Widening Participation Service Design

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SOCIAL MARKETING STRATEGY FOR PROMOTING TERTIARY EDUCATION TO LOW SES COMMUNITIES

Position Paper

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Acknowledgements

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Executive Summary

Education is transformative. Education delivers benefits to individuals, their families and communities. It is this far-reaching impact that compels research into understanding why people from low- socio economic status (SES) backgrounds are under-represented in tertiary education, and finding new ways to address this situation.

This position paper reviews what is currently known about interventions for widening participation in tertiary education, with the intention of mapping those findings to a social marketing strategy aimed at people who have not traditionally considered tertiary education as a career pathway. A practical approach is taken, to give an overview of the current discussions and debates in the literature to review which approaches work best for the cohorts under consideration, and consider the reasons for that success.

This project is novel as it synthesises two similar yet different domains; social marketing and widening participation. The social marketing-widening participation nexus that underpins this project not only provides a more robust platform which will generate new insights, it also represents a different lens through which to view the issue of under-participation in tertiary education by people from low socio-economic backgrounds.

The project aims to develop a strategy for a social marketing campaign which will:

- increase awareness of and aspiration to tertiary study amongst low SES students, families and communities
- increase knowledge of pathways to tertiary study amongst low SES students, families and communities, and
- increase numbers of applications to tertiary study and pathways courses from people from a low SES background.

The approach involves assembling and summarising what is known about the different cohorts of people from low SES backgrounds who may benefit from the campaign, who may be typically the first in their family to participate in tertiary education, including:

- Aboriginal and Torres Strait Islander peoples
- people who are non-English-speaking/culturally and linguistically diverse (including new migrant populations and refugees), and
- people who have a disability.

Within each of these cohorts, gender and age (school-aged or mature-aged) are considered.

The place dimensions include:

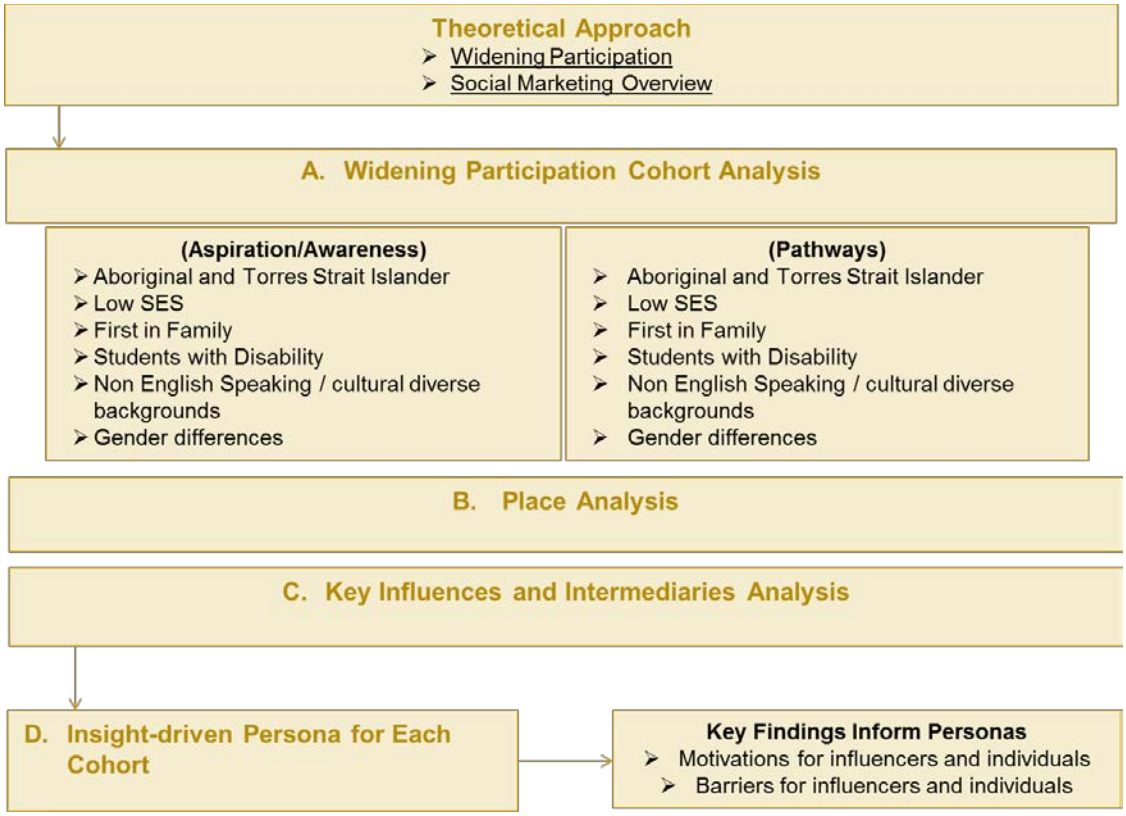
- urban and outer urban areas
- regional, rural and remote areas – noting the distinct issues relating to northern and western Australia and Tasmania.

The ‘influencers’ include:

- family members (parents, siblings, relations and Elders)
- peers
- schools (teachers, guidance officers).

Intermediaries are also considered, including careers advisers, community organisations with a focus on education (e.g. The Smith Family) and university admission centres. Figure 1 provides an overview of this Position Paper.

Figure 1: Position Paper Overview



Key Findings

Both social marketing and widening participation domains seek to redress social inequalities. Social marketing addresses social issues in ways that enhance the quality of life of individuals and society as a whole. Similarly, widening participation seeks to redress social inequalities by actively encouraging and increasing participation in tertiary education by under-represented groups.

Social marketing is a sector that draws on a range of processes, concepts and theories, validated within the fields of psychology, sociology, anthropology, behavioural science and communication as well as from within commercial marketing. Social marketing studies examine a wide range of social issues including participation in tertiary education.

Widening participation discourse has three embedded ideologies which are in tension: a social deficit ideal, a social inclusion/mobility ideal, and a social justice ideal. There is an ongoing debate in the literature about the problems inherent in a policy of widening participation based on a deficit model when dealing with systemic disadvantage. Bourdieu's (1977) notion of cultural capital is commonly deployed as a way of shifting the discourse away from social deficit thinking, to a more positive frame of social inclusion/mobility and/or social justice.

Evidence suggests that social marketing interventions based on appropriate social and behavioural science theories are more effective than those which are not (Glanz & Bishop, 2010). Evaluations of widening participation outreach programs are showing that the programs are having a positive effect in terms of building aspiration and awareness especially on Year 12 completions and higher education enrolments (Koshy & Islam, 2015; KPMG, 2015a). Systemic factors which enable and impede student progression are also becoming better understood (Gale, 2011). The literature identifies best practice approaches as:

- having clearly defined, education-positive objectives, and a strong research base
- recognising the value that different groups can bring to outreach programs and higher education, and building-in ways for their voices to be heard
- tailoring programs to particular cohorts of students who are at similar stages of educational development, as well as to students, schools and communities who share common barriers, motivations and backgrounds
- building student confidence, aspiration, engagement, academic achievement, and a sense of belonging
- working collaboratively via cross-sector programs that begin early in the student journey and are sustained over time
- Working in partnership to build positive educational cultures within schools and communities
- developing effective transitions and pathways
- using the technologies and communication streams relevant to particular cohorts (Edwards et al., 2013; Gale et al., 2010b; KPMG, 2015a).

Cohort – Aspirations and Barriers

Aspiration is a contested term, despite its centrality to the conversation about widening participation in higher education, due to its use as a deficit measure for students from disadvantaged backgrounds (Sellar, Gale & Parker, 2011). Research into aspiration commonly shows that it is high for these groups, although not necessarily focused on higher education (Dalley-Trim & Alloway, 2010; Hatoss & Huijser, 2010; Morrice, 2013). Rather than a lack of aspiration, it is a lack of social and/or cultural capital which forms complex systemic barriers for prospective students from disadvantaged backgrounds of all kinds (Armstrong & Cairnduff, 2012; Sellar & Gale, 2011; Sellar, Gale & Parker, 2011).

Barriers in pathways are linked to scholarly achievement and more complex social and institutional barriers that play out depending on student background (Armstrong & Cairnduff, 2012; Dalley-Trim & Alloway, 2010; Gemici et al., 2014a). Students from low SES backgrounds navigate competing calls on their time, particularly those of paid employment and family (Abbott-Chapman, 2011; Hodges et al., 2013). Students from non-English speaking backgrounds face stigma which can affect their confidence, and also create perception-bias about their capabilities (Bowden & Doughney, 2010; Hatoss & Huijser, 2010; Kanno & Varghese, 2010). Girls, especially those in regional areas, are still opting out of Science, Technology, Engineering and Mathematics (STEM) disciplines in secondary school, although they tend to have higher completions of Year 12 and higher aspirations for higher education than boys (Fleming & Grace, 2014). Aboriginal and Torres Strait Islander peoples often navigate compounding disadvantage but recognising their existing strengths and aspirations, rather than assuming a deficit approach, has produced positive results in

widening their participation in tertiary education (Behrendt et al. 2012; Biddle & Cameron, 2012; Bodkin-Andrews et al., 2013).

Place

Place can be conceptualised as a mechanism which reinforces socioeconomic status, creating a complex nexus of place, SES and student identity (Bowden & Doughney, 2010; Jardine, 2012; Kintrea, St Clair & Houston, 2015). Distance to campus becomes not only a barrier of geographic distance, but also socioeconomic distance. This means that for students from low SES backgrounds in outer urban areas, the distance to a metropolitan university campus can be as challenging as it is for regional and remote students (Bowden & Doughney, 2010). Place is also tied up with identity, and the decision to adopt the identity of 'university student' is particularly challenging for boys in regional areas (Fleming & Grace, 2014; Jardine, 2012). More positively, Indigenous students who make the transition to higher education commonly maintain strong ties with family and community, and their ongoing contributions can have a profound impact on their whole community (McInerney et al., 2013). Effects of place also impact on modes of study, such as online education. Research suggests compounding disadvantage has more impact on students studying online in terms of performance gaps and technology issues, even when e-learning also enables access to those who could otherwise not participate in tertiary education (Henry, Pooley & Omari, 2014; Watson, 2013; Xu & Jaggars, 2014).

Influencers

Parents and peers have significant influence on students and their decisions about education, and also their achievements (Gemici et al., 2014a; Gemici et al., 2014b). This cuts both ways. Positive parental and peer expectations can ameliorate significant background disadvantage. However, parents and peers are also products of these backgrounds, and low expectations or alternative expectations have just as much sway (Gemici et al., 2014a; Redmond et al., 2014). Schools can also ameliorate background disadvantage, however schools are affected by the socioeconomic areas in which they are located, and there is a systemic issue of schools in poorer areas being more poorly resourced (Lim, Gemici & Karmel, 2013; Redmond et al., 2014). Jennings et al. (2015) examined whether schools reduce or perpetuate inequality and concluded that students leave school as unequal as when they entered.

Indigenous communities are leaders when it comes to taking a holistic, whole-of-community approach to multifaceted problems, such as student success, completion and transition. The Behrendt et al. (2012, p. 4-5) report frames these kinds of holistic approaches with an end goal of not only improving the education, health, and economic outcomes for individual Indigenous students, but of fostering the skills and capacity of Indigenous leaders to drive further change within their own communities. This can lead to sustainable intergenerational autonomy and security for both Indigenous peoples and the nation as a whole.

The most effective widening participation outreach programs are those which disrupt deficit notions about students, are tailored to local needs, and involve community-wide capacity building (Behrendt et al., 2012; Gale, 2011; Stewart 2010).

Recommendations

Theoretical Approach

A transdisciplinary approach is recommended, particularly focusing on mixed methods and co-creation. For example many researchers and practitioners highlight behavioural, social and economic benefits with co-creation, when target groups actively participate in the development of interventions to address issues (Domegan, 2008; Desai, 2009; Lefebvre, 2012).

1. Based on best practice, a theoretical base is recommended. Among the suite of theories used in both social marketing and widening participation, five have been identified as aligning best with the project's remit, being:

- self-determination theory (Deci & Ryan, 2000)
- expectancy value theory (Eccles, 2009)
- theory of planned behaviour (Ajzen, 1991)
- model of goal-directed behaviour (Ajzen, 1991; Perugini & Bagozzi 2001), and
- critical race theory (Yosso, 2005).

Further, it is recommended that the project use intervention modelling (Hardeman et al., 2005, cited in Michie et al. 2008), in combination with the framework devised by Fishbein & Yzer (2003), to link theory and practice in the intervention plan.

Participant Voices

3. It is recommended that the Model of Goal-directed Behaviour (MGB) be used as an organising framework in developing the cohort personas.

4. It is recommended that the project:

- explore ways in which potential students outside of formal schooling can be engaged or re-engaged by social marketing
- explore ways in which student and aspirant voices can be incorporated into raising aspiration and awareness via social marketing
- consider which people within their school-family-community have been most effective in supporting their educational engagement
- consider which online education-focused resources they are aware of or already use.

5. Additionally, the social marketing intervention should reveal and cater to the broad diversity of Indigenous Australians and their particular needs, wants, enablers and barriers.

Relationships

As part of the project, it is recommended that relationships be developed in the sector:

6. To develop place-based and cohort-appropriate social marketing interventions, identification of key stakeholders, and development of relationships in the regions is a key consideration.

7. Developing collaborative partnerships with online tertiary education stakeholders is also an important consideration to target the participation by potential online students.

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Abbreviations

AASM	Australian Association of Social Marketing
ABS	Australian Bureau of Statistics
AIFS	Australian Institute of Family Studies
AIHW	Australian Institute of Health and Welfare
AIME	Australian Indigenous Mentoring Experience
ATAR	Australian Tertiary Admissions Rank
CALD	Culturally and Linguistically Diverse
CDC	Centre for Disease Control and Prevention in the USA
COAG	Coalition of Australian Governments
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEEWR	Department of Education, Employment and Workplace Relations
ESMA	European Social Marketing Association
HE	Higher Education
HECS	Higher Education Contribution Scheme
HELP	Higher Education Loan Program
HEPP	Higher Education Participation Program
HEPPP	Higher Education Participation and Partnerships Program
IEU	Indigenous Education Units
ICT	Information and Communication Technologies
iSMA	International Social Marketing Association
LSAY	Longitudinal Survey of Australian Youth
LSES	Low socioeconomic status. Low SES students come from the bottom 25% of their ABS statistical area or the postcode in which they reside.
MCEECDYA	Ministerial Council for Education, Early Childhood Development and Youth Affairs
MGB	Model of Goal-directed Behaviour
NCSEHE	National Centre for Student Equity in Higher Education
NCVER	National Centre for Vocational Education Research
NESB	Non-English Speaking Background
NSMC	National Social Marketing Centre

OID	Overcoming Indigenous Disadvantage: Key Indicators Report
RPL	Recognition of Prior Learning
SGRCSP	Steering Committee for the Review of Government Service Provision
SES	Socio-economic status
STEM	Science, technology, engineering and mathematics
TAFE	Technical and Further Education
TAI	The Aspiration Initiative
VET	Vocational Education and Training
WP	Widening (tertiary) Participation

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1. Introduction

There is considerable literature on widening participation that focuses on motivations and barriers to higher education, and the theory and practice related to these issues. A key task of this position paper is capturing the motivations and challenges pertaining to diverse equity groups living in a variety of geographic and social contexts. Of particular importance is that disadvantaged students in Australia face numerous hurdles which cannot be resolved by self-improvement alone, ranging from poverty, racism, refugee background status, lack of social capital, disempowerment, social and geographic isolation, to a lack of educational infrastructure (Behrendt et. al., 2012; Bexley et al., 2013; Bat & Guenther, 2013; Gale, 2015; Naidoo, 2015). Hence, approaches must target issues at the psychological, socio-economic, cultural and systemic levels of inequality to enable students' educational participation at all levels, including tertiary education, and particularly higher education.

This position paper contends that addressing systemic inequality will require a reframing of the discourse toward positive measures that embrace social inclusion, social mobility and social justice as key strategies of policy and practice in widening participation. In Canada for example, a focus on social inclusion to promote educational engagement by Indigenous communities is dismantling many barriers faced by disadvantaged students (McGregor et al., 2013). Given Australia's diverse educational landscape, a similarly holistic conceptual framework is adopted in this position paper, which values the autonomy and voices of students, potential students, and the members of their communities, and helps capture the complex determinants of behaviour embedded in their various social contexts. This provides a robust platform through which to view the issue of under-participation in tertiary education by people from low socio-economic backgrounds.

This position paper reviews both the motivations and barriers of under-represented cohorts, and what is currently known about widening participation interventions in tertiary education, with the intention of mapping those findings to a social marketing strategy aimed at people who have not traditionally considered tertiary education as a career pathway. For that reason, it takes a practical approach, not only giving an overview of the current discussions and debates in the literature, but reviewing which approaches work best for the cohorts under consideration, and the reasons for that success.

The focus of this position paper is on tertiary education, particularly higher education which is mainly provided by universities in the form of bachelor and research degrees, and some aspects of vocational education, mainly TAFE diplomas and advanced diplomas. Post-secondary education, such as TAFE Certificates I to IV, is primarily considered in terms of how it works as an access pathway to higher education.

Lynne Eagle contributes to the review of social marketing, delineating the differences and similarities between widening participation and social marketing, and assessing the potential relevance of social marketing to widening participation outreach.

Cathy Cupitt and Diane Costello review widening participation, the defining features of the cohorts in question and the gaps in knowledge about their needs, the barriers they face, and the current interventions being undertaken, along with the evidence of what works.

Finally, a section by Maria Raciti focuses on Aboriginal and Torres Strait Islander students, considering their particular contexts and needs with a focus on how these map to a social marketing approach.

1.1 Why is access to higher education an issue?

Widening participation in higher education has been a policy focus of the Australian Government since the release of *The Review of Higher Educatio*n, known as the Bradley Review (2008). The point of this push is not merely to expand the number of people who have a higher educational qualification, but to shift the demographics of participation in tertiary education to include those who have not traditionally had access. The ideological imperative driving this policy shift is commonly expressed via three interconnected and sometimes conflicting discourses: "social justice, social mobility and the needs of the knowledge economy" (Bowes et al., 2013, p. 9).

The Bradley Review made this ideological background explicit, by linking Australia's social progress and global economic success to the development of a highly skilled workforce, made up in large part by those who had not traditionally accessed higher education. This in turn would invigorate the nation's knowledge economy, increase social mobility for those with higher education, and improve social justice for students from disadvantaged backgrounds, such as "Indigenous people, people with low socio-economic status, and those from regional and remote areas," (2008, p. xi). Although these groups are named separately and face distinct issues, there is also considerable intersection between them, which can play out in the form of compounding disadvantages.

The economic benefits are not just those related to the good of the nation, either, with each additional year of education estimated to be worth a 10 percent increase in earnings for the individual (Leigh, 2008, cited in Aird et al., 2010, p. 9), along with associated benefits in terms of health and wellbeing (Briley, Harden & Tucker-Drob, 2014).

The Government report (Commonwealth of Australia, 2009) responding to the Bradley Review noted several barriers to participation in higher education which were also marked by deficits: lack of educational attainment at primary and secondary school, lower levels of aspiration, lack of understanding of the long-term benefits of university education, and a possible need for additional support at university, including financial, academic or personal. The Behrendt et al. (2012) report on Indigenous education included similar findings, but framed these deficits as being largely due to structural inequalities which could not be addressed by Indigenous people alone, and that educational and government institutions needed to play a larger role in achieving equity for under-represented peoples.

Armstrong and Cairnduff (2012) point out some of the more troubling implications of the Government's deficit-focused policy direction:

> "In this case, absent from the government policy is any attempt to analyse social class, higher education and the relationship between these. The assumptions are vaguely articulated in terms of future workforce needs, but this conceptualisation of the role of higher education in society does not, for instance, articulate any relationship between workforce planning and democratic participation. The language of social equity obfuscates assumptions about economic productivity and wealth creation (for whom?). It is difficult to see the sense in which these aspirations for participation in higher education could be understood as transformational" (Armstrong & Cairnduff, 2012, p. 921-922).

Linking education to notions of social class and mobility, economic productivity, and social equity is not original to the Australian context. Douglass (2010, p. 6981), for instance, in a discussion of the history of the Californian higher education sector and its massification

considers the ideology underpinning the education system in the USA to be a culture of aspiration. Its goal is to increase human capital, socioeconomic mobility, and national competitiveness, made possible by the ambition of the individuals who enrol. He argues, based on the work of Bourdieu (1977), that various forms of human capital influence the transition to higher education. In Douglass' schema, aspiration is a form of human capital, which he calls aspirational capital; it is the "recognition that social capital and cognitive capital are influenced by ambition. Ambition plays an important role, in part influenced by environmental factors (e.g. real opportunities) and by personal traits" (2010, p. 6985).

Similarly in the UK, the higher education system has experienced massification based on a rhetoric of widening participation, although it has been criticised as remaining "an elite one in its private instincts" (Scott 1995, cited in Jardine, 2012, p. 2). As identified by Kintrea, St Clair and Houston (2015, p. 667), there have been two narratives underpinning UK higher education policy. First, that a poorly educated workforce hinders the nation's global economic competitiveness. Second, that people from disadvantaged backgrounds lack aspiration, and could progress into better paid jobs if they aspired more. Kintrea, St Clair and Houston argue that this deficit model led to the establishment of aspiration-raising programs such as *Aimhigher*, a school-based outreach program fostering interest in higher education.

These three ideological strands of widening participation discourse – massification of the knowledge economy to resolve a perceived deficit, social inclusion/mobility, and social justice – have parallel features with different emphases, as can be seen in Table 1. At times these different discourses come into conflict, particularly as the messages about higher education enter the spheres of the media and public opinion.

Table 1: The competing discourses in transforming higher education in Australia

Social deficit model	Social inclusion and mobility model	Social justice model
A stronger Australia: Systemic approach to massification of education	A civil Australia: Social inclusion and mobility via education	A fairer Australia: Universal entitlement for citizens to access education
Increased national productivity and competitiveness in the global economy, based on knowledge, skills and innovation	Better employment pathways for graduates The provision of skills of critical analysis and independent thought to support full participation in a civil society	Self-fulfilment, personal development and the pursuit of knowledge as an end in itself
Increased number and quality of graduates for a skilled workforce	Access to university based on merit, not ability to pay	Increased diversity; educational opportunity for all, not just the few
Increased participation by the disadvantaged (Indigenous people, people with low socio-economic status, and those from regional and remote areas)	University-led outreach to communities with poor higher education participation rates	Academic freedom and autonomy

Increased aspiration by those from disadvantaged backgrounds Increased aspiration for lifelong learning (mature-age students)	Raise aspirations as well as provide academic mentoring and support	Demand driven system (student centred)
Government funded places	Funding follows the student	Income support while studying

The ways in which some of these discourses are in conflict can be seen in the history of the Aimhigher program. The Aimhigher program was established in England several years before the 2008 Bradley Review made widening participation a pressing concern for the higher education sector in Australia. Aimhigher aimed to foster widening participation amongst young people from disadvantaged backgrounds, with particular focus on forging partnerships between the different stakeholders in the sector. It has had considerable impact in terms of the approaches used in the Australian context.

Aimhigher's main strategy was to identify disadvantaged groups within particular localities and tailor aspiration-raising activities to them. However, few of the programs had built in systemic monitoring and evaluation, which has also been an issue in the Australian context to date (Naylor, Baik & James, 2013). Morris and Golden concluded that the Aimhigher programs which demonstrated the most progress tended also to be those that had implemented monitoring and evaluation, which led to "a focus on individuals instead of numbers" (2005, p. 56). Even so, the question was raised about how such programs should most effectively be evaluated (Morris and Golden, 2005). Harrison (2012) has recently questioned this in detail, particularly the stated aims, ideological assumptions, and evaluation measures that informed Aimhigher, and the mismatches between them. He begins with a critique of the underpinning idea that low social class was the cause of low aspiration to, and participation in, higher education. He argues that such a deficit model ignores the larger systemic picture of the causes, correlations and effects of disadvantage, not least because "social class" is a contested concept, particularly in contrast to more nuanced approaches such as Bourdieu's work on social and cultural capital. In terms of the program's stated aims versus the measures used in evaluation, Harrison highlights that there was confusion about what exactly the program's mission entailed. Was it to improve aspirations for higher education, or increase applications for, admissions to, or retention at university? These are related but different things. Aimhigher's stated mandate was to raise aspirations and enable progression via achievements/attainment, but a key measure of the program's success was national university entry and retention data. Harrison argues that Aimhigher's perceived lack of progress was in part due to this adoption of a poor outcome measure, given the stated aims of the program.

Part of this clash between aims and measures is based on ideas which hold traction in public discourse, such as the notion of "social class", but it is also due to the competing notions embedded within widening participation policy: social deficit, social inclusion, and social justice. In the Australian context, the idea that education is meritocratic is also deeply embedded in the discourse about higher education, to the point that the conversation can ignore systemic disadvantage in crucial ways.

> "Equal opportunities policies, in schools and elsewhere, seek to enhance social mobility within structures which are essentially unequal. In other words, they seek a meritocracy, where people rise (or fall) on merit, but to grossly unequal levels or strata in society – unequal in terms of income, wealth, lifestyle, life chances and power. Egalitarian policies, policies to promote equality, on the other hand seek to go further, by attempting to develop a systematic critique of structural inequalities, both in society at large and at the level of individual educational institutions (Cole, 2000, cited in Hatoss & Huijser, 2010, n.p.).

Snowden and Lewis (2015) examined the media messages about tertiary education in the post-Bradley era, finding that there was a dissonance between the policy of widening participation and the continued marketing of university elitism and Vocational Education and Training (VET)/ Technical and Further Education (TAFE) as a less rigorous intellectual option. Even those such as Bradley herself, who were invested in the notion of widening participation, tended to reproduce familiar messages about who goes to university. For instance, Bradley said about disadvantage that, ''It's very obvious that you should wish to have the right parents, she says. It's very, very difficult if you are born into families that don't read, where there is no history of reading'' (Lebihan, 2009, cited in Snowden & Lewis, 2015, p. 591). Student enrolment decisions, as well as family, peers and prospective employers are influenced by these messages, and public opinion is also affected by the way the media frames the issue of tertiary education.

Four frames in particular were deployed in Australian media coverage of tertiary education in the period Snowden and Lewis reviewed, the first three frames tending to overshadow the fourth. First, a socioeconomic frame highlighted that there are class and income differences defining student cohorts, the dominant message being that, "Students from low income families don't value or attend university, but go to TAFE in order to get a job" (p. 591). Second, the graduate outcome frame, in terms of employment and income, had the dominant message that, "University study leads to good jobs and better pay" (p. 591). Third, the educational sectors were framed in terms of status, giving the message that, "TAFE is the second (inferior) option to university, TAFE is for low academic achievers" (p. 591). Fourth, the frame highlighting pathways between sectors concerned the idea that, "Pathways between vocational and higher education must be improved" (p. 591).

Snowden and Lewis contend that these messages put forth regarding tertiary education act in opposition to the policy push to widen participation, and contributed to "a preference for low-risk options that help to sustain status quo attitudes about education more broadly" (2015, p. 588) on the part of those from non-traditional backgrounds.

Effective social marketing of tertiary education will need to contend with the tensions between these existing policies, discourses and public opinions.

The concepts of social and cultural capital and *habitus* (the composite of an individual's lifestyle, values, dispositions, and expectations associated with particular social groups that are acquired through the activities and experiences of everyday life) have informed the academic discussion of the barriers facing non-traditional students seeking entry to higher education. Devlin (2013), for instance, has discussed several conceptual frameworks within the Australian context, in particular that students from high and medium SES backgrounds feel more comfortable at university because of their familiarity with hegemonic "assumptions, values and expectations" (Devlin, 2013, p. 940) taught implicitly in schools. As a consequence, Devlin rejects deficit conceptions focused on individual students and what they lack, endorsing the alternative idea that education is a joint venture between students,

higher education institutions and schools who all have important roles to play in student transition and success. Gale (2011, p. 111) argues similarly that it is beneficial to expand the conversation beyond deficit notions of accessibility, availability and achievement, in order to emphasise the existing cultural capacities of students and the role and nature of higher education institutions and how they might change.

However, while these deficit notions have been widely critiqued, the systemic issues which the deficit labels tend to mask have a profound impact on the educational choices of those from low socio-economic backgrounds. The report by Redmond et al. (2014) on *Intergenerational Mobility: New Evidence from the Longitudinal Surveys of Australian Youth* found that there was significant intergenerational inheritance of entrenched disadvantage in Australia. In terms of education, this effect has increased as the notion of education as a form of capital has risen in importance. Earnings associated with a bachelor degree grew between 1981 and 2006, while the income disadvantage of not completing Year 12 also grew, with an even larger impact (Redmond et al., 2014). This means non-completion of Year 12 not only affects employment and the opportunities for accessing higher education, but can lead to multi-dimensional social exclusion because of the growing stigma related to lack of education.

A common frame of reference in the context of widening participation in Australian higher education is the notion of equity or social justice, which seeks to ameliorate the effects of the systemic disadvantages identified above. Equity discourses recognise that compounding disadvantages play out in terms of increased stressors, with students from disadvantaged backgrounds more likely to experience multiple stressors compared to other students, and with greater impact (Karimshah et al., 2013, p. 9). Edwards et al. (2013, p. v) make the distinction that:

> "Groups of people identified as educationally disadvantaged include Indigenous Australians, residents of rural, regional or remote areas, and those living in socioeconomically disadvantaged communities. Particular characteristics associated with educational disadvantage include low levels of literacy and numeracy, living with a disability or mental illness, early school leaving, living on low income, lacking adequate transport, being the first member of their family to undertake post-compulsory education, unsatisfactory experiences of education in the past, and lacking a supportive home. It is important to recognise that disadvantaged individuals often fit into more than one of these categories."

Equity in education is based on the goal of creating an environment in which students with experience of disadvantage can achieve the same representation within the university student population and graduate population as there is within the broader Australian population. For instance, for students from a low socio-economic background, equity of representation would be achieved at 25% of the student population. Currently, the undergraduate enrolment share for low SES students is 17.9% in 2014, having grown from 16.3% in 2008, which is a gain of 37,848 enrolments for this group in that period (see Tables 2 and 3).

Table 2: Domestic undergraduate enrolments by equity group, 2007-2014 (Koshy & Seymour, 2015, p. 5)

	2007	2008	2009	2010	2011	2012	2013	2014	Growth (07-14 %)
National	**528,844**	**523,527**	**553,374**	**580,372**	**600,412**	**634,434**	**668,665**	**695,869**	**31.60%**
Low SES	85,873	86,581	90,447	96,706	102,163	109,788	118,003	124,429	44.90%
Students with Disability	23,148	23,447	24,948	28,057	30,094	33,220	36,486	40,087	73.20%
Indigenous	6,828	6,820	7,296	7,943	8,445	9,005	9,939	10,850	58.90%
Women in Non-Traditional Areas[1]	-	103,120	105,438	107,959	109,936	114,382	119,105	123,544	19.8%[1]
Regional	100,826	101,339	104,266	110,646	115,250	121,476	127,070	131,385	30.30%
Remote	5,428	5,240	5,368	5,532	5,572	5,804	6,069	6,303	16.10%
NESB	16,702	17,222	17,649	18,227	19,226	21,289	22,863	25,114	50.40%

Note 1: 2007 data for 'Women in non-traditional areas' is not publicly available for domestic undergraduates, so the growth calculation is from 2008.

Source: Australian Department of Education and Training (2015).

Table 3: Domestic undergraduate enrolments by student equity proportions, 2007-2014 (Koshy & Seymour, 2015, p. 5)

	2007	2008	2009	2010	2011	2012	2013	2014
Low SES	16.20%	16.30%	16.30%	16.70%	17.00%	17.30%	17.60%	17.90%
Students with Disability	4.40%	4.40%	4.50%	4.80%	5.00%	5.20%	5.50%	5.80%
Indigenous	1.30%	1.30%	1.30%	1.40%	1.40%	1.40%	1.50%	1.60%
Women in Non-Traditional Areas	-	19.40%	19.10%	18.60%	18.30%	18.00%	17.80%	17.80%
Regional	19.10%	19.00%	18.80%	19.10%	19.20%	19.10%	19.00%	18.90%
Remote	1.00%	1.00%	1.00%	1.00%	0.90%	0.90%	0.90%	0.90%
NESB	3.20%	3.20%	3.20%	3.10%	3.20%	3.40%	3.40%	3.60%

Source: Australian Department of Education and Training (2015).

