emphasis on establishing collaborative teaching and research partnerships with schools and has implemented programs across more than 70 different sites. Access and Success comprises a number of different 'arms', which involve university staff and students working in schools (Learning Enrichment); the professional development of teachers through their participation in postgraduate education (Teacher Leadership); working with senior secondary students to support their aspirations and provide information on tertiary education and employment pathways (Youth Access); enhancing students' educational engagement through school-based programs with community partners (Schools Plus); and developing and disseminating research about the work undertaken in each of these project arms (Access and Success Research). In this case study we focus specifically on the Learning Enrichment,

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<sup>1</sup> See Victoria University (undated) for further demographic data relating to student equity at Victoria University.

Teacher Leadership and Schools Plus activities, which target students in the compulsory years of schooling, as well as the support for these activities provided by the research arm of the project.

Data for this case study was derived from relevant Access and Success documents, including the project website, and a semi-structured interview with the project director and two other members of the project team. In the discussion that follows, all quotes are from the project director.

## **Description of activities**

### *Learning Enrichment*

The Learning Enrichment arm of Access and Success involves 'school professional learning teams of university students, staff and schoolteachers working on negotiated projects to enrich learning environments'. A central aim of this initiative is to maintain an ongoing university presence in the schools of its region. This presence provides a means for schools and the university to work collaboratively on improving student achievement and to increase school students' familiarity with the university through regular contact with its staff and students:

[School students] can see the university students in their school, and at the same time we're also targeting achievement as being a really important part of the thinking that prepares people for university, because if they're not feeling that they're capable of undertaking or engaging in these subjects areas, that it's university related, then they're not getting to that first step of thinking about university ... [It's] part of that kind of embedding of the university in the schools and in the thinking of the schools in the region.

For example, one program conducted under the auspices of the Learning Enrichment arm of Access and Success involves pre-service teachers working with in-service teachers and university researchers to design action-research projects that investigate issues of student disengagement across a cluster of schools. Another program involves pre-service teachers participating as literacy mentors in a whole-school literacy intervention at the secondary level, while also collaboratively researching the effectiveness of this intervention with school staff.<sup>2</sup> A program addressing student aspirations for university and TAFE has been initiated at another secondary school; it involves pre-service teachers working with a small group of Year 9 and 10 students that have high academic ability but low aspirations. This work in and with schools aims to respond to the specific needs of particular sites:

Our work in schools is guided by the teachers in the school who usually ... identify an area that they would like to work on in conjunction with the university, something to do with stimulating the learning outcomes of students in the school.

This broader based 'immersion' approach to intervention, in contrast to approaches that target specific equity groups, is a significant feature of Access and Success. Importantly, it increases the potential for ongoing cross-sector collaboration between schools and the university when designing interventions and undertaking school-based research.

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<sup>2</sup> See Victoria University (2009b) for more detailed descriptions of these projects.

### *Teacher Leadership*

The Teacher Leadership arm of the program aims to engage teachers and principals in professional learning that increases teaching capacity in the schools of Melbourne's western region. This has involved delivering professional development that articulates with graduate certificate or master of education programs offered by the university. The development of research partnerships based on participatory methodologies, which give teachers and principals control over the research agenda in their schools, is a central feature of this initiative:

We didn't want to have this relationship where the university comes in and imposes ourselves as (a) the holders of the knowledge or (b) the ones that were providing the project parameters. Our researcher methodology is collaborative practitioner methodology where we try to make it a relationship of equality where people's voices can be heard in ways that are respectful.

This research relationship involves substantive negotiation processes to design teacher action-research projects, which encourage teachers to engage in deep reflection on their work and to pursue professional leadership roles in their sites. This aspect of Access and Success provides a means for enhancing the overall impact and sustainability of the project through 'building collaborative research capacity, reflective practice and knowledge within each school'.

### *Schools Plus*

The Schools Plus arm of the project involves 'brokering partnerships with community organisations and agencies that work collaboratively to support school student learning and engagement'. Building school-community connections and increasing the engagement of students and families with education and community life are the central aim of this initiative. One program in this arm involves Australian Football League (AFL) players, specifically from the Western Bulldogs, visiting 30 primary schools in Melbourne's west. Pre-service teachers from Victoria University located in each of these schools build on the player visits by enhancing student learning in areas including nutrition, literacy, health and wellbeing, leadership, team work, physical fitness and skill development (Victoria University 2009b). This partnership has encouraged AFL players to become involved with students' learning in more substantial ways than traditional one-off visits generally enable. It has also supported a range of associated community development activities, such as sponsoring low SES and recently arrived families to attend football matches, and has had academic benefits such as increasing boys' engagement with literacy practices:

Extra additions with this kind of program are things like family tickets to the football, which for families that are really just struggling to hold things together, they have little money for entertainment, this means periodically they get the bus into the game, and it's a great way of just engaging into that broader life of the community, and the schools recognise that. Some of the things that the principals are picking up are increased enthusiasm about understanding newspapers and how sports reporting works, particularly with the young boys, [making links such as] 'Oh, this is our player, I can read about our player in *The Sun*'.

Another program, Kinda Kinder, has been designed to engage and work with children whose parents are not strongly connected with education and may be less likely to enrol their child in preschool or kindergarten. Operating in public libraries, other community settings and schools, the program employs pre-service early childhood teachers to provide early childhood education in the form of storytelling and other play activities while also supporting young parents to develop social networks and their familiarisation with formal education and community services. The next step of the program, Kinda College, is being developed in conjunction with the TAFE arm of Victoria University and will involve offering parents the opportunity to gain further education accreditation for the skills they develop when participating in these groups. Regardless of accreditation, parents' increased involvement with education may enable them to better support their own children's educational experience. The multifaceted approach to building the educational capacity of communities that characterises this program is a significant strength.

### *Access and Success Research*

The research arm of the project has been designed to support its work in other areas. The project website explains that 'Access and Success has, from the outset, been framed by a strong and strategic commitment to researching the nature of practices and outcomes of our partnership work' (Victoria University 2009c). This research component contributes to the sustainability of the project by recording the work of different programs, as well as facilitating the production and dissemination of knowledge about general equity issues and the effectiveness of particular intervention strategies:

When Access and Success was first conceived, the idea was that it would be a research and development project, on the principle that if this is not conceived as a research project, then a lot of the value would be lost.

A range of different quantitative and qualitative research methodologies are used to evaluate and inform collaborations with school and community partners; to track the impact that Access and Success projects have on student engagement, achievement and aspiration; and to contribute to the literature on equity policy and practice. This research is linked to the research undertaken by pre-service and in-service teachers in other arms of the project.

### **Evaluation**

The research arm of Access and Success provides the central means for evaluating the effectiveness of the project's work across the university, schools and communities. The project director explains that Access and Success is interested

in contributing on a number of levels to the research agenda [of] the university but also [to] the broader community in terms of ... equity and social inclusion studies ... via the development of research papers and presentations at local, national and international conferences.

This evaluation and research is undertaken at a number of different levels:

The research agenda of Access and Success utilises a multilayered approach. Data collection and analysis occurs at the regional [aggregated] level and continues right

through to case studies involving the [local] micro-settings of individual schools ... A further and critical layer is the investigation of partnership processes themselves.

The research informs the ongoing development of a 'conceptual theoretical framework for the work that we're doing'. Ongoing theorisation of its programs and partnership efforts adds a significant extra dimension to the other arms of the project by providing data that can inform future Access and Success program design and implementation, as well as the development of intervention strategies in other higher education sites. The project has set a range of further milestones for its work throughout 2009–10, which aim to build on and strengthen its success to date.

This investment in research, as well as the emphasis on building of community capacity through partnerships, has the potential to increase both the reach and sustainability of the project. Indeed, a significant factor contributing to the project's success so far appears to be its strong focus on establishing cross-sector and cross-agency connections. By increasing the prevalence of university staff and students that are active as researchers and mentors in schools, higher education is made more visible in the school sector. At the same time, by enrolling teachers in graduate programs, school-based issues are made more prominent within the university's research agenda. This two-way exchange increases the permeability of barriers between the sectors (including TAFE, which also forms part of Victoria University) and constitutes what can be described as an 'immersion' rather than 'targeted' approach to university outreach. It will be important for the project to research the effects of this approach, and how it contrasts with and/or complements other, more targeted, programs. Indeed, the project draws together a range of different strategies that, when combined, offer the potential to increase students' educational achievement and aspirations for higher education through both sustained long-term effort and more discrete interventions.

While the emphasis on partnerships appears to be an important feature of the project, it also presents potential challenges due to the time and financial commitments that it requires from both school and university partners. This requirement raised concerns for some schools that have been approached to collaborate with the project:

It wasn't for everybody. Some people would rather have a program rolled out, but this [partnership approach] was really for schools that felt, 'Well, we can commit to a relationship like this,' and they understand that there would be commitments on both sides; even if it was not an urgent commitment, they would have to be making commitments of time, staff, etc.

A partnership approach has significant benefits over the implementation of pre-designed intervention strategies, such as increased responsiveness to the needs of particular sites. However, schools are faced with multiple demands on staff time and financial resources and they may prefer the latter due to a perceived inability to sustain the former. This issue is not easily resolved and it does not undermine the value of the partnership approach pursued by Access and Success. However, it is necessary to acknowledge that some schools, particularly those in low SES areas with fewer resources, may be wary of its demands and this may limit the project's reach in some places.

Two other challenges were raised by Access and Success project staff. First, the project employs collaborative practitioner research methodologies and positions both teachers and students as

researchers. The legitimacy of the knowledge produced by such research may be called into question in some instances:

I've had this argument with people in other universities who say, 'Well, have they got Honours degrees? How can they be researchers? How can you have students doing research, because they haven't got Honours degrees?' ... But it's a way of trying to redress some of those themes, a way of exploring new ways of generating knowledge, managing knowledge ... and it's partly because we do start with our principle that some of the key experts in this area are the people who are in schools.

This emphasis on pursuing new ways to produce knowledge about equity issues, which take account of the expertise located in schools and communities, is a commendable aspect of the Access and Success research. However, although engaging teachers and students as researchers is widely recognised as a legitimate and beneficial research methodology in the literature, it may be met with resistance by certain researchers and policy makers in the field. While this resistance is beyond the control of the project, it may still inhibit the reception of their research in some venues.

Second, Access and Success staff noted that equity programs might not always benefit those in most need. Access and Success is coordinating university students to work with school students interested in increasing their ability to develop a portfolio that may enable them to gain entry to the university via the Portfolio Partnership Program (Victoria University's alternative entry scheme). Concern was raised in relation to parents enquiring about this particular program at the university's Open Day:

They will be parents who are sharp enough and smart enough to understand how the system works, and to see that it might be a way of managing to make a particular pathway ... work for their child, so it's not necessarily going to pick up the ones who are first in the family ... It will pick up people who understand the system and understand how it works.

This issue of equity programs being taken up by those who may already be planning to attend university, and who may be capable of doing so without such support, is a challenge for intervention strategies more broadly and is not specific to the Access and Success project or equity programs at Victoria University. Equity programs rely on finite resources. Increasing understanding of how these resources can be used to benefit those who would otherwise be unable to attend university is an important area for further research, and for the Access and Success project to explore in the future.

## **Conclusion**

Component A of this report identified a number of characteristics associated with successful interventions. Many of these are evident in the work of the different Access and Success project arms surveyed here. For example, the project demonstrates a strong commitment to collaboration across sectors. It involves both school and community partners in designing and delivering interventions in an attempt to increase their relevance to particular contexts. The project also takes a people-rich approach to building relationships between school students and mentors such as university students or prominent community figures (for example, AFL players).

The Schools Plus and Learning Enrichment arms of the project provide early, long-term and sustained support for students from early childhood (kindergarten) through to the end of the

compulsory years of secondary education. While some of the Access and Success initiatives are quite targeted, others such as the Schools Plus projects take a more cohort-based approach to changing student attitudes and peer culture. We have described this as an 'immersion' approach that aims to create greater student engagement with education in order to indirectly support improved achievement and aspirations for future education and employment.

The project's immersion approach, which involves ongoing university presence in schools, provides an opportunity for school students to develop familiarisation with higher education. Frequent school visits by university staff and students enable communication about higher education and TAFE over sustained periods of time. This approach is also supported by the provision of more specific information about education and employment pathways to students in the post-compulsory years of schooling, through the Youth Access arm of the project. The Portfolio Partnership Program, which enables students to gain entry to the university through a portfolio application, is also supported by university students (who in many cases come from backgrounds and circumstances similar to those of the school students) who act as mentors in schools under the auspices of Access and Success. As part of this process, school students preparing portfolios are encouraged to visit the university with their mentors in order to develop site experience. This process has resulted in students enrolling who would have otherwise felt alienated by the prospect of university study. Indeed, familiarisation with, and communication about, higher education is another significant strength of the project.

## ***Uni-Reach (Griffith University)***

Deborah Tranter

### **Introduction and context**

Griffith University is one of three major universities in Brisbane. A member of the Innovative Research Universities network, it has positioned itself with innovations in multidisciplinary study, environmental studies, corporate sustainability, Asian studies and the arts, and with a significant focus on the health sciences at its rapidly expanding Gold Coast campus. From its establishment in 1971, Griffith has been ‘committed to promoting social justice and community engagement, with a strong international orientation’ (Griffith University undated a).

Griffith enrolls approximately 38 000 students, including nearly 9000 international students, across a very broad range of disciplines at five campuses spread across Australia’s fastest growing population corridor, extending south from Brisbane to the Gold Coast.

Griffith’s commitment to equity and social justice is articulated clearly through its vision, mission and values including:

- commitment to individual rights, ethical standards and social justice
- lifelong learning and personal development
- contributing to a robust, equitable and environmentally sustainable society, and
- tolerance and understanding of diversity in society (Griffith University undated c).

The university has a longstanding commitment to community engagement and social inclusion as key factors that differentiate Griffith from its peers and in recognition of its particular catchment area. Under the heading of ‘Students’, its Strategic Plan states:

The Griffith corridor is extremely diverse in terms of its ethnic and socio-economic composition. As the main publicly funded university serving this catchment, Griffith takes seriously the obligation of public universities to promote social inclusion in higher education and to increasing participation and success in tertiary studies of Indigenous students, students of low socio-economic status and students with a disability.

(Griffith University undated a.) At the same time, the Strategic Plan notes that ‘student entry scores are a major determinant of student success and the University’s reputation’ and the university’s recruitment strategy is measured by the percentage of Overall Position 1–8 students who enrol at Griffith.<sup>3</sup>

The Strategic Plan is supported by an Equity and Diversity Plan, which affirms that the university’s commitment to equity and diversity ‘is a fundamental part of the University’s identity, history and positioning for the future’ (Griffith University undated d). This plan outlines the ‘distinguishing characteristics and strengths of Griffith’s approach’ to equity and diversity through:

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<sup>3</sup> OP, or Overall Position, provides a state-wide rank order position from 1 (the highest) to 25 based on overall achievement in Queensland Studies Authority Year 12 subjects.



- recognition of the interrelationship of equity and diversity with excellence
- recognition that disadvantage is socially created by factors and circumstances that should be challenged, changed and remedied
- integration of equity and diversity with institutional quality assurance processes
- a scholarly and evidence-based approach to equity planning and review
- accountability for equity and diversity leadership across university management, and
- emphasis on community engagement and cross-sectoral collaboration (Griffith University undated d).

The plan aims to increase the access and participation rates of low SES students to 15 per cent, well below the national population of 25 per cent but indicative of the significant work still required to improve outcomes for low SES students.

Data for this case study was collected through semi-structured interviews with the program coordinators (two interviews), school guidance officers (two interviews) and three focus groups of Uni-Reach students (one group of mentors, one group of newly admitted students and one group of second year Uni-Reach students, or 12 students in total). Informal discussions were also held with the Manager Student Equity Services and Principal Adviser, Student Equity, who provided the researcher with extensive documentation and evaluation reports.

### **Description of activities**

Uni-Reach is one of several interconnected equity strategies employed by the university to enhance the access to higher education of students from low SES backgrounds. It is an outreach program delivered to targeted secondary schools in Griffith's southern corridor catchment area, aimed at developing aspiration and knowledge about university in schools with a low rate of access to university. Commencing in 1996 with five schools and targeting Year 12 students only, Uni-Reach now involves 11 schools and students from Years 8 to 12. The evolution of the program is outlined in the table below.

**Table 1: Uni-Reach development, 1996–2009**

1996	Uni-Reach program implemented in five schools. Year 12 students only.
1999	Uni-Reach extended to 10 schools.
2002	Uni-Reach extended to include Year 11 students. Development of Uni-Reach Drama for Year 8 students in Uni-Reach schools.
2005	Uni-Book launched for Year 10 students in Uni-Reach schools to assist students and their parents/carers in decision making about their post-school options. Uni-Start Equity Admissions and Scholarship scheme introduced for 2006 admissions (for wider range of secondary schools and adult students). Provides early notification of offers; successful students are eligible for additional assistance (financial and support) through a Uni-Start Benefits package. Introduced Queensland Tertiary Admission Centre Application Fee Support Scheme for Uni-Reach applicants.
2007	Pilot project at Marsden Senior High School for Year 12s from Pacific Island backgrounds.
2008	Redevelopment of <i>Uni-Book</i> for Year 10 students in Uni-Reach schools: <i>Griffiti</i> . Implementation of Mata I Luga project at Marsden for Year 10 students from Pacific Island backgrounds.
2009	Uni-Reach extended to 11 schools with the intention to extend the program to a further school in the Logan region and sustaining the work begun through the Mata I Luga project, resources permitting.