These figures indicate that there has been growth in the overall numbers of students since 2008, largely due to the uncapping of places within universities. However, inequity of participation remains an issue. Students from low SES backgrounds, and Aboriginal and Torres Strait Islander students have shown growth in both numbers and, more modestly, in proportional share. In contrast, proportional share has decreased for students from regional and remote areas, despite the increase in enrolment numbers. Adding complexity to an already complex situation, once at university there is a further issue of inequity, with students from disadvantaged backgrounds and women still under represented in elite institutions and high-status degrees such as those in STEM (Southgate & Bennet, 2014). Further, not all of these equity groups are currently prioritised in government policy to the same degree. For instance, the issue of disproportionate representation of women in STEM fields was acknowledged by the Bradley Review (2008, p. 27), but was not addressed in its recommendations, while improving engagement in higher education by students from low SES backgrounds was a significant focus.

1.2 What is being done to widen participation in tertiary education?

As part of its response to the Bradley Review, the Government announced funding of what would become the Higher Education Participation and Partnerships Program (HEPPP)[1], with the goal of addressing inequities in participation, specifically for students from low socioeconomic backgrounds and Indigenous students, using a similar strategy to the earlier Aimhigher program. This funding has been a key driver in the growth in outreach and support offered to students from disadvantaged backgrounds, and Australian universities have initiated a number of programs in response. HEPPP-funded interventions have tended to focus on one or more of the identified groups of people from disadvantaged backgrounds in order to improve educational achievement, aspiration, accessibility and/or availability; the generally accepted preconditions for participation in higher education (Anderson & Vervoorn, 1983, cited in Gale et al., 2010a). The majority of programs in Australia focus on improving engagement and achievement at school; aspirational outreach programs to schools, families and communities; and transition and retention programs once at university (Behrendt et al., 2012; Gale et al., 2010b; Naylor, Baik & James, 2013). Outreach programs to secondary schools from Years 10-12 are most common (Naylor, Baik & James, 2013, p. 43), although outreach to earlier years at school is becoming increasingly common.

These kinds of programs have a range of outcomes for students, parents and teachers. KPMG's (2015a) evaluation of the HEPPP-funded Bridges to Higher Education program found that students felt more prepared for university, more motivated to go, and more engaged with their studies as a result of the program. Teachers confirmed students were more engaged, and also reported they had better access to professional development and information about post-school educational options. Parents reported more ambition for their children, along with having more information about higher education and its benefits, and felt better able to support their children in achieving their educational goals. Further, "university acceptance rates among schools in low socio-economic areas were improved by the Bridges program" (KPMG, 2015a, p. 129).

The features identified as successful in the Bridges projects were (p. 130-132):

- parent engagement tailored to the parents' characteristics
- alignment of intervention with the students' age and stage of development
- clearly defined project objectives related to the value of education and the capacity of students to achieve
- continuity of effort over several years
- a tailored approach which recognises differing needs of students, schools and communities
- building positive school cultures
- building student confidence, aspiration, sense of achievement and belonging
- effective transitions.

These are remarkably similar to Gale et al.'s (2010b, p. 35) findings about the aspects of programs which worked:

> "collaboration across education sectors; establishing and sustaining early and long - term interventions to maximise program effects; 'people rich' programs that develop ongoing relationships and conversations; programs that target cohorts of students

[1] HEPPP (Higher Education Participation and Partnerships Program) is used in this document. Although HEPP (Higher Education Participation Programme (HEPP) appears on the government's website, legislation has not been passed.

rather than individuals or the student population en masse; the use of relevant information and communication technologies; familiarisation activities and site visits; recognition of the contributions different groups can bring to university; quality academic curriculum that seeks to enhance student engagement and achievement; and provision of financial support and incentives."

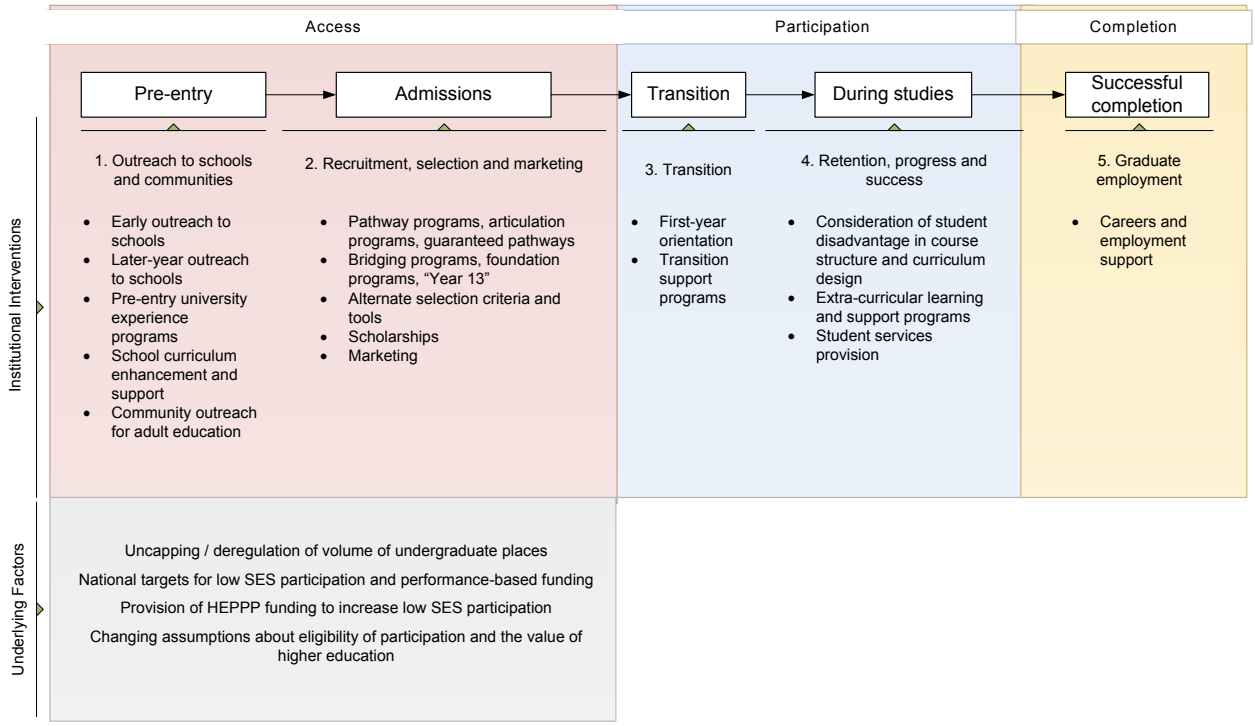
Edwards et al. (2013, p. 73) concur, finding that the following were effective: enhancing knowledge of the benefits of tertiary education, raising aspirations in disadvantaged communities, improving selection processes for entry to courses, financial support, and building partnerships "between communities, schools, tertiary providers, employers, industry groups, and social enterprise that aim to develop qualifications that will benefit the regions they serve."

In contrast, Aboriginal and Torres Strait Islander students are less well served, with programs being reported as having "varying levels of success" (Brady, 2012, cited in Behrendt et al., 2012, p. 26). Aird et al. (2010, p. 44) report Indigenous students tend to receive less advice or less useful advice than non-Indigenous students. Indigenous and remote students experience both unequal access to higher education and lower retention and success rates at university compared to other student groups, indicating the need for further support in these areas (Naylor, Baik & James, 2013).

Indigenous students share many of the same barriers to access as students from low SES backgrounds and regional and remote students, but also often experience additional complexities, such as being the first in family to attend secondary school (Behrendt et al., 2012, p. 22), along with factors such as racism and intergenerational disenfranchisement (Bunda, Zipin & Brennan, 2012; Mlcek, 2011). Due to the unique experiences of Aboriginal and Torres Strait Islander students, there is a separate section within this report focusing on their experiences with tertiary education.

Naylor, Baik and James (2013) offer a useful conceptual tool, which identifies possible intervention points in a student's educational journey. While originally conceived in response to HEPPP, it is also useful in a social marketing context (see Figure 2).

Figure 2: Critical Interventions Framework, showing factors leading to increased completion, particularly for students from low SES backgrounds (Naylor, Baik & James, 2013, p. 8).



In this version of the *Critical Intervention Framework*, Naylor, Baik and James (2013) explained that the framework is a "simple typology of the broad categories of equity initiatives" (p. 7). Through the National Priorities Program, *The Critical Interventions Framework Part 2* study was commissioned in 2015 to provide detail about the evaluation of initiatives as they have developed across the higher education sector, taking into account the complexity and diversity of the sector. This new *Equity Initiatives Framework* will be capable of recognising a broad variety of valuable aspects, multiple effects, and immediate and longer-term outcomes for a range of stakeholders. The Framework will present a more detailed overview of equity initiatives as the programs have been developed and evaluated, and findings about their impact have been disseminated. This Framework is due for release at the end of 2015.

1.3 What is the best model for a combined widening participation and social marketing intervention?

Archer, Hutchings and Leathwood (2001, cited in Armstrong & Cairnduff, 2012) argue that one of the common failings of outreach programs, such as Aimhigher, is that they are not sufficiently theorised, and rely too much on assumptions about class, and the role of higher education itself, rather than engaging with the issue of systemic disadvantage. Similarly, in terms of social marketing, "[i]ncreasing evidence suggests that public health and health-promotion interventions that are based on social and behavioural science theories are more effective than those lacking a theoretical base" (Glanz and Bishop, 2010, p. 399).

In a project such as this one, with complexity in terms of cohorts, behavioural determinants, and the likelihood of a number of different intervention approaches being used, using mixed methods offers the flexibility and rigour required. This may also include mixed data-analysis methods, "applying quantitative techniques to qualitative data, or vice versa, or merging different analytical approaches or techniques in a single study" (da Costa et al., 2013, p. 2).

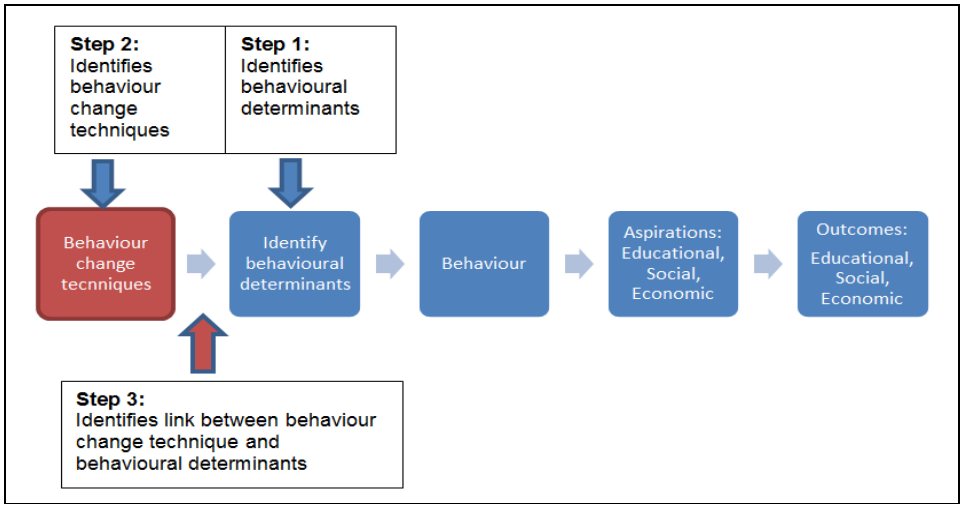
1.3.1 The role of theory

A range of theories have been cited in the literature (see Appendix 8) but there is little information given as to how these theories informed any specific intervention. Critics suggest that many interventions are in fact a theoretical (Armstrong & Cairnduff, 2012). Further, many concepts or models noted in the literature claim to be theories but lack the four basic criteria for theory; that is, conceptual definitions of terms, domain limitations within which the theory applies, sets of relationships between variables, and specific predictions (Wacker 1998). However, even "when people use theory, they tend to use it to explain behaviour but not to change behaviour" (Michie et al., 2008, p. 663). An investigation of the analytical and predictive power of a range of theoretical models should form part of an integrated research agenda to investigate what behaviour change strategies are most likely to be effective in achieving long-term sustained behaviour change.

This weakness is not unique to the educational sector. Much of the research into behavioural change to date has been in the field of health promotion, which shows a similar pattern. Michie and Abraham (2004) point out that many such interventions discussed in the literature do not describe their techniques in enough detail to allow for classification, and that "theory-specified psychological changes used to explain behavioural change, that is, mediational analyses, are the exception rather than the rule in evaluations of behaviour change interventions" (p. 45). Where theory is noted as an element of the interventions reported, it is in terms of a general guide to the development of the intervention or is noted without evidence of how it was applied. The scarcity of rigorous analysis in both health and education literature highlights the need for investigation of the analytical and predictive power of a range of appropriate theoretical models, testing existing behaviour change theories in educational settings, and determining which behaviour change strategies are most likely to be effective in achieving long-term sustained behaviour change. Rigorous intervention analysis such as this should improve identification of potential effective versus ineffective intervention strategies (Albarracín et al., 2005).

Michie et al. (2009) and Albarracín et al. (2005) both espouse using causal pathway methods of integrating theory into intervention models, offering similar pathway decision diagrams. Figure 3 is an adaptation of this type of model, which shows the application of theory as a step-by-step process. This diagram is presented in its causal sequence, but intervention does not happen in the same sequence. The process begins with identifying the behaviour the intervention wishes to modify, and the desired outcomes. Michie and Johnston (2012) point out that often the desired outcome is not the direct target of the behaviour-change intervention. Rather, the desired outcome is actually the consequence of that behaviour change – a step or more further down the causal chain. This can present problems for evaluation.

Figure 3: Proposed framework for causal intervention modelling (adapted from Hardeman et al., 2005, cited in Michie et al. 2008, p. 663).



In this model, Step 1 involves identifying behavioural determinants from the existing theories and literature which are most directly related to building aspirations and intentions to undertake tertiary education. This leads to Step 2, and the choice of behaviour change techniques to consider in the intervention, depending on the desired outcomes, and for which cohorts the techniques will be most effective. Step 3 articulates the link between behaviour change techniques and behavioural determinants, so that predictions can be made about outcomes, and the best fit can be used as the basis for the intervention. “The usefulness of using theory depends on ensuring that techniques are linked directly to the hypothesised causal process that accounts for change” (Michie et al 2008, p. 43). This also helps to define the terms of reference for the evaluation of the program’s effectiveness.

In this project, the identification of the behavioural determinants likely to affect intentions to undertake tertiary education will be undertaken through two complementary processes. This position paper reviews social marketing and widening participation in tertiary education, considering the theories, evidential studies, and previous educational interventions and evaluations in terms of their effectiveness in order to derive a current understanding of the state of knowledge in this field. To confirm these findings, fill in the identified gaps, and add specific detail about individual cohorts, qualitative expressions of participant voices will inform the development of cohort personas, which will distil the key characteristics, barriers, and behaviours of the people within the scope of this intervention.

The rest of this introduction will consider the behavioural determinants at play in widening participation in tertiary education, identify relevant behaviour-change techniques that serve a social marketing approach, and map a direction for this project’s intervention framework.

1.4 A review of relevant theory

This project intends to develop a social marketing strategy to inform a campaign to increase awareness and aspiration to tertiary study, increase knowledge of pathways to tertiary education, and increase applications to tertiary education and relevant pathways by people from low SES backgrounds using social marketing techniques. In the following summary of

the most relevant theories for the purposes of this project, only those with strong empirical support are considered. Recommended theories on the short list are presented below because they are well matched to the research methodology for this project.

The strongest match to the project's aims is offered by a combination of a motivation-based theory, such as self-determination theory, expectancy theory, the theory of planned behaviour, or the model of goal-directed behaviour; and a systemically-focused theory such as critical race theory. Motivation-based theories are usually characterised by a focus on autonomy and/or self-actualisation, along with identifying behavioural determinants in individuals, which may provide a useful fit for the idea of co-creation discussed in Section 2 of this paper. Systemic theories are useful for upstream intervention strategies, as discussed below.

The complete table of the theory-focused literature considered is available in Appendix 8.

1.4.1 Motivation-based theories

Self-determination theory

Self-determination theory is a theory of human motivation, focusing on the extent to which behaviour is self-motivated and self-determined. Deci and Ryan (2000) explain that self-determination theory is focused on the idea of goal-directed behaviour in order to better understand what motivates people, but it distinguishes between the content of the goal, and how goals are pursued. Thus it enables a consideration of both needs and goals at the same time, rather than just on goals as cognitive theories tend do to, in order to be able to predict different behaviours depending on changes in these variables. Needs in this theory are categorised as competence (effect on the environment), relatedness (connection to others), and autonomy (internal regulation) (p. 230-232).

Self-determination theory offers three types of motivation which lead to action, depending on the underlying attitudes or goals: *intrinsic*, or internally motivated autonomous action; *extrinsic*, which can range from internally integrated and autonomous, to externally regulated, in which people feel pressured to conform; and *amotivation*, which is a lack of motivation to act (Ryan & Deci, 2000, p. 237).

Expectancy value theory

Eccles (2009) conceptualises a similar schema related to motivation in expectancy value theory. In this theory, identity is considered a motivational construct. Identity "can be conceptualised in terms of two basic sets of self-perceptions: (a) perceptions related to skills, characteristics, and competencies, and (b) perceptions related to personal values and goals" (p. 78). In combination, these factors affect how a person perceives the importance of tasks and their likelihood of success, which in turn affects behavioural choices. These choices are also influenced by the social relation of choices, as the individual's personal and social identities interact.

Theory of planned behaviour

This theory is an offshoot of the theory of reasoned action, and is designed to predict human behaviour via a combination of two factors: motivation (intention) and ability (behavioural control) (Ajzen, 1991). A central tenet is that the person's intentions are assumed to

encapsulate the motivations that drive behaviour; the stronger the intention, the more likely behaviour will follow if the person has “volitional control” (Ajzen, 1991, p. 181). However, this depends to some extent on other variables, such as availability of resources and opportunities, which is addressed in the model through a consideration of multiple attributes which fall into three major groups: attitudes towards behaviour, subjective norms and perceived behavioural control (Gatfield & Chen, 2006, p. 81).

Model of goal-directed behaviour (MGB)

The model of goal-directed behaviour is an expansion of the theory of planned behaviour, linking an individual’s beliefs to their behaviour (Ajzen, 1991; Perugini & Bagozzi 2001). It differs from the theory of planned behaviour in that it focuses on the emotions which influence an individual’s goals, as well as their intentions and behaviour (Hagger & Chatzisarantis 2009). By encompassing the role that desire plays in forming goals, the model includes variables such as the anticipation of success or failure (Perugini & Bagozzi 2001), and perceived behavioural control, being the perception about the difficulty or ease of performing a particular behaviour. This is modelled by linking an individual’s desires to their intentions and behaviour, via their attitudes, anticipated emotions, subjective norms (the beliefs of significant others such as parents), and past behaviour. In this way, desires become another data point in discovering behavioural determinants, along with intentions and behaviour. This approach has been effectively used in social marketing studies (e.g. Schuster, Drennan and Lings, 2013), and so it is the preferred theoretical base for this project.

1.4.2 Systemically-focused theory

Critical race theory

The studies above, which use motivation-based theory, are mid-stream and downstream approaches. That is, they work with potential students, and their communities, families, peers, and educational institutions. However, with an issue like systemic inequality, upstream approaches are also required, which address policy, law and institutional power. These levels of intervention are outlined in Table 4 below.

Table 4: Characteristics and examples of intervention programs in the higher education and Australian spheres (adapted from CDC, 2006).

Level of intervention	Characteristics	Examples of Intervention
Individual **(motivation-based theory)**	• One-on-one intervention, usually undertaken with student or prospective student by teacher/ facilitator, peer, media • Directly influences knowledge, attitudes, behaviours • Often tailored to the individual • Limited people reached	**Student Counselling** Offered by University Health/ Counselling Services
Student Group/ Family **(motivation-based theory)**	• Family or peer-group intervention, usually undertaken by teacher/ facilitator, peer, media • Directly influences knowledge, attitudes, behaviours • Tailored to context with some room to respond to individual needs • Moderate numbers of people reached	**UniPASS – University Peer-Assisted Study Sessions** Peer facilitators who succeeded in a unit in a previous semester lead study sessions with current students
Community/ School **(motivation-based theory)**	• Focus on changing norms, usually with multiple components over time, and undertaken by a variety of people such as teachers/ facilitators, student ambassadors, media • Directly or indirectly influences knowledge, attitudes, behaviours of a whole school or community • Little flexibility to meet individual needs • Larger number of people reached	**HEPPP funded interventions, such as Bridges to Higher Education** Multiple-approach program which primarily works with schools, but also liaises with community groups and parents over the course of multiple sessions of different kinds
Structural **(systemically-focused theory)**	• Change to policy/ law/ workplace codes availability of senior schooling/ university entry requirements • Indirect effect, by changing social/cultural/legal conditions • Not tailored to individuals • Affects large numbers of people	**Public Policy Discussions and Submissions** Bodies such as Equity Practitioners in Higher Education Australasia (EPHEA) make submissions to Government advocating educational reform, such as on the issue of New Zealand citizens who are Special Category Visa holders becoming eligible for HELP assistance. The Gonski's (2011) Review of Funding for Schooling is a pertinent example. Higher Education research outputs produced by Universities Australia (UA), Australian Technology Network (ATN) and National Centre for Student Equity in Higher Education (NCSEHE) also influence HE policy.

1.4.3 Examples of applications of theory in literature and practice

How, then, is a theoretical model used in the design of an intervention? Generally, it has two roles. The first is to provide a predictive model – a systemic categorisation of what is known already about student desires, intentions and behaviours, and what is likely to happen in response to an intervention. The second is as an evaluative tool, in order to be able to measure how well the predicted outcomes were realised. Below is an overview of how models have been used in the past; it is not a definitive list, but gives an idea of how the short-listed theories have been used in practice (see Appendix 8 for more on theories used in the Australian tertiary education context).

Critical race theory

Yosso's (2005) main approach is to use critical race theory in order to debunk the educational deficit model in the American higher education context, by focusing on the forms of cultural capital that already exists within communities of colour: *linguistic capital*, particularly in the form of resistant storytelling and the arts; familial capital, support from the family and extended family; *social capital*, building networks in the community; *navigational capital*, in moving through hostile institutions; resistant capital, especially with resilience in the face of racism; and *aspirational capital*, maintaining hopes for the future even in the face of barriers (p. 77).

The importance of using a lens such as critical race theory in the context of systemic behavioural change in Australia is discussed by Sonn and Quayle (2013). They have been working with the Community Arts Network in Western Australia to empower Indigenous groups and encourage social change. While the program has had some success, they used critical race theory to conceptualise racism in measurable terms – as a discursive practice revealing underlying attitudes – and used discourse analysis to uncover three main themes in the local government representatives' positions. These were: "abstract liberalism," which is a normative idea of fairness based on white experiences; "culture blame," which was a cultural deficit conception used to put barriers in the way of Indigenous partnerships; and "silencing the past," which expected Indigenous people to forgive and forget without first going through any meaningful remediation (Sonn and Quayle, 2013, p. 442-443).

Leonardo (2013) argues that controlling the knowledge and narratives about systemic practices such as racism is a means of exerting control. Critical race theory opens a way of challenging accepted narratives, by presenting new and different knowledges and counter-narratives about systemic disadvantage and how it plays out in schooling.

Self-determination theory and expectancy value theory

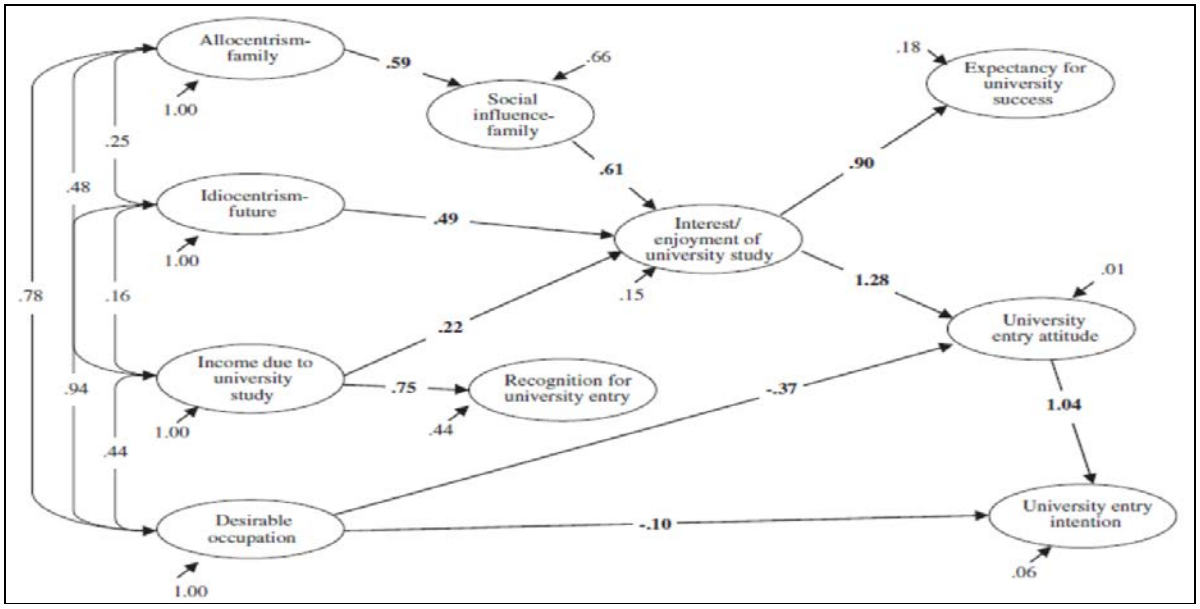
In the paper Adolescent decision-making processes regarding university entry, Jung (2013a) considers the behaviours and attitudes which underpin the choice to enter tertiary education or not for Australian secondary school students. The study draws on both self-determination theory and expectancy value theory, and considers how factors influencing decision-making by adolescents about higher education are related to each other, the sequence they occur in, and whether there are mediating factors. Jung then uses structural equation modelling to produce a model of the ways in which the statistically significant factors interrelate, as can be seen in Figure 4 below. This model has predictive value.

The model shows the cognitive processes which lead to decisions about university entrance, based on variables identified in the literature and a survey of secondary school students. The arrows show which factors have a joint effect, and the number associated with each pathway indicates the size of the effect.

> "The major path in the finally accepted model suggests that allocentrism toward the family (via social influence from the family), idiocentrism toward the future and income due to university study, jointly predict the valuing of interest/enjoyment of university study. In turn, the valuing of interest/enjoyment of university study predicts university entry attitude and, eventually, university entry intention. Other paths in the model include the path from interest/enjoyment of university study to expectancy for university success, and one from income due to university study to recognition for university entry. The desire for a good job negatively predicts both university entry attitude and university entry intention" (Jung, 2013a, p. 108).

In terms of providing a framework for interventions in the Australian tertiary education context, this model is useful for programs directed at secondary school students, as it identifies key behavioural determinants which lead to aspiration development and university entry. How such models can be applied to a tertiary education intervention will be discussed in more detail in the next section.

Figure 5: Structural equation model of adolescent decision-making processes regarding university entry (Jung, 2013a, p. 107).

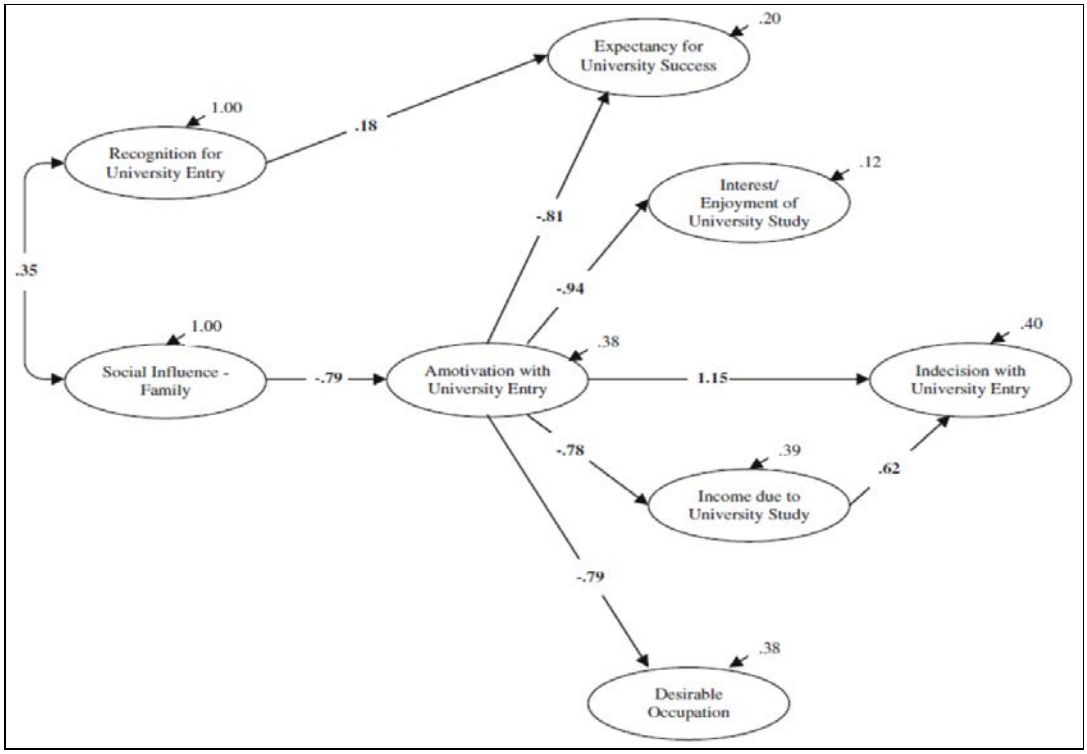


In *Amotivation and indecision in the decision-making processes associated with university entry*, Jung (2013b) uses a similar approach but this time focused on modeling amotivation and indecison in order to better understand why adolescents choose not to enter tertiary education. The model produced identifies key amotivational behavioural determinants and their sequence, providing a similar series of potential intervention points (see Figure 5). This model is particularly useful, because it offers insight into secondary school students who do not enter university and are often not captured in other studies.

> "The finally accepted model suggests that social influence-family negatively predicts amotivation with university entry, which in turn negatively predicts the valuing of interest/enjoyment of university study, expectancy for university success, and the valuing of a desirable occupation. In contrast, amotivation with university entry was found to be a positive predictor of indecision with university entry. Income due to university study, which is negatively predicted by amotivation with university entry, is the only other (positive) predictor of indecision with university entry. The weakest, but nevertheless statistically significant, path in the model suggests that the valuing of recognition for university entry positively predicts expectancy for university success" (Jung, 2013b, p. 129).

Outside of secondary school, and particularly with reference to adult learners, there are few models offered which identify the behaviour and behavioural determinants that lead to increases in awareness and aspiration, knowledge of pathways, and applications to university. The body of work is partial, not always set in the Australian context, and often not strongly supported by empirical evidence.

Figure 6: Structural equation model of adolescent amotivation and indecision processes associated with university entry (Jung, 2013b, p. 130).



In a study by Jang (2008), self-determination theory was applied in an intervention to improve student motivation in a USA university class. This was a comparatively small scale study with a limited scope, but is interesting because it is one of the few such studies which have an intervention component. Of the three models tested, all fit the intervention data, but the model based on self-determination theory provided the best explanation of the effects (p. 806).

Rothes, Lemos, and Gonçalves (2014) used self-determination theory to explore the motivation, self-efficacy, beliefs and academic self-concept of adult learners who enrol in tertiary education in Portugal, and mapped differences to demographic variables. They found epistemic, vocational and identity-based motives were significant for participants. Men scored more highly than women for extrinsic motives, and learners over 25 also scored highly on extrinsic motives. Unemployed participants scored higher on the vocational motive.

Theory of planned behaviour

Gatfield and Chen (2006) focused on the decision-making choices of international students when intending to study in an English-speaking country, Australia being one considered. The theory of planned behaviour was used to design a research model which could capture the complexity of variables influencing these choices. Qualitative evidence was collected and organised into the categories of motivational attributes identified in the theory of planned behaviour, in order to inform the quantitative research instrument. The findings were then mapped to the marketing strategies used by the USA, the UK and Australia, in order to improve their impact.

The study found that with marketing of USA higher education, the most important predictor of intention to study in the USA was “summative subjective norms” (Gatfield and Chen, 2006, p. 89), meaning support from family and friends. Word-of-mouth was particularly effective in spreading the message about higher education in the USA. With regards to marketing higher education in the UK, “attitude towards behaviour” (p. 90) was identified as significant, which was focused around the quality and reputation of its universities; a media campaign was the recommended strategy for tapping in to this. For Australian higher education marketing, “summative attitude towards behaviour” (p. 91) was the key factor, and interviews indicated this was due to a lack of information about Australia in general or its higher education options, and an information campaign via the media was also recommended as the best response to this.

Model of goal-directed behaviour

While the model of goal-directed behaviour (MGB) has been effectively used in projects with a social marketing focus such as Schuster, Drennan, and Lings’ (2013), it has not previously been mapped to widening participation. Schuster, Drennan, and Lings (2013) chose MGB because of its nuanced approach to the impacts of emotional and goal-related processes on customer behaviour. This study was focused around discovering how wide-spread acceptance and use of an online wellbeing service was within a youth demographic. The use of MGB enabled in-depth analysis of the reasons behind positive, negative and ambiguous responses to the service. They identified multiple goals at different levels of abstraction (such as practical outcomes like wanting to use the service to identify stress triggers, through to wanting to become a better person), emotional reasons such as the potential for public embarrassment if people found out they were using it, and self-efficacy issues, especially in relation to their familiarity with using their phone. The paper concludes with discussion aimed at helping social marketers use the findings about these key behavioural determinants to increase acceptance and use of the service.

The diagram in Figure 6 reconceptualises MGB to fit the brief for this project. The aspect of ‘past behaviour’ was used as a central organising concept. First, frequency of past behaviour was reconceptualised as two elements being a) frequency of past exposure to influencers such as parents, guidance officers or university outreach staff; b) intervening education

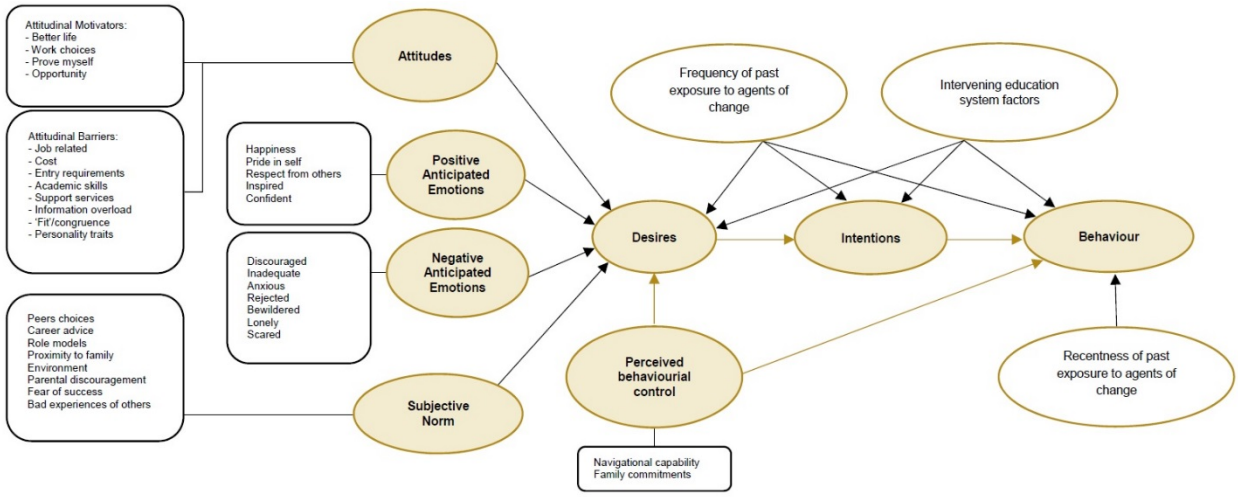
system factors such as the need to go to boarding school to complete senior secondary schooling. Second, recentness of past behaviour was reconceptualised as 'recentness of past exposure to influencers'. All other constructs in the MGB remained unchanged.

The literature related to low SES non-participation in tertiary education was used to populate the widening participation model. Feedback from an expert panel was sought in order to validate the proposed model: four widening participation equity practitioners, three social marketing academics and two widening participation experts provided input. The finalised model is provided here as Figure 6.

This conceptual model enables a systematic approach to collecting and evaluating information about desires, intentions and behavioural determinants related to accessing tertiary education in the cohorts of interest to this project, and then predicting the likely effects of different intervention approaches.

The information in this position paper about different cohorts' motivations and barriers has already been categorised using this method, and is included in Section 4. It will be combined with information gathered by the social marketing team from cohort representatives, and used to create cohort personas.

Figure 7: A conceptual model of a social marketing approach to widening participation



A persona is a fictional character or archetype who represents a target group which has distinct motivations and behaviours (Marshall et al., 2015; Nielsen, 2013; Sankupellay et al., 2015). Using both quantitative and qualitative data, personas can synthesise and summarise the experiences and needs of multiple real students or potential students, or the people who influence them. Personas can represent cohorts of people who have similar goals, motivations and behaviours, and help social marketers keep their focus on the differing needs and goals of each.

1.5 Theory to practice in social marketing interventions

This section considers how to integrate theory and practice in a social marketing

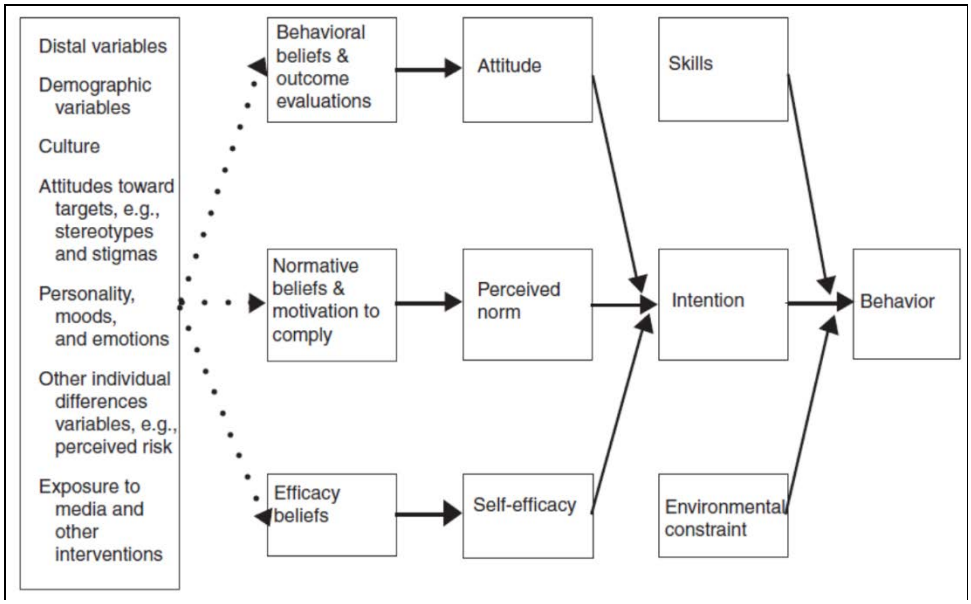
intervention. Section 2 of this position paper discusses social marketing and how it works in more detail.

Luca and Suggs advise that the "use of theory in social marketing health interventions should help social marketers identify whether a particular behaviour is determined primarily by attitudinal, normative, self-efficacy, environmental or other social considerations, or a combination of these (Fishbein & Yzer, 2003) and then to design the marketing mix to address these determinants" (Luca & Suggs, 2013, p. 21).

This refers to the integrated model in Figure 7 below, developed by Fishbein and Yzer (2003). In their paper, which focuses on how to design effective interventions, Fishbein and Yzer contend that the variables which are most important for behavioural change have much in common across the most widely used theories. These common variables map to those in the motivation-based theories discussed above, although not to critical race theory when it is used as a lens for structural reform.

Fishbein and Yzer outline these common variables as: "(a) the person's attitude toward performing the behavior, which is based upon one's beliefs about the positive and negative consequences (i.e. costs and benefits) of performing that behavior; (b) perceived norms, which include the perception that those with whom the individual interacts most closely support the person's adoption of the behavior and that others in the community are performing the behavior; and (c) self-efficacy, which involves the person's perception that she or he can perform the behavior under a variety of challenging circumstances" (2003, p. 166).

Figure 8: An integrative model of behaviour prediction (Fishbein & Yzer, 2003, p. 167)



The target audience is people from low SES backgrounds, and the project has three goals, to:

- increase awareness and aspiration to tertiary study
- increase knowledge of pathways to tertiary study
- increase applications to tertiary study and relevant pathways.

While it is tempting to say that the first two variables are attitudinal and the last is an *efficacy belief* – a person's belief in their ability to achieve a goal – this may not be true of all the cohorts within the purview of this project. For instance, for some the barriers to enrolling in higher education may be perceived, in that they think it is not for them (normative), while for others barriers might be practical, in that they live in remote communities or need financial support (efficacy). In other words, for the same element of behaviour change being targeted (i.e. increase in applications to tertiary education and relevant pathways), there may be different behavioural determinants within the target groups. The development of the personas is an essential step in ensuring that the project correctly maps each of these goals to the actual behavioural determinants for each cohort.

Michie et al. (2008) have developed a framework which shows the best match of behaviour change techniques with determinants of behaviour, evaluated by a panel of experts. This should be considered in light of the developed cohort personas. The various techniques matched to desired behaviour change are given in Table 5.

Part of the development of the cohort personas should focus on the factors which separate those who do intend to access tertiary education and those who do not. Fishbein and Yzer (2003) point out that it is these discriminating factors which indicate the beliefs which most strongly lead to intentions related to the wanted outcome. An intervention should target determinant factors most strongly associated with the desired outcome behaviour, and likely to have a significant effect on behaviour if changed. Most importantly, there should be an assessment of whether it is a belief amenable to change (Fishbein and Yzer 2003).

The question then arises of which of these discriminating factors to address, along with how and when. Models such as Jung's (2013a; 2013b) are useful here, because they provide information about the beliefs which are important in informing the intent to enter tertiary education, and those which are counter-beliefs which underpin amotivation and indecision. These models also address the association of these variables, to provide a sense of which will have the largest effect on behaviour if they can be changed.

Table 5: Data from consensus process for linking behaviour change techniques with determinants of behaviour (Michie et al., 2008, p. 679-680)

Technique for behaviour change	Techniques judged to be effective in changing each construct domain										
	1	2	3	4	5	6	7	8	9	10	11
Goal/target specified: behaviour or outcome					■						
Monitoring											
Self-monitoring						■					■
Contract									■		
Rewards; incentives (inc. self-evaluation)											
Graded task, starting with easy tasks											
Increasing skills: problem-solving, decision-making, goal-setting											■
Stress management											
Coping skills			■								
Rehearsal of relevant skills										■	■
Role-play			■	■	■						
Planning, implementation						■					
Prompts, triggers, cues								■			
Environmental changes (e.g. objects to facilitate behaviour)							■				
Social processes of encouragement, pressure, support											
Persuasive communication				■							
Information regarding behaviour, outcome	■										■
Personalised message		■									
Modelling/demonstration of behaviour by others	■			■							
Homework		■		■	■						
Personal experiments, data collection (other than self-monitoring of behaviour)				■							
Experiential: tasks to gain experiences to change motivation						■					
Feedback			■								
Self talk											
Use of imagery											
Perform behaviour in different settings											
Shaping of behaviour			■								
Motivational interviewing					■						
Relapse prevention											
Cognitive restructuring	■			■	■						
Relaxation											
Desensitisation											
Problem-solving											
Time management											
Identify/prepare for difficult situation/problems											■

KEY[a]:

	Agreed use
▥	Uncertain
■	Disagreement
▩	Agreed non-use

Techniques judged to be effective in changing each construct domain

1 Social/Professional role and identity
2 Knowledge
3 Skills
4 Beliefs about capabilities
5 Beliefs about consequences
6 Motivation and goals
7 Memory, attention, decision processes
8 Environmental context and resources
9 Social influences
10 Emotion
11 Action planning

The progression model by Naylor, Baik and James (2013, see Figure 2) is also useful here as it conceptualises student progression as a process over time rather than a single ideal decision, and that in addition to their own preferences, goals, and aspirations the student makes these educational choices in response to the contexts they encounter. Linking this kind of progression model to cohort personas would generate a journey map in which multiple intervention points are identified, along with multiple cohort-specific, age-specific, and socio-geographic differences. Naylor, Baik and James (2013) emphasise that outreach needs to be tailored to maximise the student's understanding of their options, and the likely

outcomes of their choices. The approach also “needs to extend beyond the individual domain, as choices about higher education are informed by capital accessible to students – their own human capital in the form of goals and resources, the cultural capital of their families and communities in the form of educational expectations and finances, and the social networks which can ease their way into higher education” (Costello & Trinidad, 2015, p. 5).

1.5.1 Key Message: Widening Participation - Motivating Low SES Students

Widening participation for students from low SES backgrounds has been a policy focus of the Australian government since 2008, which focusses on inclusion of those who have not traditionally participated in tertiary education. Three competing discourses on transforming higher education have been identified in the literature, namely: the social deficit model, social inclusion and mobility model, and the social justice model. These have different impacts on students, with the deficit model widely criticised as unhelpful because it masks systemic disadvantage by conceptualising its effects as individual failings in students.

The key method used by the sector to encourage wider participation is university-led outreach programs funded by HEPPP. The literature identifies best practice in such programs as:

- having clearly defined, education-positive objectives, and a strong research base
- recognising the value that different groups can bring to outreach programs and higher education, and building in ways for their voices to be heard
- tailoring programs to particular cohorts of students who are at similar stages of educational development, as well as to students, schools and communities who share common barriers, motivations and backgrounds
- building student confidence, aspiration, engagement, academic achievement, and a sense of belonging
- working collaboratively via cross-sector programs that begin early in the student journey and are sustained over time
- building positive educational cultures within schools and communities
- developing effective transitions and pathways
- using the technologies and communication streams relevant to particular cohorts (Edwards et al., 2013; Gale et al., 2010b; KPMG, 2015a).

Interventions with a solid theoretical foundation are more effective than those without. It is recommended that this project use mixed methods, focusing on model of goal directed behaviour in combination with critical race theory. Multi-level theoretical frameworks are more likely to deliver social marketing strategies that have the potential for impact at the psychological and systemic levels of change.

MGB considers motivation in multiple ways, such as desire and intention as well as past behaviour, and the influencers which impact on each, and MGB has been used to develop a conceptual framework for this project. This framework enables a systematic approach to collecting and evaluating information about desires, intentions and behavioural determinants related to accessing tertiary education in the cohorts of interest, and then predicting the likely effects of different intervention approaches. It can also be used as an evaluation framework.

2 Social Marketing Literature Review

2.1 The historical development of social marketing

The concept of social marketing has evolved over time from narrow and somewhat simplistic foundations, with one of the first indications of the potential for social marketing coming from the question: “why can’t you sell brotherhood and rational thinking like you sell soap?” (Wiebe, 1951-52, p.679). A few isolated academic papers appeared in the 1970s, focussing on what social marketing entailed (see, for example, Kotler & Zaltman, 1971; Luck, 1974). The field became the focus of specific attention in the late 1980s with the release of the first textbook and more academic articles (see, for example, Kotler & Roberto, 1989; Lefebvre & Flora, 1988; Bloom & Novelli, 1981; Fox & Kotler, 1980).

In the UK, a previous White Paper *Choosing Health* (Department of Health, 2004) specifically advocated the adoption of the principles underpinning social marketing in order to more effectively promote public health issues, acknowledging that existing communication strategies were not effective. The centrality of social marketing in the dissemination of innovation in health promotion is also acknowledged in the academic literature (Greenhalgh et al., 2004).

Following reports such as these, the field began to develop rapidly in the health sector in the early years of this century with a seminal UK report reinforcing evidence that existing strategies were ineffective and that “the total annual cost to the country of preventable illness amounts to a minimum of £187 billion. In comparative terms this equates to 19% of total GDP (gross domestic product) for England” (National Social Marketing Centre, 2006, p.3) and presenting evidence of social marketing’s potential contribution in the area. More recently, social marketing’s focus has extended to a wide range of other issues including rubbish reduction, energy and water conservation, although there is far more research in the health sector than in the more recent social marketing sectors (McKenzie-Mohr, 2000; Hornik et al., 1995; Eagle et al., 2015).

Table 6 provides an indicative, but not exhaustive, list of topics that have been approached from social marketing. It is difficult to compare success (or otherwise) of the factors across the interventions examined due to variations in methodology and reporting procedures. Some critics may challenge whether all of the campaigns are in fact social marketing, rather than health education (see, for example, Deshpande, 2014). The latter generally involves the use of a single programme, led by expert knowledge and provider-driven; rather than receiver-driven programmes specifically customised to meet the needs and likely responses of population segments see, for example Peattie and Peattie (2003).

Table 6: Indicative list of social marketing interventions and studies examining impact (drawn from Eagle et al., 2013, Eagle and Dahl, 2015)

Issues / Behaviour Targeted
Safe sex / condom use / contraception
Smoking cessation
Responsible drinking
Seatbelt use

Responsible driving / Anti-speeding
Sun protection / skin cancer awareness
Domestic violence
Immunisation
Medical screening (cancer, cholesterol etc.)
Genetic testing to reduce the occurrence of inherited diseases
Nutrition
Drug education
Exercise / physical activity
Malaria control
Mental health
Environmental issues, e.g. recycling, energy conservation, pollution
Workplace health
Volunteering
Disaster management and preparedness, e.g. hurricanes, earthquakes, volcanic eruptions

2.2 The changing scope of social marketing

2.2.1 Transdisciplinary approach

Social marketing should not be seen as a specific theory, but rather as a sector that draws on specific processes drawn from a transdisciplinary range of concepts and theories, such as those validated within the fields of psychology, sociology, anthropology, behavioural science and communication as well from within commercial marketing. There are three possible approaches to the combination of expertise from multiple disciplines: multidisciplinary, interdisciplinary and transdisciplinary. Multidisciplinary approaches seek input from different disciplines but these are independent of each other and may create a mosaic of interventions. In interdisciplinary approaches, disciplines work together to provide input but individuals stay within their own disciplinary boundaries (Holmes et al., 2008).

The transdisciplinary approach is synergistic in that it uses concepts, theories, research approaches, analytical methods and strategies for the interpretation of findings to develop shared conceptual frameworks that integrate the concepts, theories and knowledge from individual disciplines. Key features of this approach include recognition that no one group or discipline has a monopoly on knowledge and that collaborations must be created not only between different academic disciplines but also with stakeholders with specific interest or expertise in the issue (Mâsse et al., 2008; Kreps & Maibach, 2008; Ramadier, 2004). Partnerships between stakeholders in intervention delivery are most effective when transdisciplinary approaches are used (Eagle, 2009). A transdisciplinary approach contributes not only to identifying and developing strategies to overcome complex obstacles to behaviour change and potential enablers of sustained behaviour change, but can also help policy makers to understand more comprehensively the contributions of their policies

to improving or harming the well-being and life chances of the general public (Fielding et al., 2011).

As with other complex areas such as public health, post-compulsory education is an environment that lends itself to transdisciplinary approaches due to the influence of intrapersonal, interpersonal, organisational, community and societal influences and the multi-level interventions that will be required to address the widening participation agenda (Colditz et al., 2008).

2.2.2 The iSMA, ESMA and AASM consensus definition of social marketing (2013)

The 2013 consensus definition of social marketing is shown below, which was drawn up by the (then) three social marketing organisations – the International Social Marketing Association (iSMA), the European Social Marketing Association (ESMA) and the Australian Association of Social Marketing (AASM) Additional associations have been established in Asia and in the USA since this definition.

> "Social marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good. Social marketing practice is guided by ethical principles. It seeks to integrate research, best practice, theory, audience and partnership insight, to inform the delivery of competition sensitive and segmented social change programs that are effective, efficient, equitable and sustainable" (iSMA, ESMA & AASM, 2013).

Social marketing activity has encompassed a wide range of issues and behaviours; some are relatively uncontroversial and others, such as genetic screening, are more controversial and raise significant ethical issues. While the focus is on encouraging sustained, positive behaviour change among individuals and groups, social marketing also encompasses environmental and policy factors 'upstream' of actual behaviour change that may be barriers to, or enablers of, that change, leading to three distinct divisions:

> **Upstream:** influencing the environment in which behaviour occurs, including policy makers, the media, lobby groups and influential organisations
>
> **Midstream:** working with partners, communities and institutions (for example, schools and other educational agencies)
>
> **Downstream:** working with specific individuals and groups of individuals (including families, peers and immediate neighbourhoods or communities) (Dibb, 2014; Kamin & Anker, 2014; Russell-Bennett et al., 2013)

In this project, the role of social marketing is to bring about positive awareness and change in relation to aspiring to and accessing higher education.

As already noted, social marketing draws on many disciplines to bring about voluntary behaviour change as well as addressing 'upstream' factors such as supporting policy and environmental change (Cairns & Stead, 2009). Social marketing processes focus on the generation of insights into attitudes, beliefs and values that underpin actual behaviours, thus helping to bridge attitude-intention-behaviour gaps. Key elements include creating satisfying exchanges, use of integrated strategies to develop interventions, and the use of competitive analysis and segmentation (Luck et al., 2009). These will be discussed in more detail in the Benchmark Section 2.2.6. Social marketing is complementary to many established practices,

adding value through its strong focus on understanding the attitudes, beliefs and perspectives of target groups (Neiger et al., 2003).

2.2.3 Social marketing is not social advertising

A common misconception is that social marketing equates to mass communication or 'social advertising', i.e. successful interventions centre around mass media advertising in order to communicate the desired messages. As shown in the Social Marketing Benchmark Section 2.2.7, social marketing employs a range of strategies to interact with and serve identified target groups. Some interventions may indeed use advertising or other forms of marketing communication where this is an appropriate and effective means of communicating with the specific target groups and where resources permit. These are usually single-issue campaigns.

Two examples of this are first the American "Truth" anti-smoking campaign which used funding from the legal settlement between the majority of US states and the tobacco industry (National Association of Attorney's General, 1998) to fund a mass media-based anti-smoking campaign which was successful in increasing anti-smoking attitudes and beliefs and decreasing smoking commencement among young people (Richardson et al., 2010). The second is the campaign by the Northern Ireland Fire and Rescue Service (NIFRS) which ran a sustained multi-faceted mass media-based intervention aimed at reducing domestic fires and increasing properly fitted and maintained smoke alarms. This campaign reduced fire incidents by 24 per cent, fire-related injuries by 23 per cent and saved an estimated £132.9 million in value of lives saved, almost £4 million through not having to mobilise NIFRS and over £44 million in savings against damage to domestic property, with an overall return on investment of over 80:1 in the 2003 – 2008 period (World Advertising Research Centre, 2013).

However, there are many examples of interventions that do not rely on marketing communication, relying instead on other ways of reaching the target groups (see both the National Social Marketing Centre and the World Advertising Research Centre databases for examples of such activity).

2.2.4 Social marketing is not a panacea

Social marketing offers a framework for designing behaviour change programs that is flexible enough to be applied to a range of behavioural change issues (Haldeman & Turner, 2009; Corner & Randall, 2011) However, it is not a panacea and often is based on relatively small, incremental changes in the desired behaviours rather than overestimating substantial immediate changes in behaviour (French, 2010). Upstream factors may hinder the potential effectiveness of social marketing interventions, and effectiveness can also be limited if the focus is placed only on individuals rather than including both midstream and upstream factors (Wymer, 2011). Interventions need to be adequately funded to ensure ongoing activity and the integration of all aspects of an intervention – often a challenge due to multiple stakeholders involved in implementation. A recent study indicated that practitioners struggle to integrate even the communication aspects of interventions (Dahl et al., 2015).

2.2.5 Social marketing's ethical dimensions

Neutrality or value ladenness?

The potential ethical dimensions of social marketing should be considered. While a value-neutral perspective of social marketing is suggested by a few authors (Dann, 2007), this view is countered by others who stress the value-ladenness aspect of activity (Rossi & Yudell, 2012). This relates to the issue of who defines desired behaviour, determines and prioritises specific target groups, and whether consideration of potential harm (including psychological harm) to members of a target group or others that may arise as a consequence of a social marketing intervention should be a requirement in the development of any intervention. For example, there is evidence that some UK-based widening participation activity has resulted in the perception by school students that they are in some way deficient or simply "not good enough" (Baxter et al., 2007, p. 274).

Therefore the question has been raised as to "who has the mandate to represent large and diverse populations for the purpose of informed consent, and how can this be implemented?" (Guttman & Salmon, 2004, p. 537) Others have questioned how individual freedoms of choice and individual rights can be balanced against benefits for society as a whole (see, for example, Lefebvre, 2011).

There is a growing body of literature that documents wider ethical issues and unexpected impacts of interventions, including issues regarding targeting, segmentation, use of incentive schemes and the consequences of focusing on easy-to-reach or influence groups rather than those with the greatest need, and the needs of low literate groups and minority groups and cultures (Newton et al., 2013; Eagle, 2008).

2.2.6 The ethics of persuasion – and nudge-based tactics

Some scholars have criticised social marketing for its persuasive focus, particularly in relation to paternalistic and 'soft governance' underpinnings of government-funded interventions (Mols et al., 2015), yet the three main behaviour change strategies are limited to legislation (not always practicable, although successful in areas such as smoking restrictions), education (necessary but rarely sufficient on its own to change behaviour) and persuasion (for an extended discussion of the contexts in which each may be individually or collectively appropriate and effective, see Rothschild, 1999). Others have questioned whether all forms of persuasion are inherently unethical or whether there are boundaries within which persuasive tactics are acceptable, such as when benefits outweigh risks (Rossi & Yudell, 2012).

This debate incorporates discussion of the effectiveness of behavioural economics-based 'nudge' strategies, i.e. a range of non-legislatory interventions based on altering the contexts ('choice architecture') in which behaviour decisions occur (this approach was popularised in Thaler & Sunstein, 2008). Choice architecture is claimed to alter behaviours in predictable ways through the manipulation of choice. It has been suggested that acceptability is dependent on "the right kind of nudge for specific circumstances" (Cohen, 2013, p. 10). While it has also been suggested that the acceptability of nudge strategies may be context-dependent, incorporating the nature of the nudge and both the nudger and nudgee (Lucke, 2013), the precise contexts have not been identified. Of more concern is that some nudge strategies have been found to backfire (Mols et al., 2015; Johnson et al., 2012).

Unintended effects may be due to reactance effects which occur when direct or potential perceived threats to personal freedom, such as consumption of specific products or engaging in particular behaviours, are detected and resisted. Furthermore, people may then become motivated by the perceived threat itself, rather than any likely perceived or actual consequences of the threat, to assert their right to control their own decision making (Rains,

2013, Eagle and Dahl, 2015). Thus telling people that they should consider higher education may strengthen resolve to do the opposite, or where (as noted earlier) activity may inadvertently result in people feeling they are not good enough (Baxter et al., 2007) and thus reinforcing their intention to undertake career pathways that do not include higher education (see, for example, "University's not for me - I'm a Nike person" as discussed by Archer et al., 2007): “behaviour change is more likely to be enduring where it involves social identity change and norm internalization” (Mols et al., 2015, p. 81).

2.2.7 Social marketing benchmarks

Table 7 shows a set of widely used benchmarks, based on earlier work by Andreasen (1995) that have been suggested as enabling the separation of social marketing interventions from other forms of behaviour change-oriented activity. While the originators note that not all elements will feature explicitly in all interventions, and the exact nature of several of the elements is still being debated (for a recent discussion, see Rundle-Thiele, 2015), the benchmark criteria form a useful basis for intervention planning, development and ongoing research.

Table 7: Social marketing benchmarks (National Social Marketing Centre, undated)

Benchmark	Objective
1. Behaviour	Intervention seeks to change behaviour and has specific measurable behavioural objectives. Involves target groups and local communities.
2. Customer orientation	Fully understanding the lives, behaviour and the issue using a mix of data sources and research methods.
3. Theory	Uses behavioural theories to understand behaviour and inform the intervention.
4. Insight	Research identifies ‘actionable insights’ – pieces of understanding that will lead intervention development
5. Exchange	Intervention considers what will motivate individuals to engage voluntarily with the intervention and offers them something beneficial in return (the offered benefit may be tangible or intangible).
6. Competition	Competing forces to the behaviour change are analysed. Intervention considers the appeal of competing behaviours (including the current behaviour) and uses strategies that seek to remove or minimise this competition.
7. Segmentation and targeting	Different segmentation variables (including behavioural and psychographic data) are considered when identifying intervention target groups Intervention strategies are tailored for the selected segment(s).
8. Methods mix	Does not rely solely on raising awareness. Intervention considered as the best strategic application of the ‘marketing mix’ which consists of the four ‘Ps’ of ‘product’, ‘price’, ‘place’ and ‘promotion’. Other ‘Ps’ might include

	'policy change' or 'people' (e.g. training is provided to intervention delivery agents).

The following sections focus on several individual benchmark elements, including methods mix, and co-creation.

2.2.8 Methods mix

The full description of methods mix in the National Social Marketing Centre's (NSMC) Benchmark criteria is:

- uses a mix of methods to bring about behaviour change
- does not rely solely on raising awareness
- uses all elements of the marketing mix (product, price, place and promotion) and/or primary intervention methods (inform, educate, support, design and control)
- promotion is used to 'sell' the product, price, place and benefits to the target audience, not just to communicate a message
- takes full account of existing interventions in order to avoid duplication
- creates a new brand, or leverages existing brands appropriate to the target audience
- methods and approaches are financially and practically sustainable.

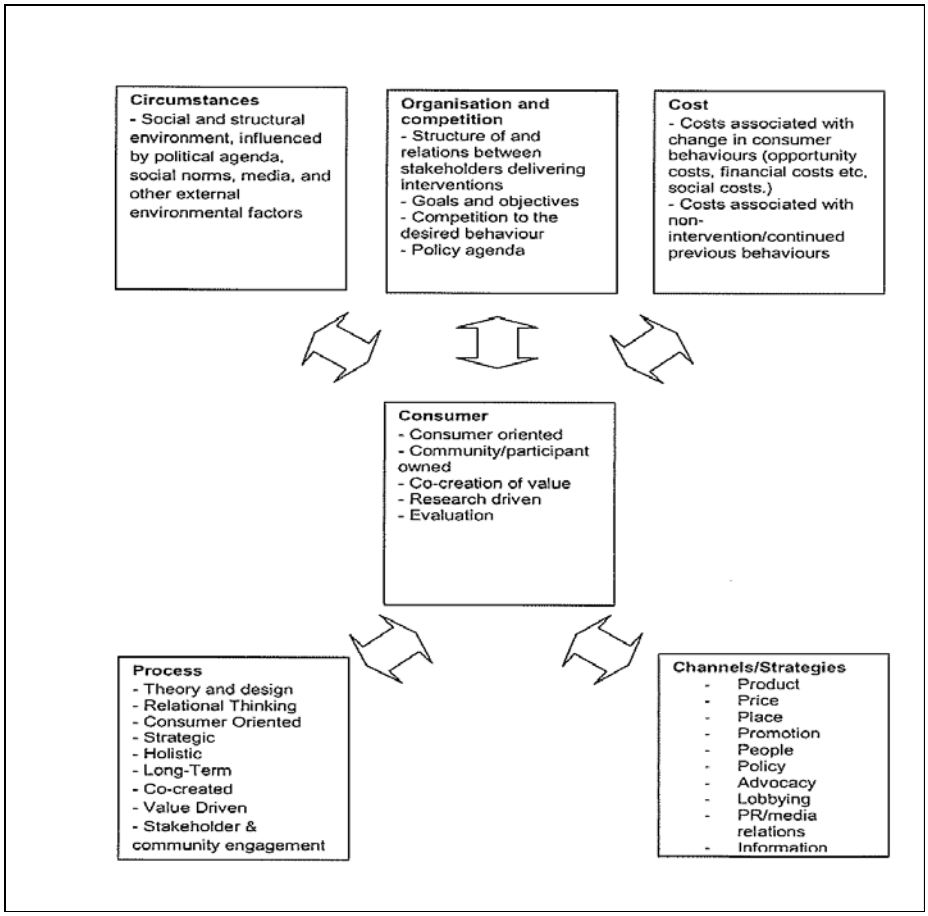
While the traditional '4Ps' commercial marketing model (strategies combining product, pricing, promotional and place – i.e. distribution – decisions) has held sway and is still expounded in many US social marketing descriptions (see, for example, Lefebvre, 2011; Wymer, 2011), the NSMC's definition and work by non-US based authors has stressed the need to think beyond these, including factors widely used in services marketing, such as people delivering the intervention, and even to replace them as suggested by Peattie and Peattie (2003).