Uni-Reach commenced as a Year 12 program, providing information about university context and courses, skills development activities and mentor support through a series of visits to schools and a two-day 'On-Campus Experience' program. Activities are designed to help prepare secondary students for university study and to encourage them to consider university as a relevant and attainable option.

In 2002 the school visits component of Uni-Reach program was extended to students in Year 11, in response to concerns that intervention at Year 12 was often too late and limited the program's capability to influence students' aspirations. The number of participants per year level at each school is usually between 15 and 20.

Griffith University students, trained to work as Uni-Reach mentors, visit each of the schools with the Uni-Reach coordinator on a weekly basis for four weeks in Year 11 and four weeks in Year 12, and spend an hour with their allocated group of students. Participants maintain a workbook of their activities. In most cases mentors are from Uni-Reach schools themselves, providing a familiar face and effective role model, and this is a recognised strength of the program. The mentors provide advice about the requirements of university study, as well as some assistance with school students' assignments. Career and course information is also provided. Uni-Reach mentors are paid appropriately, recognising that they come from financially disadvantaged backgrounds and may have to forego other employment opportunities to take on this role.

The On-Campus Experience provides Year 12 students with ‘hands on’ experience in the university environment. Students visit over two days; the first a more general introduction at their local campus (Nathan, Logan or Gold Coast) and the second at the campus in which their main area of interest is located (for example, Visual Arts at South Bank; Psychology at Mt Gravatt). Components include:

- exploring the transition to university
- providing insights into the learning culture of university with a focus on academic writing and time management
- providing information relevant to student finances, government study assistance and budgeting through a workshop on Preparing Financially for University
- mentors accompanying students to lectures and other activities in discipline areas of interest.

Uni-Reach students are eligible to apply for admission through Griffith’s Uni-Start Equity Admissions and Scholarships Scheme, on the principle that an Overall Position score may not be a true indicator of academic success. The Equity Admissions Scheme enables the adjustment of students’ OP rankings, taking into account the home and school circumstances that influence students’ school results (for example, refugee status, carer responsibilities, excessive paid work commitments, overcrowded home situation, family dysfunction). School results and OP scores are considered but recommendations from high school guidance staff, and the students’ own motivation to succeed, also impact on the individually case-managed assessment process and enable discretion to be used in selections where required. A Uni-Start ‘start up’ benefit—which includes credit for copying and printing, USB storage and other resources valued at approximately \$100—is provided to successful applicants prior to commencement of their studies.

Uni-Reach students are also eligible for the Queensland Tertiary Admission Centre Application Fee Support Scheme. Vouchers are provided to schools for financially disadvantaged students to cover the cost of submitting an application to Griffith through Queensland Tertiary Admission Centre.

In addition, all commencing students admitted through Uni-Reach and Uni-Start are provided with academic and practical transition support through Uni-Key, including customised orientation, skills development and a comprehensive mentoring program supporting new students throughout their first semester of university.

In 2007, 186 Year 12 students and 163 Year 11 students participated in school-based activities, assisted by 19 paid mentors. Of these, 154 Year 12 students participated in the two-day On Campus Experience, supported by 29 mentors.

In 2006, 162 of the 242 Year 12 participants (67 per cent) applied for Griffith’s Uni-Start Equity Admissions Scheme; 125 received an offer and 103 enrolled at Griffith. Data was not available for applicants to other universities.

### *Uni-Reach Drama*

The Uni-Reach Drama project was developed by a Uni-Reach coordinator during 2001, with funding from a Griffith University Community Partnership Development grant. The project was designed specifically to begin developing higher education aspirations from an earlier age, in response to the findings of James and colleagues (1999). It was felt that an interactive drama production would provide an enjoyable and engaging method to connect with students at the Year 8 level.

An educational drama is presented to all Year 8 students at Uni-Reach schools. Scripted and presented by Bachelor of Education Applied Theatre students, a different production is developed each year on the broad theme of overcoming barriers to education. The presentation includes a performance lasting 30 to 40 minutes followed by 20 minutes of discussion, led by the performers. Opportunities are also provided for individual questions.

The coordinator selects a group of approximately six Applied Theatre students to develop the performance, preferably students from Uni-Reach schools or from similar low SES backgrounds. They are paid for the performances with a contribution towards the time spent in developmental work and rehearsals. The Griffith students work with the coordinator to develop an interactive, review-style performance that addresses a range of issues relevant to adolescents. These have included boys' engagement with schooling, peer pressure, money management, bullying, drugs and teen pregnancy. All issues are related to barriers to achievement and university aspirations. The aim is to make university appealing to a group of 12- to 13-year-olds while also addressing some perceived barriers:

Our first year ... we did a pre-performance survey and post-performance survey, and what came through overwhelmingly was that students in Year 8 thought going to university was the most boring thing imaginable, why would you do it, carry on going to school, and that it wouldn't be fun, so we had a segment in the drama the next year that showed much more of the student party life and how much fun it was and meeting people, and all that, but we're also aware of addressing some of the issues that are the barriers to students coming to university in the first place.

(Uni-Reach Drama coordinator)

The Griffith University actors add to the impact of the performance by telling their own personal stories about getting to university.

In 2007, the drama was performed at 11 secondary schools to a collective audience of 2300 Year 8 students and approximately 110 high school staff. (Final 2008 data was not available at the time of the study although similar numbers were estimated to be involved.)

### *Year 10 Griffiti (formerly Uni-Book)*

*Griffiti* is a student-friendly information booklet distributed to all Year 10 students at Uni-Reach schools. It was initially developed as *Uni-Book* in 2005, funded by a Community Partnership Grant and designed in consultation with school staff, students and Uni-Reach student mentors. The book addresses a range of access issues involving the personal stories of Uni-Reach entrants to Griffith, accompanied by photographs of Griffith students from the targeted schools, 'funky' graphics and

challenge questions aimed at teenagers. The book purposely avoids a corporate design and has the look and feel of a teen magazine. Schools are encouraged to use the book in career planning sessions, particularly for the development of students' Senior Education and Training plans (SET plans) that are a compulsory component of the Queensland Year 10 curriculum. A number of related additional teaching resources have been developed by Griffith to be used by the schools to support the development of students' SET planning. Griffith also encourages the use of the interactive DVD developed by Queensland University of Technology for school students, and its website called *project u*.<sup>4</sup>

### *Mata I Luga (Looking Up)*

In 2007, a customised version of Uni-Reach specifically targeting Pacific Islander Year 12 students was piloted at one of the local secondary schools with a high Pacific Islander population. The program was developed in collaboration with the School of Education and Professional Studies at Logan Campus, in an attempt to identify the most appropriate ways to address the needs of a significant population group in the region that is particularly underrepresented at university (some schools in the region had up to 60 per cent of their students from Pacific Islander backgrounds). While this program was well accepted, in consultation with the Islander community the focus of the program was moved to Year 10 students in 2008, in order to have a greater impact on students' senior secondary and post-secondary pathways. A program was developed with assistance from a Community Partnership Grant and in consultation with community leaders. Features of the program included a parent–student information evening, in-school visits with Griffith students from the community, and a family-focused on-campus visit with speakers of Pacific Islander descent. Participating students produced a set of resources for their parents and/or their school. The program drew on the successes of people from Pacific Islander backgrounds, addressing culturally specific challenges such as balancing family and church obligations with study obligations, and was successful in engaging a cohort of students and families who have been reluctant to participate in university study. The continuation of the program is subject to the availability of ongoing funding.

### **Evaluation**

The data collection for this case study was conducted in February 2009, just as schools were commencing Term 1. Hence, it was not possible to visit the schools to talk to school students, or to observe either the Uni-Reach Drama or Uni-Reach visits, all of which occur in the second half of the year.

All of Griffith's student equity strategies are evaluated regularly through internal evaluation procedures, including student entry and exit surveys, feedback from teachers and school guidance officers, mentor feedback, and anecdotal feedback provided to the coordinators. Once enrolled, students' academic progress is monitored on an ongoing basis. A significant observation is that Uni-Reach students tend to take longer to complete their programs. For example, they are more likely to defer commencing their studies and may also undertake a reduced study load. Some students also took leave, or deferred, during the course of their studies for periods of one year or more. Although no comprehensive analysis has been conducted, anecdotal evidence suggests that this additional

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<sup>4</sup> *project u* is an outreach resource developed by QUT to assist secondary students and their families with post-school career planning: [www.projectu.com.au](http://www.projectu.com.au)

time is taken to deal with complex family or personal issues or to work full-time in order to continue their studies in the future.

Each time the Year 8 drama production is presented, an evaluation is conducted using a mixture of focus groups and post-performance surveys. Comments have been overwhelmingly positive, with teachers stating, for example, that 'the theatre concept is a powerful communication tool. It makes the audience think and create connections between concepts' and it is 'great that you gave the message that anyone can go to uni'. Many commented that it was important to 'plant the seed in their minds about going to uni' but that they would like such performances repeated for other year levels. Students also responded positively to the humour of the production in particular, mentioning 'the possibility that I can have fun while succeeding in university' and 'they made it seem fun, not scary'.

An evaluation of the Year 10 *Uni-Book* was conducted prior to its redesign in 2008, although only school staff were canvassed to avoid the resource and ethical complexities of research with school students. Again, feedback was overwhelmingly positive, especially about the age-appropriateness of the design and language used, and the value in targeting the book at the age when students are making important decisions about pathways. Recommendations to make the book more interactive and colourful, and even less formal in its language, were taken up in the re-design of *Griffiti*. It appears to have been very well received to date, although no formal evaluation has been conducted given its recent release.

In 2007, Griffith University asked Richard James (Centre for Studies in Higher Education, University of Melbourne) to conduct a review of its low SES programs. James reported that 'Griffith has an impressive suite of programs and initiatives focussing upon equity', that 'there is considerable energy, resources and planning devoted to equity programs', and that 'they appear to be well conceived and working effectively'.<sup>5</sup> However, he also argued that the small number of low SES students enrolled at Griffith 'suggests few gains are being made' and that the university's performance 'lags behind other Queensland universities', failing to meet its own aspirations. James noted that the post-code measure of SES could be working against Griffith, whose catchment area was particularly socially heterogeneous, but that the university's other strategic objectives to recruit more school leavers with high Overall Position scores may be competing with its equity goals and should be reconsidered 'in the light of the current mission, character and positioning of the institution and the contextual elements that are affecting equity'. The tension between equity goals and the desire to maintain or increase entry scores is faced across the sector, particularly in a context where entry scores are equated to quality (James 2007). James also noted the strong pull factors towards TAFE for students in the region. This factor is also identified in the literature review of this report (Component A).

In conclusion, James recommended that Griffith consider further the diversity of the low SES populations in its catchment and the inhibiting factors influencing these populations, 'viewing the target group as more nuanced and giving attention to the personal circumstances of students'. He also recommended working more closely with parents within the targeted schools and continuing to work early in secondary school, 'if not earlier'.

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<sup>5</sup> From excerpts provided to the researcher from Richard James' 'Review of low SES activities' at Griffith University, conducted in February 2008.

The data collected through this case study accentuated the diversity of the catchment area served by Griffith, with some schools serving large Pacific Islander student populations, some serving high numbers of recent immigrants and refugees, and some serving more traditional working-class Anglo-Australian communities. Although statistics on student ethnicity had not been specifically collected by Griffith, the sampling of the case study indicates that many of the students being admitted through Uni-Reach were from recent immigrant families—students who the literature (for example, Marks, McMillan & Hillman 2001, James 2002) suggests tend to have high levels of aspiration for university, often with family support. Of the 12 students interviewed, all Uni-Reach students that have been admitted to Griffith, nine were from recent immigrant families, including five African refugees who were living with extended family members and away from their parents.

The two guidance officers interviewed came from widely differing school populations. At one school, Pacific Islander students made up 60 per cent of students, African refugees 10 per cent, Indigenous students 10 per cent, and low SES Anglo-Australians the remaining 20 per cent. The other school enrolled about 400 students from 40 different nationalities, including 60 per cent from a background where a language other than English is spoken, and significant numbers of refugees. One guidance officer explained that:

The group who want to go to university are the ones who weren't born here ... this group sees education as the pathway to a better life. They are desperately hungry. They have no scaffolding behind them as to how to do it, but they are going to do it, and they form the bulk of the Uni-Reach group.

She later commented that the students with low aspirations were those born in Australia from low SES Anglo or Indigenous backgrounds:

Now for this group there's very low aspirations, low pay, low status, no career path. That's what they see as their direction in life ... and they're a group who are very, very hard to lift to get them to see the big picture, that they are capable of going on and achieving something in life as this incredibly hungry CALD [culturally and linguistically diverse] group.

The other guidance officer interviewed echoed this perception but also recognised the impact of poverty on people's perceptions of what is possible and valued:

If you look at [that] hierarchy of needs, if you are spending the bulk of your energy struggling to worry about how to pay the rent, how to put food on the table, then buying uniforms, buying exercise books, having the energy to come to parental information evenings at school, all that kind of stuff is kind of secondary in their world. I mean, they are real, tangible barriers that we can't wish away.

A number of the students interviewed also commented that the students who participated in Uni-Reach 'already had the glimmer of aspiration' and that the students who did not go to the Uni-Reach sessions 'might be really bright but they're not encouraged'. Indeed, several of the students were quite condemnatory of teachers who pigeonholed students too early, streaming them into particular classes:

In Year 8 the teachers have decided your fate if they streamline you, because then you have the kids who will hopefully maybe do something, and then all the other kids are there going [makes derogatory noise].

(Former Uni-Reach student and mentor)

Students suggested that some teachers had made judgments that university was too difficult for the students at their schools, 'they kind of put you off going to university', and that these students had to convince teachers that they wanted to learn:

I learnt very quickly that to get the teacher to actually help you or give you work, you had to, you know, sidle up to them, let them know that you're one of the good kids. It sounds really bad but that was a kind of survival thing for me because you had to let them know that you were there because you wanted to learn, not because you had to, or you just wanted to stare at the boy in the second row, or something.

(Former Uni-Reach student and mentor)

It appears that, at the least, the Year 11 and 12 Uni-Reach program is assisting those students who are relatively motivated and already aspiring to university but having little effect on less engaged students or those who the schools considered were not 'university material'. It is schools that select the students to participate in Uni-Reach, and in the process usually incorporating a degree of self-selection on the part of the students. While the schools are probably best positioned to select participants, processes of selection are likely to involve judgments about who is 'university material' and may limit the capacity of Uni-Reach to engage with more marginalised students.

The students commented that earlier interventions at the schools would be beneficial, suggesting that 'Grade 8 is probably the ideal time just to make them aware of university' and that 'even the subjects you choose in Grade 9 and 10 can affect what you will later do in Grade 11 and 12, so the earlier you know, the better choices you can make, and take the steps to get there'. The Uni-Reach coordinators were keen to extend the program of school and campus visits into the earlier years of secondary school but reported that 'we found that the guidance officers were saying no ... They don't think the students are interested or ready before that, so that's what's prevented us from going further' (Uni-Reach coordinator). One of the guidance officers interviewed was particularly concerned about too much pressure being placed on younger students to 'have to figure it out at an early age what they want to be doing when they're 18, and make them feel bad about the fact that they don't know, because lots of them don't know'.

Nevertheless, an acknowledged strength of the Griffith program is the suite of activities that build on each other. These commence with the drama production in Year 8 and continue through Years 10, 11 and 12 to the transition to university support, as well as providing part-time employment opportunities through the extensive mentoring program. A Uni-Reach coordinator illustrated the building of this relationship by describing how one of the new Uni-Reach mentors, a former participant in the program, had commented: 'I'm glad I'm getting back into the Uni-Reach family'.

None of the 12 students interviewed at Griffith for this study could remember the Year 8 drama production. For them, Year 8 was too long ago with too many things happening. The guidance officers, on the other hand, valued the opportunity for awareness to build from the Year 8 drama



production across the school years. The introduction of the *Uni-Book* (now *Griffiti*), and its integration with the compulsory Senior Education and Training planning, was considered to be especially valuable by the guidance officers, as it facilitated reflective activities through the school curriculum. In a recent review discussion they confirmed that the introduction of Year 9 activities would have a greater impact on earlier career planning and subject choices, and suggested that *Griffiti* should be introduced to students at Year 9 to build on the Year 8 performance.

A further strength of Griffith's model is the close relationships that have been built with the group of Uni-Reach schools over the course of more than 10 years. The two guidance officers interviewed had both been involved with the program for many years. They were most appreciative of the opportunities the university provided to their students and the relationships they had developed with the Uni-Reach staff:

I look after my students as well as I possibly can, and I feel comfortable transitioning them on to people I know, and I know I can email and they will respond. So that's a big issue for students at [name of school], the fact that they are people they feel comfortable with, who they know will look out for them.

The program has developed through close collaboration with the schools, often with key individuals in the schools, and is informed by a deep understanding of the issues facing the schools and their communities. The dependence on relationships can be a risk, however, in cases where key members of staff move from the school (or the university). At the university level, a team of four are involved with Uni-Reach, three since its beginning, to minimise this risk. University staff have also worked at developing networks in schools that are less reliant on individuals.