Table 8: Comparison of 4Ps of standard marketing and suggested social marketing terminology (Peattie & Peattie, 2003)

4Ps of Standard Marketing	Social Marketing Terminology
Product	Social propositions
Price	Cost of involvement
Place	Accessibility
Promotion	Social communication

Figure 9 below takes the Peattie and Peattie concept further and expands considerably on it to include many of the upstream and midstream factors discussed earlier (Gordon, 2012, p. 125).

Figure 9: Proposed "re-tooled" social marketing mix



One aspect of this new model warrants particular consideration in the context of the widening participation agenda: co-creation.

2.2.9 Co-creation

Co-creation involves the joint development of interventions, including the social and economic benefits of behaviour change, and the management of relationships by organisations and the range of stakeholders, including current and potential partners involved in addressing an issue (Domegan, 2008; Desai, 2009; Lefebvre, 2012). It has proven to enhance the perceived quality and value of offerings (Ouschan et al., 2006), as it enables target groups to be active in decisions that can potentially transform their lives (Saunders et al., 2015). Co-creation of interventions enables the development of innovative ideas which may not be considered without the involvement of stakeholder perspectives (Nambisan & Nambisan, 2009). It requires an understanding of what is valued by identified target groups, with the caution that this can be perceived as manipulation if not handled sensitively (Domegan et al., 2013).

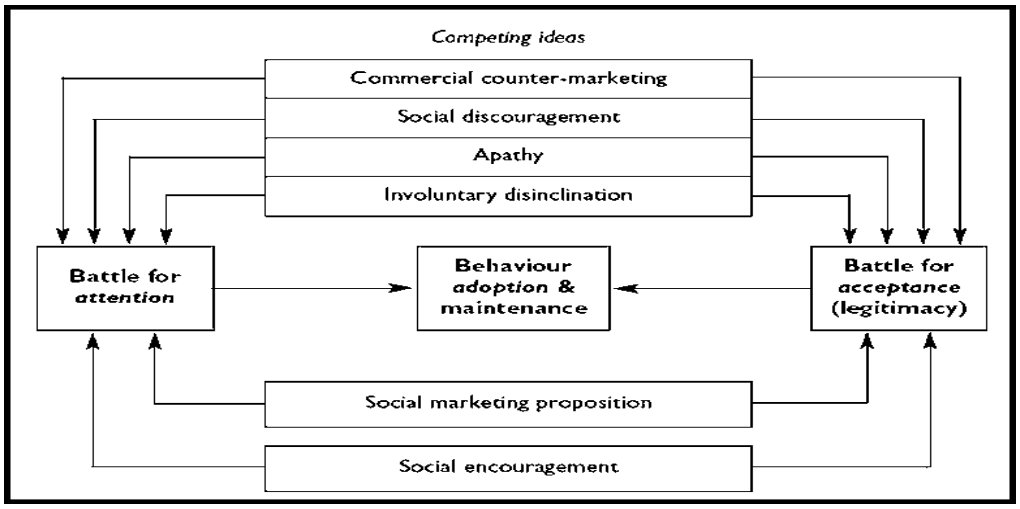
2.2.10 Competition - multiple influences

A range of potential pro- and anti-influences on behaviour is shown in Figure 9. Exposure to widening participation interventions, through whatever means, will not occur in isolation and

needs to be seen in the context of other potential influences, such as family, friends and peer groups; where the perceived norm may be to not continue beyond compulsory schooling. Thus any widening participation activity will be subject to conflicting messages (Bernthal et al., 2006). Additionally, it has been recognised for more than two decades that, when there is a perceived conflict between injunctive norms (portrayal of what people ought to do) and descriptive norms (what people actually do), message effectiveness will also be hampered (Cialdini & Goldstein, 2004).

Drawing on Figure 9, social values, perceived social norms, family and social network influences may both offer social encouragement (to undertake further education) or social discouragement (to pursue other career options that do not involve formal education. Portrayal of, or knowledge of potential role models who have / have not undertaken formal non-compulsory education may also offer encouragement or discouragement. Involuntary disinclination refers to situations where choices are constrained, such as the need to find paid employment – and there will always be some segments of the population who lack the motivation and discipline to undertake and successfully complete non-compulsory education. This may include those whose past experiences in the formal education system have been negative.

Figure 10: Competition in social marketing – a battle of ideas (Peattie & Peattie, 2003, p. 376)



2.3 Evidence of social marketing success

Table 9 provides examples of successful social marketing interventions, including many award winners, from recent communications industry effectiveness (i.e. demonstrable impact / return on investment) awards[2] together with summaries of cases written up in other academic outputs. Together these illustrate the success of social marketing interventions across a wide range of topic areas and contexts.

Many of the effects are modest, for example, in one systematic review listed in Table 9 (Evans, 2006, p. 1209), the following observation is made:

[2] Source of effectiveness award winning cases: World Advertising Research Centre: www.warc.com – several of these have been listed in more detail in Eagle et al., 2013 and Eagle & Dahl, 2015).

"In a study of 48 social marketing campaigns in the US based on the mass media, the average campaign accounted for about 9 per cent of the favourable changes in health risk behaviour, but the results were variable. "Non-coercive" campaigns (those that simply delivered health information) accounted for about 5 per cent of the observed variation.

A study of 17 recent European health campaigns on a range of topics including promotion of testing for HIV, admissions for myocardial infarction, immunisations, and cancer screening also found small but positive effects."

Table 9: Illustrative examples of successful social marketing interventions

Australia
Binge Drinking • Change in subjective norms, attitudes and intentions in the face of "considerable external competition" (Rundle-Thiele et al., 2015) **Water conservation** • During a severe drought in South East Queensland in 2006, a social marketing intervention "Target 140" reduced average per capita water consumption from 180 to 140 litres per day (Mols et al., 2015). This intervention has also been written up from a slightly different perspective of a target of 150 litres per day (Lowe et al., 2014) **Metro Trains Melbourne**: Dumb Ways to Die, 2013 • Increased awareness, behaviour pledges and 20% reduction in rail-related accident rates (Quelch, 2014; Russell-Bennett et al., 2015) **Changing the Binge Drinking Culture Amongst Young Adults in Australia** (Chin & Scott, 2015) "[I]ndependent tracking research (n=750, 18-24 year olds) conducted by Quantum Market Research three months after launch resulted in: • "76% of the target audience suggested they are now thinking about the benefits of moderation (significantly higher than those who didn't recall the campaign); • 68% are reflecting on their behaviour when out drinking (significantly higher than those who didn't recall the campaign; and • 25% report drinking less" (p. 104). **Healthier. Happier. Using Online Assessment and Digital Support Tools to Facilitate the Reduction of Overweight and Obesity in Queensland** (Martin, 2015) "Not only has the campaign succeeded in encouraging Queenslanders to perform an honest assessment of their lifestyle, a large portion of people who have completed the calculator have started making healthier changes as a result: • 48 per cent reported that they had started exercising more and eating more fruit and vegetables. • 39 per cent reported that they started to drink less alcohol. • 35 per cent reported that they started to drink less sugary drinks" (p. 139).

Headspace "We've Got Your Back" Campaign: Supporting young Australians through tough times (Tuckey, 2015)

> "There have been significant improvements in brand awareness and brand familiarity since the launch of the campaign. In addition, there are increasing numbers of referrals to headspace centres and increasing visitor traffic to the headspace website" (p. 153).

International

Alcohol-impaired driving "Road Crew", USA:

- Objective of decreasing alcohol-related road crashes in Wisconsin, USA by 5% was exceeded.
- Over 85,000 rides taken in 6 counties; Estimated avoidance of 200 crashes, 10 deaths; Cost of alcohol related crash $231,000; Cost to avoid crash: $4,400; Net savings $45 million.
- No increase in individual alcohol consumption although the intervention was subsequently criticised for not addressing excess alcohol consumption (Rothschild et al., 2006).

Smoking Cessation, Thailand Health Promotion Foundation: "Thai Smoking Kid"

- The number of completed calls to the Quitline went up by 62% in the first month after the video was released online, and averaged a 32% increase over pre-intervention levels for the following five months. Media coverage, estimated at more than US$3 million in value, and social media commentaries, all overwhelmingly positive, extended well beyond Thailand. The on-line video was viewed more than a million times within the first three days after it was posted online, and more than five million times during the first ten days after posting (World Advertising Research Centre, 2013).

Cycling safety, UK: "Cyclists should be seen and not hurt"

- An intervention aimed at reducing bicycle traffic casualties in London is estimated to have saved £2.3 million in the year following the intervention due to reduced cycling accidents. Won Gold: IPA Effectiveness Awards, 2009.

British Heart Foundation, UK: "Under the Skin" Smoking Cessation

- Led to an estimated 5,600 lives saved through smokers successfully quitting smoking permanently and returning £600 of value for every £1 invested. Won Silver: IPA Effectiveness Awards, 2006.

Greater Manchester, PCT UK: "Don't be a Cancer Chancer"

- Led to significant increases in GP consultation and a 20% increase in referrals to hospitals for breast, colorectal and lung cancer investigation or treatment. Referrals from the most deprived wards increased by 48%. Won Bronze for Best Media, IPA Effectiveness Awards, 2009.

Tower Hamlets Recycling, UK

- Led to an increase in annual recycling rates from 12.89% to 19.51%. Won Bronze, Design Effectiveness Awards, 2009.

Central Lancashire, PCT UK: "Breast Feed, Be A Star"

- A peer support programme for young mothers from deprived areas, led to breast feeding rates increasing from 52% to 65% in the first month; rates were maintained for several months. The increase led to savings for the NHS on treatments for conditions such as gastroenteritis. Won Gold, Design Effectiveness Awards, 2009.

Mental illness, UK: Anti-stigma

- Benefits of intervention outweighed costs although the increase in people with depression accessing services was small (+ 1%) (Evans-Lacko et al., 2013)

VERB, USA: "Tweens" physical activity.

- By the end of the first year 74% awareness among tweens
- The average 9 – 10 year old did 34% more free-time activity than those not aware of VERB (Grier & Bryant, 2005).

See additional examples in the National Social Marketing Centre case study collection http://www.thensmc.com/resources/showcase

Two education-specific projects warrant discussion:

1. In the UK, Inspire-Aspire South Yorkshire commenced in 2010 as a result of identified underperformance on a range of measures relating to educational aspiration and attainment. It uses social marketing principles to target 11 – 14 year olds, their families and local communities. While a range of 'demonstration projects' are underway through individual schools and local authorities, only anecdotal rather than empirical evidence of positive changes is available (Inspire-Aspire South Yorkshire, 2010).

2. A second project in Ireland proposed the use of social marketing to improve knowledge of, and enthusiasm for, science careers and initiatives (Domegan, 2007). However, while ways this might be achieved are discussed, actual application effectiveness is lacking.

Systematic Reviews

Systematic reviews have also been conducted – general reviews are listed below; more recent reviews have focussed on specific sectors such as condom use, sanitation or the use of social media (Sweat et al., 2012; Evans et al., 2014; Maher et al., 2014): Examples of broader systematic reviews are:

- Snyder et al. (2004)
- Evans (2006)
- Gordon et al.(2006)
- Stead et al. (2007)

2.3.1 Key Message: Social Marketing Influences on Behaviour

Social marketing uses a mix of methods in order to influence behaviours that benefit individuals and communities for the greater social good. Social marketing is receiver-driven, with programmes specifically customised to meet the needs and likely responses of population segments.

A transdisciplinary approach is commonly used, in order to tackle the complex web of intrapersonal, interpersonal, organisational, community and societal influences which are apparent in contexts such as widening participation. In particular, co-creation is used in order to give the range of stakeholders input into how the intervention plays out, and enables target groups to be active in decision making that can potentially transform their lives.

Effective social marketing campaigns have had modest positive effects.

3 Widening Participation Literature Review

3.1 Overview

This position paper is part of a larger project which aims to develop a strategy for a social marketing campaign which will:

- increase awareness of and aspiration to tertiary study amongst low SES students, families and communities
- increase knowledge of pathways to tertiary study amongst low SES students, families and communities
- increase numbers of applications to tertiary study and pathways courses for people from a low SES background.

The literature review has been undertaken to meet the criteria of the brief, namely to:

- summarise what is known about effective widening participation initiatives in higher education
- review the research and practice that underlies, evaluates and critiques those initiatives
- identify and, where possible, fill existing gaps in knowledge.

The review is divided into three sections.

A. Cohort analysis: Aspiration, awareness and pathways

The first section considers the cohorts which are the focus of this project: those people from low socioeconomic backgrounds including Aboriginal and Torres Strait Islanders; those from non-English speaking backgrounds, particularly recent refugees; and those who are first in family to participate in higher education.

Awareness, aspiration and pathways are considered as the organising themes in this section. These broadly map to the four preconditions of participation in higher education -- educational achievement, aspiration, accessibility and availability (Anderson & Vervoorn, 1983, cited in Gale et al., 2010a).

B. Place analysis: Regional and remote, urban and outer-urban

The second section explores the ways in which place, both geographic and socio-geographic, impacts on student choices regarding higher education.

C. Key influencers and intermediaries

The third section is focused around a consideration of family, peers, Elders, community, and the other factors which influence the decision to enter tertiary education. It also examines communication methods which are familiar to these groups.

3.2 Awareness and aspiration

“Aspiration” is a word used so commonly in literature about widening participation that its meaning is often taken for granted, perhaps ironically, given how contested the notion has become in terms of widening participation to tertiary education. Aspiration is more than

ambition, in that it encompasses hope and speculation as well as intent. As Kintrea, St Clair and Houston (2015, p. 666-7) put it, "[a]spirations are desires to achieve something in the future, with the implication that they will drive actions in the present." Having some sort of aspirational plan in itself is a key determinant of future success (Thomson & Hillman, 2010).

Lack of awareness is one of the factors the Bradley Review (2008) identified as a barrier to higher education for people from disadvantaged backgrounds: "Barriers to access for such students include their previous educational attainment, no awareness of the long-term benefits of higher education and, thus, no aspiration to participate" (p. 27). As a concept it is linked to the building of aspirations in students.

Aspiration has been positioned centrally in the Australian government's policy agenda of widening participation in higher education, as a central component in expanding higher education uptake amongst those groups who have not traditionally pursued university (Commonwealth of Australia, 2009). This conception is based on the idea of deficit: that people from disadvantaged backgrounds suffer a lack of aspiration, and raising their aspirations will correspondingly raise participation. As a result, "raising aspiration" has been central to the conversation about how to widen participation, and to outreach programs of the post-Bradley era.

This conception of "raising aspiration" has been criticised as a "deeply problematic trope around which to establish social justice projects" (Sellar, Gale & Parker, 2011, p. 38), because of the way in which it projects a larger systemic issue as something which is primarily an individual deficit. The most common criticism is that when deficit models are assumed, it can lead to an emphasis on raising aspirations in individual students as a solution to entrenched inequality, but without any engagement with the systemic disadvantages within the social groups and communities with the lowest participation rates in tertiary education (Armstrong & Cairnduff, 2012; Sellar & Gale, 2011; Sellar, Gale & Parker, 2011). The need for change is placed squarely on the student, and interventions based on this idea focus on removing barriers rather than engaging meaningfully with what actually matters to the prospective students being targeted (Sellar & Gale, 2011). Sellar, Gale and Parker (2011) poignantly argued, the idea that aspiring to higher education as desirable, is itself a normative assumption, as other aspirations also have value. Furthermore, evidence of a causal link between low aspirations and low participation in tertiary education is not clear, as there is evidence that they do aspire to higher education (Bowden & Doughney, 2010). In other words, aspirational goals set by policy do not always match the actual aspirations of students (Brown, 2011; Sellar, Gale & Parker, 2011).

However, when aspiration and awareness are not conceived through a deficit lens, they become essential aspects of interventions aimed at closing the gap between student aspiration and participation in tertiary education that exists for some groups of people, primarily those who experience compounding disadvantages, for whom the possibility of realising their aspirations is affected by those disadvantages (Sellar, Gale & Parker, 2011). Chesters and Watson (2013, p. 210) point out that these systemic barriers mean that "policies which simply aim to raise low SES students' 'awareness' of the value of higher education may not be adequate to overcome the complex social forces that influence student aspirations across the socio-economic spectrum".

Sellar and Gale (2011) discuss the ability to be future-focused, which is central to aspiration, as part of the collective capacity of a culture, and as with so many capacities, imagined futures are more difficult to entertain for those experiencing disadvantage. Citing Appardurai, they explain,

> "The capacity to aspire is ... a navigational capacity. The more privileged in any society simply have used the map of its norms to explore the future more frequently and more realistically, and to share this knowledge with one another more routinely than their poorer and weaker neighbours. The poorer members, precisely because of their lack of opportunities to practice the use of this navigational capacity (in turn because their situation permits fewer experiments and less easy archiving of alternative futures), have a more brittle horizon of aspirations" (Appadurai, 2004, cited in Sellar & Gale, 2011, p. 124-5).

Additional factors which have been identified as having positive or negative impacts on a student's aspirations, and transition through school, higher education, and the workforce can be summarised as: experiences of schooling, families, ethnicity and race, gender, and socio-economic factors (Dalley-Trim & Alloway, 2010, p. 108). The investigation of Gemici et al. (2014a, p. 7) into *The Factors Affecting the Educational and Occupational Aspirations of Young Australians* confirms the importance of these factors, in particular, "gender, English-speaking background, socioeconomic status and academic achievement at age 15 years, as well as parental and peer influences."

Students' lack of awareness of educational options and requirements is widely reported in the Australian literature as a barrier to participation for particular groups. This ranges across several issues, which are often interrelated.

Circumscribed aspirations:

- systemic lack of time/resources/encouragement for students to inhabit imagined futures of what they might be or might do (Sellar & Gale, 2011).

In some instances and for some groups, inadequate or poorly targeted institutional information has been provided through formal channels:

- a lack of information in languages other than English (Naidoo, 2015, p. 1)
- too much information, poorly targeted – a wide-range of programs for Aboriginal and Torres Strait Islander students are available but poorly used due to a variety of issues, but chiefly that students don't know they are eligible, as the sheer number of programs makes it hard to find the matches (Behrendt et al., 2012, p. 53)
- a lack of career guidance which is appropriate for groups with specific needs, such as Indigenous students (Behrendt et al., 2012).

Group-specific needs:

- Aboriginal and Torres Strait Islander students want information about cultural appropriateness and safety of the higher education institution (Raciti et al., 2014, p. 3)
- students with disabilities may need instruction in self-determination in order to be able to make informed and engaged decisions about higher education (Trainor, 2007).

3.2.1 Students from low socioeconomic backgrounds and aspiration/awareness

Socioeconomic status is not easy to define; it is a multi-dimensional concept used to

describe a person's community standing within the hierarchy of a community. Dimensions commonly considered part of SES include "material resources, social and economic participation, education and health, political or community participation, and access to services" (Lim & Gemici, 2011, p. 8). In addition, it is linked to the experience of compounding disadvantages which tend to be concentrated in particular locations within Australia, forming "web-like localised systems of disadvantage" along multiple indicators (Vinson et al., 2015, p. 12).

Increasingly, SES is discussed with reference to Bourdieu's theories of social and cultural capital in addition to more material economics (Jardine, 2012). For instance, coming from a low SES background influences whether students choose VET over university, based on cultural perceptions and values of each (Edwards et al., 2013). Issues commonly experienced by potential students from low SES backgrounds are:

- a "low level of literacy and numeracy
- living with a disability or mental illness
- early school leavers
- living on low income
- lacking adequate transport
- first member of their family to undertake post-compulsory education
- unsatisfactory experiences of education in the past
- lacking a supportive home" (Edwards et al., 2013, p. 8).

Edwards et al. (2013) point out that these interact with two sets of complex elements. First, the individual's circumstances, which may be circumscribed by fluctuating income, accommodation, and/or family responsibilities and other such issues. Second, barriers created due to inflexible policies, rules, institutional expectations, and other systemic infrastructure. All of these can work together to inhibit aspiration building.

Jardine (2012) discusses the role of social capital with reference to aspirations for those from low SES backgrounds, pointing out that a lack of social capital doesn't necessarily result in a lack of educational aspirations, but rather in the lack of capital to turn aspiration into participation, particularly at high-prestige universities.

The main thrust of Jardine's work, however, is to fill the gap in the literature about what secondary and post-secondary students from low SES backgrounds know and expect about higher education before they commence. There is a level of misinformation about tertiary education which creates discord between what students expect of university and what they experience. Particular areas in which this is the case include the "academic skills and academic strategies required to succeed at university" (Jardine, 2012, p. 67).

Boyd, Trinidad and Fletcher (under review) also conclude there is need for further research into whether student aspirations are built on informed and realistic expectations while in Year 8 and 9 secondary school. They report that aspiration is generally high for Year 10 students, but less so for Year 9 students; and that there is a gap between what Year 10 students have decided about Year 11 and 12, and what they imagine themselves doing post-school. Edwards et al. (2013, p. 14) points out that information about careers students receive in secondary school is "critical in building aspirations."

3.2.2 First-in-family students and aspiration/awareness

People who are the first-in-family to enter tertiary education are also likely to be from low SES backgrounds, live in regional or remote areas, and/or be Indigenous students, mature-

aged, or negotiating a disability. Their chief barrier to higher education is that their social and cultural capital doesn't readily align with the university's (Luzeckyj et al., 2011). James et al. (2010) found that first year students who were also first in family and from low SES backgrounds:

> "show more clarity of purpose and occupational focus. They are more likely to have worked consistently during semester and are more strategic about managing their academic workload, though they are more likely to report they feel overwhelmed by all they have to do. Fewer have made friends and they are less likely to report they regularly work with other students and less likely to report they like being a university student. Ironically, though, they are also more likely to report greater satisfaction from studying than high/medium-SES students, who are more likely to say they skip classes" (p. 65).

First-in-family students base their expectations of university on school guidance counsellors and teachers, as well as marketing material and websites, more often than their peers. This is most likely because they also experience limited discussion about parental expectations, what to expect at university or how to access tertiary education (Collier & Morgan, 2008, cited in Rissman et al., 2013, p. 1). Gaining knowledge of the range of programs available at university is an issue, as are unrealistic expectations about the amount of time required to study full time (Luzeckyj et al., 2011). They tend to decide on university later – often after some time in the workforce (Luzeckyj et al., 2011). They are slightly older, and more likely to be from rural or regional areas, and are more likely to be working to support themselves and/or primary care-givers (Luzeckyj et al., 2011).

3.2.3 Students with a disability and aspiration/awareness

Disability occurs at the nexus of an impairment and the lack of infrastructure which would otherwise allow people with that impairment to access places and opportunities, especially in contrast to those without such an impairment (Kent, 2015).

Aspiration and transition are impacted by the experience of disability in complex ways, and vary widely depending on the type of disability or combination of them. Chiefly, it is the interplay between environmental and personal factors which determine a student's ability to participate in tertiary education (Foley et al., 2012).

In Australia, tertiary educational institutions typically offer specialist disability services to meet their obligations to students with disabilities under the Disability Discrimination Act (Commonwealth of Australia 1992, 2005). Students are required to provide documentary evidence of a disability or ongoing health condition and how their access and/or study may be affected. While educational institution may differ in their methods of organising supports for students, identifying suitable reasonable adjustments to reduce the impacts of the student's disability on studying is the key goal. This can involve a number of supports including the loan of equipment (e.g. screen-reading software), and reformatting of course materials to accommodate specific impairments (e.g. reformatting for large print), or the provision of in-class and tutorial support. This may also include access to learning/academic support, counselling, accommodation or financial advice, and so on.

KPMG's recent report *Evaluation of the Disability Support Program* (2015c) for the Department of Education and Training found that Australian universities generally support students with disabilities, including via transition programs and entry pathways. However,

there are still gaps in student awareness of university resources and how well their specific needs will be met:

> "[I]n deciding which university to attend, 82 per cent of respondents had viewed the higher education providers' website, however, only 46 per cent of students had contacted a member of staff. When asked if their specific educational needs had been discussed, this figure fell to 29 per cent, with only 21 per cent receiving a commitment from the provider about specific support and equipment that would be provided. Given that the survey was only aimed at students who were or had been at university, it is not possible to assess the proportion of potential students who did not proceed with applications because they had not benefitted from proactive outreach initiatives" (KPMG, 2015c, p. 12).

In an American study of postsecondary transition planning, Trainor (2007) found that students with learning disabilities were motivated by opportunities for self-determination, but that they often had under-developed attitudes, skills and knowledge to realise effective self-determination. This impacted on their educational decisions and transition to higher education, which were often unrealistic or disengaged, particularly when considered through the lens of gender. Trainor found that the girls in her study were passive when it came to pursuing higher education, and didn't link careers of interest to the need for further education and self-development. In contrast, boys in an earlier study had made the cognitive leap to more realistic and specific aspirations, which indicated a better developed sense of self-knowledge.

Foley et al. (2012) undertook a comprehensive literature review on post-school transition for students with intellectual disabilities and found significant gaps. There has been little research which involves young people, and those studies which do, focus mainly on students with mild intellectual disability. Research has also focused on transition to work or various health services, rather than a more holistic approach which takes into account other possible outcomes. A key factor in transition for students with a disability is the impact on family and carers, especially in relation to the available support services.

Foley et al. conclude that there have been many initiatives undertaken in the last two decades focused on improving post-secondary transition for those with disabilities, but "very few have had positive outcomes in terms of fully participating in all areas of adult life" (p. 1760).

3.2.4 Students from non-English speaking and/or culturally and linguistically diverse backgrounds and aspiration/awareness

Transition issues facing refugees entering higher education are not currently well researched in Australia (Harris & Marlow, 2011).

A lack of aspiration was not a major issue for the female Sudanese refugees Hatoss and Huijser (2010) interviewed. However, they found that women from refugee backgrounds face additional challenges, as they often face cultural and linguistic barriers, such as the expectation of integration into mainstream Australian society, family responsibilities, and commitments to family still in their country of origin. There are also potentially conflicting or contradictory discourses about the benefits of education for women that they must navigate, particularly the Western notions which frame education as the key to refugee women's empowerment and gender equality, which may be in conflict with expected gender roles and values in other areas of their lives (Hatoss & Huijser, 2010).

Bowden and Doughney (2010) consider the experiences of students from non-English speaking backgrounds in western Melbourne. They found that aspirations were high in this cohort, especially for those from high-SES backgrounds, and those who do not speak English at home. However, there is a gap between aspirations and enrolments, and it is larger for students from low SES backgrounds (20 per cent) and for those who do not speak English at home (30 per cent) (p.127-8). Many of the students who did not enrol in university, enrolled in TAFE courses instead. Bowden and Doughney discuss two categories of theories which have been put forward in the literature to explain the experiences of students from ethnic backgrounds. The first is how education is valued and encouraged within the different ethnic groups, and the second is the "structural position" of the ethnic group and what resources and skills the migrant has (Kao & Thompson, 2003, cited in Bowden & Doughney, 2010, p. 119).

This effect of compounding disadvantages located in ethnicity and low SES has been reported in other contexts. James et al. (2008, p. 84) point out that students from some backgrounds are more impacted by low SES than others, with Hispanic students in the USA from low and high socioeconomic backgrounds experiencing a 26 percentage point difference in completions, while white students experience 19 percentage points of difference and less attrition even for those with low SES.

Morrice (2013) discusses the experience of refugees in the UK context, many having well-developed cultural and social capital and habitus which enables them to aspire to, access and progress through tertiary education and into employment. However, Kintrea, St Clair and Houston (2015) point out this reality can exist in contrast to policy which positions them in deficit, with undeveloped aspirations. Hatoss and Huijser (2010) further add that their original social and cultural capitals become transnational as they negotiate their new context, and the burden of that value-adding is borne by the refugee rather than the Australian community as a whole.

In their study of a small group of African refugees entering university in Australia, Harris and Marlow found that the students "primarily speak of academic success as their own responsibility, as well as their best support being other students from the same background" (2011, p. 186).

3.2.5 Awareness and aspiration in practice

Cohort-focused programs tend to target a particular need in addition to awareness/aspiration building, although they may also be part of a larger multi-pronged intervention. AVID (Advancement via Individual Determination), for instance, aims to prepare students from disadvantaged backgrounds for success at university. This is a whole-of-school approach focusing on supporting teachers and other school staff, pedagogical innovations, and helping students develop core literacy skills, especially reading and writing. Its approach covers most of the best practices highlighted in the KPMG (2015a) review of the Bridges program and Gale et al.'s (2010b) and Edwards et al.'s (2013) earlier studies.

On the other hand, the Children's University program is not primarily targeting children in schools, but rather is an extra-curricular enrichment program aimed at children aged 7-14, with volunteering opportunities for older teens. The program is about expanding students' understanding of the world and themselves by helping them access local community resources, and creating opportunities for them to connect with people who share their interests. The program is effective in helping students develop resilience and optimism and a sense of belonging, but also enables them to develop autonomy and decision making skills.

Of note in Morris and Golden's review of Aimhigher is the key finding that there was a need for the "'local voice' of schools and young people to be retained in order to meet their needs" (2005, p. iv). Of those outreach activities undertaken via Aimhigher, the student ambassador scheme most closely fulfilled this goal because of the ways in which it focused on student narratives, increased student aspiration, positively influenced school culture, provided needed information about university and its support systems, and provided peer-aged role models (p. 53). Similarly, the Queensland Consortium's Student Ambassador Programs has shown a range of positive effects, with students, parents, teachers, and the ambassadors themselves all benefitting (Cupitt, Costello & Mitchell, 2015; Koshy & Islam, 2015). The key component of this program is the focus on student narratives. The ambassadors tell about their own journeys into higher education, and what university and their discipline is like, and open up opportunities for students to ask questions of people who are like them.

When it comes to effective programs which help students build aspiration and awareness of their educational possibilities, their voices need to be given space, to be heard, and be both ongoing and multiple. This seems an obvious point of synergy with social marketing approaches such as co-creation, which is focused around stakeholder participation and joint invention of the program. Several widening participation outreach initiatives have focused on empowering students and giving them a voice, such as Small Town Culture, which uses music to help students express themselves and their identity. Examples of these kinds of tailored, cohort-focused programs are given in the table below, and more detail is available on these and many other programs in Appendices 1, 2, 4, 5 and 7.

Table 10: Widening participation initiatives with a focus on building aspiration, and related awareness and capacity building.

Australian HEPPP Funded Initiatives	
AVID Australia (Advancement Via Individual Determination) Victoria University	Innovative uni-readiness system that explicitly prepares students from low SES, diverse and disadvantaged backgrounds for tertiary success. Early childhood, primary, secondary and tertiary programs. Works simultaneously to support students, teachers and school leaders to improve academic, social and emotional aspects for underachieving students. Evaluation of the Australian program currently underway. In the USA, "positive program effects have been reported in the areas of (a) performance on standardized achievement tests, (b) school attendance rates, (c) GPA, (d) enrolment in advanced courses, and (e) college enrolment and acceptance rates" (Black et al., 2008, p. 113).
Children's University Australia (CU) Children's University Trust UK SA Water South Australian Museum City of Playford Carclew (South Australian youth arts organisation) South Australian Migration Museum	Children's University Australia (CU) provides extracurricular learning opportunities to children aged 7–14, and volunteering for 15–18 year olds. CU seeks to engage children in learning in its broadest sense and provide the scaffolding to develop self-efficacy, confidence and aspirations. CU is child directed; with each child choosing to be involved, and choosing what they would like to participate in. Although open to all, CU aims to

Art Gallery of South Australia Adelaide City Council Adelaide Zoo Adelaide Botanic Gardens Adelaide Arcade Adelaide Festival Centre Tandanya National Aboriginal Cultural Institute Red Cross Rundle Mall Group Sammy D Foundation The University of Adelaide The Other Side of Science The Australian Research Council Centre of Excellence for the History of Emotions Barr Smith Library Confucius Institute (The University of Adelaide) Upside Down Circus.	reach children facing disadvantage and is at the forefront in cultivating children's love of learning and boosting their aspirations. The benefits for students are to extend the learning opportunities beyond school and to assist children in making their own decisions about learning. It allows them to explore and develop new talents and interests and interact with people who have similar interests. CU also offers children the chance to manage and measure their own success through receiving certificates and public recognition. Children who take part become more adaptable learners, better able to make their own choices. "CU has improved student behaviour through; student voice, ownership, a sense of belonging and improved engagement and relationships" (cited in Costello and Trinidad, 2015, p. 7). The Australian pilot group showed improved school attendance, punctuality and behaviour. University of Cambridge's evaluation showed improved attendance, attainment and achievement.
Learn, Experience, Access Professions (LEAP) Australian Catholic University Deakin University Federation University Australia La Trobe University Monash University RMIT University Swinburne University University Melbourne Victoria University Department of Education and Early Childhood Development (DEECD Independent schools Victoria Catholic Education Commission of Australia Schools Professional groups	This coordinated statewide outreach program seeks to extend the generic aspiration raising offered directly through individual school-university partnerships, enabling partners to draw on more opportunities than would otherwise be possible. Co-ordinated outreach activities developed and delivered through a partnership of Victorian universities. Initially focussing on the design, engineering, health and law professions. Consists of applied learning activities and online material to engage students.
Queensland Widening Participation Consortium Department of Education, Training and Employment Australian Catholic University Central Queensland University Griffith University James Cook University Queensland University of Technology University of Queensland	Project 1: A coordinated approach to schools outreach involves each Queensland Consortium university working with a local cluster of low SES schools in order to stimulate demand for tertiary study. This project targets middle school students; provides activities which are age-appropriate, curriculum-connected and locally-brokered; and focuses on stimulating interest in all forms of tertiary study rather than on a single provider. Activities include in-school and on-campus engagement visits, university demystification and preparation activities, academic enhancement and

University of Southern Queensland University of Sunshine Coast Multiple schools, community groups and organisations	career development Activities are tailored to local needs and specific cohorts including Indigenous, Pacific Islander, and Culturally and Linguistically Diverse (CALD) students. Project 2: Eight Indigenous engagement initiatives target school students, adult learners, parents and communities and include mentoring programs, tertiary preparation and community, school and campus based events. Each partner university has undertaken projects which respond to locally identified needs. While some projects focus on school students and their family and are more closely aligned with school outreach initiatives, others target broader community engagement and tertiary pathways for adults and those in correctional facilities. Koshy and Islam's (2015) evaluation found that the program had a measurable impact, and that "Widening Participation tracked schools have experienced improvements in university applications, offers and enrolments at a higher rate than all Queensland schools" (p. 28).
Small Town Culture University of Southern Queensland Queensland Department of Education Training and Employment Small Town Culture 80 Primary and secondary schools in Queensland Darling Downs and South West Region	Is a music label developed by Josh Arnold, singer/songwriter and supported by USQ to enable students to have their voices heard. Josh delivers workshops and helps students to write, sing and perform music about their home towns and their aspirations for the future. The work builds self confidence in students from culturally diverse and Indigenous backgrounds.

3.2.6 Key Message: Widening Participation, Aspiration and Barriers

'Aspiration' is a contested notion due to the governments' policy emphasis on an individual deficit model that is likely to overlook systemic barriers due to its focus on raising the aspiration of disadvantaged students. In contrast, when aspiration and awareness is not conceived through a deficit lens, they become essential aspects of interventions aimed at closing the gap between student aspiration and participation in tertiary education.

Compounding disadvantages impact on awareness and the capacity to aspire in multiple and complex ways, particularly: experiences of schooling, families, ethnicity and race, gender, and socio-economic factors (Dalley-Trim & Alloway, 2010; Gemici et al., 2014a). The literature focuses on two aspects in particular: the ways in which an individual's circumstances can limit their ability to turn aspiration into participation, and the ways in which inflexible systemic factors, such as tertiary institution admission policies, can create additional barriers.

The literature reports that Years 9 and 10 are a significant moment in the development of educational aspirations.

While first-in-family students show more clarity of purpose in pursuing tertiary education, they face a number of challenges related to their socio-economic status, cultural background, geographic location, age, negotiating a disability, as well as family and work commitments.

They rely on sources outside of the family, such as websites and marketing material, more than their peers, making the availability of this information crucial to their educational journey.

Research indicates interplay between environmental and personal factors which determine the capacity of students with a disability to participate in tertiary education. While proactive outreach initiatives are promoting tertiary education enrolment and disability support programs are provided by universities, there still remain gaps in student awareness about resources that meet their specific needs. Also impacting their transition to higher education is the opportunity for self-determination and making that cognitive leap to pursue more realistic and specific aspirations.

While lack of aspiration is not a major issue for many cohorts of refugees or those from non-English speaking backgrounds in Australia, cultural and linguistic barriers can intensify the challenges they face. There is a gap between aspiration and participation in tertiary education for these cohorts, particularly for those not speaking English at home. Those who do have the capacity to leverage their existing cultural capital in their new context bear the brunt of this transitional work, with few institutional resources in place to ease their way.

Many cohort-focussed HEPPP-based programs target awareness raising and aspiration building, and are also commonly multi-pronged and involve a whole-of-school and community approach to assist students with academic success. Other effective outreach programs focus on personal and social skills to develop resilience, optimism and empowerment which resonates with social marketing interventions that promote stakeholder engagement.

3.3 Pathways

3.3.1 School pathways

There are many pathways into tertiary education and this project has a wider focus than school-to-university transition. However, transition from secondary school to university remains a common pathway to higher education in Australia, with 55 per cent of domestic undergraduate students entering university through Year 12 applications in 2014 (Department of Education, 2014c, p. 12). It is also the cohort most commonly targeted by

university-led outreach programs in partnership with other community groups such as The Smith Family (NCSEHE, 2014).

However, not all students have equal likelihood of transitioning to higher education via the secondary school pathway. Students from high-SES backgrounds are more likely to succeed in all stages of formal schooling. Trends in reduced student attendance and achievement are noticeable during transition from primary to secondary education for low SES, Indigenous, and regional and remote students (Hancock et al., 2013, iv), and that trend increases with regards to completion of secondary education for these cohorts (Behrendt et al., 2012; Edwards et al., 2013; Gale & Parker, 2013; Gemici, Lim & Karmel, 2013).

Additionally, the literature identifies subject choice as an issue, with students and parents not always understanding how this impacts on later educational options (Galliott, 2015). Teacher bias can further exacerbate gaps in achievement and student choices, such as teacher perception of girls' mathematics proficiency being lower than boys' (Robinson-Cimpian et al., 2014). In fact, there is a marked gender divide in subject choice in secondary school, which increases at university, with girls discouraged from science, technology and mathematics, and boys discouraged from humanities subjects (Fleming & Grace, 2014).

There is also a failure of systems to support refugee-background students and those from non-English and culturally diverse backgrounds to complete the necessary levels of education required for admission to higher education (Naidoo, 2015, p. 1).

University achievement follows a similar pattern: students from low SES backgrounds and/or with low educational achievement in secondary school need additional support and mentoring at university (Birch & Miller, 2007; Dobson & Skuja, 2005; Win & Miller, 2005). An anomaly in this pattern is that those who went to non-government schools are less likely to do well at university than government school students, which may be because private schools situationally enhance performance due to additional resources (Birch & Miller, 2007; Dobson & Skuja, 2005; Li & Dockery, 2015; Win & Miller, 2005). The implication is that students from disadvantaged backgrounds would experience similar achievement with access to similar resources. In other words, a high-SES background insulates students from low achievement at school (Lim, Gemici & Karmel, 2013).

Best practice for outreach programs aimed at increasing student secondary school achievement and completion, and aspirations for higher education are those which are sustained over extended periods of time and adapted to the particular needs of the targeted cohorts (Armstrong & Cairnduff, 2012; Behrendt et al., 2012; Briggs, Clark & Hall, 2012; Edwards et al., 2013; Gale et al., 2010a; Lamb & Rice, 2008; Woods, Husbands & Brown, 2013).

3.3.2 Non Year 12 pathways

Diversity in outreach programs, including those not focused on academic engagement, can be particularly beneficial for engaging students who are not immediately planning to enter tertiary education through established pathways. Many students aspire to be happy in their adult life, and Brown's (2011) research into Aimhigher indicated that positive endorsement of such non-educational aspirations also worked to raise educational aspirations in addition to raising confidence and awareness in general.

Pathways into higher education other than secondary school include recognition of prior learning, completion of enabling programs, incomplete university degrees or VET Diplomas,

and completion of secondary school but with a gap before entering higher education. Mature-age students returning to study, especially online, are a growing cohort (Abbott-Chapman, 2011).

The uptake of recognition of prior learning (RPL) in the VET sector has been steadily increasing since 2005 (Toohey & Doran, 2013); the trend is also on the rise for access to higher education, mainly by using a TAFE diploma for university entry. Because of RPL's links to VET, many of the same concerns are relevant. However Toohey and Doran also point out that the students they surveyed had no plans to undertake a university degree after completing their diploma, until they learned about RPL, with the implication that it is not currently well known or understood by potential students.

The wide range of educational pathways used by non-Year 12 applicants to higher education can be seen in Table 11, which shows the educational background of those applying for a university place.

Table 11: Highest prior educational participation, Non-Year 12 applicants, 2014 (Department of Education, 2014c, p. 13).

Highest prior educational participation	Number	Share (%)
Complete postgraduate	3,367	2.7%
Complete bachelor	12,616	10.2%
Complete sub-degree	2,894	2.3%
Incomplete higher education	53,342	43.1%
Complete VET	14,299	11.5%
Incomplete VET	2,205	1.8%
Complete secondary education	28,177	22.8%
Other qualification - complete or incomplete	3,233	2.6%
No prior educational attainment	3,689	3.0%
Total	**123,834**	**100.0%**

Later entrants to higher education are a diverse cohort in terms of age, background and ethnicity, and many are also from low SES backgrounds, Indigenous students, or mature-age students (Bandias, Fuller & Pfitzner, 2011; Hodges et al., 2013). Regional and remote students are also well represented in e-learning cohorts.

A common barrier to tertiary education for mature-age students is the need for paid employment and/or being a primary care-giver, and the calls these make on the student's time (Abbott-Chapman, 2011; Hodges et al., 2013). In response to this issue, alternative pathways and study modes are increasingly becoming available.

The alternative entry pathways which are most common are:

- pathways from VET courses to university
- university enabling programs, which prepare students for university study
- Open University (discussed in the following section, 3.3 Place).

3.3.3 VET pathways

VET is not only a pathway into higher education but offers tertiary education in its own right, primarily in the form of the diploma and advanced diploma and more recently in degree programs. Edwards et al. (2013) report that those from low socioeconomic backgrounds have a comparatively high participation in VET; however, this is clustered in the lowest VET award levels (AQF 1 to 3). Further, stigma is also an issue. VET is sometimes seen as a "soft" option for those students who are less academically gifted, or whom teachers perceive as "bad" students (Dalley-Trim, Alloway & Walker, 2008). In addition, VET has similar issues to higher education in terms of deregulation, fee setting and reduced levels of funding (Moodie 2015).

Widening participation policy in relation to VET is predicated on the idea that movement from low status education courses and institutions to high status ones is a potentially effective pathway for enabling equity of access. Due to credit transfer arrangements, more TAFE students are now accessing higher education. However, this is not an effective equity pathway for two reasons. First, the movement that does happen is most evident among the newer (and lower ranked) universities, thus adding to the stratification of widened participation (Weadon & Baker, 2014). Second, while it provides modest access to low SES students, students from middle-SES backgrounds are more likely to use this pathway, meaning that access is deepened for groups who already have it, but not for those who do not (Wheelahan, 2009). Gale et al. (2015) point out that students from high socioeconomic schools outnumber other SES groups in almost every TAFE-degree field of study, including the fields of Health and Education which are often seen as typical low SES student choices in universities. The implication is that VET diplomas and advanced diplomas will not be an effective mechanism to redress socioeconomic disadvantage for low SES in tertiary education. Wheelahan (2009) concluded that VET to higher education pathways are able to act as an educational ladder of opportunity for VET students, but it is less clear that they are able to act as a social ladder of opportunity for low SES students. For Wheelahan, redress lies with institutional and political reform to challenge universities' admissions policies and their support toward TAFE students making the transition to higher education (Wheelahan, 2009).

Gale et al. (2015) point out another complexity: that TAFE-based degrees are not a popular alternative to university degrees for low SES students. In fact, while overall rates of applying for them are comparatively low, students from schools in high-SES areas have the highest preference rates for these degrees, suggesting their greater access to what Ball and Vincent (1998) describe as "hot knowledge". Hot knowledge is "socially embedded in networks and localities and is unevenly distributed across and used differently by social-class groups" (Ball & Vincent, 1998, cited in Gale et al., 2015, p. 27). Students from high-SES schools are also more likely to alter their preferences to include a TAFE bachelor degree, after their ATAR results are known. Elster (1983, cited in Gale et al., 2015, p. 27) calls this "adaptive preferences", meaning that students change their preference to match their current circumstances, but in the process wipe their previous choice from the record ("this is what I intended all along"). Another way of explaining this trend is that students from high-SES schools have enhanced "navigational capacities" (Appadurai, 2004, cited in Gale et al., 2015, p. 27-28), which enables them to find alternative routes to their preferred destinations. One possible reason for low SES students' low preference rates for TAFE bachelor degrees could be the absence of more widespread appreciation for them, which may mean they become more popular over time, as their reputation is established.

Watson, Hagel and Chesters (2013) report that pathways between VET and university in Australia are most effective when there are formalised policies in place between institutions, such as university pathway agreements linked to admission policies; in particular, universities having pathway agreements and specific admission policies related to VET. Dual-sector courses similarly work better than unstructured credit transfers. However, they also titled their report *A Half-open Door: Pathways for VET Award Holders into Australian Universities*, with their main finding being that inconsistencies in universities' policies and practices across the sector are the biggest factor in enabling or barring entry via this pathway.

When transitional pathways between VET and higher education do work, they focus on a specific cohort and their needs, and use a tiered approach to entry into TAFE, which then leads into career paths or further university study (Edwards et al., 2013). An example is the South Australian Aboriginal Law Studies Program run jointly by TAFESA, the University of Adelaide and the Law Society of South Australia. Practicality is an important aspect, with the program taking into account the student's interests, previous education, and location, including employment opportunities in the area, and then enabling progression into becoming a paralegal, lawyer or police officer. Further support is provided by the University of Adelaide's Aboriginal and Torres Strait Islander education unit, *Wirltu Yarlu* (Edwards et al. 2013).

3.3.4 Enabling programs as pathways

Enabling programs are an effective pathway into university, "enabling around half of their students the opportunity to access undergraduate study" (Hodges et al., 2013, p. 5). Such programs commonly have few prerequisites for entry which makes them readily accessible to a wide range of people. Hodges et al. (2013) consider some of the attrition in such programs as positive, as part of their function is to give students an idea of whether higher education is really a good fit for them, before large costs are incurred for either student or institution. However, the negative attrition which does occur is due to a mix of factors:

> "issues which figure most prominently in predicting student attrition are: the student's experience of time pressures, a complex phenomenon with a multiplicity of underlying causes; life events impacting negatively on the capacity of students to cope (especially for the mature age students who provide the bulk of students in these programs); a low rate of awareness and use of student support services; and low student engagement with the program and fellow students" (p. 6).

An unpublished report detailing Australian Universities 'Enabling' programs (NCSEHE, 2016) found that it is a successful university pathway for low SES students, particularly for Indigenous students. The barriers however, include a lack of awareness of the alternative pathways to university study and the difficulties implicated with navigating the various university websites and the lack of clarity about the costs associated with enabling programs. Again there are some issues with enabling programs e.g. not enough are publicly funded programs are usually tied to particular institutions and tend to be a marketing strategy rather than a true enabling program (not many unis accept enabling programs from other unis as academic rigour differs.

3.3.5 Students from low SES backgrounds and pathways

There has been considerable research into the transition of low SES students from secondary school into university, largely due to the government's goal of 20 per cent of undergraduate enrolments being students from low SES backgrounds, by the year 2020 (Commonwealth of Australia, 2009, p. 13). Naylor, Baik and James (2013, p. 14) identify three factors which impact on students from low SES backgrounds accessing higher education:

1. low secondary school completion
2. low educational achievement
3. alternative aspirations.

In particular, a higher uptake of VET pathways is a notable trend within this cohort (James et al., 2008; Armstrong & Cairnduff, 2012). Once students from low SES backgrounds are enrolled in higher education, the situation improves. Their completion rates are within 10 per cent of those from high SES backgrounds and within 5 per cent of those from medium SES backgrounds (see Table 13), which is a small gap comparative to those experienced by other equity groups (James et al., 2008; Naylor, Baik & James, 2013).

As in the literature on aspiration and awareness, the research on pathways has criticised the way this systemic failure to educate students from low SES backgrounds has been turned into a deficit narrative. Callingham (2013) argues that a strength-based approach is useful for two reasons. First, it has the potential to give those who have been disengaged by education a voice, and an active role in creating change. Second, it highlights systemic disadvantage instead of blaming those who have been disadvantaged, with the potential to overturn some of the power relations which contributed to the disenfranchisement of students from low SES backgrounds.

It is noted that considerable focus has been placed on low SES students once they enter higher education. Those that do not do so have been subject to less research, making it "difficult to provide robust reasons why specific groups of potential students do not participate in higher education, although many have made contributions to answering the question" (Hughes, 2015, p. 305).

Bridgland et al. (2012), found that there was a place for generic preparatory pathways (Year 11/12 alternative programs) for mature-aged students from disadvantaged backgrounds. Of particular note were issues such as unsure of what field to enter, lacking confidence, needing additional qualifications to those they gained in Year 12 in order to enter a program, or wanting to try tertiary education before engaging in a longer program. Such programs work as effective pathways into university and VET diplomas.

Abbott-Chapman (2011) talks about the fragmented nature of the many non-linear pathways through tertiary education, which have become increasingly common as participation in tertiary education has widened. Such issues most often experienced by students from disadvantaged backgrounds, and especially low SES, are experienced during their transition into and through tertiary education. These transitions are made more complex due to the institutions themselves and the way they construct hierarchies of intersecting status, such as between university and VET.

3.3.6 Students from non-English speaking and/or culturally diverse backgrounds and pathways

Students from non-English speaking backgrounds face additional stigma if they are considered to be English as a Second Language (ESL) students. ESL stigma can create cognitive dissonance in student identity so they believe they may not belong or cannot succeed in tertiary education (Kanno & Varghese, 2010).

Kanno and Varghese (2010) discuss the way in which ESL courses are considered by staff and students to be remedial, which can be particularly demoralising for those students considered high-achievers in their country of origin and/or high school. They argue that it is not a lack of English language proficiency alone which inhibits their educational success, but that there are structural issues common to this cohort, in particular, limited financial resources and an increased likelihood of attrition. Students reported feeling that they were not valued by the college when they were categorised as ESL, which in some cases happened on arbitrary grounds such as birth location rather than aptitude with English. Parental expectations of educational achievement, especially if it was a motivator in deciding to immigrate to the USA to give their child more opportunities, potentially added to the cognitive dissonance in the student's identity as a student once they were labelled as "ESL".

In Australia, recognition of prior learning can be problematic between the student's home country and Australian institutions. Naidoo (2015) discussed the ways in which the experiences of refugees in Australia are shaped by their prior participation in education: "pathways are framed by the social, economic and geographic structures that refugees encounter and navigate. Although some individuals, particularly people with previous English language educational experience in a home country, are able to navigate the Australian terrain successfully, educators must be aware of how social and economic difficulties characterize initial resettlement experiences for many" (p. 4).

3.3.7 Binary gender and pathways

In Australia, Fleming and Grace (2014) report a gender divide when it comes to subject choice in secondary school, with boys dominating science, mathematics and computing, and girls choosing humanities, social sciences and home sciences. Watt el al. (2012) found a similarly gendered pattern of opting out of mathematics in Australian high schools, in contrast to the USA and Canada. This is most likely due to the different expectations for college entry in those countries, which penalise opting out of mathematics so early.

Fleming and Grace (2014) also report that rural girls are more likely than boys to complete Year 12 and aspire to higher education as a way of leaving the region and its limited career opportunities for women. This was true both before and after the Aspire UC Schools Outreach Program took place in the regional and remote schools being studied (see Table 12 for more on the Aspire UC program). Students of all year levels were more likely to consider post-secondary education after the program. However, the program had greatest impact on girls, who were more likely to plan post-secondary education after participating. Fleming and Grace also found indications that student aspirations were heavily impacted by socioeconomic status, with aspirations at their highest both pre and post-program in Year 7 for students from low SES backgrounds, and steadily dropping each year thereafter. The Aspire UC program was effective in disrupting this trend, with greatest positive impact on students in Year 10.

3.3.8 Pathways in practice

Table 12 lists HEPPP funded initiatives that focus on developing pathways to tertiary education, and/or developing navigational and transitional capacity in students. They have largely been undertaken by university collaborations where multi-level partnerships and community engagement approaches are key to the success of the programs. Engaging with students, teachers, parents and communities, the goals of the programs are diverse and range across raising awareness, improving motivation to study, building social and cultural capital to promote successful transitions to tertiary education, and promoting pathways between schools, TAFE and universities.

Programs are also tailored to particular cohorts. The Adult Learner Network is aimed at improving transition for mature-age students who have experienced a break in study. However the program engages not only learners, but staff via professional development, and also provides information on policy changes in the sector to administrators.

Another approach used by programs such as the Visual Arts Portfolio Workshop and Compass Film and Animation Workshops is to offer taster workshops. These programs offer an immediate reward to participants in the form of improving their skills and knowledge while completing an enjoyable task, while also giving them a taste of the kinds of activities and material covered in university courses, and informing them about available programs.

These kinds of multi-pronged approaches address not only student needs, but community and institutional needs, and even begin to influence systemic issues, in keeping with best practice (Edwards et al., 2013; Gale et al., 2010b; KPMG, 2015a).

Table 12: Widening participation HEPPP funded initiatives with a focus on transition pathways.

Australian HEPPP Funded Initiatives	
Bridges to Higher Education Australian Catholic University University of Sydney The University of Technology, Sydney Macquarie University The University of Western Sydney NSW Department of Education and Communities TAFE NSW the Universities Admissions Centre (NSW and ACT) Pty Ltd over 250 schools, local government organisations, Indigenous organisations and other community, philanthropic and social enterprise organisations	Engages young people who previously might not have considered higher education as an option, the *Bridges to Higher Education* program works with schools, TAFE and community partners in Greater Western Sydney. *Bridges to Higher Education* is comprised of 96 projects that are designed to collectively engage with students, teachers, parents and communities in order to raise awareness of higher education, and build aspirations amongst students from low SES backgrounds. Evaluation by KPMG indicates that the program has helped improve motivations to study at university, self-confidence, academic study skills, and use of pathways between TAFE and university (KPMG, 2015b, p. 7).
Adult Learner Network Griffith University	Partnership for Adult Learner engagement and support strategy focussed on low income adults bridging to higher education via generic

Queensland University of Technology (QUT) TAFE Queensland Brisbane TAFE Queensland Gold Coast Coorparoo Centre for Continuing Secondary Education Kingston Centre for Continuing Secondary Education Eagleby Learning Centre	preparation or Year 12 equivalent programs. Activities include multifaceted learner support, staff PD, research, shared professional practice and public policy activism. Evaluation shows the Year 11/12 equivalent and alternative programs (TAFE Cert IV in Adult Tertiary Preparation and External Senior studies) are fit for purpose, and work effectively as pathways to both university and higher level VET (Bridgland et al., 2012).
Flinders UniTEST Flinders University Public, Catholic and Independent secondary schools Australian Council for Education Research	Aptitude test designed to assess students' abilities and aptitude over 3 core areas of quantitative, critical and verbal/plausible reasoning that underpin studies in higher education and are needed to succeed. The university partners with secondary schools to deliver uniTEST, enabling greater opportunity to participate in higher education. Focusses primarily on the education and access needs of students from low SES and regional/rural backgrounds. Evaluation by Australian Council for Education Research (ACER) shows that UniTEST, in combination with Grade Point Average (GPA), is a better predictor of first year university achievement than either measure alone. It has successfully been used to admit students who would not otherwise have been offered a place, and they performed comparatively with those who entered through standard pathways (Coates, Edwards & Friedman, 2010, p. 7).
Compass Film and Animation Workshops University of Sydney South cares Centipede (Out of School Hours Care) 25 metro and regional NSW primary and secondary schools	Program delivers highly engaging workshops that reinforce communication, team work, problem solving, creativity, literacy and digital literacy skills. The experiential nature of the creative imagining of a narrative and depiction of the story arc using digital technology results in increased technical and production skills for the students involved. Evaluation found that "Compass has contributed to the social and cultural capital of participants," and "school students at all levels now have a greater understanding of what happens at a university; what is required to gain entrance into a university course; and what benefits a university education can provide" (Erebus International, 2012, p. 23).
Aspire UC University of Canberra	Aims to support the educational aspirations of students from Indigenous, financially disadvantaged, and/or regional backgrounds, and encourage post-school education to secondary school students who are traditionally less likely to participate in higher education. The program offers specifically tailored, age-appropriate activities for each year group, via in-school and on-campus

	activities (including the UC 4 Yourself program). Evaluation by Fleming and Grace (2014) showed increased interest in post-secondary education across all year levels, particularly students in Year 10, and girls. "The program's success is attributed to its depth and intensity and the concomitant recognition of the distinctive nature of rural and regional communities" (p. 483).
Pathways to Success University of Tasmania Tasmanian Department of Education Parks and Wildlife Services Tasmanian TAFE The Smith Family Colony 47 Circular Head Aboriginal Corporation Six Rivers Aboriginal Corporation South East Tasmanian Aboriginal Corporation Weetapoona Aboriginal Corporation Guildford Young College St James Catholic College Burnie City Council	The project will augment existing UTAS programs and services to expand pathways to higher education through key university-community partnerships. These pathways are aimed at preparing students for the four key industries of health, manufacturing, tourism and food to help drive a stronger future economy. Importantly, as a partnership venture involving UTAS, the Department of Education, TasTAFE, and numerous educational and community organisations, the Pathways to Success project aims to grow and strengthen the professional networks that will help sustain and develop successful project initiatives long after the project has run its course.
Supported Pathways Programs University of Wollongong Department of State Training Department of Education and Workplace Relations Regional Development Australia UOW College Eurobodalla Adult Education Illawarra Retirement Trust Southern Pathology TAFE NSW	Designed to improve participation of low SES and Indigenous people in higher education. Involves collaboration with local government agencies and Registered Training Organisations (RTO) to raise educational capacity of the Illawarra SE Region. Partners identify skills shortages in the region and provide tangible pathways and vocational qualifications to further education and employment.
Visual Arts Portfolio Workshop Australian National University Secondary schools in regional SE NSW	Provides secondary students with admission information about tertiary visual arts programs, augmented by practical art making experiences typical of first year undergraduate study.
SEAMS – Strengthening Engagement and Achievement in Mathematics and Science Monash University University of Melbourne John Monash Science School Elizabeth Blackburn Science School	Aims to increase participation and attainment of low SES and Indigenous students in science and mathematics related disciplines in higher education. Program targets Indigenous in early secondary school and low SES and Indigenous in senior secondary school. Engages students in challenging maths and science experiences through residential camps and online activities to encourage

	engagement and achievement, boosting students' access to a range of uni courses.

3.3.9 Key Message: Tertiary Education Transition Pathways

Australia has a diverse range of entry pathways into tertiary education which are tailored according to the students' academic credentials and experiential capabilities. Transitioning from Year 12 into university is still a popular pathway into tertiary education, but a growing number of people, especially mature-age students, are taking advantage of recognition of prior learning, VET diplomas and degrees and/or VET pathways into university, and university enabling programs. However, compounding disadvantage is still present, with people from high-SES backgrounds more likely to take up tertiary educational pathways, while those from low SES backgrounds are more likely to undertake low-level VET certificates.

Research reveals three factors impacting low SES background students' transition from secondary school to university: (a) low secondary school completion; (b) low educational achievement; and (c) alternative aspiration. Nevertheless, low SES background students are experiencing success with the VET to university pathways. Criticism however, is levelled at systemic failure to educate students from low SES backgrounds and for placing emphasis on a deficit narrative. In response researchers call for a strength-based approach to give those disengaged by education a voice and an active role in creating change.

While generic preparatory programs are identified as a successful pathway into university for mature-aged students from disadvantaged backgrounds, These alternative pathways have been characterised as unduly complex and unnecessarily burdensome for the students to navigate.

A key barrier to success in tertiary education for students from Non-English Speaking Backgrounds (NESB) is the stigma associated with being assigned as an ESL student, particularly those considered high-achievers in their country of origin. Other factors also impacting educational success include being arbitrarily assigned ESL, not feeling valued, limited financial resources and family expectations.

Refugees in Australia are also shaped by their prior experiences in education, and it is vital for educators to be familiar with how social and economic difficulties characterise initial resettlement experiences.

There is a gender divide in subject choice in secondary school, with boys dominating science, mathematics and computing, and girls choosing humanities, social sciences and home sciences, and girls were also more likely to aspire to university. While student aspirations were heavily impacted by socioeconomic status, the Aspire UC outreach program had a positive impact on the aspirations of low SES Year 7 students, and an even greater impact on Year 10 students.

3.4 'Place' analysis

3.4.1 Socio-geography

In a country the size of Australia, and with the comparative sparsity of the population in all but central urban areas, the question of place becomes important when discussing the accessibility of tertiary education.

The *Dropping Off the Edge* report (Vinson et al., 2015) found that there was consistent entrenched place-based disadvantage in Australia, with a concentration of disadvantage in localised areas within each state. While there were variations from state to state, across all locations these were characterised by "lack of formal qualifications, deficient education generally," (p. 3) and both long and short term unemployment, in addition to other factors such as high levels of criminal convictions, mental health issues, and disability. Western Australia was notable for having limited internet access in such locations.

In their USA study, Wodtke, Harding and Elwert (2011, p. 731) found that "sustained exposure to disadvantaged neighborhoods—characterized by high poverty, unemployment, and welfare receipt; many female-headed households; and few well-educated adults — throughout the entire childhood life course has a devastating impact on the chances of graduating from high school." The effect is cumulative, likely intergenerational, and linked to experiencing spatially concentrated poverty for long periods, especially during childhood.

Kintrea, St Clair and Houston (2015) point out that most research to date has considered the impacts of place rather than the mechanisms of how it influences people. They consider the question of how place influences life choices, and what the distinctions are between the influence of place and of related factors such as socioeconomic background or ethnicity. They argue that place is a spatial representation of socioeconomic factors playing out, in terms of the available social infrastructure, housing, transport, educational resources and so on, and raise the question of whether place is just a reflection of SES, or if it also helps actively reinforce socioeconomic disadvantage.

The Department of Education, Employment and Workplace Relations (DEEWR) (2010) considered the influence of location-based factors on educational participation, and found evidence of several gaps in participation. There were lower participation rates in regional areas than in metropolitan areas, and lower participation rates in outer-metropolitan areas compared to inner-metropolitan areas. A study of Melbourne university participation found that areas of the city closer to campus had higher enrolment rates than other areas of the city (Edwards & Marks, 2008, cited in DEEWR, 2010). The reasons for these gaps are complex, and contributing factors include the cost of relocation, higher high school attrition rates in these regions (especially for boys), socioeconomic status, and alternative or low aspirations (DEEWR, 2010).

Gale and Parker (2014, p. 737) discuss transition into higher education as a "capability to navigate change", which they link to the idea of identity formation. They consider transition to university not only a transition from one place to another, one institution to another, but also a shift in identity to that of university student. Further, "student" is also a transitional identity, "becoming somebody" as they prepare for their working career (p. 741). This transition is chiefly managed by the institution, which requires students to be able to navigate those institutional pathways in addition to their own transformation. However, the capability to do so may be impacted by issues outside of the institution's scope. O'Shea's (2014) investigation of female first-in-family students found that they often experienced resistance to

this transition into a student identity from social networks and/or family. Partners, for instance, could be resistant in a variety of ways, including "somewhat hidden behind a veneer of selective 'helpfulness' or subtle 'domestic sabotage'" (Wisker, 1996, cited in O'Shea, 2014, p. 136).

Socio-economic status and place plays out in terms of higher education in other ways as well, as becomes apparent in Table 13. Completion rates for domestic bachelor students are significantly affected by factors related to socio-geography, such as living in a remote community and studying in external modes (such as online education), much more so than low SES on its own. As highlighted in section 3.5, remoteness also significantly influences many Indigenous people and their access to higher education.

The compounding effects of different aspects of student identity, mode, location, and disadvantage are not currently tracked. In the data source for Table 13, it is noted that "[n]o allowance is made for inter-relationships between student characteristics. For example, older students may have lower completion rates on account of they are being more likely to be part-time students who also have lower completion rates" (Commonwealth of Australia, 2014, p. 5).

Table 13: Completion rates of domestic bachelor students commencing in 2005 at a publicly funded university and their progression by 2012 (Commonwealth of Australia, 2014).