For the students interviewed, it was the role of the student mentors that was especially important in making university seem real, especially if they had been past students at the school:

The school can't reach you on such a personal level. Uni-Reach can, especially when they have past students from the school come in and talk to you ... I think they really help because you know them in the first place, and ... it just makes it more real, like a real person explaining uni ways and whether they think it's been worthwhile, and how they cope, like whether they work and how they get to uni, and where they live, and how they spend their days.

(Former Uni-Reach student)

Both the students and the guidance officers indicated that the on-campus visits were particularly valuable in helping make university seem more attainable for students who may have little opportunity to discuss university at home:

I think just not being sure of exactly what you're getting involved into. I mean you can read about it and people can come and talk about it, but it's good to be able to go to uni and see, and sit in on lectures and things like that, and it's also a big problem to not have somebody talk you through enrolling and picking a course.

(Former Uni-Reach student)

A newly admitted young African student commented that the visits in Year 12 had assisted with making university seem more comfortable now that she was enrolled: 'like, before it was, oh my God, what am I going to do, but now we know where to go'.

There were aspects of the Uni-Reach program, however, that some of the students interviewed were less positive about, including the repetition of advice about time management, setting goals and study skills 'that was already drummed into us at school':

They go along and they're like 'Oh, I've heard this before, it's just about being a good student', and I think that could put them off. It's only the people who hang on long enough that go on the excursion trips and things like who get something out of it. So I think it would be good if you could say some different things.

(Former Uni-Reach student)

Many of the students, and the guidance officers, would like to see structured campus visits at Year 11, or earlier, in recognition of the fact that this demystification and familiarisation process is an especially valuable part of the program.

## **Conclusion**

The Griffith suite of programs demonstrates most of the characteristics of successful interventions identified in Component A of this study. The range of programs has been developed in collaboration with a group of identified disadvantaged schools in Griffith's targeted catchment area, through the development of long-term and sustained relationships between the schools and the university. The Uni-Reach Drama production introduces students to the concept of university study at the beginning of their secondary schooling and illustrates that it can be an enjoyable and valid option for them. This early introduction is developed further in Year 10 through the distribution of *Griffiti* to all students, and its integration with Senior Education and Training planning work in the targeted schools. The Uni-Reach Year 11 and 12 programs provide cohorts of students with further in-depth information about university, incorporating academic enrichment, familiarisation/site visits and, importantly, support from people-rich relationships with both the Uni-Reach coordinators and mentors. Support is also continued through the university application process, including adjustments to selection processes in recognition of the uneven playing field constituted by tertiary selection processes, financial standing and differences in transition support.

While there is some recognition of difference, particularly valuing the diversity that the culturally and linguistically diverse students bring to the university, resource constraints limit the capacity to deepen the program and to consider the needs of the most disengaged groups of students from low socioeconomic backgrounds: white, working-class Australian males and Indigenous students. The Year 11 and 12 program appears to work well at enhancing opportunities for low SES students who are already interested in going to university, but the most disengaged groups are a further challenge that may require different approaches and greater resources. As with many universities, Indigenous student outreach and support are the responsibility of a specialist Indigenous unit: the GUMURRII Student Support Unit. The work of this unit intersects with the broader student recruitment and equity outreach activities, and collaborations have commenced between Student Equity Services and GUMURRII to pilot a different approach to better engage Indigenous secondary students. This

approach will consider ways of changing the preconceptions of some school staff about Indigenous students' potential for university study.

The university coordinators commented that there has been a marked decline in the number of OP-eligible students at Uni-Reach schools in the last two to three years, with less than 50 per cent of Queensland Certificate of Education students being OP eligible at 10 of the schools and less than 40 per cent in seven others. They expressed concern about the growth of VET subjects in these schools and the increasing imbalance between preparation for VET and university:

I think sometimes the schools aren't preparing [students] for it, for uni at all. It depends on the school again, but I think that some schools that we see, they don't expect them to go, or just some of the teachers don't expect them to go, and they expect that they will go and do a trade.

(Uni-Reach coordinator)

Both the guidance officers and the program coordinators were critical of the role of the Queensland Core Skills Test in determining students' eligibility for university entry, particularly for the high proportion of students in the Uni-Reach schools who are from backgrounds where a language other than English (LOTE) is spoken. It was felt that this test was culturally exclusive and discriminated against LOTE students, preventing many of them from being OP eligible and thus from being able to qualify for university. In such situations, programs such as Uni-Reach are invaluable for providing an alternative pathway to university. Indeed, many of the students interviewed indicated that they would not be at Griffith if it had not been for Uni-Reach and the Uni-Start Equity Admissions scheme.

The Griffith suite of programs has been regularly evaluated through internal mechanisms, with significant developments evolving in response to these evaluations and reviews (refer to Table 1). It has been recognised as best practice by AUQA, receiving a commendation in Griffith's 2008 AUQA audit. The external review conducted by Richard James provided a number of recommendations that are being addressed by the university, including the development of the trial Pacific Islander program. Nevertheless, the concerns expressed by James about tensions between the university's equity mission and its desire to increase the proportion of students with a high Overall Position is one that program coordinators grapple with, especially given the difficulties many students from targeted schools confront when trying to achieve competitive Overall Position scores. While the Bradley review (Bradley et al. 2008) has established the need to investigate a broader range of university selection criteria, the dominance of current ranking systems confirms the need for interventions such as Uni-Reach. For schools in the Griffith corridor, Uni-Reach is a critical component in efforts to help level the uneven playing field of university selection.

## ***Uni Connections (University of Wollongong, Shoalhaven Campus)***

Dianne Bills

### **Introduction and context**

The University of Wollongong is located 80 kilometres south of Sydney and its outreach Shoalhaven Campus is situated further south on the coast in Nowra. The Shoalhaven Campus is a joint teaching space established by the University of Wollongong and the Illawarra Institute of TAFE. The Uni Connections program was established in 2004 to make stronger connections with students experiencing regional, economic and/or social disadvantage. The program is located in the Student Services Unit and is funded by federal government equity funds.

The University of Wollongong has two Uni Connections groups: one at the university's main campus (Wollongong) supporting six disadvantaged high schools in the Illawarra, and the other at the university's Shoalhaven satellite campus.

The Uni Connections program aims to:

- assist school students with the skills and motivation to increase their ability to attain the Higher School Certificate and consider further education options
- provide support to school students at risk of not achieving their educational potential
- support partnership programs between the University of Wollongong, schools and the community
- familiarise school students with university options and expectations and with university life, and
- provide opportunities for University of Wollongong students to experience and develop personal career pathways.

Nine high schools in the Shoalhaven City Council area participate in the program; five of them are state public schools and the remainder are private schools. Only two schools are formally designated socioeconomically disadvantaged, both of them state schools, but all are considered 'regionally disadvantaged' by virtue of their location at distances between 85 and 170 kilometres from the university's main Wollongong Campus. There is limited public transport between regional schools and the main city campus.

This case study draws on a semi-structured phone interview with the Uni Connections Program Coordinator based at the Shoalhaven Campus of the University of Wollongong. Student and teacher comments have also been taken from workshop evaluations provided by the coordinator.

### **Description of activities**

The Uni Connections program is multidimensional, with four main components: a mentoring program, on-campus workshops, Indigenous community engagement strategies and an active culture of establishing community-school-university links. Community consultation is an important part of this work, with activities in each strand developed in consultation with particular schools and

communities, with the result that interventions often 'look different with each school'. What follows is a description of each component with examples of the kinds of educational intervention that occur.

#### *Mentoring for school students: the Tutors Assistance Program*

University students are allocated a number of paid hours to work in a local school where they mentor and support students with their learning in identified areas of need. In keeping with the consultative philosophy underpinning the program, the kind of learning assistance provided depends on the needs of the school and is negotiated on a case-by-case basis. Most consultation is initiated and conducted by the program coordinator (and is described in more detail below). University student mentors are allocated around 20 hours of work per semester, as a form of work experience with benefits for their development of career goals and work pathways. The work does not constitute a practicum or professional work placement and, while it might duplicate the kinds of outcomes expected from service learning experiences, it is not strictly classifiable as service learning because the students are paid for their work. They are described as 'an extra set of hands', working in various locations within a school including classrooms, homework centres and libraries. The following examples of student mentoring experiences were provided by the program coordinator and illustrate the efficacy of interventions that have occurred:

A university student fluent in Italian is working in a homework centre with four girls from different schools who are all studying Italian by distance education. The university mentor meets with the students on one afternoon every week and tutors them through course materials and develops their conversation skills. After two years all of the students finish with excellent results.

A student in a maths faculty has 20 hours of paid work in which she organises her time in schools to work with young people struggling to understand mathematics and numeracy concepts. She works alongside a maths teacher at the school.

An arts degree student with a strong background in ancient history is working in the school library and learns that a high school student is studying ancient history by distance education. Under the supervision of the school librarian, she supports the school student in her distance education learning.

Peer mentoring and tutoring has the potential to enhance learning outcomes for students through the provision of individual attention and motivation, especially when they learn in distance education mode, as is the case for many regional and rural students. Less acknowledged is the reciprocity of mentoring relationships that may also have valuable outcomes for the mentors. Over the past four years, at least nine University of Wollongong students involved in mentoring school students have enrolled in and/or graduated from a Postgraduate Diploma in Education, suggesting that mentoring does have the capacity to help students decide or confirm their personal career goals and pathways.

#### *University workshops for school students*

A trial of school-based workshops provided by University of Wollongong staff revealed that it is often difficult to ensure that workshops succeed in school contexts. There are unavoidable

interruptions and difficulties associated with the extended period assigned to a workshop. Staff reported that students were inclined to view the workshops as simply more of their regular 'school work', but on a prolonged basis. Since part of the purpose for providing 'taster' academic workshops is to break down barriers and demystify university study, staff decided those aims are better served by bringing students on campus.

Generic and discipline-specific workshops are conducted at the Wollongong and Shoalhaven campuses. Generic workshops cover topics like study skills, essay writing and library research, and are facilitated by librarians and/or student support staff. Disciplinary workshops are facilitated by academic staff and have been conducted by the faculties of Law, Informatics, Creative Arts and Engineering, and by the Woolyungah Indigenous Unit. Discipline-specific workshops are typically whole-day events that include a range of experiences, including attending a lecture, engaging in a 'hands on' or interactive activity and interacting with university student mentors who ideally come from the same region and may be known to the school students. University student mentors help to break down barriers by presenting university as 'doable'. Workshops at University of Wollongong are open to Year 12 students but are more likely to target Year 10 and 11 students because university staff recognise the benefits of making interventions earlier. The following examples of discipline-specific workshops were provided by the program coordinator:

A creative arts workshop targets students applying for portfolio entry, preparing them for the process by making the expectations for portfolios, performances and interviews explicit. Students also have an opportunity to investigate the range of university subjects and become familiar with the university campus.

A law workshop provides opportunities for school students to meet and talk with university law students, to attend a lecture, experience a moot in the university Moot Court and complete a worksheet on court procedures, protocols and language.

Responses from young people attending workshops illustrate the multiple benefits for students. They may learn about particular professions and disciplines, about possible career pathways and about the benefits of higher education generally. They become more familiar with the way universities operate and many build new confidence in their own abilities. Some students' responses drawn from workshop evaluations: include:

I enjoyed the Moot Court and the in-depth discussions on family and contract law.

I enjoyed learning about different strands of law.

I am more informed about how drama at the uni works.

The physics experiments were great and the people in the faculty were very interesting and helpful.

I have a greater understanding of my future as an accountant.

I did not realise that accounting can lead to so many positions.

The day opened my mind to other options.

I enjoyed the opportunity to do activities and discover more about my career prospects.

School and a good education is now more relevant to attaining a good job.

I enjoyed learning about scholarships and early entry.

I learnt how uni operates and what to expect.

I was given a greater insight into uni life.

One of the greatest experiences I have ever had!

Today showed me I can do anything if I put my mind to it.

(students' responses drawn from workshop evaluations)

### *Engagement with Indigenous communities*

Shoalhaven has a large Indigenous population and Uni Connections has been a conduit for increased engagement with Indigenous communities. The program coordinator meets regularly with an Aboriginal Education Consultancy Group and works closely with representatives of Indigenous communities in the area. Collaboration with schools and communities involves university staff and students. The university participates in the Indigenous Employment Expo run by the Shoalhaven Area Consultancy Group and the program coordinator assists on the managing committee. The Shoalhaven Indigenous HSC graduation ceremony is held for between 20 and 25 students each year and involves up to 200 participants including Indigenous elders and parents and members of community organisations and schools. With increasing numbers of Indigenous students in the region achieving HSC, the community and university place a high priority on supporting Indigenous students in their transition to university, further education and employment.

A university whole-day on-campus experience targets Indigenous Year 10 students. Indigenous students, Indigenous and non-Indigenous students studying Aboriginal studies, Aboriginal education officers and Aboriginal studies teachers are all transported by bus to the University of Wollongong Woolyungah Indigenous Centre. Students attend an Aboriginal studies lecture, take a campus tour, investigate facilities and meet Indigenous students and staff in various faculties. Education, nursing, medical science, engineering, informatics and law are popular with the students. Students also enjoy lunch provided by the Indigenous support staff at the Indigenous Woolyungah Centre. A student evaluating the day comments: 'I can now imagine I could attend university. I have something to work for at school.' Teachers respond with such comments as 'my students have changed their vision of university' and 'two of our four Indigenous students are now considering further study at university' (responses drawn from program evaluations).

### *Community engagement*

While engagement is promoted specifically with and for Indigenous communities, Indigenous people are also actively involved in consultations with all local communities. The program coordinator is actively involved with regional organisations and meets regularly with staff and parents in schools. Relationships are forged with the Aboriginal Education Consultative Group, local community partnership boards (LCP) and with local agencies of the YWCA, community employment boards and regional councils. Once a term the coordinator meets with members of each high school leadership team (for example, the school principal, deputy principal, careers counsellor), together with community members and agency representatives, to map the various programs on offer in the region. This networking meeting is facilitated by the Uni Connections coordinator as part of her activities, and the university's role in this facilitation forms part of efforts to raise education

aspirations and awareness in the community. Gaps and duplications are identified in the provision of learning and career support through an annual regional meeting of schools, which aims to identify the best and most efficient ways of improving educational outcomes for all students. As well as informing the Uni Connections program, the collaboration has resulted in other initiatives such as a careers expo and a safer driving education program that is facilitated by agencies on the Shoalhaven Campus of the University of Wollongong. Bringing students on campus for a range of activities is regarded as a significant strategy for demystifying their perceptions of university. Students from primary and secondary schools visit the campus and plans are developing with {the Aboriginal Education Consultative Group} for these visits to include preschool students as well. University staff and community leaders recognise the need to plant the seeds earlier and create broader community ownership of pathways to higher education.

## **Evaluation**

The university coordinator is aware that while ‘the statistics’ are not available, there is evidence that some of the students who attended the creative arts workshop in previous years have now been given offers to university. She believes the most important task now is to gather evidence, in the form of enrolment statistics and other data, to demonstrate the success of various elements of the program. To date, much of the evaluation conducted has been based on participant perspectives on the usefulness of the workshops and the other activities. The mentoring program is evaluated in this way rather than through a formal survey instrument, because the mentoring that occurs in each location is dependent on the circumstances and therefore quite different in form and function. Some of the mentoring occurs in homework centres, working across Years 7–12 on different aspects of the curriculum, while other mentoring is more structured through sustained relationships, such as the Italian language example provided above. Overall, the success of particular initiatives is judged on the strength of participant feedback and requests to continue the program.

A multidimensional intervention such as Uni Connections is by nature people-rich and diverse in its activities and its staff and student involvement. It is sensitive to local contexts and highly consultative. In these circumstances it is difficult to evaluate the program in a way that provides evidence of the efficacy of interventions beyond the immediate outcomes of each activity. The program coordinator believes the major success of the program has been ‘demystifying what university and tertiary education is about and making university and tertiary education achievable’. She also holds the view that educational prospects have been improved for some students through their increased attendance at school and the support of their community and families:

Being able to include families and communities, universities, TAFE and school, in collaboration with each other’ is important, especially when parents begin asking ‘how can we support them, who do we go and talk to, and how can this happen?’

However, there is no systematically produced evidence across the range of activities with the various participants that can show the extent to which the program as a whole enhances the academic achievement of disadvantaged students and results in their increased access to higher education. Research and evaluation in a people-rich program should be sensitive to the contextualised nature of the interventions, both intensive and longitudinal, if it is to evaluate achievement and simultaneously track the post-school destinations of students. Requiring staff to conduct that evaluation systematically, or buying in research expertise to do so, will inevitably divert resources



from the students the intervention is designed to benefit. Yet it is imperative that such research be encouraged and supported in order to better identify and understand the long-term effects of educational interventions conducted through university–school partnerships.

## **Conclusion**

Staff are keen to expand the Uni Connections program to make it accessible to students in a wider range of schools, particularly those more distant from the campus. Plans include developing a Tutor Assistance Program for remote schools with the assistance of mentors who are ex-students of the school; extending workshops on to other campuses; and making better use of remote technologies such as video conferencing. There is a strong belief that ‘rural disadvantage’ exists for students who lack geographic access to a university campus and that geographic location exacerbates educational disadvantage related to socioeconomic and cultural background. Staff also appreciate the need to engage with younger students but believe staffing and resource constraints may make that difficult. In individual circumstances, the mentoring program could be extended to make a difference with younger school students.

The value of this program lies in its consultative framework and its multidimensional nature. There is flexibility available to target different schools, cohorts and individuals according to need, and on the basis of consultation with communities and school staff. The program coordinator works half time in a disadvantaged high school with a high Indigenous population and understands school contexts and constraints. She clearly values input from others and seeks to build rapport with students, parents and their communities. University–community partnerships are strengthened in other areas through the consultation and communication that occurs. The strong mentoring component provides people-rich and responsive peer support, at the very least helping to demystify university life but also in many instances assisting students to achieve higher levels of academic success. Paying peer mentors is a successful strategy as it allows students who might otherwise be in part-time work to contribute their skills and motivation. This is particularly important for rural and low-income students who are supporting themselves away from home.

## ***Koori Express (RMIT University)***

Robert Hattam

### **Introduction and context**

At the Ngarara Willim Indigenous Centre we realise that it's not always easy for people to travel to Melbourne to attend our Open Day. So we have developed a program that will allow you to make the trip with no expense to you, and allow you to bring along a parent, friend or guardian.

(RMIT University 2009d.) RMIT is one of the largest universities in Australia, with over 60 000 students studying at 'RMIT campuses in Melbourne and regional Victoria, in Vietnam, online, by distance education, and at partner institutions throughout the world' (RMIT University 2009c). RMIT is a dual-sector institution, offering specialised vocational and professional programs across Technical and Further Education institutions and higher education. RMIT is a member of the Australian Technology Network of universities and of the Global U8 Consortium.

RMIT has a Student Equity and Diversity Policy that involves the following Equity Admission Schemes:

- a Special Entry Access Scheme (SEAS) and an Alternative Category Entry Selection Scheme (ACCESS) assist applicants whose education has been affected by long-term disadvantage
- an Asylum Seeker Access Scheme (ASAS): Temporary Protection Visa holders or asylum seekers on Bridging Visas are eligible to apply under ASAS only
- a Postgraduate Commonwealth Supported Equity Places Scheme operating in postgraduate coursework programs for Australian residents who meet the entrance and equity criteria
- an Indigenous Access Scheme that supports the increased access and participation of Indigenous students in RMIT TAFE and university programs.

(RMIT University 2009b.) In terms of outreach programs, in 2001 RMIT also developed a Schools Network Access Scheme (SNAP) to facilitate entry into RMIT programs for disadvantaged secondary school students in designated schools (RMIT University 2009a). SNAP facilitates access to programs by students from 42 secondary schools in Victoria that are identified by the following characteristics:

- government secondary schools in low socioeconomic areas, with high numbers of students from disadvantaged backgrounds
- schools within RMIT's geographical commitments, largely in the northern metropolitan industry corridor and East Gippsland, with which RMIT has ongoing partnerships.

Of special significance for this scheme is the Managed Individual Pathways (MIPS) model, which provides a structured curriculum for pathways planning and the development of a portfolio that represents the students as learners.

This case study is particularly focused on RMIT's strategies and interventions for Indigenous students. The data collection involved visiting RMIT University, especially the Ngarara Willim Indigenous Centre. A semi-structured interview was conducted with the Manager Aboriginal and

Torres Strait Islander Unit Student Services Group (who is also Manager of the NWIC) and the Manager of Equity and Diversity. Further material was drawn from the RMIT website.

### **Description of activities**

#### *Equity and diversity for Indigenous students*

The Indigenous Access Scheme has been devised by RMIT as an alternative process to tertiary entrance (ENTER) scores calculated by the Victorian Tertiary Admissions Centre. The scheme is based on a capabilities model and supports students during the application process by providing information about RMIT programs, pathways, vocational options and study choices. It requires ongoing work in the university, especially unsettling traditional admissions schemes that are based on persistent myths in Australian universities about the oppositional nature of equity and excellence. This means working with the selection officers in an effort to change practices for Indigenous students. The Indigenous Access Scheme also offers an explicit three-day residential transition program that aims to enhance academic success and provide ongoing support. This transition program is coordinated by the Ngarara Willim Indigenous Centre and the Access and Equity Unit, in conjunction with the Study and Learning Centre, and provides Indigenous students with intensive academic preparation for tertiary study prior to Orientation Week.

The equity and diversity strategies for Indigenous students are managed at RMIT by the Ngarara Willim Indigenous Centre, located on the main Melbourne campus together with the university's Student Services Group. The NWIC emerged out of the recognition that, while Indigenous students have a good academic success rate at RMIT—over 90 per cent success—the university has low numbers of Indigenous students. The NWIC recognises that in order for RMIT to broaden access, especially for Indigenous students from rural Indigenous communities, there needs to be a different model of engagement. Hence, it works to enhance access and participation and to provide ongoing support for those Indigenous students who are enrolled in programs.

Recent work of the NWIC has focused on broadening outreach activities at RMIT, with a view to increasing participation from Indigenous students from less advantaged communities. There is also recent impetus from the Victorian state government for such a commitment. RMIT has a State Training Plan agreement with the Victorian Government, and an annual TAFE Wurreker Plan specifying Indigenous priorities and key performance indicators for the year, and is keen to improve Indigenous participation in education and training. As a dual-sector institution, RMIT can offer pathways to university through vocational education and training courses, which is an increasingly popular approach for students from low SES communities.

#### *Koori Express*

One of the recent strategies developed by the NWIC centre has been the Koori Express program (see RMIT University 2009d). For selected Indigenous communities, Koori Express provides intensive exposure to the programs offered by RMIT. Quite literally, the Koori Express is a bus trip, with free accommodation, to attend RMIT open days.

The program, which began in 2007, involves:

- educational experiences for Indigenous students and their parents

- working with selected Indigenous communities to enhance aspirations for university
- free transport to Melbourne for RMIT open days on a 4–5 star coach
- accommodation at a hotel in Melbourne
- other activities, including attending an AFL football match and a movie
- provision of all meals
- free transport from the various RMIT campuses and support from existing RMIT Indigenous students.<sup>6</sup>

The Koori Express program builds on existing relationships with and knowledge of Indigenous communities in rural Victoria, especially Gippsland and the Echuca region, as well as in northern metropolitan Melbourne.

#### *Working with local knowledge of communities*

The Koori Express program works with local education groups in various Indigenous communities across Victoria. There are a number of ways in which the Ngarara Willim Indigenous Centre identifies and collaborates with these communities, some of which include:

- (i) developing local education groups  
The NWIC is able to identify Indigenous communities from areas such as Echuca, Robinvale and Swan Hill, Gippsland, Shepparton and Bendigo. RMIT also has TAFE programs and community education in some of these communities.
- (ii) working with the Dare to Lead program (see [www.daretolead.edu.au](http://www.daretolead.edu.au)), which operates in some secondary schools  
Dare to Lead is a Commonwealth-funded national project with a focus on improving educational outcomes for Indigenous students. It provides a network of support for school leaders to work effectively with current programs, and to initiate new models of activity, with the aim of improving outcomes for Indigenous students.
- (iii) outreach in Gippsland Schools Network Access Scheme schools (for example, Bairnsdale)  
The NWIC collaborates with the Koori liaison officer supporting a group of Indigenous students (mainly Year 7–9 boys) to keep them in secondary education. RMIT is ‘their major tertiary access point’, but the program managers recognise that there are issues relating to retention and aspiration for these students (Manager 2). The outreach involves meeting with the students and discussing how they might achieve their aspirations (such as success in sport) through studying at university (for example, RMIT’s Human Movement program). This generates conversations about the importance of academic achievement:

You know, if you’re going to think about that as something you want to do, then you need to think about keeping up with your maths, because you’re not going to get far without your maths.

(Manager 2)

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<sup>6</sup> For a case study of the Koori Express, see RMIT University (2008).

The outreach programs aim to re-engage young people who left school in the early secondary years and, specifically, to reconnect them with formal education through pathways programs and skills building.

(iv) establishing dialogue

The Ngarara Willim Indigenous Centre and the Equity and Diversity Unit have an interest in establishing dialogue between Koori educators and careers teachers in secondary schools.

*The Koori Express program in 2008: the case of Gippsland*

The Koori Express program has targeted rural Victorian communities during recent years, including some of the school communities from Gippsland. In these regional communities, the only local options for further education are programs in the TAFE sector. The Koori Express aims to improve access to university for low SES students in these communities, which experience high levels of educational disadvantage.

The program aims to provide an experience for those students who ‘wouldn’t even have really thought about studying at university’, but who have aspirations for studying at the local TAFE or ‘working in the tractor factory across the road’ (Manager 1). It aims to provide students with an increased range of options beyond their current plans for the future: ‘When they get to 15, they’re thinking about going to work, or getting a traineeship in Parks and Gardens’, or thinking “I’ll get a job working in the forest”’ (Manager 1). In the case of Gippsland, the State Training Plan focuses largely on access and enabling programs in limited vocational fields. The Koori Express thus aims to expose students to a wider range of educational and vocational pathways, and to connect prospective students with RMIT’s specialised courses. RMIT’s programs are specialised, professional and vocational—as such, the equity programs seek to demystify and explain their nomenclature, discipline clusters, pathways and employment outcomes.

The Koori Express program has been designed to bring together a range of strategies for improving the aspirations of young Indigenous students: providing students with an experience of university and vocational and further education and training; involving parents to expose them to the university context; involving Koori educators; and providing leadership experiences for the Indigenous students already enrolled at RMIT.

The program works with Koori educators in secondary schools, especially to conduct preliminary work identifying students and their families. In 2008, this involved working with four schools in the Gippsland area, particularly through the Schools Network Access Scheme program. Staff working in these schools and programs are keen to ‘present [the] post-school options [available] to the students if they stick in with it,’ explaining that ‘there will be something at the end of this re-engagement for you’ (Manager 2).

The bus visit coincides with RMIT’s Open Day, so the university is on display. RMIT staff are aware of the Koori Express and are ready to talk to prospective Indigenous students. The university engages in a marketing campaign in the Gippsland area, especially through community Indigenous radio stations. There is substantial community work before Open Day to ensure that Indigenous people in Gippsland are aware of the Koori Express. In 2008 there were five buses accommodating more than 120 people:

So the buses brought groups of students and family members from the country for two days of activities. It's important to note that we don't put a limit on age because we want young children who are in the early education sector to also be exposed to the notion of further education, and we want the parents to engage as well, so if they had to bring their young child or children, that's OK. As way of making that work, we had a children's educator do a circus workshop for one of the days with the young children. This enables young parents to get out and about and have that one-on-one exposure to the education without trying to also wrangle with toddlers and young children, and that was really valued.

(Manager 2)

One key aspect of the program is the involvement of some RMIT Indigenous students who act as ambassadors (identifiable by their red Koori Express T-shirts). The opportunity to meet Indigenous university students is a key part of the program, 'particularly for the kids because people like us talking to them ...' (Manager 2). The Indigenous RMIT student ambassadors are enrolled either in TAFE or undergraduate programs and are involved in The Lead Program, which helps them to work as mentors with groups and to develop their leadership skills. Some of these ambassadors travel on the bus to the communities, some are at the hotel for the arrival of the buses, and another cohort works for the full weekend with visitors in the various activities involved in the Koori Express experience. These activities include taking students to an AFL football match one evening, going to their choice of movie, and managing the coordination of daytime activities such as listening to high-profile Indigenous guest speakers who are known to most students. Connections are also made with Melbourne's Aboriginal communities, who provide rural visitors with a sense of welcoming and belonging. On the Saturday there are also structured sessions (for example, on filmmaking) with guest speakers in preparation for the Open Day activities on Sunday.

For Open Day, visitors are broken into groups depending on their educational and vocational interests, and are provided with student ambassadors who act as program guides. Each participant is provided with a 'show bag' of glossy publications about the university. There is an expectation that RMIT academic staff working at the Open Day will be very responsive to the RMIT Indigenous ambassadors that approach with Koori Express participants: for example, "Here's Joan from Lake Tyers, she's a bit interested in Chinese medicine." That student would then get some really good attention and detail' (Manager 2).

The NWIC also follows up with participants in the Koori Express by phone, in order to enquire about additional information they might require.

## **Evaluation**

We're very much learning from it, too ... It's around learning what will work for the schools and the cultures and the school leadership, and the practitioners.

(Manager 2)

The program has various forms of evaluation gathered from feedback sessions at the end of the Koori Express experience and from other kinds of feedback through phone call follow-up shortly after Open Day. The Ngarara Willim Indigenous Centre drafts its own reports on the program for

internal and external readers, which also provides opportunities for ongoing evaluation. These reports have recommendations for future planning of the interconnected set of strategies that are currently being developed and implemented.

This program has been fully supported by RMIT and is understood as a community engagement strategy that requires long-term commitment, given that the program aims to work with students and their families who are in primary and junior secondary school. As well, there is acknowledgment of the long-term aspirations of the project given the nature of the educational disadvantage that the program seeks to address. The program has only been in operation for three years and hence it is only early days. Nevertheless, there has been an increase in students enrolling in RMIT programs from the areas in which Koori Express operates, such as from Gippsland, Bendigo and Shepparton. Manager 2 explains: 'What we do know is that it seems to have a positive impact on general access from the geographic areas where the Koori Express is delivered'.

## **Conclusion**

While it is too early to evaluate this program in terms of increasing the numbers of Indigenous students attending university from the rural communities being targeted, there are very encouraging signs. The following features are worth noting.

Collaboration in the project involves rural schools and their Indigenous communities, NWIC and other parts of the university. The collaboration is made possible by coordination across the university by the manager of the Ngarara Willim Indigenous Centre and the manager of the Equity and Diversity Unit. The program is nested in a broad equity policy logic that informs a set of strategies that work in concert. For example, the Indigenous leadership program at RMIT (the Lead Program) provides ambassadors for the Koori Express program, who play a vital mentoring role for the participants. As well, the program works due to good community reconnaissance conducted in school communities over many years by the NWIC. This aspect of the program is vital for its success: good knowledge of local Indigenous communities provides the program with local credibility that is essential for its ongoing success. The program also targets students in primary schools, when aspirations are still being formed. Such a program requires a long-term commitment to pay dividends but, in the case of improving Indigenous university participation, university interventions that target the later years of secondary school are often too late. Importantly, the program also engages with parents, which has the added benefit of providing them with an opportunity to consider aspirations for future education and training. Finally, the program has evaluation processes that provide for ongoing learning and modification of the program from year to year, but would be improved with more rigorous evaluation that draws on action-research processes.

# ***Make it Reel, Sydney Summer School Program*** **(University of Technology Sydney)**

Barbara Comber

## **Introduction and context**

The University of Technology Sydney (UTS) has a wide range of programs designed to provide information and attract low socioeconomic students to consider attending university. Many of these are developed and delivered by its Equity and Diversity Unit. UTS's Educational Pathways focus is part of its student equity strategy and, as the UTS website ([www.equity.uts.edu.au/education/index.html](http://www.equity.uts.edu.au/education/index.html)) makes clear, has an overt commitment to helping students from socioeconomically disadvantaged backgrounds:

UTS aims to serve the community at large and enable its students to reach their full personal and career potential. The University also has a strong commitment to providing equitable access to education, and supporting Australian Indigenous people and the process of Reconciliation.

The UTS Student Equity Strategy contains a range of programs and strategies to assist students from educationally disadvantaged backgrounds through:

1. Outreach
2. Admission
3. Support and Success
4. Inclusive Community

The designated equity target groups are:

- Students of Australian Indigenous descent
- Students from low socio-economic status backgrounds
- Students from non-English speaking backgrounds
- Students with disabilities
- Female students studying in non-traditional fields
- Students from rural and isolated areas.

Outreach projects include university open days, visits to schools, on-campus programs, promotion of access schemes and distribution of information booklets to prospective students and their parents. The unit produces a wide range of printed booklets (also published on the website) designed to answer common questions that these groups may have about attending university. It is an extremely comprehensive set of resources.



Given this context and demonstrable commitment to encouraging its target groups, it was not a surprise to find in the survey (which constitutes Component B of this research project) that in 2009 the University of Technology Sydney was embarking on a new project in collaboration with the NSW Priority Schools Program (PSP) of the New South Wales Education Department called 'Make it Reel'. Discussions about Make it Reel emerged in the context of the long-term relationship between UTS's Equity and Diversity Unit and the NSW Education Department's Priority Schools Programs and its Equity Coordination Unit. The Make it Reel project is the focus of this case study.

During March 2009, with the program coordinator from the Priority Schools Program team, we visited two of the priority schools whose students had participated in Make it Reel and also met with educators from UTS's Equity and Diversity Unit and the NSW Department of Education Priority Schools Programs.<sup>7</sup> Four focus group discussions were recorded and transcribed. Participants included:

- (i) three male students from an inner-city secondary priority school  
One student was of Indian heritage and spoke English and Hindi. One was of Chinese heritage and spoke English and Cantonese, and one was of Vietnamese heritage and spoke English and Cantonese.
- (ii) three female and two male students from an outer-suburban secondary priority school, a parent of one of the students, their teacher and a local regional educational consultant  
One student was born in Bosnia and spoke Serbian and English. One was born in Germany, her parents were in Bosnia, and she spoke Croatian, German and English. A third was born in Australia to Serbian-born parents and spoke Serbian and English. One boy was born to Chinese parents in Vietnam and spoke Chinese and English. Another boy was born in Australia to Vietnamese parents and spoke Vietnamese and English.
- (iii) the participating school-based teacher
- (iv) UTS staff and NSW Education Department staff involved in the project.