Domestic undergraduate groups	Rate of completion (%)
Total domestic completions	**72.3%**
Full time students	77.7%
Part time students	**47.1%**
Internal students	75.4%
Multi-modal students	69.5%
External students	**44.4%**
High-SES students	76.5%
Medium-SES students	71.3%
Low SES students	67.7%
Indigenous students	**45.5%**
Non-Indigenous students	72.6%
Metropolitan students	73.7%
Regional students	68.5%
Remote students	**58.3%**
Non-English speaking background students	77.7%
English speaking background	72.1%
Secondary education admission	77.4%
Other basis of admission	68.1%
19 and under	79.1%
20-24	69.2%
25 and older	**57.1%**

3.4.2 Regional and remote students and place

Regional and remote students are under-represented in tertiary education compared to their metropolitan peers, being roughly one third as likely to participate in higher education (James et al., 2008). Their lower level of engagement with education does not begin with tertiary education, but is also seen in lower levels of secondary school completion (James et al., 2008). Koshy and Seymour's (2015) Table 3 shows that the proportional share of enrolments by regional and remote students has slightly worsened since 2007, although there has been considerable growth in the number of students from these regions. This could possibly get worse as government restrictions on "Relocation Scholarships" in 2016 will have an impact on people going from large regional towns to other towns/cities, thus restricting movement and choice.

Dalley-Trim and Alloway (2010) analysed the responses of regional, remote, and rural secondary school students who took part in representationally chosen focus groups across Australia. They found aspirations were strong, and students generally had plans in place for their futures which included work or further education and training, and commonly demonstrated detailed knowledge of alternative pathways and backdoors to tertiary education courses which would help them achieve their educational goals. "The most palpable and consistent theme to emerge from the interviews with the students who participated in the study was that the vast majority of them wanted 'to be something' – they wanted to make something of their lives – they did not want to be caught in what they perceived to be dead-end jobs that would rob them of opportunities to explore life in ways that had not been available to many of their parents" (Dalley-Trim & Alloway, 2010, p. 113).

Boyd, Trinidad and Fletcher (under review) in a recent analysis of regional Western Australian high school students also found that the majority of secondary students had well-defined aspirations for further education or training by Year 10, and had made a choice about whether to study ATAR subjects or enter trades and corresponding non-ATAR secondary school pathways. The transition point between Year 9 and Year 10 was marked by an intensification in surety about these aspirations. Boyd, Trinidad and Fletcher raise the question of which programs in schools were aimed at these students in Year 9 in particular, and how much they affected their growth in aspirational surety at this key point.

While these recent reports indicate regional students are generally well informed of their tertiary education options and have well-developed aspirations, Fleming and Grace (2014) report that rural students still have lower retention rates to Year 12, and are also more likely to enter trades and corresponding non-ATAR secondary school pathways than metropolitan students. A significant proportion of those deciding to defer enrolment by taking a gap year are also from rural and isolated areas (James, Krause & Jennings, 2010).

In some cases the reasons for low completion of Year 12 are place-based and structural. In Tasmania, for instance, "[o]nly 62 per cent of Tasmanians aged 15-64 have completed Year 12 or have attained a formal qualification at Certificate II or above" (ABS, 2011, cited in Department of Education Tasmania, 2012, p. 3). This is largely due to the way education is provided in the state; secondary schools have traditionally only provided schooling to Year 10, at which point students wanting to complete Years 11 and 12 had to transition to a college (Department of Education Tasmania, 2012). While there have been efforts to improve access to Year 11 and 12, it is still an ongoing issue in the region.

Once at university, place continues to play a role. Indigenous and remote students have lower completion rates than other groups of students (Behrendt et al., 2012; Bradley et al.,

2008; Naylor, Baik & James, 2013). However, compounding disadvantages play a role here too, given that the students from rural areas and low socioeconomic backgrounds who are studying part-time are also leading the way in taking up online education options (James, Krause & Jennings, 2010), and each of those groups has a lower completion rate.

3.4.3 Remoteness via technology (online education)

Online study is a rapidly growing mode, which potentially makes university accessible to regional, remote, and outer urban students, in addition to mature-aged students with other responsibilities, and students with disabilities, all of whom would otherwise find it difficult to physically attend. Henry, Pooley and Omari (2014) recently studied the reasons students chose to study online, and the conveniences of "time, pace, and place" (p. 4) were common responses. Not having to travel or relocate to the city was important for a variety of reasons, and distance to campus was only one of them; others included employment, family responsibilities, and disability.

There is a growing body of research which shows that blended learning is more effective than either fully online or face-to-face education (Means et al., 2010; Tamim et al., 2011), and that is particularly the case for low SES students, due to the flexibility it offers (Naylor, Baik & James, 2013). The large-scale American review by Means et al. (2010) also highlights that when learners have some control over their online environment it can generate significant learning gains.

The impact of the digital technologies, particularly on students from low SES backgrounds and Indigenous students, has been a key point of discussion, given the potential barriers and opportunities it creates (Watson, 2013). Watson (2013) points out that the chief barriers relate to the well documented issues of the digital divide, but also that such technologies offer opportunities for both transition and increased access to tertiary education for Indigenous peoples, particularly because it can enable a holistic learning style, buffer detrimental teacher-student and student-student interactions, and support mobile modes of living. However, recent research focusing on US community and technical colleges which compared face-to-face and online education shows that,

> "the online format had a significantly negative relationship with both course persistence and standardized course grade, indicating that the typical student had more difficulty succeeding in online courses than in face-to-face courses. Importantly, however, the size of the online performance gap varied significantly across subgroups. Specifically, males, Black students, and students with lower levels of academic preparation had significantly stronger online performance gaps compared with their counterparts. These patterns also suggest that performance gaps between key demographic groups already observed in face-to-face classrooms (e.g. between male and female students, and between White and ethnic minority students) are exacerbated in online courses" (Xu & Jaggars, 2014, p. 651).

This has significant implications for equity and distance education, which is increasingly online, and for students planning to transition into university or VET courses in the online mode.

Students transitioning into tertiary education via online learning need more information about the requirements and difficulties of the mode so they can set realistic expectations (Henry, Pooley & Omari, 2014, p. 1). More research is needed on distance education via online learning in Australia. In particular, the impacts of compounding disadvantage for these

cohorts of students, what best practice in terms of student retention and success looks like in the sector, and what resources are needed to implement those standards more widely (Xu & Jaggars, 2013).

3.4.4 Students from low SES backgrounds and place

According to Brett, Sheridan, Harvey and Cardak (2015) regional students face four major barriers to studying in higher education. While regional universities deliver high levels of student satisfaction and strong employment outcomes, there is less choice in courses offered. Hence some must move to the city to pursue a wider choice of course. Hence, the cost of living expenses in the city is a major barrier. For regional students transitioning to residential colleges or the accommodation rental market, living on $11,000 is a serious challenge. Many regional students who commute to undertake study also face considerably higher transport costs. While the statistics reveal fewer regional students completing Year 12, educational disadvantage can only be addressed with long-term solutions to improve participation at the earlier levels of education. The Gonski (2011) report also highlighted that not enough funds are directed to regional schools to drive higher levels of school achievement. Also a barrier is that regional school students are often unsure of how to navigate the complex admissions process.

With regard to barriers to higher education participation for students with a Disability, the EPHEA submission (2015) noted that government funding in the sector has become tighter. As a result there is a reduction in the capacity of students to utilise the DSE (Disability Standards for Education) to support their access. While online and mixed-mode study has reduced some barriers, new challenges have emerged for some groups. others have been created. For example while barriers relating to physical infrastructure and travel has reduced, challenges have been posed by real time interactive online teaching for people who are vision impaired or with certain learning disabilities.

Some of the same factors that play out for regional and remote students also influence students from low socioeconomic backgrounds, even when they live in metropolitan areas. Bowden and Doughney (2010) considered secondary school students in western metropolitan Melbourne. They found there was a relationship between SES background and aspirations, with those from high SES backgrounds more likely to aspire to university, and those from low SES backgrounds more likely to aspire to work or TAFE. However, they also found a gap between aspiration for and enrolment in university of around 20 per cent, rising to 30 per cent for students who do not speak English at home.

Jardine (2012) considered the time it took students to travel to campus, and found that around a third of students perceived the travel time had negatively impacted on their studies. They also tended to be overly optimistic about the time travel to campus would take before commencement of their course.

This suggests that distance to campus is a relative barrier, depending not only on actual geographic distance, but socioeconomic distance, which returns to the question raised by Kintrea, St Clair and Houston (2015) about whether place is active in reinforcing inequality.

3.4.5 Disability and place

The Australian Youth Affairs Coalition (2011) surveyed young people, many of whom had disabilities ranging from psychiatric and mental disabilities to physical disabilities such as

visual impairments and chronic illnesses. They found that 40 per cent of respondents indicated they had moved to another institution “in order to access better disability support” (p. 4). The biggest obstacles people with a disability faced when engaging with higher education were inadequate levels of support, missing class because of their disability, exclusion from activities, and harassment. They also feared reprisals if they made a complaint, didn’t think it would be resolved, and felt generally unsupported by staff. Assistive technology and flexible learning options were two of the main ways students identified that education providers could improve services (p. 7).

3.4.6 Binary gender and place

Boys from regional areas tend to have lower participation rates in tertiary education (DEEWR, 2010). They are more likely to aspire to apprenticeships or full time work after school than girls, who are more likely to aspire to further education (Fleming & Grace, 2014). Fleming and Grace report that despite these trends, Aspire UC positively impacted both boys’ and girls’ aspirations for tertiary education.

This is commonly conceptualised as an effect of the “macho” culture of rural areas, with the focus on primary industries (Fleming & Grace, 2014). Jardine (2012) considers this idea, and argues that for males, working class identity has significant value which is threatened by the need to fit into the university culture. Loyalty to a working class identity, then, can become a barrier to educational participation.

3.4.7 Place in practice

Place can have a profound effect on student access to tertiary education, both directly via distance, and in more complex ways via the nexus of socio-economic status, identity and location. These factors also add complexity to outreach programs, especially those covering large geographical catchment areas.

A key aspect of Bendigo’s Tertiary Education Partnership is creating regional hubs and cross-institutional delivery strategies with TAFE so that regional students can more easily participate in university study programs.

A growing transition pathway for students who cannot attend classes on campus is online education, which has its own set of advantages and disadvantages (Henry, Pooley & Omari, 2014; Xu & Jaggars, 2014; Watson, 2013). The University of Newcastle’s Open Foundation by Distance program addresses this cohort by offering an off-campus enabling program for mature-aged students. Hodges et al. (2013) found this program effective, and noted the way it reduced the costs of tertiary study for students, both financially and personally, which enabled them to attempt it more than once if needed.

Developing a collaborative partnership with online stakeholders in the education sector would provide useful opportunities for outreach to potential students who might be interested in studying in this mode. To explore the potential for possible collaboration and partnership, initial contacts could be made with universities to ascertain types of on-line tertiary courses accessible to students and what currently exists in terms of local and national stakeholders and infrastructure to target potential on-line students.

Table 14: Widening participation programs in regional and rural areas

Australian HEPPP Funded Initiatives	
Deakin Engagement and Access Program (DEAP), Victoria 30 schools across South Western Victoria and Eastern, Southern and Western Metropolitan Regions of Victoria Barwon Adolescent taskforce The Smith Family Deakin University	An outreach program for Year 7-12 students at schools in Melbourne, Geelong and Victoria's Barwon South Western region. Using a strengths-based approach to building community capacity DEAP works with partner schools to deliver on-campus and in-school activities. Activities encourage aspiration for post-school education and cover academic enrichment, study skills and Special Entry Access Scheme (SEAS) workshops. DEAP works with under-represented schools, parents, carers, families and community organisations to encourage and support young people. Evaluation shows "A positive impact on student aspiration with higher education enrolments increasing from partner schools by 15 per cent and Deakin by 42 per cent" (Costello & Trinidad, 2015, p. 8).
Bendigo Tertiary Education Partnership La Trobe University Bendigo TAFE Bendigo Senior Secondary College Schools from Greater Bendigo, Loddon, Macedon Ranges, Central Goldfields Buloke, Mount Alexander, Campaspe, Gannawarra and Swan Hill	A 2 year program for 2014-2015. Delivered across 9 regional local government areas that make up a catchment for La Trobe Bendigo campus. Program has 3 major elements. *Foundation:* sustainability through robust governance and planning underpinned by data and evidence which provides a picture of regional student aspiration, participation, attrition, attainment and destination landscapes. *Scaffolding:* Provide integrated Pathways hub to support teaching staff, parents and students to broaden aspirations to include tertiary study. Interventions include school outreach and engagement, capacity building of school teaching staff, career information for parents and industry engagement and participation. *Reinvigoration:* Redevelop 2 higher education courses to allow regional participation and collaborative delivery strategies between TAFE and the university. No formal evaluation to date.
The ASPIRE Program University of New South Wales	ASPIRE works with students longitudinally over a number of years to encourage them to make informed choices about their higher education opportunities. Multifaceted program reaching out to 6000 students in 55 partner schools across Sydney and regional NSW.

	Aims to address educational disadvantage by widening participation at university by students from low SES schools. Engages with students from K-12. Evaluation shows: Overall decline in negative attitudes to higher education over time. Overall increase in offers to university from ASPIRE schools greater than those schools not in ASPIRE. 108% increase in offers to students from girls' schools (Jardine, 2011, p. 4).
Centennial Parklands Education Access Pass University of New South Wales Centennial Park Education Centennial Parklands Foundation ASPIRE Partner Schools	Offers opportunities for students from disadvantaged, regional and remote schools to visit Sydney's iconic Centennial Parklands precinct. The program actively engages students in scientific methodologies and investigations such as classification of species, water quality testing, environmental impact studies and exploration of the factors influencing the growth, development, adaptation and diversity of ecosystems. Staff from the Education Precinct at Centennial Parklands work closely with UNSW ASPIRE to tailor activities appropriate to the varying interests and needs of visiting school groups. This partnership highlights to students the diverse skills required to manage ecosystems. This partnership overcomes the issue of social exclusion as a result of transport disadvantage. No formal evaluation to date, although ASPIRE has been evaluated.
Aspire to Astronomy University of WA International Centre for Radio Astronomy Research (ICRAR) joint venture with Curtin University 16 Aspire UWA partner schools Scitech Discovery Centre	Works with partner schools in WA to inspire and educate students about the benefits of higher education. The roadshows are a collaboration of education and teacher enrichment partners who are passionate about science and astronomy and keen to share this enthusiasm with regional communities. No formal evaluation of UWA's Aspire program of which this is a part, but NCSEHE reports that, "analysis of enrolments at WA universities in 2013, when the first cohort of students to participate in the program entered university, shows increased enrolments from Aspire schools to three of the four WA public universities, when overall school leaver enrolments decreased at all bar one WA university" (NCSEHE website, 2015).

Open Foundation by Distance University of Newcastle	Off-campus enabling program for mature age students offered since 2003. Enhances experience and engagement of students from diverse backgrounds seeking entry to higher education through Open Foundation by Distance. Online orientation and online and face to face support resources have had positive impact on student experience and engagement in the online enabling program. Hodges et al. (2013) considered this program in some depth and found it effective. Its philosophy is inclusive, "characterised by the lowest possible risk of cost, in both financial and personal terms" (p. 28). It has a completion rate of around 50% (p. 24).

3.4.8 Key Message: Place-Based Influences

Research highlights a consistent entrenched place-based disadvantage in Australia, with a concentration of disadvantage in localised areas within each state. Hence, place is a spatial representation of socioeconomic factors where limited access to social infrastructure, housing, transport and so on, also help to actively reinforce socioeconomic disadvantage.

This plays out in a variety of ways in terms of tertiary education, from simply being too far away to access given the student's resources, to a lack of support by family, difficulty transitioning into a student identity, and/or choosing an external or part-time mode of study.

Regional and remote students are under-represented in higher education and the lower levels of engagement are also present in secondary school completion. Aspirations are strong and plans included work or further education and training. However, by Year 10 choices about ATAR and non-ATAR secondary school pathways were well defined.

Online education is a rapidly growing mode of study among regional, remote and outer urban students. It is also a viable and practical solution for mature-aged students with other responsibilities; students with disabilities and those not wanting, or able, to relocate to the city. However, the online format has a negative impact on course persistence and course grades for the disadvantaged student cohort. In contrast, online study can also enable a holistic learning style for Indigenous students.

Research identified that metropolitan-based low SES secondary school students are more likely to aspire to work or TAFE. A gap between aspiration for and enrolment in university for students who do not speak English at home was also high. Distance to campus can act as a relative barrier, depending not only on actual geographic distance, but also socioeconomic distance.

Boys from regional areas tend to have lower participation rates in tertiary education and are more likely to aspire to apprenticeships or full time work, while girls are more likely to aspire to further education (Fleming & Grace, 2014). Despite these trends, outreach programs positively impact both groups' aspirations for tertiary education. For males, loyalty to a working class identity can become a barrier to educational participation.

A survey of young people, many of whom had disabilities, revealed that 40 per cent of respondents moved to another institution to access better disability support. A range of obstacles prevented their full engagement with their course, and they did not feel supported by staff. Assistive technology and flexible learning options were identified as key to improving services.

3.5 Key influencers and intermediaries analysis

3.5.1 Parents and peers as influencers

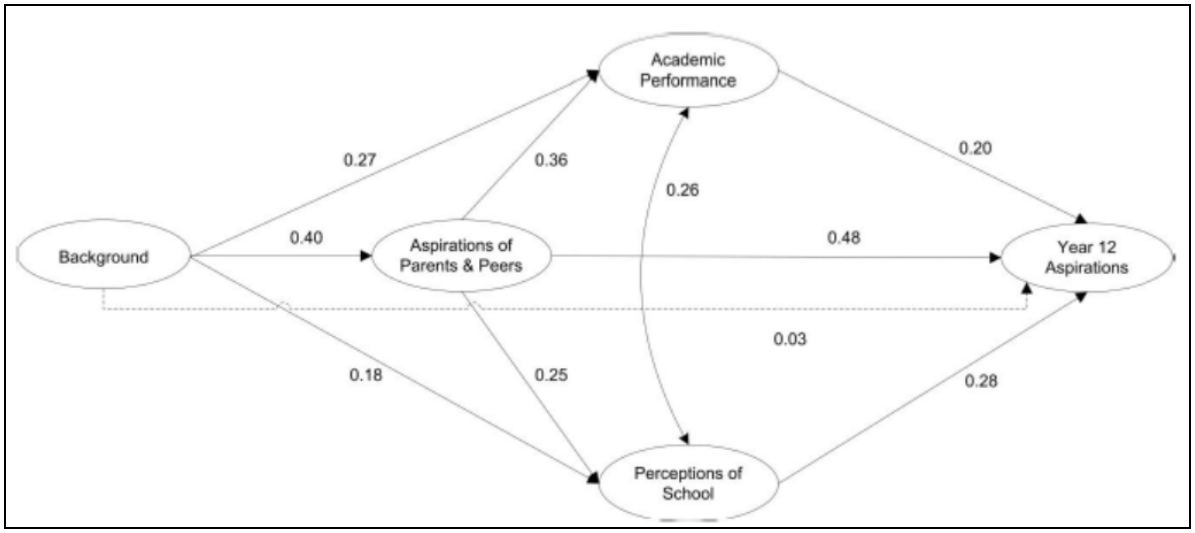
Few interventions directly address influencers as their primary concern (Cupitt & Costello, 2014). However, Gemici et al. (2014a) found that parental and peer influence and academic achievement were the most important factors for secondary school students as they transitioned through school and into tertiary education and then into their occupation. Gemici et al. (2014b) also examined several models to see how the relationships between the different predictors influence Year 12 aspirations. What they found when modelling the effects of influences on Year 12 aspiration development is that the individual's combined

background characteristics started as the strongest influence in the model, but that "once parental and peer influences are added to the model, they, in conjunction with academic performance and perceptions of school, almost entirely mediate the effect of individual background" (2014b, p. 19).

Figure 10 below indicates the effect of different factors on Year 12 aspirations, and illustrates how the different factors influence each other. The coefficient numbers are standardised so they can be compared, and show the size of the effect each factor has on the development of aspirations. The implication of this model is that "if parental and peer support increases by one standard deviation, while all other variables are held constant, Year 12 aspirations would be expected to increase by 0.48 of a standard deviation" (Gemici et al. 2014b, p. 20). However, the "parents and peers" variable also has an indirect effect on other variables, as indicated by the arrows, meaning it has even more influence on the development of aspirations than direct effects alone indicate.

While all of these factors are part of a complex interplay which affects the formation of aspirations, once they have been formed they can have a substantial effect on educational outcomes. Homel and Ryan (2014, p. 27) found that aspirations have an effect which is "much larger than the effects of school achievement or family background on these outcomes," and that this effect is similar regardless of the demographic background of the student. They found that those who intend to complete secondary school are 20-25 per cent more likely to than those who don't intend to complete secondary school, and that those who intend to go to university are 15-20 per cent more likely to do so (p. 3).

Figure 11: The development of Year 12 aspirations, based on Longitudinal Survey of Australian Youth (LSAY) data modelling of the effects of student background and significant influences (Gemici et al., 2014b, p. 19)



Gemici et al. (2014a) investigated the factors which drive educational and occupation aspirations in young people, and found that in addition to school achievement, parental influence was profound, with students up to four times more likely to complete secondary school if their parents wanted them to attend university (p. 13), and up to eleven times more likely to aspire to university if they had supportive parents (p. 17). The plans of peers to attend university also had a strong influence on aspirations for higher education; those with

friends planning to attend university were four times more likely to aspire to attend themselves (p. 17).

In contrast, academically weaker students are half as likely to be planning to complete Year 12 if their parents are unsupportive and their friends are not planning to attend university (Gemici et al., 2014a, p. 15), and such students are very unlikely to aspire to university (Gemici et al., 2014a, p. 18).

They conclude:

> "The key message from the analysis so far is just how important parents and peers are to young people's aspirations. This message is further underscored by a path analysis, which shows that parental and peer influences almost entirely mediate the effects of gender, Indigenous status, socioeconomic status, location, family structure and immigration status" (Gemici et al., 2014a, p. 20).

The policy implications of these findings are obvious in terms of a social marketing approach, as targeting parents in addition to students has potential for significantly increasing the likelihood of raising student aspiration, motivation and self-confidence, and their awareness of higher education possibilities. Similarly, interventions which help students develop friendships and social networks while studying are likely to improve student retention and resilience (Karimshah et al., 2013).

In fact, without such interventions aimed at parents, there is the strong possibility of a confounding effect, as discussed by Redmond et al. (2014), in their report on *Intergenerational Mobility*. They find there has been little evidence of intergenerational mobility since the 1970s (2014, p. 3), suggesting that parental influence helps maintain the socio-economic and educational status quo of their children (2014, p. 12). There are currently few university-led outreach programs focused specifically on parents discussed in the peer-reviewed literature.

While the literature on university-led outreach to parents is sparse, there is a body of work on primary school and secondary school interventions. Kiyama (2010), for instance, trialled a *Funds of Knowledge* program which focused on outreach to parents in a Mexican American community. The program consisted of weekly two-hour workshops over 10 weeks at a local school and helped parents understand academic expectations so that they could more actively help their children. Kiyama identified four main ways to effectively engage parents:

1. "…through personalized information focusing on steps in the pathway to college
2. expansion of families' social networks related to college options to include educators, alumni, and families like themselves
3. reinforcement of parents' sense of self-efficacy
4. gathering with other families for support and fellowship." (2010, p. 24)

In Australia, DEEWR (2011, p. 4) found the following were effective parental engagement strategies in schools in low SES areas:

- "developing a school culture that values parental engagement
- creating a school environment that welcomes parents
- sharing high expectations about learning outcomes for all students
- building the capacity of parents to support their children's learning
- reaching out through personal contact

- offering opportunities to parents for their own learning and development
- connecting with parents in the early years
- using school resources effectively to support parental engagement
- leveraging additional resources from outside the school
- enlisting the support of community leaders and members and community."

3.5.2 Schools as intermediaries and influencers

Schools can play a particularly important role in helping students from disadvantaged backgrounds develop personal and cultural capital, and so ameliorate some of the effects of their background. However, school socioeconomic status and educational quality, including teacher bias towards those from disadvantaged backgrounds, can instead work to compound the disadvantages a student experiences (Lim, Gemici & Karmel, 2013). Lim, Gemici and Karmel (2013) found that the quality of a school has significant impact on student achievement and completions:

> "When looking at low ability, for low socioeconomic students who attend a low-quality [compared] to even a medium-quality school, their chance of completing Year 12 is raised from less than 40 per cent to above 60 per cent. And if these students attended a high-quality school their chance of completing Year 12 would be in excess of 80 per cent. Therefore, for this most vulnerable group of all students, increasing quality has an extremely large impact on a key outcome from schooling" (2013, p. 16).

In their report on *Intergenerational Mobility*, Redmond et al. (2014) argue that low SES students are more likely to be excluded from high quality schools which offer the best insulating effect against the experience of disadvantage. In their UK study, Chowdry et al. (2013, p. 431) make the case that "poor achievement in secondary schools is more important in explaining lower higher education participation rates among pupils from low socioeconomic backgrounds than barriers arising at the point of entry to higher education".

In seeking to understand the barriers pertaining to educational success among US students from disadvantaged backgrounds, Jennings et al. (2015) examined whether schools reduce or perpetuate inequality. The authors highlight that despite extensive actions by governments, there remains significant disparities in educational achievement and aspirations related to race-ethnicity and social status. Examining longitudinal data, they conclude that while schools boost both advantaged and disadvantaged students' test scores by the same amount, students will leave school as unequal as when they entered. Hence, the authors leave us to reflect on the role of schools in eliminating the group differences by defining equal opportunity in compensatory terms for groups that start off at a disadvantage.

The barriers to structural and systemic change within established educational systems is discussed in regards to the USA context by Shechtman et al. (2013, p. 84). Factors they identify as inhibiting educational reform include:

- an accountability-driven culture focused on standardised testing which privileges the development of specific skills rather than holistic development
- limited teaching time with highly mandated standardised outcomes and little time for consolidation or reflection
- high teacher workload

- a lack of professional development for teachers or explicit guidance in how to adapt material to particular cohorts so that it is sufficiently student-centred to be effective
- school cultures which do not value holistic education or consider it the role of parents and a separate issue to that of the school curriculum.

The equity literature focusing on improving educational outcomes for First Nation students identifies similar systemic issues (Behrendt et al., 2012; McGregor et al., 2013). These barriers are more suited to policy approaches than university-led outreach, however there is potential to effect positive change via sustained and holistic community-based collaborative programs, especially in regional areas (Goodrick, 2012). University-led programs are increasingly taking this kind of approach and showing benefits in terms of increased completion of high school and enrolment in tertiary education (Koshy & Islam, 2015), and can also build capacity to drive sustainable intergenerational change within communities (Behrendt et al., 2012).

According to Gale (2011, p. 675), the most effective programs have the following characteristics:

1. "unsettled deficit views of disadvantaged students and communities
2. researched local knowledge and negotiated local interventions to ensure the context-specific, consultative nature of outreach activity
3. built capacity in communities, schools and universities through broad-based reforms at a range of levels (curriculum, school structures, teacher professional learning, etc.), supported by strong partnerships between universities, schools, and communities".

While the second and third of these characteristics are widely incorporated into current university-led outreach programs in Australia, the first is still not well understood. Gale himself suggests that "there is work needed within institutions and with governments and students, not simply on students whose aspirations are incongruent with the current policy agenda" (2011, p. 679).

3.5.3 Communities, extended families, carers

The Indigenous community are leaders when it comes to taking a holistic, whole-of-community approach to multifaceted problems. The Behrendt et al. (2012, p. 4-5) report frames these kinds of holistic approaches with an end goal of not only improving the education, health, and economic outcomes for individual Indigenous students, but of fostering the skills and capacity of Indigenous leaders to drive further change within their own communities, leading to sustainable intergenerational autonomy and security for both Indigenous peoples and the nation as a whole.

Many of the factors at play for Indigenous students are the same as those affecting students from low SES and regional and remote backgrounds, as well as refugee students, and those from linguistically and culturally diverse backgrounds. This means that the most commonly recommended approaches for improving educational outcomes for Indigenous students are also relevant for other people from disadvantaged backgrounds.

The most well-established of these kinds of programs are at the primary school level. An example of a community-focused, sustained intervention program which has been successful for Indigenous students in primary school has been implemented by The

Aboriginal Enhancement Schools Network in Canada (McGregor et al., 2013). In particular, the local community and Elders were instrumental in developing the learning plans and curriculum which integrated Indigenous literature and Indigenous ways of learning. Since this program began, there has been a sustained transformation of the community and school, including increased social responsibility for both Indigenous and non-Indigenous members of the community, along with significant increased achievement in literacy, mathematics and other subjects (McGregor et al., 2013, p. 64-7).

The Australian primary school program, Read With Me used a similar approach in improving the reading skills of Koori students in remote New South Wales (Bamblett, 2013). In the Australian secondary education context, the program Follow the Dream/Partnerships for Success takes a similarly holistic approach in Western Australia. It assists Aboriginal secondary school and VET students with high aspirations transition to university (Wilks & Wilson, 2014). The students are provided with individual case management, career advice, and study and transition support, with students being more likely to complete secondary school and enter higher education as a result (Partington et al., 2009).

The crucial element of these programs is Indigenous community, with the Indigenous parents and Elders of the students and/or established Indigenous centres and programs in the relevant industry or field holding a central role in developing the program, and supporting the students within it.

Similar community-focused practices have been found effective for enabling positive pathways for non-Indigenous young people in remote communities, not just in terms of those pathways leading into higher education (Goodrick, 2012). Many HEPPP programs also include community collaboration.

3.5.4 Influencers in practice

In addition to students and potential students, teachers, administrators, peers and parents are key stakeholders in developing school-family-community partnerships. Non-teaching staff and volunteers in schools also have an important role to play in the development of whole-community engagement programs. For instance, one of the key strengths of using university Student Ambassadors in outreach to schools is that they can be effective in bridging gaps between students, schools, communities, and higher education institutions (Gartland, 2014). Bryan and Henry (2012) discuss the role school counsellors can play in developing school-family-community partnerships, while also developing resources for the school counselling program. Similarly, Matthews (2008) points out the important role school liaison workers play in mediating between refugee students, school culture and the different contexts they are navigating. People working in these support roles can contribute useful viewpoints about how to ‘unsettle deficit views’ of students from disadvantaged backgrounds, in addition to the support they give to students.

Having impact on the educational outcomes of students from disadvantaged backgrounds requires help from influencers at multiple sites of the socio-geographic spectrum. Charles Darwin University’s Whole of Community Engagement Initiative uses exactly this approach, creating a network of local leaders, support workers and other members of the Indigenous community in order to co-create local solutions to local problems. Project staff travel considerable distances to enable cross-community discussions about educational priorities, community values, and reaching agreement about the approaches to be taken.

Hike to Higher Education teams up university students with secondary students outside of the classroom as part of a goal of fostering a more holistic interest in education and self-development. University students are trained to be positive mentors for the secondary students participating in the trek, and take opportunities as they arise to have positive but informal conversations with the secondary students about their aspirations.

These kinds of holistic approaches which focus on students, potential students, family, community and institutions are a central part of widening participation best practice (KPMG, 2015a; Gale et al., 2010b). See Appendices 1, 2, 4, 5, 7 for more examples of programs which use this approach in a variety of ways.