Other parents and staff involved in the program also expressed a willingness to be interviewed, but the short time frame of the study did not allow for this.} The young people's perspectives are featured in this case study in order to demonstrate their strong engagement with this project and also to highlight their remaining concerns about {accessing} university. They were particularly articulate about both their aspirations and the challenges that faced them in realising their hopes.

The two schools visited are served by the New South Wales Education Department Priority Schools Program, whose website ([www.psp.nsw.edu.au/about/index.html](http://www.psp.nsw.edu.au/about/index.html)) explains its mission in the following way:

Priority Schools Programs support government schools serving the highest densities of low socioeconomic status families in New South Wales. The programs are underpinned

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<sup>7</sup> The research team was grateful to the University of Technology Sydney and New South Wales Priority Schools Program, in particular the program's Innovations Coordinator, for organising these visits, which allowed us to seek the perspectives of the secondary school students, their parents and teachers, as well as the university personnel.

by principles of equity and are part of the NSW government's commitment to social inclusion.

These programs provide resources to improve the literacy and numeracy achievements and engagement of students from low socioeconomic status backgrounds. These are the most critical requirements for student achievement across the full range of education and training outcomes.

Priority Schools Program resources support Priority Schools to *do things differently with more*, rather than, *more of the same*.

Clearly, there were strong synergies in the missions of the UTS Equity and Diversity Unit and the NSW Department of Education and Training that underpinned the collaboration that was vital to the genesis of this intervention.

### **Description of activities**

Make it Reel is a summer school program held at UTS during the holiday break in January. The project is of interest in the wider context of university early intervention programs, because it targets Year 9 and 10 students and is designed and delivered cooperatively by two education sectors. Make it Reel is based on Cineliteracy, an earlier initiative of the NSW Department of Education and Training in its priority schools (see [www.psp.nsw.edu.au/resources/cineliteracy\\_vcd/index.html](http://www.psp.nsw.edu.au/resources/cineliteracy_vcd/index.html)), which was designed to be used in schools with students from K to 12.

Cineliteracy was particularly designed to support the engagement of students in 'real life' literacy practices in low socioeconomic status communities. However, it is a resource that many public sector schools in New South Wales are incorporating into their teaching and learning programs, informed by the understanding that Cineliteracy is a strategy for teaching traditional and critical literacy skills through the study of the moving image (for example, film and television). As film and television are central to contemporary life, parents, community members, teachers and students participating in Cineliteracy can bring valuable cultural and background knowledge to the classroom.

Make it Reel is based on Cineliteracy but the program has been adapted to be offered as a three-week intensive summer school for 30 students from priority schools whose families had not attended university. The deputy director of the Equity and Diversity Unit at UTS saw the potential of a university summer school based on this program as part of their outreach activities. Educators from the Equity and Diversity Unit and the Priority Schools Program met to discuss how to work together to modify the program for the intended student group and to deliver it as a summer school. The basic aim of the program is for participating students to produce short films, but the underlying goals were to:

- inspire and motivate students in Years 9 and 10 from priority schools to attend university, and
- improve the students' literacy skills in order to better equip them for selection in to, and success at, university.

The development and implementation of the Make it Reel summer school conducted in January 2009 is analysed in this case study. Academic staff and a classroom teacher developed a three-week program, based on Cineliteracy, to be delivered on the UTS City Campus. UTS students were recruited to act as mentors to the school students. Publicity for the program and an application process were jointly developed but managed through the NSW Department of Education and Training. Both UTS and the department provided cash and in-kind support to guarantee the success of the project. Funds were needed to cover the time of academics, teachers and mentors, as well as catering. In addition, each school student was given a travel allowance and a small sum of money for attending and completing the summer school (to defray lost income from possible holiday employment). The recruitment process was conducted in 2008 and involved an online application and an orientation day at the university in December.

Students needed to commit to attending every day from 6 to 22 January from 9.15 am to 3.30 pm unless prevented by illness. Thirty students began *and* completed the program. Students were assigned to one of three teams and many were no longer with peers from the same school. Each team was supported by a UTS film undergraduate who acted as mentor and guide throughout the three weeks, and as the 'producer' of the students' films. A student explained how it worked:

We were divided into three teams, and each team had to make a movie, and the university students helped us by, they were like, they took the roles of producers, and they helped us, they guided us through the process of filmmaking.

They mentioned that they were 'proud' to have been selected and students from the outer-suburban school made it clear than being on campus was significant for them:

Well, I remember the first day, me and [Student 2] got on the train and we were like 'Oh my God, UTS'. We were just like jumping up and down because we felt special, like *we're going to UTS, a university that's pretty hard to get into and we're going there for filmmaking*, and we just couldn't help but think, you know, out of how many people that applied, *we got to be chosen*, you know, *how lucky are we?* It's like a once in a lifetime chance, you don't [have] this come around all the time.

The experience of going to university made me feel prestigious, like I'm smart, because it's helped me figure out like where I want to go for uni, like what kind of future I would have, like because I haven't decided what career I want to follow, so it's helping me decide which path to go to.

The summer school program was based on a series of workshops where young people were explicitly taught the various complex skills of filmmaking. Topics included: writing a synopsis, editing with iMovie, production design, writing the screenplay, camera operation, revising the screenplay, filming protocols, sound design, location reconnaissance and safety checks.

At the end of the summer school, the students and their families were invited to a launch and 'graduation' ceremony, where they were presented with certificates by the UTS Vice-Chancellor.

When invited to reflect on their experience of Make it Reel, several students reported that they had made films at school and at home, which they described as 'amateur', and contrasted these with the

UTS experience as 'professional'. One student from an inner-city high school was quite articulate about what he had learned:

The most I learnt was about continuity. I really didn't think about that much when we were like filming our amateur films, but then I saw the difference, like what goes wrong when you don't use, like when you don't think about continuity and linking all the parts of the film together.

This student went on to state, with respect to a new film he planned to make with friends:

Yeah, now we're following the steps of the UTS. Last time we didn't know about pre-production.

Another student from the outer-suburban school made a similar point:

First day she's like 'You have 13 days to make a movie, guys, suck it in', and we were like 'Oh my God', because like I said it usually takes one month and a half to make a movie, just in school, by yourself, and to have a group of people you have to have teamwork and you have to have control over the group.

Students from the school also noted the importance of the professional feel of the whole experience:<sup>8</sup>

S1: I don't know. I expected like simple, I don't know, Dell computers with the very standard programs, but then when we got to the computer lab it was big Mac computers, you know, with everything on it, Photoshop, everything you need to make a movie, like it was amazing.

R: So the facilities were really, really ...

S1: Up to date.

R: Yeah, OK, and that was important to you, yep.

S1: Because how would it be if we're trying to make a movie and we don't have the programs.

S2: It let us be more professional.

S1: More professional—that's one thing about this experience is that we viewed the movie like it was ...

S2: Yeah, very professional.

S1: In a cinema thing, you know.

S3: Like that part, it had the whole ...

S1: We had introductions, we had speeches, we had a program, we had everything planned out like the real thing, so it made us feel more important like ...

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<sup>8</sup> Abbreviations used in this case study: S1 (Student 1), S2 (Student 2), S3 (Student 3), Student 4 (S4), Ss (multiple students talking at once) R (Researcher), PSP Co (Priority Schools Program Coordinator), T (Teacher), Equity Officer.

- S2: Yeah, even the criticism of the producers made it seem more professional, that this movie had to be, or the movies had to be ...
- S1: They gave us criticism that they would use in real life, basically.
- S2: Yeah.

It is important to note that this summer school program did not offer the typical ‘remedial’ approach to young people’s literacy skills. This program—based around young people’s serious engagement in the media arts—ensured the development of skills through high-quality learning and sustained motivation. The ‘professional’ feel of the entire enterprise—equipment, feedback, time frame, speeches, cinema—had an impact on the students’ valuing of the whole experience.

## **Evaluation**

The aim of this case study is not to evaluate the students’ learning in the Make it Reel project. Indeed, such an evaluation would require long-term and specific data gathering beyond the project’s brief. Rather our aim is to analyse the intervention in terms of the key features that made it successful from the points of view of the participants and to identify issues that emerged in the retrospective commentary that indicate the need for modifications for future iterations of the project or for similar interventions. Different informants highlighted a range of issues and insights that may have implications for others wishing to replicate similar collaborative programs. These include observations about the nature of the intervention, the summer school concept, recruiting the target group, reducing the emphasis on the Tertiary Entrance Rank (TER) and the Universities Admissions Index (UAI), and sustaining cross-sectoral collaborations.

### *The nature of the intervention*

The Make it Reel approach takes young people seriously as apprentice filmmakers. They were not offered a watered-down approach to filmmaking or a top-up version of schoolwork during the holidays. This approach is in line with the characteristics of other long-term, sustainable and effective school–university collaborations, such as University–Community Links ([www.uclinks.org](http://www.uclinks.org)) at the University of California (Gutierrez et al. 2009). The characteristics of such approaches are important to identify, because students and parents believe that summer schools offer important and meaningful learning opportunities.

Indeed, these young people are looking for serious learning opportunities in an area of media/arts, not a traditional remedial program in literacy skills. As two decades of University–Community Links research in the 5<sup>th</sup> Dimension projects (after-school education programs that involve collaboration between education sectors and other organizations) indicate (see Table 2), there is great potential for young people to be apprenticed to meaningful learning communities focusing on digital media and forms of representation.

**Table 2: Gutierrez's Remediation versus Re-Mediation**

REMEDICATION	RE-MEDIATION
<ul style="list-style-type: none"> <li>• Basic skills</li> <li>• Often individualised</li> <li>• Scripted</li> <li>• Low-level mediation or assistance</li> <li>• Homogenous</li> <li>• Readiness models</li> <li>• Generic assistance</li> <li>• English-only</li> </ul>	<ul style="list-style-type: none"> <li>• Basic activity</li> <li>• Joint activity</li> <li>• Generative</li> <li>• Multiple forms of assistance</li> <li>• Heterogeneous</li> <li>• Rigorous, challenging</li> <li>• Strategic assistance</li> <li>• Hybrid language practices</li> </ul>

Source: Gutierrez et al. (2009: 14).

Gutierrez et al. (2009) contrast traditional forms of 'remediation', which focus on individual students practising basic skills in pre-planned tasks with generic forms of assistance, and approaches that involve groups of young people in complex learning 'ecologies' using tools relating to activities that matter historically and culturally. These distinctions apply to Make it Reel. Students were involved in all aspects of the entire activity. They worked together in groups on an evolving negotiated product, with assistance from various helpers who had varying degrees of knowledge, during a rigorous, challenging project. Evidence of how seriously these young people engaged in the task was their continuing interest in obtaining feedback several months after the summer school had finished. Students at the city secondary school were still seeking more critical feedback after their films had been launched and they had 'graduated':

S1: Just one thing. For this Make it Reel thing, at the end of it could someone analyse our videos and then give us recommendations, feedback.

S2: *Professional* feedback.

PSP Co: Yeah, right, OK.

S1: Because we never got any feedback and what we should have done different and stuff.

S2: Yeah, everybody was just like 'Oh, that's good'.

S1: Yeah, 'It's good', and that's it.

Students had developed a desire for high-quality professional feedback, which was not extinguished at the end of the program. This seems to have been another key aspect of being taken seriously, which was also associated with not being late, not missing any sessions, and being paid to attend. In reviewing the notion of 'apprenticeship' with respect to arts and theatre summer programs targeted at disadvantaged youth in the United States, Halpern (2009) notes the importance of feedback from practising professionals—artists, directors and actors. In the programs he reviews, young people are apprenticed through real rehearsals and performances to become directors, importantly learning about responsibility for success through real engagement, not simulated tasks or parts of tasks. When asked about whether their literacy skills had improved during the course of Make it Reel, the following discussion occurred:

- S2: Because we had to fill out worksheets and stuff, so yeah, it kind of contributed.
- R: OK, tell me about that because I haven't seen them, I don't know anything about them yet.
- S2: Well, we had to like, we had to write stories, ideas for stories, and write about roles of, roles in the filmmaking process.
- S3: To form out of a script, that was something we ...
- R: You hadn't done that before?
- S1: Yeah, we did but we just developed our skills, how to write it a bit better.
- R: How to write it better?
- S1: Yeah.
- R: What made a difference to writing it better?
- S1: It made the movie better.
- R: OK, yeah, it made the movie better. So by doing that writing, so you did the writing, in a group or as an individual?
- S1: In a group and then, yeah, we kept ... actually with only two people but then we could contribute our ideas and then change the script, I think we could do that.
- R: And did you get feedback?
- S1: Yeah.
- R: So the feedback came from the whole group?
- S1: Yeah, but we used to have this session at the end of the day, where we'd give information about each other, like, and the progress of everyone.

In this project, students' literacy improved as they witnessed the difference that revised scriptwriting makes to the quality of their film. Literacy was not an end in itself but part of the learning repertoire required to make high-quality films. In this context, students were not intimidated by the need for regular writing and revision. Indeed, they barely noticed the 'literacy work' required. Immediate feedback became a crucial part of learning. As one student recounted:

I think it was to our advantage that they were being, that they were criticising us because that's how we were learning. I mean obviously if someone doesn't criticise then you think you're doing the right thing even though it's not. (Student)

These students do not shy away from rigorous and challenging activity; they welcome it because it makes sense in the context of what they are trying to achieve. When one group that was engaged in making a documentary about war began to encounter the emotions of people who had been affected by war, the project took on further meaning. Referring to the father of one of her peers whose childhood had been traumatised by the Vietnam War, one student explained:

As soon as he started to show emotion everyone started to get really into it, like 'Oh my God, this documentary actually means something'.

No longer just making a movie, but fully engaged with the politics of representation and filmmaking, this young woman really began to understand what the filmmaking career she is planning would mean as a social and cultural practice with tangible effects.

### *The summer school concept*

As mentioned above, the idea of offering interventions in the form of after-school programs and summer schools is not new in terms of encouraging low SES students to aspire to and attend university in the long term. The Make it Reel program developers had anticipated that some of the student cohort they were seeking to attract would be working during the summer break and hence offered a small payment as an incentive for the young people to attend. When asked about what they might otherwise have been doing in their summer holidays, there were clear differences between students at the different schools. The city secondary school boys appeared surprised that they might have been in paid employment.

R: What would you have been doing otherwise, you know, like in your holidays, like would you have been working? That's what I'm mainly interested in, is whether you would have had summer jobs, or just hanging out.

S2: Yeah, just hanging out.

R: Hanging out.

S2: We didn't have much jobs.

R: OK.

S1: Can't even get a job anyway.

R: What was that?

S1: We can't even get a job.

S3: I'm not old enough.

In fact, they would have been old enough to work, but this was not an option they had considered seriously. As discussed below, these boys may have been more privileged than the intended target group; nevertheless, their desire for more opportunities for 'serious' summer schools and autumn schools was extremely interesting:

S3: They could make it a, like they could give out certificates, like each time they can like go again, and each time they get like Certificate 1, Certificate 2.

R: I see, yep, so you get some credentials, yep. What about, you know, you guys, some of you are interested in software stuff, I mean would you go to a summer school or an autumn school, or a winter school, about IT?

S3: Yep.



- S1: Yeah, definitely that's ...
- R: Would that interest you?
- S1: Learning experience, yeah.
- S3: I would go for a nursing summer school or something.
- S2: I would go for any.
- S3: Because it's a productive way of using ...
- R: OK, so it's not only that filmmaking is cool, you would do these other areas as well?
- Ss: Yeah.
- R: That's very important.
- S1: It's probably once in a lifetime you can do it.

These students emphasised that they would be interested in further opportunities, including a specific interest expressed in relation to a nursing summer school.

Students and a parent interviewed at the outer-suburban school reiterated the appeal of the summer school concept, even though these students mostly had part-time jobs. The intensity of the learning experience was clearly part of the attraction.

- S4: Because I didn't do photography in Year 9 and 10 so I didn't have much experience, but with the program I learnt lots, like how to use the different roles, like the first AD [Assistant Director] and what they do, the cameraman, and all the shots. It's like a crash course into photography.
- S1: We did two years skipped up in 13 days.

The parent who attended the interview and who had participated in the filmmaking was adamant that summer schools were a real advantage for his children, who spoke English as a second language and who would be the first in their families to have the opportunity to attend university. He raised concerns that young people tended to stay at home during the long break, without what he saw as enough contact with nature, friends and the community. In his view this was a result of easier access to digital entertainment in the home. He was a great fan of the summer school because from his perspective it provided learning opportunities in English and in the university setting that extended what families speaking English as a second language could provide. He explained the need to work long hours to support his children to stay at high school and consider higher degrees, and believed that the government could consider subsidies for high school students, which would assist families like his. As he explained:

I mention because the government got a plan like this for the holiday time, the kid can go study again, that way they can keep continual study, like it very good this thing. The government should support ... how long. If they do like this on the future, I think very good, and for me these day lot of the kid, you know, stay home, doesn't go out, doesn't

see anyone, that's why this will work for the new generation. They should be and when the holiday they have to go out somewhere, study, like that, good for them.

He explained that weekends provided good family time to get together and that the long holidays were perhaps too long from his perspective. He also referred to the extra costs he incurred in getting his children extra help with language:

For me, for me when I got a kid, I think they go to study at the uni. Very hard, very hard, because they lot of homework ... That time, for me, was very important, the English, that way when I go to work I get the kid go study the language for help them, because I can't help them, because I ... English, not understand much, that why I can't help them for their homework, that why I have to pay for someone.

Clearly, long-term financial and personal struggle is involved for this parent as he attempts to support his family to aspire to university and to achieve the academic performance that is necessary to take them there.

### *Recruiting the target group*

One surprise for the Priority Schools Program coordinator was that a number of students were not the first in their family to attend university, even though this was the student cohort sought for this intervention. However, as it eventuated, at the city secondary school the students who successfully applied for the program all had parents who had graduated from higher education and were employed professionally. This is not to say that these students' families were necessarily economically well off. In one case the student was from a single-parent family, and in another the parents' international medical credentials were not recognised so their level of employment was lower than in their home country. However, before having attended the summer school, each of the boys not only assumed that he would attend university but also knew which universities he would apply for, sometimes in order of preference:

R: So I'm interested I guess in you having a bit of a think about has this program made any difference to your thinking about university?

S1: I was going to go to university.

S3: Yeah, that's what we're aiming for.

S1: Yeah, all of us.

R: So all of you were aiming for university?

S1: It's our goal.

R: It's your goal, OK, so that's fine. So tell me more about that then, let's keep going with that, you know, what do you plan to do when you finish school, so let's just go one at a time in terms of ...

S1: Software engineer, yeah, I'm not pretty sure about it but I'm just going to get the highest UAI [Universities Admissions Index score] I can get.

S2: And see what happens.

As the conversation continued it became clear that these boys had given their academic future a great deal of thought and had very high aspirations:

- R: I don't know the unis as well here. You know you want to go to university, do you care which one?
- S1: Yeah, I do, but I don't know which one.
- S3: Yeah.
- R: But you do care?
- S1: Yeah.
- R: What's your goal?
- S1: Harvard!

Each of the boys outlined the options he was considering in terms of degrees and preferred universities, as discussed further below. It was also clear that none of these boys was considering a media career in his list of possibilities. They were there for the extracurricular experience. None of them ranked UTS as his first choice, as they were seeking occupations where other universities were perceived to have higher standing:

- R: I mean do you know people yourselves who have been to university, and if so has that been a factor in your thinking?
- Ss: Yeah.
- S3: Talk to my parents.
- S2: Same with my parents.
- S3: It's just been put in my head that I have to go.
- S2: It's always parents.
- R: Always parents? For all three of you?
- S2: You've got to follow the footsteps of your parents.
- R: So all three of your parents, one or both, have gone to university, for each of you?
- Ss: Yeah.

The feedback from these students raises a broader question about whether early interventions recruit the young people whom they intend to target. The focus group boys suspected that friends of theirs who might have benefited from the summer school had found the application process too demanding. As one student explained, 'There were other people but they just couldn't be bothered typing those essays' (Student 1).

At the outer-suburban high school, the participating students also spoke with a reasonable degree of certainty about their futures, including attending university. However, in this case, the UTS

experience and the recent experience of an older sibling or friend had made a difference to their aspirations. None of the parents of the five students interviewed had been to university:

- R: What are you thinking of doing? Are you imagining your future with a university in it?
- S1: Oh yeah, that's why I was excited because UTS is the university that I want to go to.
- R: OK, and you thought that before, after, during?
- S1: Before, way before.
- R: Before? So you'd already wanted to go to UTS before?
- S1: That course, that is our best two design courses in our design course, is what we just did, the filmmaking course.
- R: So it confirmed that?
- S1: It confirmed that.

This determination somewhat surprised their teacher, yet this student was not alone in her aspirations:

- S4: What I liked about UTS was the experience, getting experience how to make filmmaking, and I have decided that if I get the chance to go to university, mine was University of New South Wales, or UTS, either that. If I can't make it into New South Wales, then I'll go to UTS because it's closer to the station.
- R: That's very important, very important. What do you want to do?
- S4: Maybe graphic design, filmmaking or photography.

Later the teacher explained that this was a significant turnaround, particularly for Student 4 who has struggled with literacy, academic demands and confidence. She was delighted to see the change in him:

Yeah, again I think confidence in literacy and confidence in learning is a really, really big factor. I see a boy like [Student 4] walking into a classroom and just giving up in the first five minutes, sitting down, which is a little bit sad, and just giving up, because already in five minutes the concepts are over his head. And the confidence ... he's back here this year and he's a new man. He's taking notes, he's writing everything down, he's on time. He knows he's different, he knows he's special, and he knows he can do something, he knows he can achieve, so that's turned him on to being a better learner. (Outer-suburban secondary schoolteacher)

As the conversation went on the young people continued to delight her, particularly Student 2:

Well, university has always been a part of my future. I've always wanted to go to university, and I can't wait to start at uni, and I've also wanted to study law in university, and I wanted to do a double degree, so being there I've made my decision that my second degree would be in communications, in media and production, so it's been very helpful for me to decide which kind of degree I would choose.

Student 2, who was extremely articulate throughout the focus group discussion, later elaborated that she intended to work for the United Nations and had already discussed these plans with her mother. This student is already aware of the advantage of doing a specific kind of double degree to take her to the ambitious future she envisages.

These young people did not demonstrate low aspirations despite attending schools in low-socioeconomic areas and, in many cases, despite their families being on a low income. However, as they explained, they were not necessarily typical of their school peers. In various ways, the young people who participated in Make it Reel were being actively supported by their parents, even to the extent of the provision of extra support with English-language tutoring and so on. At the very least their parents, and in a number of cases older siblings and friends from the community, had already made them aware of university as a possible future pathway. Some of them had considered their educational trajectories in relation to long-term personal futures:

- R: I mean you've thought about getting a job and having the credibility. Is the money side of what you'd earn, is that something that you think about at this point, or not really?
- S1: Probably our future, like if we have a family.
- R: OK, earning potential?
- S3: Yeah.
- R: Do you want to add to that?
- S3: No.
- S2: And security.

This group of young men knew that some of their friends did not share their aspirations for the future and had watched classmates leave or talk about leaving school:

- R: Are there things that you hear from your mates at the school that you think might stand in other people's way, not necessarily yours?
- S2: The travel, they live really far from the universities and stuff.
- S1: They don't know the value of university, like our classmates dropping out in Year 10.
- S2: Yeah, some people are dropping at Year 10.
- R: Why do you think people are dropping out?
- S2: They prefer other options.
- R: Like?
- S2: Like ...
- S3: Macca's.
- S2: There's this guy who's dropping out of Year 10, he's working as a nurse, he's trying to get into a rural nurse course.

- R: Right, go a different pathway?
- S2: Yep.
- S1: Probably to get experience.
- R: You think people are wanting that work experience sooner?
- S1: Yes, but uni like takes years.
- R: It's so far away in time, uh huh.
- S1: You'll be old until you get hired.

The students raised several interesting issues in this discussion. They pointed out that some of their peers had already dropped out at Year 10, and one suggested it might be to work at McDonalds— one local option for young people who leave school early. However, his friend complicated this rather deficit account and described a specific pathway into nursing. They then turned their attention to the value of actual work experience, before admitting that university would take years and anticipating being 'old' before they had won their first position! Clearly, these young men were at the stage of imagining possible futures and understanding what might need to be sacrificed for the long-term goal. They also recognised the pressures on peers to make different decisions. One of the pressures they emphasised, as did the students at the outer-suburban school, was that associated with the Universities Admissions Index (UAI)—the NSW version of the Equivalent National Tertiary Entrance Rank (ENTER), which is often abbreviated in individual states as the TER. This was particularly interesting in the light of the recent Bradley review (2008)., which argued that more widespread use of alternative admission processes should be trialled.

#### *Reduce the importance of the Tertiary Entrance Rank*

Students at both schools talked about peers who didn't have the support they needed to finish school and go to university. When asked about what could be done to make a difference, they had a range of suggestions but they emphasised the dominance of the TER:

- R: What do you think the universities could do, or the school could do, for your friends, you know, like the ones who are thinking of dropping out now in Year 10? Is there anything we could do?
- S3: Provide some sort of incentive.
- S2: Yeah, make it more appealing.
- R: Talk about what that might be like.
- S3: It's probably about the pressure that they drop out.
- R: Say something about that.
- S3: They might be scared of what they get, they probably can't face it.
- S1: Yeah, the only reason our classmate is dropping out is because she fears she's going to fail the HSC [Higher School Certificate] and stuff.

- S2: Some hospitals they said they have enough doctors and nurses, and the doctors and nurses have to get a high UAI to get into it [university]. If it's too high, like there's less people, so that's one thing.
- R: OK, so there's pressure, that's the negative, so we could do something about the pressure, but then you also said provide an incentive so talk a bit about what that might be.
- S3: Some sort of, I don't know, money.
- R: So scholarships?
- S3: Yeah, scholarships.

A number of suggestions are embedded here about incentives that remain unelaborated, but the boys then returned to their earlier theme:

- S2: Lower the UAI.
- S1: Like last time there's this occupation, it was 85, and I looked it up, it was 89.1 or something.
- R: OK, so the fact that it's going up?
- S1: It's going up.
- EO: Could something happen before you get to the UAI, like what could be happening at school to take the pressure off, before you get your UAI? Is there something [that] could be happening in Year 8 or Year 9 that would help people feel less pressure?
- S1: I don't know, stop making such a big deal out of the UAI. Just make it sound like some, just another exam, like most people have a nervous breakdown in their UAI.
- S2: Yeah! It's like the whole schooling career's, like, building up to this.
- S1: Yes, there's a lot of pressure.

The Bradley review (Bradley et al. 2008: 38) explicitly addresses this point and argues that

more widespread use of other approaches to selection and admission with a broader range of criteria in addition to or replacing the TER (Tertiary Entrance Rank) and which recognise structural disadvantage should be trialled.

The review also points out the problems with information about the process that may exacerbate disadvantaged students' difficulties with aspiring towards and attending university. Students at the outer-suburban high school agreed and indicated some of the confusion that exists:

- S2: Yeah, the ranking and the scaling, depending on the school that you're from.
- S1: Yeah, depending on the school they rank you to that, so ...
- S2: I don't think there's enough information out there about the scaling and the ranking.
- S1: The scaling, no one really knows how they really do it, so you kind of get freaked out, you know, maybe if that other person in the class ...

S3: But if you're really good you get ...

S1: But they didn't say that if that person has a higher class mark or higher something, then your one swaps with theirs?

S2: It's very confusing because it's hard to find information satisfactorily.

There was both anxiety and confusion evident about how the Tertiary Entrance Rank—or Universities Admission Index in the case of New South Wales—was established, why it was so important and why the required rankings escalate for particular courses. Some students also recognised that where they grew up counted in terms of how they were seen:

S2: Well, I think schools should encourage their students to actually go to uni because I believe that the schools are not encouraging us enough, especially in western Sydney, because we are classified as disadvantaged, is it, and I think because we're classified as disadvantaged, then they probably feel that we're not ...

S1: We don't go to uni.

S2: Yeah, we don't have a good knowledge.

T: Aspiration.

S2: Yeah, aspiration to attend uni.

R: But that's not true, right?

S2: Yeah.

S1: But, see, there's some kids that take that, what they say they're disadvantaged, and actually they strive and get 99.9 for their UAI. Last year we got 99.1, was it? [Students are actually discussing the TER here, indicating confusion about the TER and UAI.]

S3: 99.2

S2: 99.8.

S3: There was a 99.2 or something.

T: 99.25 was the highest.

S2: It was very high. They say that we can't do it, but we can.

These young people demonstrated a strong critical awareness of where they stood in terms of wider societal expectations for them as a group. Yet, they contested stereotypical deficit views and called on previous outstanding performances of former schoolmates as evidence of what they might accomplish. They recommended that there should be more emphasis on going to university at their school, in the media and in the community, as well as better information about what was involved and what pathways and supports were available to them. They also suggested that this kind of information should start no later than Year 9, as very often they were making subject choices that limited pathways by the end of that school year, if not earlier.



## **Conclusion: sustaining cross-sectoral collaborations**

The teams from the University of Technology Sydney and the Priority Schools Program who were responsible for the design and delivery of the summer school made it clear that their long-term relationships were integral to the program's initiation and ultimate success. They were keen to learn from their initial summer school experience and from this case study in order to inform possible future work together. Both groups acknowledged the importance of each other's record of achievement in equity-related projects and ongoing programs as well as the value of having 'a shared vision'.

The program developers did, however, raise a number of issues that are important to document here. One key issue was that 'partnerships are enormously time consuming and resource intensive and they're not going to work unless you do have some resources to put into it'. The range of issues they raised concerning their partnership model included:

- ongoing funding
- ongoing roles and responsibilities for different aspects of the program (for example, recruitment and publicity, student selection, staffing, correspondence and permissions)
- clarifying and recruiting the appropriate target group (stage of schooling, low SES, gender and ethnicity, literacy capabilities)
- keeping the scale of interventions manageable, and
- cross-sectoral endorsement/accreditation of the students' work.

One of the developers summed up the value of the approach they had taken:

It definitely was a dual-pronged approach. The department definitely wanted literacy built into it, and we definitely wanted aspiration built into it, and one of the things, one of the ways that we went about doing that was not only to bring them on to the university campus, and I guess give them, treat them like they're doing serious, serious work ... but getting university students to be their mentors so that they're actually exposed to people who are living the university student life.

In terms of the strategies to be noted in the Make it Reel intervention, there are three major themes to be highlighted. First, the project involves a serious long-term collaboration with the school sector, built upon a reciprocal recognition of skills and knowledge and a shared commitment to equity principles and practice. There is serious investment of people's time and expertise from both sectors. From cohorts in identified priority schools it attempted to recruit young people in Years 9 and 10 in order to make a difference before the latter years of secondary school.

Second, the activities themselves draw upon the best features of the student-as-apprentice model to build an enhanced, highly engaging curriculum: mentors with professional/practitioner know-how, an indenture-like model (being paid to attend for a contracted period), and building in of critical feedback, typical of real craftspeople. The curriculum design capitalised on young people's interests in popular and digital media and the cultural experiences of the diverse study body.

Third, the academic goal of improved literacy is achieved through embedding literate practices in the larger goal of producing a quality product. Students participated in a rigorous and demanding high-stakes curriculum on a highly motivating group project. They were supported with high-quality tutoring as required in the context of the university environment and, in turn, the university was showcasing the best of what it has to offer.

## ***YuMi Deadly Maths (Queensland University of Technology)***

Sam Sellar and Trevor Gale

### **Introduction and context**

The Deadly Maths Consortium is located in the Faculty of Education at the Queensland University of Technology (QUT), a large university serving 40 000 students across campuses in metropolitan and outlying areas of Brisbane.<sup>9</sup> It is a member university of the Australian Technology Network. The Deadly Maths Consortium has emerged from the work of academic staff based in schools and research centres at both Queensland University of Technology and Griffith University, rather than from the QUT Equity Services, and it therefore differs from many of the other intervention programs reviewed in this report. Rather than constituting a single intervention strategy, the consortium comprises a number of different programs that ‘aim to improve Indigenous life chances and opportunities for employment’ by developing proficiency in mathematics (Deadly Maths Consortium 2009). These programs span all levels of education and involve working with Aboriginal and Torres Strait Islander students in early childhood, primary and secondary schooling (YuMi Deadly Maths); supporting the development of Aboriginal and Torres Strait Islander students’ mathematics learning in the vocational education and training sector (Indigenous VET); and supporting Aboriginal and Torres Strait Islander students to pursue research degrees, and non-Indigenous students to research Indigenous issues at postgraduate levels (Deadly Degrees).<sup>10</sup>

In this case study, we focus specifically on the YuMi Deadly Maths program. Increasing students’ access to tertiary education is a specific aim of the program, and it pursues this aim by building capacity in the provision of mathematics education for Indigenous students in the compulsory years of schooling. The program includes a range of different projects; however, here we focus on the broad approach of YuMi Deadly Maths that informs each of them. YuMi Deadly Maths emerged from connections that QUT researchers had established with schools in low socioeconomic contexts. Invitations to provide teacher professional development were extended as a result of these connections, and over time this professional development work became predominantly focused on Indigenous schools in rural and remote locations across Queensland. During this period, a range of related projects were collected under the title of ‘Deadly Maths’—a term drawn from Aboriginal language and culture that was proposed by an Aboriginal staff member during an early phase of the project. This title was later extended to ‘YuMi Deadly Maths’ to include reference to Torres Strait Islander language and culture (Deadly Maths Consortium 2008b, 2008c).

The program has continued to grow over the past 10 years with the support of funding from competitive research grants (including Australian Research Council funding) and from partnerships with schools, government and other organisations. While improving the mathematics learning of students is the central aim of the program, and some direct pedagogical work with students is undertaken, this aim is predominantly pursued through professional development programs for teachers and teacher aides, and through working with school and community leaders to support whole-school change. Mathematics curriculum materials are also developed by researchers in the

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<sup>9</sup> See Deadly Maths Consortium (2008a) for an overview of the consortium’s work.

<sup>10</sup> One current YuMi Deadly Maths project involves working in early childhood contexts with students as young as 2–4 years (Deadly Maths Consortium undated).

program and trialled with teachers and teacher aides as part of this process. Action research and design experiments are conducted in parallel with the provision of professional development. This enables researchers to evaluate the effects of various projects on student learning and teacher practice, in order to inform ongoing project development and implementation. The program appears to be highly regarded within the network of rural and remote schools in Queensland and Western Australia, where its projects have been conducted.