Table 15: Widening participation initiatives with a focus on community programs

Australian HEPPP Funded Initiatives	
MAP4U Murdoch University Curtin University Challenger Institute of TAFE AIME – Australian Indigenous Mentoring Experience Department of Education WA Catholic Education Office Association of Independent Schools WA (AISWA) Rockingham City Council Chamber of Commerce and Industry WA (CCIWA Rockingham Education Development Group Peel Development Commission Multiple schools NFP organisations	Works with 22 high schools to develop sustainable, school led programs. Partnerships are guided by the school/university compacts (MOUs) linking performance indicators, as designed by key stakeholders (including the schools) with each school's context. Resulting programs fall into 4 categories: *Building Academic Aspirations and Achievement (BAAA); Innovative Curriculum and Pedagogy (ICP); Big Picture Academies (BPA); University Enabling Programs (UEP).* Uses institutional and community assets to sustain effective programs designed to increase participation in higher education. Increases participation in higher education of under-represented students from the SW corridor of Perth. Activities include curriculum and pedagogy initiatives, • university school outreach programs • development of parental support programs • students-teacher pathway planning • development of academic and alternative learning academies within schools • aligning schools with university pathway programs. Prodonovich, Perry and Taggart (2014) discuss the theoretical underpinnings, which are solidly based in current research.
Whole of Community Engagement Initiative Charles Darwin University (CDU) Leadership Northern Territory Department of Education Batchelor Institute of Indigenous Tertiary Education North Australian Indigenous Land and Sea Management Alliance Ltd	In partnership with local stakeholders, Charles Darwin University embarked on a *HEPPP Whole-of-Community Engagement* initiative which worked with six remote Indigenous communities across the Northern Territory to build aspiration, expectation and capacity to participate in higher education. This large-scale multi-site participatory action research project involves community engagement leaders, mentor and enrichment officers, and a community teacher's liaison leader working closely with community based Indigenous mentors, leaders and organisations to drive

Australian Centre for Indigenous Knowledges and Education	innovative bottom-up strategies and solutions built on, and responsive to, Indigenous knowledges.
The Stellar Program Southern Cross University University of New England Clarence Valley Council NSW DEC Aboriginal Education Consultative Group Maclean HS McAuley Catholic College Grafton HS South Grafton HS Induna Education and Training Unit North Coast TAFE Catholic Education Office Communication Department of Prime Minister and Cabinet – Indigenous Affairs Group	Facilitates a whole of community approach to encourage the interest, aspirations and attainment of local students who are significantly under-represented at university. It has been a catalyst for introducing new ways of being, bringing together education, government bodies, students and the community. Runs from Years 6-12. Activities start in Year 6 with a careers unit of work, careers expo and visit to a university campus; Year 7 in-school events support students to develop their recipe for success at high school and into university; Year 8 students visit a university campus discovering university life through a 'Great Race' style event; Year 9 in-school events focus on university skills, and students also experience an overnight visit to a university campus; and Year 10 students attend in-school careers forums. Online tutorial support is available for students from Year 9–12, with exam resilience sessions for Year 11 and 12 students.
Hike to Higher Education Anglicare Victoria Federation University regional campuses Australian Catholic University Ararat Lions Club Teaching staff and students from secondary schools in Grampians region	Designed in response to Anglicare Victoria's 4 pillars of engagement of sport, art, music and environment. Relies on current higher education students. They act as Ambassadors and share their experiences and knowledge with secondary students in the region. Higher education students mentor secondary students in the trek experience from Port Fairy to Warrnambool and Grampians treks.

3.5.5 Key Message: Key Influencers and Intermediaries

While few interventions directly address influencers as a primary concern, recent research shows a clear link between parental and peer influence on academic achievement for secondary students transitioning from school into tertiary education and then into their occupation. More importantly parents and peers have greater influence on the development of students' aspirations for tertiary education than other factors.

Effective outreach to parents builds a supportive community, and provides information which parents can use to enhance their child's learning. Interventions which help students develop friendships and social networks while studying are also likely to improve student retention and resilience.

Schools can play an influential role in ameliorating some of the effects of students' disadvantaged backgrounds. This can involve developing students' personal and cultural capital, which flows on to positively impact their achievement and completions. Schools can also perpetuate inequality by focussing too much on the development of specific skills sets rather than holistic development. Addressing

systemic barriers must involve sustained and holistic community-based collaborative programs, to drive sustainable intergenerational change within communities, especially in regional areas.

Indigenous practitioners exemplify whole-of-community, holistic approaches where the goal is focussed on improving the educational, health, and economic outcomes for individual Indigenous students along with the wider community. Interventions are based on fostering the skills and capacity of Indigenous leaders to drive sustainable change within their own communities. Many other cohort groups from disadvantaged backgrounds also share similar barriers, hence holistic approaches equally apply. A crucial element of success is that the interventions are driven by a collaboration of community-based influencers.

Having an impact on disadvantaged students' educational outcomes requires influencers at multiple sites of the socio-geographic spectrum. The most effective programs incorporate capacity building; broad-based reforms and social collaboration.

3.6 Indigenous cohort literature review

Social marketing addresses social issues in ways that enhance the quality of life of individuals and society as a whole (Hastings & Angus, 2012). Indeed, social marketing is advocated by Kotler and Lee (2008) as a fitting framework for addressing social inequities such as those experienced by minority groups such as Aboriginal and Torres Strait Islander peoples that comprise Indigenous Australia.

The persistent under-representation of Aboriginal and Torres Strait Islander peoples undertaking university study in Australia and the resultant gap between the educational attainment of the Aboriginal and Torres Strait Islander population and the non-Aboriginal and Torres Strait Islander population has been the subject of many government reviews (e.g. Behrendt et al., 2012). Indeed, increasing Indigenous Australians' higher education participation and success has been a stated priority for past and present Australian Governments, predicating the COAG (2009) 'closing the gap' policy and associated

initiatives. Between 2007 and 2012, the number of Indigenous undergraduate students Australia-wide rose by 2,177 (an increase of 31.9 per cent), although this represented only an increase of 0.1% in the proportion of Indigenous students in the undergraduate population as a whole (Koshy, 2014, p. 5). Despite these initiatives and promising increases, there remains a scarcity of research on how Aboriginal and Torres Strait Islander students approach higher education decisions. More specifically, social marketing interventions that reveal and cater for the broad diversity of Indigenous Australians and their different needs, wants, enablers and barriers is likely to accelerate access and participation in higher education.

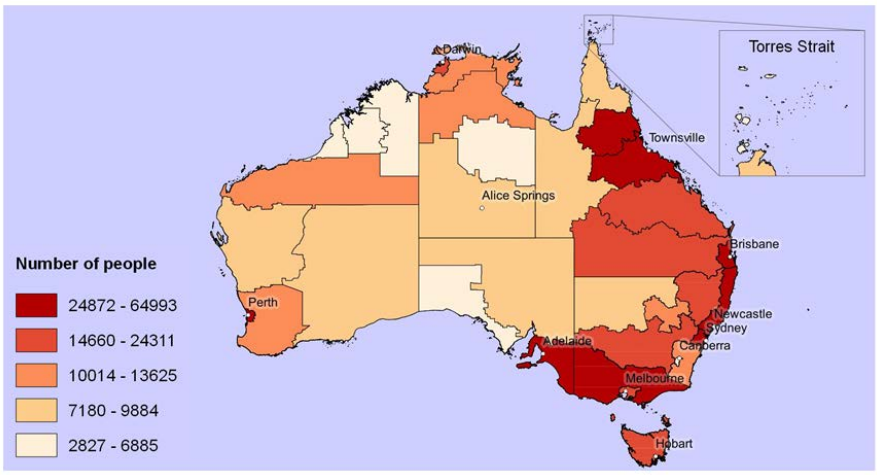
3.6.1 Background

The 2014 *Overcoming Indigenous Disadvantage: Key Indicators* report (OID) (SGRCSP, 2014) prepared for the Steering Committee for the Review, estimated the resident Aboriginal and Torres Strait Islander population of Australia to be 670,000 people. The total Australian population being 22.3 million people and as such Indigenous Australians are approximately three per cent of the total Australian population, up from 2.9 per cent in 2006. Approximately 90 per cent of Indigenous Australians (606,000 people) are of Aboriginal origin, six per cent are of Torres Strait Islander origin and four per cent (25,600 people) of both origins (ABS, 2013).

The goal of widening participation in higher education, particularly by low SES groups, has been largely based on the idea of 'equity' – that the university student population from low SES groups, and Indigenous people, should be the same as their representation within the broader population (Gale et al., 2013, p. 6). Indigenous people, who make up three per cent of the Australian population, represented only 1.64 per cent of students commencing higher education in 2011, but this represented an increase in Indigenous student numbers of 44.9 per cent since 2006 (Gale & Parker, 2013, p. 20). The overall participation rate of Indigenous Australians across universities was 1.38 per cent in 2011 (Gale & Parker, 2013, p. 21); it was highest at Charles Darwin University (4.84 per cent) and James Cook University (4.05 per cent), and lowest at Victoria University (0.31 per cent) and Swinburne University of Technology (0.24 per cent) (Gale & Parker, 2013, p. 32).

The Aboriginal and Torres Strait Islander population is significantly younger than the non-Indigenous population. Around 35.9 per cent of the Indigenous population is aged under 15 years, compared with the 18.4 per cent of the non-Indigenous population (SCRGSP, 2014). Population data from the ABS (2013) reports that just over half of Indigenous Australians (57 per cent) live in urban areas. In remote and very remote areas, Indigenous Australians comprise 16 per cent and 45 per cent of the populations respectively (SCRGSP, 2014). Bearing in mind that Indigenous Australians represent three per cent of the total population of Australians, remote and very remote proportions well exceed parity. The ABS Australian Statistical Geography Standard determines the degree of remoteness based on distance from population centres (ABS, 2011). Remoteness influences outcomes for Indigenous Australians with non-participation in education increasing with remoteness as presented in Figure 12 (SCRGSP, 2014).

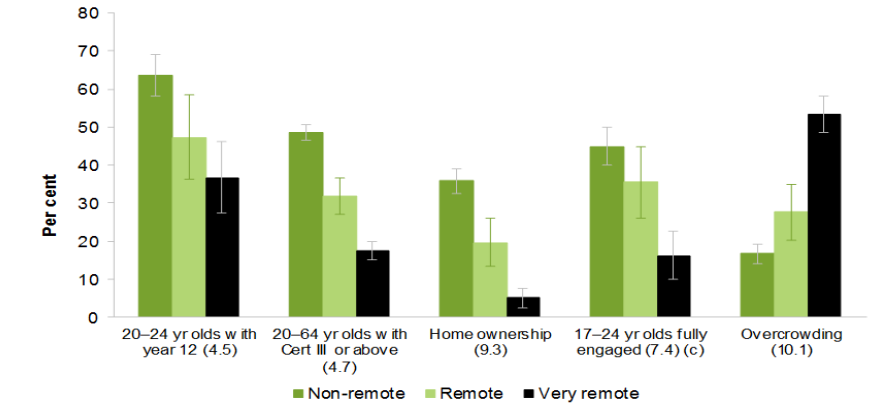
Figure 12: Where do Aboriginal and Torres Strait Islander Australians live? (SCRGSP, 2014, p. 1.5)



[a] The estimated number of Aboriginal and Torres Strait Islander Australians by ABS Indigenous regions as at 30 June 2011. [b] The legend is not continuous as some there are no regions with numbers in between the five categories derived.

Source: ABS 2014, *Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026*, Cat. no. 3238.0, Canberra.

Figure 13: Selected outcomes for Aboriginal and Torres Strait Islander Australians vary by remoteness, 2012-13 (SCRGSP, 2014, p. 1.6)



[a] More detail on all of these outcomes can be found in the relevant sections of the report. [b] Error bars represent 95 per cent confidence intervals around each estimate. [c] Fully engaged in post-school education, training and/or employment.

Source: ABS (unpublished) Aboriginal and Torres Strait Islander Health Survey 2012-13; tables 4A.5.2, 4A.7.11, 7A.4.1, 9A.3.1 and 10A.1.3.

Principles and practices that have been identified as underpinning successful programs/interventions for Indigenous Australians relevant to this project are:

- flexibility in design and delivery so that local needs and contexts can be taken into account
- community involvement and engagement in both the development and delivery of programs
- the importance of building trust and relationships
- continuity and coordination of services (AIHW & AIFS, 2013).

3.6.2 Participation and success in higher education matters

Overcoming Indigenous Disadvantage: Key Indicators Report (OID) (SCRGSP, 2011), reported that the proportion of Indigenous 20–24 year olds who reported completing Year 12 or equivalent (45 per cent) was half that of non-Indigenous 20–24 year olds (88 per cent) in 2008. It also found that while the proportion of Indigenous students who achieved an ATAR[3] of 50 or above had increased between 2006 and 2010, the gap between Indigenous and non-Indigenous proportions had widened from 20 per cent to 33 per cent (SCRGSP, 2011, p. 21). Indigenous people's participation in VET was much higher than in higher education (19.2 per cent and 3.1 per cent respectively), possibly because of lower ATAR admission requirements (SCRGSP, 2011, p. 4.73).

OID (SCRGSP, 2014, p. 7.22) reported that "in 2011–13, among Aboriginal and Torres Strait Islander Australians, those with a Bachelor Degree or higher had the highest labour force participation rate (86.0 per cent) and employment to population ratio (81.8 per cent), similar to that for non Indigenous Australians with the same level of qualifications. For all other categories, rates for Aboriginal and Torres Strait Islander Australians were lower than for non Indigenous Australians".

Citing the United Nations Declaration on the Rights of Indigenous Peoples, the National Congress of Australia's First Peoples 2013 National Education Policy was based on the following principles:

- maintenance and development of Indigenous cultures
- determination by Indigenous people of their own futures
- achievement of Indigenous people's full potential as citizens, participants in the economic, political and social affairs of the nation, and as members of their communities (2013, p. 6).

The issues addressed in the Congress policy resonate with much of the recent literature on the aspirations and participation of Indigenous students in higher education.

3.6.3 Organisations or programs in Australia with a focus on Indigenous participation

A summary table (Appendix 4) overviews the plethora of organisations and initiatives that are currently (September 2015) focusing on enhancing the participation and success of Indigenous Australians in higher education. The key takeaways from this table are:

- From a social marketing perspective, the vast number of organisations and initiatives all targeted at the same group generates substantial 'competition' and has the potential to be overwhelming to Indigenous students. Social marketing interventions, including this one, do not exist in a vacuum and it is important to consider how many other groups are sending similar messages to Indigenous students to ensure that ours is positioned in a way to stand out from the 'clutter'.
- Social marketing interventions should be mindful of 'reactance theory', which focuses on the phenomenon of messages which unintentionally threaten an audience's freedom and so invoke a derogatory reaction to that message (Rains, 2013). With such a large

[3] ATAR: Australian Tertiary Admission Rank. "ATAR scores range from 0.05 (lowest) to 99.95 (highest). An ATAR above 50.00 would usually be required for entry into more popular courses and universities, although most universities, TAFE colleges and other institutions take a holistic approach when assessing applications from Indigenous students. This means that Indigenous applicants often are not assessed solely on the basis of their academic results" (SCRGSP, 2013b, p. 4.55)

number of organisations and initiatives targeting Indigenous Australians, there is the potential for individuals to feel that their personal freedoms and choice about their future has been pre-determined by others or constrained (i.e. that they are being corralled down pathways) while this is not the case for non-Indigenous peers. Thus, they may 'react against' such prescription and focus by doing the opposite to the multitude of messages being directed at them. As such, initiatives that may seek to 'prime' students for higher education may potentially achieve the opposite.

- The potential for mixed-messages is high due to the numerous organisations and initiatives at the national and state level.
- Both non-government and government initiatives are apparent and they address a wide range of post-school options and while predominantly focused on school-leavers, do extend to non-school-leaver groups.

3.6.4 Social media as a tool to build awareness, leverage aspirations and communicate pathways regardless of 'place' constraints

A summary table which details current social media groups and initiatives related to Indigenous participation in higher education is provided in Appendix 5. The table is organised into social media initiatives or groups formed by institutions or organisations or those that have been formed organically. The numerous social media initiatives and groups evidence the findings drawn by Collard et al. (2015) and Townsend (2015) regarding the affinity between Indigenous higher education aspirants and the role that social media can play in building awareness, leveraging aspirations and communicating pathways via a media that overcomes geographic constraints.

3.6.5 Awareness - Aspiration and equity

In December 2007 and March 2008, the Council of Australian Governments (COAG) committed, through the *National Indigenous Reform Agreement*, to six targets to close the gap in Indigenous disadvantage, three of which referred to education and enhancing educational aspirations. The Australian Productivity Commission noted that "Australia does not perform as well as other countries in offsetting educational disadvantage, especially for Indigenous students" (2012, p. 39, 71): "Over half [of Indigenous students] do not complete Year 12 or attain equivalent qualifications (compared with 20 per cent of non-Indigenous students)" (Australian Productivity Commission, 2012, p. 68).

While low SES students in higher education were generally 'retained' (continued on to the following year of study) at a rate just below the sector average, "Indigenous students and students from remote areas (up to a third of whom overlap with the low SES group) are retained at rates considerably below the sector average (Gale & Parker, 2013, p. 22-23). Gale and Parker (2013) claim that it appears to be mature-age and special entry Indigenous students who have lower retention rates, while those Indigenous students who enrol straight from school have retention rates similar to non-Indigenous students (2013, p. 23). The authors note that the upward trend in Indigenous 'success rates' (proportion of attempted courses successfully completed) may reflect an increasing proportion of Indigenous students entering after completion of secondary school (2013, p. 24); it remained nevertheless relatively low at 71.69 per cent in 2011 compared to 87.74 per cent for all students and 82.94 per cent for remote students generally (Gale & Parker, 2013, p. 25).

Even those Indigenous students in the top academic tier at school are less likely than non-Indigenous students to continue onto university education (39 per cent compared to 65 per cent) (Behrendt et al. 2012, p. 20). Many Indigenous students lack confidence and have a negative self-perception; students who had been admitted to university advised the Behrendt Review that they had only achieved this because of extra enabling courses or the support of Indigenous Education Units (Behrendt et al., 2012, p. 20). Teachers and school careers counsellors have lower expectations of Indigenous students, so that students are given less attention and support, and are steered towards vocational courses rather than university (Behrendt et al., 2012, p. 21).

Many Indigenous students are the first in their family to reach senior secondary school, which has been shown to be a factor generally in reduced likelihood of going on to university education:

> "One recent research study revealed that only 29 per cent of students whose father left school by Year 10 attained university qualifications, compared to a 65 per cent university graduation rate for students whose father went to university. These findings are consistent across the higher education sectors in other countries" (Behrendt et al., 2012, p. 22).

Among the twenty-five Indigenous students in Gale et al.'s (2013) analysis, the mothers of only two, and none of the fathers, had been to university. Many of the students (Indigenous and non-Indigenous) reported that they did not know their parents' educational attainment (Gale et al., 2013, p. 16-17). Over two-thirds of students, Indigenous and non-Indigenous, stated a desire to have a university degree, although a higher proportion of non-Indigenous students anticipated that they would have a degree in the future (60 per cent to 52 per cent) (2013, p. 23). More Indigenous students would consider going to TAFE instead of university (Gale et al., 2013, p. 25). Only two of the Indigenous students had a brother or sister who had been to university, and only 62 per cent of Indigenous students (compared to 75 per cent of non-Indigenous) knew someone who had been to university (Gale et al., 2013, p. 26).

Aspiration has been defined as "the capacity to imagine futures"; Gale et al. (2013) develop six concepts that inform an understanding of aspiration:

- **social imaginary**, for example, the Australian ideal of higher education as accessible to everyone (but which some members of lower SES groups might perceive as not including them)
- **taste/status**, through which preferences for higher education are perceived as more or less 'tasteful' or high status depending on choice of vocation, institution etc, and reflect and reinforce existing social inequalities
- **desire**, which is also informed by sociocultural background, and in the case of higher education, does not necessarily follow from improved accessibility mandated by government
- **possibility**, which may include structural constraints on aspiration, especially for lower SES groups
- **navigational capacity**, the knowledge and experience a student requires to identify and plot a course to a destination:
- **resources**, including financial, material, social-cultural, the latter including previous experience of 'aspiring'. Reduced access to resources may reduce a student's "sense of the possible" (2013, p. 10).

Gale et al. argue that navigational capacity is fundamental to all of the above, and to the formation and fulfilment of aspiration (2013, p. 11). However, "… people from disadvantaged backgrounds are less able to successfully navigate from where they are to where they want to be in the future, particularly if they are attempting to navigate pathways that are outside their experience or the experience of their sociocultural group" (2013, p. 9-10).

“Academic buoyancy” has been described as the capacity to effectively deal with everyday academic adversity and challenge (Martin et al., 2013, p. 59), and is a predictive factor in tertiary education aspiration. Martin et al. suggest that academic buoyancy is needed more for Indigenous school students, partly because they experience more anxiety (2013, p. 72). Increasing academic buoyancy requires teacher professional development to improve teacher-student relations, strategies for students to manage anxiety and set-backs, parental engagement with their children’s education, access to information about subject selection, and access to educational resources to ameliorate economic and social disadvantage (Martin et al., 2013, p. 72-74).

Stewart’s report on Widening Participation programs overseas (2010) concludes that “[m]ost successful aspiration-building work focuses on changing learner outcomes through a progressive set of interventions targeted at the whole cohort and starting early, at primary school if possible, but at least by the first year of high school” (Stewart, 2010, p. 12). Strategies also need to engage schools, families and communities, and focus not only on aspiration but attainment (Stewart, 2010, p. 12). The Queensland University of Technology’s Stronger Smarter Institute supports school and community leaders in lifting their expectations of Indigenous students (Australian Productivity Commission, 2012, p. 270).

Biddle and Cameron (2012), using a range of datasets that include the *National Aboriginal and Torres Strait Islander Social Survey*, the *Census of Population and Housing*, the *Australian Early Development Index* and the *Longitudinal Surveys of Australian Youth*, note that on average, Indigenous children are happier at school than other children, so that unhappiness is not the main reason for low completion rates; further, if Indigenous students qualify for admission, they are as likely as non-Indigenous students to go to university. Nevertheless, after controlling for background characteristics such as remoteness and SES status, there remain differences in rates of education participation between Indigenous and non-Indigenous students.

Participation in preschool was found to be a significant factor in later attainment at school, with Indigenous children less likely to attend preschool than non-Indigenous children (Biddle & Cameron, 2012, p. 6-7). Another factor is that a greater proportion of Indigenous students attend government schools (84.2 per cent compared to 64.6 per cent non-Indigenous), even when geography and SES status of families is taken into account. Non-completion or drop-out rates of Indigenous students are driven by observable (school-based) factors such as levels of achievement, and once these are accounted for, Indigenous students have a higher than average expectation of completing Year 12 and undertaking post-school education (Biddle & Cameron, 2012, p. 7):

> "This gives prima facie evidence that the policy focus should be on the reasons why Indigenous students are less inclined to study towards a university entrance score, as well as the reasons for their receiving lower scores on average, rather than on those students who have already received a score" (Biddle & Cameron, 2012, p. 29).

Flood’s (2013) auto-ethnographic study of mature age Indigenous women students found that they were highly motivated, but all had different reasons for enrolling in a degree

program (2013, p. 215). What they had in common was an interest in gaining better employment and a higher salary after graduation, in “achiev[ing] something for themselves”, and in acting as role models to encourage other mature-age women into higher education (2013, p. 217, 222). The cost of study, and the accumulation of a Higher Education Contribution Scheme (HECS) debt are issues for the women Flood interviewed, especially those with dependent family members (2013, p. 218). Family support however was very important in persisting with study, although there was some negative reaction to the women’s plans in families and communities (Flood, 2013, p. 217-219).

The national Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA, 2010) agreed upon an *Aboriginal and Torres Strait Islander Education Action Plan 2012-2014* that identified six priority domains to improve outcomes in Indigenous primary and secondary education, including clear pathways to post-school options, being: a) readiness for school, b) engagement and connections, c) attendance, d) literacy and numeracy, e) leadership, quality and workforce development, and f) pathways to real post-school options.

Recognising the aspirations of participants, rather than assuming the deficit perspective (that Indigenous students have low expectations) has produced positive, concrete results by programs such as AIME (Bodkin-Andrews et al., 2013). Indeed, moving beyond building aspiration toward leveraging aspiration would seemingly produce more effective results.

3.6.6 Pathways - Strengthening pathways: outreach and enabling programs

3.6.6.1 Information provision

The Behrendt Review (2012) argued that universities needed to build stronger relationships with schools and communities to achieve a number of aims including: increasing aspiration for higher education, addressing university costs, travel and accommodation issues, scholarships and fees, university study life and empowering Indigenous Education Units (2012, p. 27). The Review stated that “we need to get to a point where university study is unexceptional for Aboriginal and Torres Strait Islander people” (Behrendt et al., 2012, p. 52).

The lack of information provided to Indigenous students about pathways to higher education, is a result not only of inadequate careers counselling, but lack of knowledge in families where no-one has attended university, and an absence of role models (Behrendt et al., 2012, p. 21-22). The Review recommended that universities have dedicated contact points for Indigenous people to obtain advice on higher education, that the value of higher education be promoted through Indigenous media, and that the *MyUniversity* website (http://myuniversity.gov.au/) include more information directed specifically at Indigenous students (2012, p. 54).

One of several reasons for a lack of Indigenous students proceeding from school to university is their choice of courses. In 2008, only 38 per cent of Indigenous students took secondary school courses aimed at gaining university entrance, compared to 78 per cent of non-Indigenous students (Behrendt et al., 2012: 19, citing a 2008 report by DEEWR to Parliament on Indigenous education and training). Based on data derived from *The Australian Survey of Student Aspirations (TASSA) 2012-2013*, Gale et al.’s report on aspirations of 241 school students in Central Queensland (two-thirds of whom were from low SES backgrounds, and the remaining third from a medium-SES background (2013, p. 15) found that knowledge of university entry requirements, which university to attend, and the connection between a university degree and particular career choice was ’patchy‘ (Gale et

al., 2013, p. 6). Many students in the survey for example wished to study veterinary science, but did not know which universities offered that degree program (Gale et al., 2013, p. 30); many students were unaware that they would need to move to a city to undertake their preferred course (Gale et al., 2013, p. 31). Ninety-four per cent of Indigenous students (and 84 per cent of non-Indigenous students) emphasised the importance of their parents' views in making decisions about the future, but only a small number of family members had ever attended university (Gale et al., 2013, p. 6). University outreach programs therefore need to target students and their families and communities to improve students' 'navigational capacities' in aspiring to higher education (Gale et al., 2013, p. 6; see also Martin et al., 2013, p. 73-74). Moreover, while parents and family were the most important source of information about post-school education, teachers were another important source (Gale et al., 2013, p. 27-28).

The Federal Government's HEPPP is aimed at supporting universities to improve access to undergraduate courses for people with low socio-economic backgrounds. HEPPP will combine the funding for 'participation' (increasing participation, retention and success of students) and 'partnerships' (connecting universities with primary and secondary schools, VET providers, community and other stakeholders to raise aspirations) and continue the existing National Priorities Pool (for projects that support "the more effective implementation" of the program) (Department of Education, 2014b, 2014a). While HEPPP does not specifically target Indigenous students, the Behrendt Review argues that they are likely to be significant beneficiaries of the program as 47.0 per cent of Indigenous Australians live in low SES areas compared to 17.1 per cent of non-Indigenous Australians (2012, p. 26).

The Review found that critical success factors in pathways to higher education for Indigenous students were: 1) easy to navigate pathways, partnerships between schools, universities and the VET sector; 2) the opportunity for students to experience the university environment before they enrol; and 3) mentoring and academic support for school children (Behrendt et al., 2012, p. 166). In the VET sector, courses needed to be flexible and take into account prior study, and provide support to students making the transition to university (Behrendt et al., 2012, p. 168).

3.6.6.2 Successful programs

The OID 2011 report (SCRGSP, 2011) noted examples of programs that had been successful in increasing Indigenous participation in post-secondary education (SCRGSP, 2011, p. 4.74), including the Cape York Institute's Higher Expectations Program that targets those school students identified as having high potential for achievement, and supports them in university or TAFE studies through scholarships, mentoring and family support.

The Aspiration Initiative (TAI), a joint initiative of the Aurora Project, the Charlie Perkins Trust and the University of Canberra; aims to "inform Aboriginal and Torres Strait Islander school and university students of undergraduate and postgraduate pathways at universities in Australia and overseas" (Aurora Project, 2014a). TAI's academic enrichment program includes 20 days of support per year from Year 8 through to the end of first year at university, part of which is a residential component during school holidays (Aurora Project, 2014a):

> "As well as academic excellence, the Program focuses on strengthening identity and creating a group of students who will support each other through school and further education as …

> … Our vision is to create a ripple effect of high expectations that will extend from the home, through the school and eventually into Indigenous education policy and delivery" (Aurora Project, 2014b).

TAI produces scholarship guidebooks and a scholarships website (Aurora Project, 2014a).

Another successful program is that run by Swinburne University and the Bert Williams Aboriginal Youth Service in Victoria, which assists at-risk young Indigenous people into further education or employment (SCRGSP, 2011, p. 25). The Stronger Smarter Institute focuses primarily on improved school and community leadership to improve Indigenous education outcomes, but also administers the Focus School Next Steps program of the Australian government to improve attendance, literacy and numeracy of Indigenous students in 102 schools across Australia (Behrendt et al., 2012, p. 25; Department of Education and Training, n.d.).

The *Australian Indigenous Mentoring Experience* (AIME) connects volunteer university student mentors with Indigenous school students. It operates in partnership with 16 Australian universities in all mainland states and the ACT (AIME, 2014): "In 2013, the Year 9 to university progression rate for AIME students was 20.4 per cent – five times the national Indigenous average of 4.1 per cent and moving toward the national non-Indigenous average of 37.4 per cent" (AIME, 2014).

An evaluation of AIME (Bodkin-Andrews et al., 2013) examined the psychometric validity of the measures used by AIME, and whether these measures take account of background variables such as gender and parental education. The evaluation concluded that quantitative data could be validly used to represent Indigenous people's experience, and that those Indigenous students who participated in the program were 1.87 times more likely to aspire to complete Year 12, and 1.30 times more likely to aspire to go to university (Bodkin-Andrews et al., 2013, p. 128-129). It also indicated that AIME has the potential to override background variables such as gender and parental participation in university: "this evidence suggests that AIME is a truly effective mechanism for overcoming potential generational and social disadvantage" (Bodkin-Andrews et al., 2013, p. 129-130). The report noted that the structured activities offered by AIME go well beyond the more passive 'role modelling' that is sometimes described as mentoring (Bodkin-Andrews et al., 2013, p. 119, 130).

The Aboriginal Indigenous Education Foundation is a national program that offers boarding school scholarships to Indigenous children from years 7 to 12; a survey of those who complete year 12 found that 63 per cent had gone on to university (SCRGSP, 2013b, p. 4.51). The Yalari organisation, with Federal government funding, supports high-potential school students (currently 112 students) from rural and remote areas to attend boarding school through its Indigenous Youth Leadership Program (Yalari, 2010). The Behrendt Review supported both a focus on high-potential school students and improving Indigenous education outcomes more broadly (2012, p. 33-34). It also emphasised that supporting pathways into university from the VET sector and the Indigenous workforce continued to be important (2012, p. 35-36), especially those that enabled Indigenous people to remain employed while studying (2012, p. 40). The Review called for a greater commitment by government and employers to support Indigenous employees to obtain university education, for example through cadetships, flexible leave arrangements and recognition of prior learning (2012, p. 40, 48).

ASPIRE, based at the University of New South Wales, is an example of a HEPPP-funded program that includes school- and campus-based activities, mentoring and tutoring for

students all the way through from Kindergarten to year 12: "Schools that have a high level of engagement with ASPIRE have shown an 85 per cent increase in the numbers of offers to university from 2009 to 2011, compared with a 24 per cent increase for schools with a low level of engagement with ASPIRE" (Behrendt et al., 2012, p. 29-30)

Aspire UWA conducted by the University of Western Australia, is an outreach program to raise aspirations for tertiary study, starting with Year 9 students across six schools in the Pilbara (remote) region, and 18 schools in outer metropolitan Perth, most with significant Indigenous student populations (Skene, 2010, p. 78). Activities include campus and school visits, professional development for teachers, and meetings with parents and community (Skene, 2010, p. 79). There has been positive feedback from schools, and relationships developed not only with school principals and teachers, but with year coordinators, careers advisors, Aboriginal Education Officers, families and community members (Skene, 2010, p. 79).

One example of a university outreach program which aims to improve Indigenous students' mathematics and science skills is the Indigenous Science and Engineering Camp for students in Years 9 and 10, run by the University of Western Australia (Behrendt et al., 2012, p. 31). Some Indigenous Education Units (IEUs) within universities also liaise with schools to promote higher education (for example Southern Cross University), although the Behrendt Review was advised that IEU resources are often already stretched (Behrendt et al., 2012, p. 64).

Gale et al. (2013) argue that university outreach should make clear to school students that university education may not be necessary for certain careers, that different courses are available at different universities, that university education may involve relocation, what subject courses and grades are required for entry to their preferred course, and the potential for different pathways to the same end (2013, p. 38). However, they also make clear that university outreach strategies need to commit resources, engage students through high quality programs based on research, quality teaching and valuing difference, collaborate on program design and engage student communities rather than individuals, and build student confidence through communication and information, and familiarisation or site experience (Gale et al., 2013, p. 38).