Data for this case study was collected during semi-structured interviews with a lead researcher and a co-researcher from the program, and during a focus group with three long-serving research assistants working on Deadly Maths Consortium projects. Relevant Deadly Maths documents, including resources published on the consortium's website, were also consulted.

### **Description of activities**

#### *Mathematics education and professional development*

The YuMi Deadly Maths program reflects a specific view of mathematics education in Aboriginal and Torres Strait Islander communities. It positions the students in these communities as capable learners with the potential to become successful mathematicians, and emphasises the cultural and contextual aspects of mathematics knowledge and practice:

The maths itself must be contextualised, must not be a celebration of Western greatness, which it often is in maths and science. It's got to accept that Indigenous cultures have tremendous mathematical ability. It's got to ... build knowledge of the structure of mathematics, not functional maths that just teaches them to do applications, because they won't tolerate that, that's second-rate maths.

(Lead researcher)

The program aims to teach mathematics in meaningful ways and employs active pedagogies (whole body, hands-on) to engage students. There is a focus on providing students with deep understanding of mathematical structures rather than simply developing proficiency in basic skills and applications. Students are supported to develop 'understanding [of] the fundamentals behind the operation, or behind the concept that they're trying to learn' (Research assistant 1). There is also a focus on connecting 'powerful' Western mathematics with Indigenous knowledge and ways of knowing. The program encourages teachers and schools to grant this knowledge equal legitimacy, in order to recognise and engage its value as a learning resource in the classroom:

The project is about the contextualisation of mathematics to Torres Strait Islander culture of community and home language ... when we go into classrooms it is hoped that we learn about their ways, their knowledges and understandings ... so it's through ... contextualising Torres Strait Islander ways of knowing with the home languages, with Westernised mathematics, so they all come together.

(Co-researcher)

The program's rationale directly links improved academic achievement in mathematics with improved access to higher education and future employment for Indigenous students.

The professional development aspect of the program involves researchers working with teachers and Indigenous teacher aides to develop their mathematical content knowledge and their proficiency in effective mathematics pedagogies. Four guiding principles inform the program's approach to professional development: ensuring that such work is undertaken with teachers that are open to change and motivated to learn; providing knowledge and materials that are theoretically informed but strongly connected to practice—for example, 'something [teachers] can use on Monday' (lead researcher); supporting the implementation of this new knowledge and curriculum material in the classroom; and pursuing further iterations of professional development and research in order to sustain changes generated by initial interventions. Sustaining change and providing ongoing support are central foci for the program, and the development of curriculum materials is another means for integrating its work into more-enduring structures. The action research and design experiments conducted in parallel with mathematics education and professional development also provide a means for recording and disseminating knowledge about effective intervention strategies.

#### *Community collaboration and whole-school change*

YuMi Deadly Maths researchers described their belief that sustainable interventions require whole-school change and the strengthening of school–community networks, rather than simply focusing interventions at the level of the classroom or individual students. Indeed, consulting and establishing connections with Indigenous leaders in the communities served by schools participating in the program is the first stage of YuMi Deadly Maths projects:

As soon as we get the OK [to work in a particular school] we have to go and meet with the Indigenous leaders of that community, before we get any money and before we go in there, because we have to show everyone that that's the most important thing. Schools and the community must come together ... You've got to go in together. The successful schools have always had these aspects, high connections and interaction with the community, including allowing community knowledge to become an accepted part of the curriculum. You can't say that the Elders' knowledge is no good and we've only got our Western knowledge to give you.

(Lead researcher)

Here the program's logic of intervening at the level of community attitudes and curriculum structures is clearly described. Researchers also attempt to build educational capacity through collaboration with community members by, for example, helping 'Indigenous teacher aides to become effective tutors of mathematics to their students' (research assistant). This approach is a key strategy for increasing the sustainability of interventions like YuMi Deadly Maths. High teacher turnover in these rural and remote Indigenous schools can make it difficult for schools and their communities to retain the benefits of such interventions over time. Researchers found that much of the mathematical knowledge, and proficiency in mathematics pedagogies, that was being developed was quickly exported with teachers when they transferred to other sites. This obstacle led to researchers working with both teachers *and* teacher aides, in order to increase the likelihood of the knowledge and skills developed by the program becoming embedded in these places. Many teacher aides are long-term community members who provide support roles in schools but have no formal teacher education, and may have only minimal secondary school education. The YuMi Deadly Maths

program provides them with professional development in both mathematical content knowledge and pedagogies, and thereby attempts to increase both their own level of educational attainment and their capacity to work pedagogically with others.

However, this approach relies on the willingness of new teachers in these schools to work with, and learn from, teacher aides. This willingness is not always evident, and researchers found that often 'new young teachers coming in are arrogant towards them and won't let them try their stuff' (lead researcher). This problem led to a greater focus on ensuring commitment to the program at the whole-school level, in order to encourage change in school cultures through professional development of teachers, teacher aides and principals. It is hoped that this approach will create conditions in which teacher aides can 'be given power to even tell the teachers what to do' (lead researcher), although pessimism about the likely success of this approach was also expressed.

The whole-school focus of the program also places onus on principals to implement cultural change in relation to students, including expectations of high attendance, appropriate and effective behaviour management, strong student engagement and high academic expectations. Importantly, researchers emphasised that such change involves acknowledging the need for institutional structures to respond to the specific requirements of the communities that they serve, rather than constructing problems such as low engagement or academic achievement as the result of individual deficits. For example, one researcher explained that 'the school sensibly has to change ... the school might have to fit in with the students a little bit' (lead researcher). The consortium now considers whole-school reform to be a necessary prerequisite for improved mathematics learning: 'You can't do it by just going in and changing the maths, there's got to be a whole-school program' (Lead researcher). Such reform is also part of a broader holistic approach to improving Indigenous student outcomes through teaching and learning interventions, which involves situating the YuMi Deadly Maths program in the suite of programs that also includes Indigenous VET and Deadly Degrees. These programs combine to support students' access to higher education and employment from their first engagement with formal education in the early childhood and primary school years, and across different education sectors.

## **Evaluation**

The Deadly Maths Consortium generates evaluation data about its programs through internal research and diagnostic testing. For example, the professional development and whole-school change pursued by the Yumi Deadly Maths program is supported by accompanying participatory research conducted with teachers. The Deadly Maths Consortium website (<http://bmec.oz-teachernet.edu.au/approach>) describes how decolonising research methodologies inform the logic of this work in schools and with communities. This logic was further elaborated by one of the lead researchers:

We try to work in teams with Indigenous academics—there are four people in the leadership team, two Indigenous, two non-Indigenous—and we follow a philosophy that says that any research you do must immediately benefit the researched, so that leaves us with ... design experiments or action research.

(Lead researcher)

Interviews before and after interventions are conducted with teachers to gauge the effects of professional development on teachers' practice and to gather feedback regarding curriculum materials trialled in classrooms. Teachers and teacher aides also provide written feedback in response to their participation in professional development activities, and in some instances diagnostic testing is conducted with students before and after interventions. The program has collected quantitative data such as improvements in student outcomes on diagnostic tests, which provide evidence of the effectiveness of its interventions in particular sites. For example, in one school a trial of YuMi Deadly Maths curriculum materials resulted in a twofold increase in students' demonstrated mathematics knowledge over the course of approximately one school term. In another school, professional development of teacher aides contributed to six Year 2 students succeeding in the Queensland Year 2 Diagnostic Net testing for the first time in the school's history. In combination with these more specific and immediate forms of evaluation, YuMi Deadly Maths researchers also maintain ongoing contact with students, teachers and communities through recurrent site visits and regular phone conversations. This contact enables less formal but longer term and more contextualised evaluation of interventions.

Researchers in the program attribute its successes to a range of factors, including the combination of community and whole-school engagement, targeting teachers and schools that are open to change, and the provision of ongoing support. This approach has contributed to the development of the program's reputation among rural and remote schools for its capacity to provide successful interventions. This reputation was described by one of the lead researchers, with particular reference to a conversation with a prospective project partner:

We said 'This is what we do', and he said 'Hold it, I talked to the [schools], I know what schools are saying. All the schools' (because we've been to nearly every one of these schools in the last few years). He said, 'All the schools say you're the best and you have the best product'.

(Lead researcher)

It is evident that strong connections with schools and communities established by researchers enable them to work effectively in Indigenous contexts. The decolonising approach to improving teaching and learning through community consultation and collaboration, rather than approaching interventions according to a rationale of remediation, has enabled relationships based on trust and mutual respect to be sustained over time. While the program has demonstrated teaching and learning improvements in particular sites, it is also necessary to evaluate it in a more qualitative manner that reflects its ongoing and multifaceted approach to working with schools and communities over time, as well as in relation to the support it offers to students from early childhood through to higher education. For example, the program has three Indigenous students currently enrolled in PhD study and has supported a number of Indigenous teacher aides to enrol in teaching degrees. The Deadly Maths Consortium establishes connections between community-based educators, VET and universities, and therefore has potential to strengthen the higher education aspirations and pathways for students in the schools and communities targeted by the YuMi Deadly Maths program.

While the program has been successful in many respects, it also faces a number of ongoing challenges. Chief among these is sustainability, in relation to both funding and staffing. The program

is largely supported by ‘soft funding’ from competitive research grants, and its ongoing work depends on researchers continuing to win these grants in the future. While the research-driven nature of the program is a significant strength, the level of funding—which is accumulated from small grants provided for up to 10 concurrent projects—has proved inadequate in the past and has not enabled researchers to meet the demands on their time that result from commitments to a large number of small projects.

We’ve had up to 10 different [grant-funded] projects, ranging from \$20,000 to \$100,000, and that means we’ve got to go to a lot of places, so all we’ve got really time for is to do the professional development and a bit of follow-up work. Now that hasn’t worked as well as it might.

(Lead researcher)

This difficulty has led to the consortium pursuing larger long-term funding sources; however, it continues to remain dependent on its applications for external competitive grants being successful. Related to this difficulty is the risk posed by changing valuations of ‘legitimate’ research within funding bodies and universities, and the possibility that the methodologies employed by the program may attract reduced funding in a different research climate.

Sustainability is also an issue in relation to program staffing, because the knowledge and skills required to successfully implement its various projects is vested in a few lead researchers. The program would be at risk if the expertise of these individuals were no longer available. Researchers in the program recognise this challenge and are currently working to broaden the knowledge base and capacity of the research team.

This is what their focus is turning to when they have a chance, when they have a second in the day to think about it, how it can be sustainable. They’ve got all the knowledge, [the two lead researchers] and other people have all of the knowledge, and we have some ... (research assistant 2)

But not enough to sustain it.

(Research assistant 1)

As previously described, the challenge presented by staff turnover in the YuMi Deadly Maths schools and communities also presents a further challenge to the sustainability of the program’s interventions, and is currently being addressed through a whole-school reform approach.

## **Conclusion**

A number of the characteristics of successful interventions identified in Component A of this study are evident in both the YuMi Deadly Maths program and the Deadly Maths Consortium more broadly. Several are worth highlighting here.

The consortium draws together programs being conducted across all stages of schooling, VET and universities, which together comprise a collaborative approach to fostering the increased participation of Indigenous students in tertiary education. This approach enables feedback between researchers that are designing and implementing projects in different sectors. The YuMi Deadly



Maths program provides early, long-term and sustained support for students across different stages of schooling. A further strength of the program is its emphasis on creating sustainable interventions through people-rich strategies, such as providing education and training for teacher aides and sustaining ongoing contact with schools through repeated face-to-face visits and regular phone conversations. This approach enables students to work with people who share similar life histories and who are involved with higher education. It also facilitates discussion and opportunities for learning between university researchers and Indigenous communities.

The YuMi Deadly Maths program is a cohort-based intervention, as demonstrated by its approach to improving teaching and learning through whole-school reform and community engagement. The program emphasises the need to strengthen student learning identities across the school, as well as the need to develop school learning cultures in which Indigenous students are positioned as capable learners who feel entitled and encouraged to aspire to higher education. This approach aims to strengthen the aspirations and achievement of peer groups rather than targeting individual students.

The design and provision of curriculum materials, in conjunction with professional development, is designed to enhance curriculum and pedagogy. Issues such as low student achievement or engagement are framed as problems that can be addressed through the reform of curriculum and pedagogy, rather than remediating individual student deficits of learning capacity or interest in education. The program also seeks to combine academic and intellectual rigour with meaningful learning tasks. The curricula and pedagogies promoted by the program are intended to 'scaffold' students into deep understanding of mathematical structures by contextualising learning in relation to community language and culture. This contextualisation reflects a substantive effort to recognise and value cultural differences by pursuing institutional change in response to community needs, and by encouraging teachers and researchers to learn about the knowledges and practices of the Aboriginal and Torres Strait Islander communities in which they work. Indeed, the program appears to be particularly strong in this area.

In combination, each of these characteristics increases the likelihood of the YuMi Deadly Maths program providing effective early and sustained interventions that have the potential to increase Indigenous students' achievement, and their capacity to aspire to and access higher education.

## ***Regional Schools Outreach Program (University of Ballarat)***

Dianne Bills

### **Introduction and context**

The University of Ballarat is situated approximately 100 kilometres west of Melbourne. It is the only fully regionally based university in Australia that is multisectoral, providing secondary schooling, technical and further education (TAFE) and higher education. The university has 25 000 students, of whom approximately 70 per cent are domestic students drawn from a broad area of regional Victoria that includes the communities of Ballarat, Ararat, Stawell, Horsham, Nhill, Hamilton, Maryborough, Warrnambool, Portland, Bacchus Marsh, Bendigo, Mildura and Swan Hill. Most of these communities have lower participation rates in post-secondary education than the national average. There are six campuses, two located in Ballarat and others in Mt Helen, Horsham, Stawell and Ararat.

Through a range of student equity and diversity initiatives, the university aims to increase the participation of students who have traditionally 'not had the same advantages as others in accessing study' (University of Ballarat 2009a). A wide range of services and policies respond to the needs of:

- students from a low-income/low socioeconomic background
- students from a rural or isolated background
- students from a background where a language other than English is spoken
- Indigenous students
- students with a disability
- women studying in a non-traditional area for women
- young people and older people (who may not have completed Year 12).

Many of these groups have access to scholarships and financial advice and are able to gain alternative entry to tertiary study through a Foundation Access Studies Program (FAST—see [www.ballarat.edu.au/ard/bssh/FAST](http://www.ballarat.edu.au/ard/bssh/FAST)).

The Regional Schools Outreach Program (see University of Ballarat 2009b) is coordinated by the Equity and Equal Opportunity Office, which is part of the Student and Learning Support portfolio. It aims to increase higher education aspirations, access, participation and awareness among Year 10–12 regional school students in the broader catchment area of the university. Year 10 students are targeted through information on matters such as the benefits of tertiary education, pathways into university or TAFE, moving away from home and student finances; this information is reinforced when the students are in Year 11. The development of the program exemplifies a common trajectory among university–school outreach programs, having begun with a recruitment focus with Year 12 students and gradually expanded into an equity-based aspirational program focused on Year 10 students. The program is distinctive in two ways. First, it is aimed at developing partnerships *exclusively* with regional schools across a wide area of country Victoria, on the basis of socioeconomic and rural (geographic and sociocultural) educational disadvantage. As a result, the

program reaches more than 40 secondary schools in the western region of Victoria. Second, the development of the program has been informed over several years by a wide range of research and evaluation, including internal data gathering, and the outcomes of the evaluations have informed successive iterations of the program. Survey findings published in Component B of this study have indicated that institutional evaluations of intervention programs are generally lacking in content and scope. In this instance, however, program evaluation has been rich in content and diverse in its sources, and its impact on planning is explicit in institutional documents and in conversations with staff.

The data for this case study was collected through participant interviews and from documentary sources provided by the Program Director. A semi-structured phone interview was conducted jointly with the manager of the university's Equity and Equal Opportunity Office and the coordinator of the Regional Schools Outreach Program. Post-interview email correspondence provided further information, and participants provided copies of institutional evaluation reports and an externally published research report.

### **Description of activities**

#### *2007 Equity and Outreach Program*

In 2006, a project officer was appointed to produce an overview of outreach activities being conducted by various areas within the university. Concurrently, a recruitment program with a strong transition theme was operating with Year 12 school students in the university's catchment area. When the recruitment program was discontinued, an Equity and Outreach Program was established under the direction of the Equity and Equal Opportunity Office. The program targeted Year 10–12 school students and their families, with the aim of increasing their knowledge of university life and their aspirations to attend university. Programmed activities included information sessions for 41 secondary schools in the university's catchment area (the 'aspirational' project) and a pilot program of information sessions for parents. Over a period of seven weeks between July and September 2007, approximately 1300 students attended a one-hour presentation delivered by a project officer, assisted by 58 university student volunteers. Supporting the design of the program was a study on regional Victorian students that had been conducted by the university's School of Education at the University of Ballarat, in which factors associated with the students' low participation in, and aspirations to, higher education were reported (Golding et al. 2007). Data was gathered in 10 school communities: from Year 10 students, parents of Year 12 students, teachers and a cohort of 2003 school leavers who had taken a job after leaving school. The findings indicated that important factors influencing the aspirations of regional/rural students were a lack of information about university, perceptions of its high cost, a lack of confidence, inadequate preparation through a restricted school curriculum, and parental perceptions about the relevance of higher education. In response to these factors, topics covered in the 2007 information sessions for students and for parents included general information about university life, as well as financial advice and guidance related to moving away from home.

Evaluation of the 2007 program was incorporated as part of a detailed internal report of research related to the impact of rurality and low socioeconomic status on the transition of Victorian school students to further education. The extensive report integrated information from national, state and university sources, including internal institutional data; the outcomes of a 2006 pilot study of Year

11–12 students in a cluster sample of rural schools in the university’s catchment area; data from Victorian government departments; Victorian On Track surveys, which collect information about the education, training and employment destinations of students that complete Year 12; and the findings and recommendations of national large-scale research studies. The 2007 program evaluation incorporated in that report was conducted through surveys and focus groups and included feedback from students, parents and teachers involved in the program.

The program was judged to be effective on the basis of the high proportion of students who indicated they had confirmed or shifted their intentions towards higher education as a result of attending the session. Those who shifted their intentions favourably towards university cited as reasons their increased awareness of employment opportunities resulting from higher education and a better understanding of university life, both of which were strong themes in the presentations. The use of university student speakers was strongly endorsed by students, teachers and parents. The parent sessions were appreciated by those present but were generally poorly attended. Teachers considered the program was pitched at the right audience (Years 10–12), but parents were more inclined to recommend the program for Years 7–11. University staff were quick to recognise the validity of these apparently competing concerns. Parents valued information aimed at young people still considering their post-school choices, which reflected their immediate concerns as parents of Year 10 students. On the other hand, the teachers involved generally had responsibility for senior secondary students who had made their choices and who now needed accurate and up-to-date information on courses and transition processes.

The evaluation also showed that in some schools a combination of factors—timetabling, and decisions about which students were encouraged to attend—had resulted in the session being presented to those students already aiming for higher education. A form of preselection had effectively occurred. While these students still benefited from the information provided through the program, there were restricted opportunities for university staff to interact with students whose post-school aspirations did not include university. Other data confirmed that the expenses and debt associated with attending university was a discouraging factor for many students in the targeted schools, and those students and parents needed up-to-date information about the costs and benefits of leaving home to pursue higher education. As is the case with many of the intervention initiatives explored in this study, university staff in this instance recognised that, if the aim was to encourage students to consider higher education as an interesting, achievable and *possible* post-school option, it was imperative that students be targeted before they made career decisions and associated subject choices in Year 10. It was also important to provide information sessions for parents, many of whom had limited experience of higher education and were therefore less likely to appreciate the relevance and benefits of a university qualification.

#### *2008 Regional Schools Outreach Program*

Informed by the research and evaluation available, the 2008 program was renamed the Regional Schools Outreach Program and was implemented across 43 schools in western Victoria, targeting Year 10 students but with continuing provision for Year 11 and Year 12 students to attend. With prior experience in school teaching and presentations, the program staff appreciated the need to appeal to a diverse student audience through a high degree of interactivity and the capacity to cater for different learning styles. The information session format was transformed with the introduction

of interactive games and worksheets and the use of a visual analogy that involved construction of a 'barrier'.<sup>11</sup> University students were again recruited and trained as facilitators and presenters, with attempts made to select students who had attended the schools being visited. Conscious efforts were made to 'flip the discourse' of intervention, so that although barriers were named (for example, the costs or fear of moving away from home), discussion was focused on positive aspects (for example, the accessibility, affordability and safety of university accommodation).

Evaluation of the 2008 program showed that it had helped many students to clarify their feelings about continuing on to further education. In particular, among students who had previously been undecided about pursuing tertiary study, there was a significant increase in the number reporting that they now aspired to tertiary education (23 per cent in some school districts). The proportion of students undecided about their post-school destinations after attending the program fell by up to 36 per cent in some districts, confirming the real need for students to receive timely information to guide their decision-making process. Students also reported a marked increase in their knowledge about the benefits of further education, in particular the levels of graduate salaries, and the support available to minimise the costs and effects of leaving home, such as the availability of scholarships, accommodation and student support services. Talking with the university students was rated by the school students and teachers as the most successful feature of the program.

#### *2009 Regional Schools Outreach Program*

University of Ballarat staff members remain alert to issues raised through the evaluation. A pre-program questionnaire had indicated that a little under one third of the students surveyed were not committed to finishing Year 12. Alarmed at the level of disengagement with schooling, consideration was given to extending the program to Year 9 students. However, teachers again expressed the view that Year 11 students, having made the decision to aim for further education, were often overlooked until they were in Year 12 and that they experienced a gap in information. Another concern voiced by university staff was that a halo effect might be evident in the responses of students who had just experienced an enjoyable activity. They now consider it important to know whether the reported changes in aspirations and attitudes endure over the longer term. They remain concerned at the low attendance at the parent sessions but appreciate that one of the factors is perceived relevance: 'If I'm a parent who doesn't have university on my radar for my child, why should I go to something run by the university?' (program staff member).

As a result, the 2009 program has expanded considerably. Year 10 students will continue to be targeted but there will now be a second follow-up on-campus program for Year 10 students to experience university life through workshops and other activities. To address what teachers perceive is a gap between the decisions taken when students are in Year 10 and the ongoing information provided for them in Year 12, a concurrent presentation for Year 11 Victorian Certificate of Education students will build on information from the previous year and maintain connection with the students. Strategies for connecting with parents have also changed and the program coordinator is negotiating individually with teachers and school leaders to adjust the timing and nature of the sessions for parents, according to their school and community contexts.

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<sup>11</sup> A wall was assembled with large foam building blocks labelled with issues and 'barriers'. As a topic was completed students could physically knock down a block, symbolising a 'barrier' overcome.

## Evaluation

The University of Ballarat Regional Schools Outreach Program is notable for the extent to which its continuous revision and improvement has occurred in response to systematic stakeholder consultation and evaluation, supported by local, state and national data. Comprehensive data collection and evaluation across a range of schools in the various districts in the university catchment area exposed differences in aspirations and attitudes by geographical region. Comparative data is very important for institutions seeking to target the most disadvantaged groups, because it allows for a more contextualised delivery of information in response to local cultures. What is missing is the longitudinal data that would provide evidence of the long-term effects of the intervention on the numbers of students progressing to higher education; the personnel recognised that this data collection was beyond the scope of their program. Program staff had emphasised their focus on equity by expressing an aim to promote further and higher education *in general* as a post-school option, rather than advancing the interests of a particular university. They believed the success of the program should be judged by increases in the proportion of school leavers from the schools in their catchment area who progressed to study at any university, not just the University of Ballarat. While it is possible in Victoria to track the outcomes of the particular schools visited in the Outreach Program—and attempts were made to do so—official on-track data does not exist for very small schools. In the absence of resources for longitudinal tracking, program evaluation remains reliant on the judgments of participants. In intervention programs such as this one, which reaches around 1400 students from over 40 schools, this is a lost opportunity to gather data on the degree to which such interventions influence students' post-school aspirations and destinations.

Institutional research and evaluation in higher education is rarely shared among institutions, and often remains as 'grey literature' circulating almost entirely within an institution (Altbach 2002). While one of the university's reports was published more widely, most of the program evaluation has been for internal use only, as is the case for most universities. Yet, the findings have relevance for a wider audience, particularly as the trajectory of this program's development mirrors a common process among university-school interventions. The effectiveness, efficiency and accountability of educational interventions would be well served by policies and processes that encourage the sharing of data.

## Conclusion

A clear strength of this program is its broad reach across a large number of schools in regional/rural areas of Victoria. Many of the schools are located at a distance from Melbourne and other large regional centres, which makes it difficult for students to attend university campus open days and other programs such as Tertiary Information Service (TIS) presentations. Program personnel are mindful that their program provides one more source of information for rural students whose location too often limits their accessibility to information and other resources. There is a conviction among program personnel that earlier intervention is necessary, but with limited staffing and resources such interventions could only be offered to a smaller number of schools, thereby affecting the scale of services offered more broadly across the region.

Geographic location continues to limit the higher education choices available to rural students. Along with perceptions of the high cost and low relevance of university qualifications, rural students and their families are more likely to be unfamiliar with university cultures and to have limited access

to accurate information about university programs and courses. As well as demystifying university for younger students, the Regional Schools Outreach Program provides essential information to secondary teachers and senior school students who rely heavily on the provision of up-to-date and reliable career and program information. This is information that could be delivered by other means—for example, through web-based resources—but for young people who are not yet totally committed this presents another ‘distance’ to be overcome. For rural students and their families, it is imperative to maintain the scope of information programs such as these in order to ‘reach’ as many students as possible. There must be sufficient resources available to assist earlier intervention without curtailing programs for rural senior school students, for whom the imminent practical, social and financial implications of relocation can too easily undermine aspirations and commitment.

## Conclusion

The case studies in this report provide strong examples of successful interventions that comprise ‘constellations’<sup>12</sup> of the characteristics identified in earlier components of this study.

Component A, *A review of the Australian and international literature*, identified a set of nine characteristics of early interventions that are likely to make a positive difference for the higher education participation of disadvantaged (particularly low SES) students. Specifically, it concluded that interventions that foster greater participation have many of the following characteristics:

- **collaboration** between stakeholders across different sectors and agencies at all stages of program development and enactment
- an **early, long-term and sustained** approach to intervention that is designed to work with students in earlier phases of schooling, ideally the primary years, and to continue as they transition through the middle years into senior secondary schooling
- a **people-rich** approach that requires the development of ongoing relationships between young people and those in a position to offer them ongoing guidance that relates to their situation and capacities
- a **cohort-based** approach that engages with whole classes, or even larger cohorts of young people in a school or region, to change peer cultures as well as supporting individuals
- the provision of **communication and information** about university life and how to get there using a variety of digital media technologies, as well as more traditional means such as brochures or school visits
- the provision of **familiarisation/site experiences** through a schedule of university visits designed to both inspire and familiarise young people with higher education and what it means to be a student in that context
- **recognition of difference** premised on the perspective that disadvantaged students bring a range of knowledge and learning capacities to formal education that should be recognised and valued as assets
- the provision of **enhanced academic curriculum** and pedagogy designed to sustain the ongoing quality of everyday lessons throughout schooling and to prepare students for further/higher education
- the provision of **financial supports and/or incentives** addressed to particular economic constraints of different cohorts, and that combine with other support strategies.

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<sup>12</sup> We use the term constellation ‘to signify a juxtaposed rather than integrated cluster of changing elements that resist reduction to a common denominator, essential core, or generative first principle’ (Benjamin 1977, in Jay 1984: 14–15).



Component B, *A survey of the nature and extent of outreach activities conducted by Australian higher education (Table A) providers*, confirmed this set of characteristics and identified a further theme, which constitutes a 10th characteristic:

- the value of **research-driven interventions** that engage the research capacities of the university to inform program design, implementation and evaluation, and to support the production and dissemination of knowledge about effective intervention strategies.

The case studies indicate powerfully that successful interventions draw together, as a ‘constellation’ or interacting set, many of these characteristics. It is not appropriate to hierarchically prioritise this set in terms of their relative importance. Rather, it is most likely that effective interventions enact many of them and the *combination* of approaches is their most desirable feature.

While the case studies in this report provide examples of effective interventions, they also describe challenges that must be confronted when attempting to enact effective interventions amidst the complexities of particular contexts. The set of 10 characteristics emerged from a review of international literature and a review of strategies being implemented by the Australian higher education sector. As such, they have been framed as general principles that have applicability across multiple contexts. The case studies in this report provide detailed descriptions of how these characteristics have been adapted by different programs in response to the specific requirements of particular universities, schools and communities. They also provide accounts of the negotiation within and across institutions required of different programs in order to create conditions conducive to their interventions. It is clear from the case studies that significant levels of negotiation by committed university staff, in quite complex institutional spaces, are required to develop programs, implement them, learn from them, and hopefully to sustain them over a number of years. Sustaining these programs often involves ongoing efforts to secure funding and working against the contingent nature of institutions.

Reading across the case studies draws attention to the importance of developing a suite of strategies that are informed by a common equity orientation. Early intervention should be underpinned by a broad, multidimensional equity policy that provides for coherence and coordination of effort across multiple approaches to ensure that they work in concert. Single programs, irrespective of their effectiveness, cannot be expected to be successful in the same way across different contexts or for different cohorts. Further, the 10 characteristics identified in this study can be pursued in terms of different policy orientations. The case studies suggest that universities are best served by the development and implementation of a suite of intervention strategies that address different contextual needs and which are informed by a coherent equity orientation. At least three specific perspectives typical of an equity orientation can be derived from the case studies.

**Researching ‘local knowledge’ and negotiating local interventions:** Given the importance of context in addressing inequalities, research about ‘local knowledge’ is a key feature of interventions and university equity policy. This necessarily involves building viable relationships with specific schools and their communities, and learning about their understandings of the ‘problem’, as a preliminary step to designing interventions (for example, Access and Success). This may include community consultations, for example, or hiring or working with staff that have local knowledge. There also needs to be scope to negotiate between universities, schools and their communities over imagined interventions. Encouraging genuine reciprocal alliances and collectively investigating long-term

effects on a range of factors will help to build an evidence base particular to specific contexts and groups (for example, University–Community Links; Gutierrez et al. 2009), and to make the interface between school and university more permeable.

**Unsettling deficit views:** Working with, rather than on, others requires strategies based on positive understandings of historically disadvantaged schools, students and their communities. This means widening university catchments to include working with the most disengaged, hard-to-reach students, rather than simply targeting high-potential candidates or those already proven to be outstanding. However, it does not mean watering down the curriculum. While programs should present university as attainable for disadvantaged students, and position these students as intelligent and capable learners, they also need to maintain in-depth, intensive and/or long-term focus on rigorous and rewarding learning to build academic disposition (for example, Make it Reel, Deadly Maths). Programs aimed at improving achievement and aspirations should be sensitive to alternative cosmologies and epistemologies. They should also present opportunities for learning that involve high intellectual challenge, high expectations of students producing high-quality products (artefacts of learning), and high-motivation projects and events.

**Building capacity in communities, schools and universities:** Achieving improved outcomes for disadvantaged students requires building increased capacity in communities, schools and universities, including increased funding for programs from sources such as state governments and the federal government and further supplementary funding from individual universities. Capacity-building programs that aim to familiarise students and their parents with university are about developing cultures of possibility. These programs need to begin early in schooling, particularly with primary schools in areas of high disadvantage, in order to generate cultural and dispositional shifts in students, families and teachers in relation to achievement and aspiration (for example, Koori Express, Deadly Maths). Whole-school change models are preferable to individual classroom projects. Further, programs may be strengthened by engaging in the development of curriculum materials, working with school leadership and developing school–community partnerships. Implementing such programs requires professional development of university staff and teachers through participatory action-research methodologies, which involve negotiating theory and practice in specific interventions and have the potential to link with teacher professional learning in credentialed programs provided by the university.

It appears that successful early interventions combine multiple characteristics of effective programs and underpin a suite of diverse strategies with a common equity orientation. In different contexts, the combination of characteristics and their enactment in terms of an equity orientation will take different forms. For example:

- The YuMi Deadly Maths program at QUT demonstrates the strength of **collaboration** underpinned by an orientation towards **researching local knowledge** and **building community capacity**. In the context of the Aboriginal and Torres Strait Islander schools involved in the program, this collaboration takes the form of learning about local Indigenous and Torres Strait Islander knowledge, negotiating local interventions with community Elders, and building community capacity by providing teacher aides, who are often community members, with professional development in mathematics content knowledge and

pedagogies. This collaborative approach appears to work particularly well in the Indigenous contexts addressed by the YuMi Deadly Maths program.

- The Make it Reel program at UTS demonstrates the strength of a **people-rich** approach underpinned by an equity orientation towards **unsettling deficit views** of low SES students' capacities as learners. UTS undergraduates mentor groups of school students who are positioned as apprentice filmmakers and engaged in intellectually challenging media/arts learning tasks that result in high-quality products. This approach appears to be particularly effective for strengthening low SES students' aspirations for higher education, their academic achievement and their familiarity with the university context.
- The Access and Success program at Victoria University also demonstrates the strength of a **people-rich** approach in combination with an orientation towards **building school and community capacity** and **drawing on local knowledge** to inform interventions. In the context of this program a people-rich approach involves AFL players mentoring class groups of school students. This mentoring is supported by VU pre-service teachers who help embed this interaction in substantive curriculum units tailored to each context, and also by the provision of tickets to AFL games for families in order to increase their participation in community life. This appears to be a particularly successful strategy for building partnerships between the university, schools and communities during the early phase of students' education.

Further productive relationships between the 10 characteristics identified in earlier components of this study and the equity orientation described in this report are discussed in the *Synopsis and extension of the research*. A Design and Evaluation Matrix for Outreach activities (DEMO) is provided as a resource to assist in the identification and design of early interventions that have significant potential to support the higher education participation of low SES students and students from other disadvantaged groups.

The sustainability of early intervention programs was a challenge that haunted many of the programs examined in this report, and the Australian higher education sector is also haunted by the absence of change in participation rates for certain groups across the sector and over time. As a collection, the case studies draw out lessons from a range of successful interventions, in order to begin articulating a shared strategy for universities to address the underrepresentation of disadvantaged groups throughout the sector as a whole. While there is evidence that good programs have been in operation for some time and with good effect, these have often been isolated and their effect on the whole sector has been minimal. For example, despite the successes of individual programs, the proportion of low SES students in the Australian university population has remained relatively constant (at around 15 per cent) since at least 1990 and most likely since the Second World War (see the literature review in Component A). The case studies in this report complement the previous components of the study in order to suggest that working within and across university intervention programs is important if the higher participation targets set by the federal government are to be achieved.

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