HEPPP has funded three university consortiums to conduct four Partnership projects: one project in Victoria, led by Monash University, one in the Sydney area, led by the University of Western Sydney, and two projects in Queensland, led by the Queensland University of Technology (Gale & Parker, 2013, p. 46). The Queensland Consortium of 8 universities runs a state wide Schools Outreach program and Indigenous Engagement program, to build 'tertiary awareness' and informed choices in school students Year 6-12: "The Consortium sees partnerships developed with these schools as creating 'obligations' for the university partner, 'not rights or territory'. That is, all universities remain free to undertake recruitment activities in all school clusters" (Gale & Parker, 2013, p. 47).

Each university focuses on a cluster of schools selected on the basis of low SES status and/or location disadvantage (Queensland Department of Education et al., 2012). The activities under the Indigenous Engagement program "specifically target the involvement of students' parents, elders, Indigenous school staff and community representatives. There is an explicit emphasis on relationship building and capacity building in/with Indigenous communities" (Gale & Parker, 2013, p. 47). Gale & Parker (2013) suggest that the Queensland consortium is an example of HEPPP-funded projects that are "unprecedented in both scale and interconnectedness" (Gale & Parker, 2013, p. 65). The MoU signed by the

universities and the Department of Education agree that the universities will be led by the needs and priorities of the schools, connect with VET providers, parents and communities, as well as employer and industry groups, and operate together to achieve 'operational coherence' from the perspective of each school (Queensland Department of Education et al., 2012). The MoU also agrees that universities should build on existing work on Indigenous participation in higher education, and should strengthen their Indigenous leadership (Queensland Department of Education et al., 2012).

3.6.6.3 Non-Year 12 pathways

The Behrendt Review noted that Indigenous people are currently much more likely to participate in the VET sector (in 2010, 23 per cent of the adult Indigenous population was enrolled in VET programs compared to 3 per cent in university). Reasons for this were likely to include lower entry requirements, methods of study (including 'learn as you earn'), career options and wider geographical availability (2012, p. 41-42). However, there is some evidence that VET is diverting potential Indigenous university students away from that sector, and students may not be aware of pathway arrangements from VET to university (Behrendt et al., 2012, p. 43-44). The Review recommended that Indigenous students be encouraged to enrol in higher-level 'pathway' VET courses, and to acquire the necessary literacy and numeracy skills to do so (Behrendt et al., 2012, p. 45). It also called for stronger pathway arrangements to be developed between courses and institutions, such as is occurring through an initiative of the NSW Aboriginal Land Council with the University of New England, and has occurred at the University of Notre Dame (2012, p. 47). La Trobe University in Victoria has also entered into a specific pathways agreement with Bendigo Kangan TAFE (Mitchell, 2014). The Review recommended that Indigenous Higher Education Academy Commission (IHEAC) work with the National VET Equity Advisory Council to advise governments on strengthening VET to university pathways (2012, p. 48).

The Behrendt Review proposed that access to higher education also be given to Indigenous people in correctional centres, through support from senior staff, targeted modes of course delivery, and access to technology; Central Queensland University and the University of New England deliver courses to Indigenous people in correctional centres (Behrendt et al., 2012, p. 171-173).

The Behrendt Review noted that "over half of the Aboriginal and Torres Strait Islander students who gained entry to university did so through enabling or special entry programs" which are undertaken prior to enrolment in a bachelor degree program (2012, p. 49). An example of an enabling program is that run by Monash University, which offers Indigenous students a 12 week preparatory program, support with scholarship applications, tutorials and other resources, followed by offers of places in undergraduate courses (SCRGSP, 2011, p. 4.74). As the Commonwealth at present allocates a fixed sum for university enabling programs, rather than providing demand-driven funding as for undergraduate degrees (Behrendt et al., 2012, p. 49-51), the Review recommended that more Commonwealth-supported places be made available in enabling courses. Critical success factors for enabling programs, according to the Review, are: projecting an Indigenous identity to help students develop a sense of belonging in the university environment; cultivating a realistic understanding of university study; and using flexible, tailored programs (Behrendt et al., 2012, p. 178).

The Overcoming Indigenous Disadvantage: Key Indicators Report (OID, 2011) and Steering Committee for the Review of Government Service Provision (SCRGSP, 2011) reports noted

however, that between 2002 and 2009 the proportion of Indigenous students enrolled in enabling courses and undergraduate courses decreased, and a greater proportion enrolled in postgraduate courses (SCRGSP, 2011, p. 4.78). Over the same period, the success rate for Indigenous students in higher education also increased from 65.1 per cent to 70.0 per cent (SCRGSP, 2011, p. 4.81).

Other pathway considerations are:

- Many more Indigenous students transfer between universities compared to non-Indigenous students, and the Behrendt Review argued that supportive pathways need to be developed between institutions to assist students in these transitions (Behrendt et al., 2012, p. 84).
- Pathways for Indigenous students who have completed VET qualifications to higher education receive little attention (Collard et al., 2015).
- Specialised pathways are emerging, e.g. Australian Indigenous Doctors Association (Holland, 2015), CSIRO STEM pathway program (Anderson, 2015) and the E12 program (Ng et al., 2015).

3.6.7 'Place' analysis

The Prime Minister's 2015 'Closing the Gap' report acknowledged that large differences still occur in the educational outcomes of Indigenous students in metropolitan, outer-urban, rural/regional and remote areas. Collard et al. (2015) noted that the use of ICT to engage Indigenous students in remote locations should be pursued as it links to Indigenous cultural philosophies regarding community. Townsend (2015) further concurred in the article 'Mob Learning – Digital Communities for Remote Aboriginal and Torres Strait Islander Students', noting that the use of ICT and digital communities creates more engaging and personal experiences for learners. Indeed, Townsend (2015) argues that digital pedagogies align with Indigenous cultural philosophy and thus support educational success. University camps are often offered to Indigenous students in remote locations to provide the opportunity for students to experience university life (Lewthwaite & Wiebe, 2014).

Indigenous people in regional and remote areas are much less likely to participate in higher education than those in cities (SCRGSP, 2011, p. 4.73). While low SES students in higher education were generally 'retained' (continued on to the following year of study) at a rate just below the sector average, "Indigenous students and students from remote areas (up to a third of whom overlap with the low SES group) are retained at rates considerably below the sector average" (Gale & Parker, 2013, p. 22-23). Gale and Parker (2013) claim that it appears to be mature-age and special entry Indigenous students who have lower retention rates, while those Indigenous students who enrol straight from school have retention rates similar to non-Indigenous students (2013, p. 23). The authors note that the upward trend in Indigenous 'success rates' (proportion of attempted courses successfully completed) may reflect an increasing proportion of Indigenous students entering after completion of secondary school (2013, p. 24); it remained nevertheless relatively low at 71.69 per cent in 2011 compared to 87.74 per cent for all students and 82.94 per cent for remote students generally (Gale & Parker, 2013, p. 25).

The 2012 report on the schools workforce by the Australian Productivity Commission noted that a greater proportion of Indigenous students live in low socioeconomic status, rural or remote areas, and that "Indigenous children are considerably more likely than non-Indigenous children to be living in overcrowded conditions and acquire hearing impairments

— both factors that can impede their learning" (2012, p. 253). The Commission argued that addressing disadvantage for Indigenous children requires school workers to "understand differences in the cultural and linguistic practices" and have "a willingness and desire to 'make a difference', resilience to take on a challenging working environment, and a long-term commitment to assisting disadvantaged students" (2012, p. 255).

For remote Indigenous students in particular, who typically maintain strong ties with their familial, social and cultural groups, success in education may mean much more than success for individual students. The ongoing contribution that remote Indigenous students can make to their families, communities and cultural groups using the skills and understandings they develop in post-secondary education may be invaluable for promoting the economic and social well-being of whole groups of Indigenous people (McInerney et al., 2013, p. 105-106).

In discussing the quality of teaching required for the explicit instruction approach to improving Indigenous literacy and numeracy in Cape York communities, Pearson, Denigan and Götesson (2009) note that difficulties exist in recruiting teachers to remote areas, and regular teacher turnover is problematic. A shortage of teachers in remote areas, and teachers of ESL reduce the quality of school education for Indigenous students (Australian Productivity Commission 2012: p. 257-258). For example 37.5 per cent of secondary schools identified as Indigenous-focus schools had major difficulty in filling staff vacancies compared to 6.9 per cent for all other schools (2012, p. 258). A 2010 survey by the Australian Council for Educational Research found that career teachers felt least prepared in areas such as "how to teach students with learning difficulties, how to teach students from Indigenous or different cultural backgrounds, and how to collaborate with parents" (Australian Productivity Commission, 2012, p. 263), all skills of importance for Indigenous education.

The Remote Area Teacher Education Program run by the Queensland Department of Education and Training is an Indigenous teacher distance education program, similar to the Northern Territory's Growing Our Own program run by the Catholic Education Office (Australian Productivity Commission, 2012, p. 269). The Remote Area Teacher Education Program commenced in 1990 and upgrades the qualifications of Aboriginal and Torres Strait Islander paraprofessionals to that of qualified teachers in their own communities. The Djinggi (teacher training) Program at University of Wollongong, for example, enables Indigenous students to undertake a TAFE Certificate III in Education Support while in Years 11 and 12 at school, including on-the-job experience in primary schools. University of Wollongong also runs a mentor program for Aboriginal teachers (Behrendt et al., 2012, p. 199-200).

Significant challenges faced by Indigenous students on campus include the transition from enabling programs, the need for housing and support as many come from regional and remote areas, and lower university completion rates (Behrendt et al., 2012). Gale and Parker (2013) note that the Commonwealth's reduction in the age threshold for students to receive the independent living allowance (from 25 to 22 years) has benefited low SES students and students from rural and remote areas, including Indigenous students, who would not have had the financial resources to study at university. They also cite anecdotal evidence of increased retention rates for these groups because of a reduced reliance on part-time employment (2013, p. 55). However, in a counter-productive move, the Australian Government has revised its Start-up and Relocation Scholarships for students receiving Youth Allowance, Austudy or Abstudy (the living allowance for Indigenous students), with a HECs-style loan system (Gale & Parker, 2013, p. 56), which will increase low SES student higher education debt.

3.6.8 Accommodation

> "[R]egional and remote students often do not have the option of living with family so housing and relocation costs can be an additional burden for them. Students who relocate not only face financial pressure but may also face challenges of feeling isolated and removed from their families" (Behrendt et al., 2012, p. 79).

One of the biggest obstacles for Indigenous students studying on campus is the shortage of affordable housing; 53 per cent of Indigenous students rent their home compared with 38 per cent of non-Indigenous students (Behrendt et al., 2012, p. 81-82). The Review suggested that more philanthropic funding and public-private partnerships should be explored to provide affordable rental housing for students (2012, p. 82).

'Mixed mode' course delivery (where remote or regional students attend campus for an intensive residential block of study), and 'reverse block release' where the provider travels to communities to deliver on-site teaching, both require better access by students to high-speed internet for the distance learning component of their courses (Behrendt et al., 2012, p. 80-81). Quality standards for such courses also need to be developed, focusing on outcomes such as graduate attributes and retention and completion rates (Behrendt et al., 2012, p. 83). The University of Notre Dame uses "online face-to-face" teaching as well as traditional on-campus teaching, and Curtin University uses the reverse block delivery approach to enable access by remote and regional Indigenous students (Behrendt et al., 2012, p. 184-185). Sharrock and Lockyer (2008) noted that:

> "The use of this mode of course delivery has been in response to Aboriginal attitudes and understandings of the close relationships between student, kin, country and community. These attitudes and understandings involve respect for obligations, practices and beliefs not widely held in broader non-Aboriginal Australian society" (Sharrock & Lockyer, 2008, p. 29).

The reverse block visit process not only supports student retention and also links previous and new students, and allows new students to link up with staff and the university after taking a break. It also provides a potential mechanism for raising personal or financial issues, and for building trust and rapport that builds students' confidence and self-esteem (Sharrock & Lockyer, 2008, p. 36).

Hughes and Hughes are likewise critical of continued emphasis on remoteness as a cause of poor school performance, since there are instances of remote locations with both high-performing and low-performing schools (2012, p. 17).

3.6.9 Key influencers and intermediaries analysis

The proportion of Indigenous school students aspiring to university education is 18 per cent (for either an undergraduate or postgraduate degree), substantially lower than the proportion of non-Indigenous students (34 per cent) (Thomson, Hillman & Wermert, 2012, p. 80). Indigenous students with higher scores in science and mathematics are more likely to aspire to tertiary education (Thomson, Hillman & Wermert, 2012, p. 127). Thomson, Hillman and Wermert (2012) found that parental education not only is an indicator of SES but also of "educational capital" manifested in positive attitudes and higher expectations of their children in education (2012, p. 75). Moreover,

> "… there are vast differences in the resources that Indigenous and non-Indigenous students report having available in their homes: while around one in five non-

> Indigenous students were in the many resources category, only one in every ten Indigenous students was so fortunate. Three times as many Indigenous students, compared to non-Indigenous students, were in the few resources category" (Thomson, Hillman & Wermert, 2012, p. 77).

Gale and Parker (2013) argue that the assumption that aspiration must be raised in low SES students has been challenged by research that indicates that 75 per cent of students from low SES schools in western Melbourne already aspired to higher education (Gale & Parker, 2013, p. 61). Gale et al.'s (2013) work on aspiration suggests that navigational capacity is a more important factor in the gap between aspiration and participation. There is also an assumption that some aspirations are more legitimate than others: a view that "aspirations by people from low SES backgrounds are derived from their biological and historical conditions" and are 'habituated' aspirations rather than legitimate ones (Gale et al., 2013, p. 62). Biddle and Cameron (2012) suggest that a decision by an Indigenous student not to participate in formal education should be respected: "[t]here are many activities outside the non-Indigenous mainstream that do not require extended formal education". However, a different approach may be justified where this may not be an informed choice, or a choice constrained by early school experience (2012, p. 8). Pearson, Denigan and Götesson also ask: "how can an Indigenous child with poor health and poor education be truly said to be in a position to choose?" (2009, p. 64). In the extant literature:

- The Cape York education model described by Pearson, Denigan and Götesson (2009) identifies school leaders, teachers and parents as core intermediaries and influencers.
- Hughes and Hughes (2012) argue however that the reasons both children and parents give up on schooling is because students "go to school for years and still cannot read or count". On the other hand, "[w]herever principals and teachers provide a quality school environment with rigorous classroom instruction, children attend regularly" (Hughes & Hughes 2012, p. 38). The most important factors in providing such an environment are: autonomy of principals in making decisions about staff, budgets and before- and after-school programs, changing student, parent and school expectations for attendance and participation in education, and linking training programs with actual jobs (Hughes & Hughes 2012, p. 54-55).
- 94 per cent of Indigenous students (and 84 per cent of non-Indigenous students) emphasised the importance of their parents' views in making decisions about the future, but only a small number of family members had ever attended university (Gale et al., 2013, p. 6). While parents and family were the most important source of information about post-school education, teachers were identified as another important source (Gale et al., 2013, p. 27-28).
- An evaluation of the AIME program (Bodkin-Andrews et al., 2013) touched on inter-generational social disadvantage, and influence of parents and families but noted the influence of passive role modelling by AIME mentors who work with school children.
- The UWA Aspire program identified teachers, year coordinators, career advisers, Aboriginal Education Officers and members of the broader Indigenous community as key influencers (Skene, 2010, p. 79). Similarly, Hall (2015) notes the role of teachers as key influencers/intermediaries.
- The Queensland Department of Education et al. (2012) mentions the following influencers and intermediaries: parents, Elders, Indigenous school staff and community representatives.
- More recently, Beddie (2015) refers to 'supporting adults' while the Bridges to Higher Education final evaluation report (KPMG, 2015a) details community influencers as being

comprised of Elders, Cultural Liaison Officers, members of the community, religious or sporting organisations, non-government organisation representatives, individuals considered experts in their fields, career advisers and influential/credible community members. Furthermore, the Bridges to Higher Education program focuses upon helpers (paid or volunteer) which included university students who acted as tutors (KPMG, 2015a). Helpers appear to align with ambassadors (Cupitt & Costello, 2015) and mentors (e.g. AIME, 2014; Bodkin-Andrews et al., 2013). More generically Lander et al. (2015) refers to older role models, in that mature-age Indigenous students are role models for younger Indigenous students considering study.

3.6.10 Key Message: Indigenous Cohort Literature

The persistent under-representation of the Aboriginal and Torres Strait Islander population at university and the educational attainment gap between Indigenous and non-Indigenous populations has been a critical policy concern. Despite the 2009 (COAG) 'closing the gap' policy and associated initiatives, there remains a scarcity of research on how Indigenous students approach higher education decisions. Also of significance, in remote and very remote areas, Indigenous Australians comprise 16 per cent and 45 per cent of the populations respectively. Remoteness influences outcomes for Indigenous Australians with non-participation in education increasing with remoteness. To address this gap in research and educational outcomes, social marketing is identified as a fitting framework for addressing the social inequities experienced by Indigenous Australians. More specifically, social marketing interventions that reveal and cater for the broad diversity of Indigenous Australians and their different needs, wants, enablers and barriers is likely to accelerate access and participation in higher education.

The proportion of Indigenous Australians completing Year 12 or equivalent was 45 percent (compared to 88 percent of non-Indigenous Australians). Many initiatives are attempting to address this. The key takeaways from these initiatives are that:

- From a social marketing perspective, the vast number of organisations and initiatives all targeted at the same group generates substantial 'competition' and has the potential to be overwhelming to Indigenous students. Social marketing interventions, including this one, do not exist in a vacuum and it is important to consider how many other groups are sending similar messages to Indigenous students to ensure that ours is positioned in a way to stand out from the 'clutter'.
- Social marketing interventions should be mindful of 'reactance theory', which focuses on the phenomenon of messages which unintentionally threaten an audience's freedom and so invoke a derogatory reaction to that message (Rains, 2013).
- The potential for mixed-messages is high due to the numerous organisations and initiatives at the national and state level.
- Both non-government and government initiatives address a wide range of post-school options and while predominantly focused on school-leavers, do extend to non-school-leaver groups.

Indigenous people are much more likely to participate in the VET sector due to lower entry requirements, modes of study (including 'learn as you earn'), career options and wider geographical availability. However, there is some evidence that VET is diverting potential Indigenous university students away from higher education, and students may not be aware of pathway arrangements from VET to university. The recommendation is that Indigenous students be encouraged to enrol in higher-level 'pathway' VET courses, and to acquire the necessary literacy and numeracy skills to do so.

Indigenous students in the top academic tier at school are less likely than non-Indigenous students to continue onto university education (39 per cent compared to 65 per cent). Many factors contribute to the gap in educational attainment including that Indigenous students are lacking confidence and have a negative self-perception. For those who achieved university success, this is attributed to extra enabling courses or the support of Indigenous Education Units. Also a barrier is that teachers and school careers counsellors have lower expectations of Indigenous students. Many Indigenous students are also the first in their family to reach senior secondary school; not having a role model also reduces the likelihood of university education.

While mature age Indigenous women are highly motivated to pursue tertiary education studies, the common driver is acting as role models, contributing to the household income and having a supportive family.

The literature shows that Indigenous students with higher scores in science and mathematics are more likely to aspire to tertiary education. However, parental education not only is an indicator of SES but also of "educational capital" manifested in positive attitudes and higher expectations of their children in education.

There are also significant challenges faced by Indigenous students at university; they include the transition from enabling programs, the need for housing and support as many come from regional and remote areas, and lower university completion rates. The use of ICT and digital communities can create engaging and personal experiences for Indigenous learners. Also significant, digital pedagogies align with Indigenous cultural philosophy and thus support educational success.

The assumption that aspiration must be raised in low SES students has been challenged by research that indicates that 75 per cent of students from low SES schools in western Melbourne already aspired to higher education. Research suggests that navigational capacity was a more important factor in the gap between aspiration and participation. Also suggested is that a decision by an Indigenous student not to participate in formal education should be respected as there are many activities outside the non-Indigenous mainstream that do not require extended formal education. However, a different approach may be justified where this may not be an informed choice, or is a choice constrained by early school experience.

People from disadvantaged backgrounds are less able to successfully navigate pathways that are outside their experience or the experience of their sociocultural group. Studies contend that the most successful aspiration-building strategies should start early, at the primary school level and they also need to engage schools, families and communities, and focus on both aspiration and attainment. Also essential is that social and financial supports are provided. Critical success factors in pathways to higher education for Indigenous students are:

A. easy to navigate pathways, partnerships between schools, universities and the VET sector;
B. the opportunity for students to experience the university environment before they enrol; and
C. mentoring and academic support for school children.

Government reports have identified that a greater proportion of Indigenous students live in low socioeconomic status, rural or remote areas, and that Indigenous children are considerably more likely than non-Indigenous children to be living in poor conditions and have health problems that impact their education. Addressing disadvantage for Indigenous children will require school workers to understand Indigenous cultural and linguistic practices and be willing to 'make a difference', as well as have the capacity to work in a challenging environment, with a long-term commitment to the community.

Activities under the 'Indigenous Engagement' program specifically target the involvement of students' parents, Elders, Indigenous school staff and community representatives. There is an explicit emphasis on relationship building and capacity building in/with Indigenous communities.

4 Insight-Driven Persona for Each Cohort

The discussion in previous sections of the position paper covers what the literature reveals about widening participation – the policy background, the identified barriers and motivators for potential students and their influencers, the issues commonly experienced by members of particular cohorts, and the features of successful interventions. However, this body of knowledge still contains gaps. Some cohorts, such as refugees, are less studied than others. Students in metropolitan areas are more often studied than those in remote communities. Some interventions have not yet been formally evaluated, and so their insights are not yet recorded in the literature.

In order to fill in these gaps, the social marketing team will conduct interactive workshops with representative cohort groups, in order to develop an insight-driven profile (a 'persona') for each cohort. A persona is a research-based profile which represents a target group with distinct motivations and behaviours (Marshall et al., 2015; Neilsen, 2011; Sankupellay et al., 2015). They describe and categorise common experiences within a cohort, differentiate a cohort's characteristics and needs according to background/experiences/motivations/barriers, and identify key needs of the cohort members. Personas arose in the IT industry in 1999 as part of the shift to a user-centred design (UCD) focus, and have since been adapted to other contexts (Marshall et al., 2015; Neilsen, 2011), such as marketing and health (Sankupellay et al., 2015). Their use in the education sector is comparatively recent, but is proving useful in understanding student motivation and behaviour (Sankupellay et al., 2015).

The personas will add attitudinal insights to the knowledge gained from the literature about widening participation in order to enable targeted social marketing interventions, noting that some cohorts may need more than one persona. This approach goes beyond demographics to get a better idea of how tertiary education might fit in our intended audiences' lives/psyches.

The personas will be informed by the participants':

1. knowledge, attitudes and behaviours and the motivators and barriers that impact on their aspirations to higher education, including how our audiences self-identify, and the role 'place' plays
2. demographics and life stage (age, education, income, family)
3. what they currently value, including current attitude towards education
4. what role education plays in their lives (or does not)
5. what they are currently doing (education, employment) and noting that they may be happy to continue doing it)
6. identification of 'peer crowds'/sub-groups – characteristics and how these value/engage in education and any patterns of social interaction
7. exploration of preferred media and communication use (broadly), specifically in relation to education/pathways; including the most effective media, responses to alternative message framing (i.e. positive versus negative messages) and places 'life path points' (bus stops, restaurants, laundromats etc.) they can reached

8. a ‘competitor analysis’ to map counter campaigns/programs for our audiences’ other options (i.e. work, VET, Australian Defence Force, police force), including the value our cohorts place on these options.

Based on the review of literature, and using the conceptual framework grounded in the model of goal-directed behaviour (see Figure 6), the preliminary features of the cohort profiles have been outlined in Table 16.

Table 16: A preliminary framework for cohort persona data collection

Motivations – Across Cohorts						
	MGB Construct	**Agents of Change** (by Socio-ecological Model levels)		**Individuals of Interest** (by school sample group)		
		Organisational-level Influencers (School/Practitioners)	**Interpersonal-level Influencers (Caregivers/ Community)**	**School Children (Year 7 – 10)**	**School Children (Year 11 -12)**	**Mature potential students**
1.	Attitude - Utilitarian	Are future focused and aware of the long term benefits	Are future focused and aware of long-term benefits	To have a better life – in general	To have a better life – opportunities that my parents didn't have	To have a better life - to do something meaningful
		*This is a part of my job**			More work choices	More work choices
	Attitude – Ego-defensive				To prove to myself (and others) that I am capable	To prove to myself (and others) that I am capable
	Attitude - Knowledge					To be a role model for my children, family, community
	Attitude – Value-expressive				Opportunity to follow dreams, passion, interests, talents, values	Opportunity to follow dreams, passion, interests, talents, values
2.	Positive anticipated emotions	Optimism Hope Nurturing	Optimism Hope Nurturing	Happiness	Happiness Pride in self Respect from others Inspired	Happiness Pride in self Respect from others Confident
3.	Negative anticipated emotions	Included under 'barriers'				
4.	Subjective norm	Address social injustice via transformative capability of education	Address social injustice via transformative capability of education	Keep up with my peer group	Keep up with my peer group	
		*Such activities are respected in my profession**	*It is expected that I encourage others to go to university (sense of parental/civic duty)**		My caregivers/community expect me to go to university	*Because my children are going to university so I might go with them (safety/reduces risk/to help)**
				Because people around me think I would do well at uni	Because people around me say I would do well at university	Because people around me think that I would do well at university
					To learn knowledge and skills and bring them back to my community to help others like me (reciprocity)	To learn knowledge and skills and bring them back to my community to help others like me (reciprocity)
5.	Perceived behaviourial control	I have 'navigational capability' to help students			I can determine my own future (perceived self-efficacy)	I can determine my own future (perceived self-efficacy)
		I can make a difference to the lives of others (perceived self-efficacy)	I can make a difference to the lives of others (perceived self-efficacy)			Aware that education is a way to change or escape from an existing life
6a.	Frequency of past exposure to agents of change					
6b.	Intervening education system factors					
7.	Recentness of past exposure to agents of change					*I finished school a little while ago, I'm ready now to do further study**

**anecdotal, not in the literature (gaps but intuitively sound)*

Barriers – Across Cohorts

	MGB Construct	Agents of Change (by Socio-ecological Model levels)		Individuals of Interest (by school sample group)		
		Organisational-level Influencers (School/Practitioners)	Interpersonal-level Influencers (Caregivers/ Community)	School Children (Year 7 – 10)	School Children (Year 11 -12)	Mature potential students
1.	Attitude - Utilitarian		*How do I help? Who can help me to help my child?**		*Higher education does not guarantee me a job**	*Higher education does not guarantee me a job**
				I don't need to go to university to work in the job/place I want to	I don't need to go to university to work in the job/place I want to	I don't need to go to university to work in the job/place I want to
				It costs too much (monetary)	It costs too much (monetary and non-monetary e.g. time, effort)	It costs too much (monetary and non-monetary e.g. time, effort)
					I don't think I meet the entry requirement/not aware of alternative pathways	I don't think I meet the entry requirement/not aware of alternative pathways
	Attitude – Ego-defensive		*I had a bad experience at school and so will they (psychological projection)**	Not interested in more study	Not interested in more study	Not interested in more study
	Attitude - Knowledge		*I want to help my child to go to university but I don't know what to tell them or how to help them (resources)**	I'm not smart enough - only really smart people go to uni	I'm not smart enough - only really smart people go to uni	I'm not smart enough - only really smart people go to uni
					I don't think I have the academic skills (e.g. language proficiency) and access to resources (e.g. computer) required to succeed	I don't think I have the academic skills (e.g. language proficiency) and access to resources (e.g. computer) required to succeed
				I don't know what job I want to do if it requires more study		
					Will they have support services and resources to help me?	Will they have support services and resources to help me?
					Information overload - too many choices and too much information	*Information underload (have to seek out information) followed by information overload (too much)**
	Attitude – Value-expressive			People like me/us don't go to TAFE/uni	People like me/us don't go to TAFE/uni	People like me/us don't go to TAFE/uni
				Personality (risk-aversion; self-esteem; present/future focused)	Personality (risk-aversion; self-esteem; present/future focused)	Personality (risk-aversion; self-esteem; present/future focused)
2.	Positive anticipated emotions	Included under 'motivations'				
3.	Negative anticipated emotions	Ignored Skeptical	Inadequate Insignificant *Loss - change in family dynamic (e.g. child becoming autonomous; knowing more than them)**	Discouraged Inadequate Rejected Bewildered Lonely	Discouraged Inadequate Anxious Rejected Bewildered Lonely Scared	Inadequate Anxious Rejected Bewildered Skeptical Scared
4.	Subjective norm				None of my friends are going	
				Parental discouragement or no expectation to study further	Parental discouragement or no expectation to study further	

Barriers – Across Cohorts

			My teachers/guidance officer said I should look at non-university options	My teachers/guidance officer said I should look at non-university options	Was told I was not capable of tertiary study, so have not considered it an option
				Will the environment be appropriate and culturally safe for me?	Will the environment be appropriate and culturally safe for me?
			I don't know anyone who has been to university/ don't know what to expect	I don't know anyone who has been to university/ don't know what to expect	I don't know anyone who has been to university/ don't know what to expect
			I want to stay close to my family	I want to stay close to my family	
				Fear of failure and reinforcement of any previous failures in education	Fear of failure and reinforcement of any previous failures in education
			*Fear of success, My family and community will think that I think I'm better than them and won't accept me**	*Fear of success, My family and community will think that I think I'm better than them and won't accept me**	*Fear of success, My family and community will think that I think I'm better than them and won't accept me**
5.	Perceived behavioral control			Navigational capability – I won't know what to do or who to ask and no one in my family can help	Navigational capability – I won't know what to do or who to ask and no one in my family can help
					Family commitments conflicts with study (family, need to work)
6a.	Frequency of past exposure to agents of change				
6b.	Intervening education system factors		School here finishes in Year 10		
7.	Recentness of past exposure to agents of change				*I just finished school and I want a break from study**

**anecdotal, not in the literature (gaps but intuitively sound)*

5 Conclusion

Education is transformative. Education delivers benefits to individuals, their families and communities; and it is this far-reaching impact that compels further research into understanding why under-participation by people from low SES backgrounds occurs and finding new ways to attempt to assuage the situation.

This project brings together two different disciplines and practices in order to address the issue of under-participation in higher education. Social marketing addresses social issues in ways that enhance the quality of life of individuals and society as a whole (Hastings & Angus, 2012). Similarly, widening participation seeks to redress social inequalities via increasing participation in higher education by under-represented groups (Gale, 2015).

The literature considered in this review is concerned not only with the current representation of people from disadvantaged backgrounds in tertiary education, and which social marketing interventions are the best match for these cohorts, but with an ongoing debate about the problems inherent in a policy of widening participation based on a deficit model when dealing with systemic disadvantage. Bourdieu's notion of cultural capital is commonly deployed as way of shifting the discourse away from social deficit thinking, to a more positive frame of social inclusion/mobility and/or social justice. Social marketing considers downstream, midstream, and upstream levels of interventions in order to bring about positive change in complex situations such as this.

One of the central themes which has emerged from this review is the idea of the unheard voice in education, and the need for it to be heard. In social marketing terms, this is conceptualised as an opportunity for co-creation, in the form of joint development of interventions. This enables the autonomy of targeted groups in processes which will potentially transform their lives, but also widens the possibilities of innovation when it comes to intervention strategies. Domegan et al. (2013) point out that co-creation "can be a force for participation and democratisation that does create meaning for all, rather than simply an alternative research technique or a way of creating value through co-opting the skills and creativity of individuals" (Ind & Coates, 2013, cited in Domegan et al., 2013, p. 242).

Within widening participation, a similar idea is articulated by Gale (2015) in his exploration of the development of sociological imagination, recognising the limited spaces currently available for people from disadvantaged backgrounds to be part of Australia's policy decision-making processes, instead of merely a problem to be solved. He points out that current higher education policy turns educational disadvantages into public issues, but only in terms of personal deficit, without turning them also into systemic issues which require parallel policy intervention.

Programs which recognise the reasons for student engagement or disengagement from formal education, rather than assuming the deficit perspective, have had measurable success, particularly those working with Indigenous communities. Sellar and Gale (2011, p.116) argue that:

> "strengthening capacities to cultivate networks (mobility), shape futures (aspiration) and narrate experiences (voice) increases people's ability to access, benefit from and transform economic goods and social institutions".

For these reasons, a theoretical model which values the autonomy of participants, enables the identification of behavioural determinants and their relationships, and allows for

individual, group, community and systemic levels of interventional awareness is needed as a framework for this project.

The social marketing-widening participation nexus that underpins this project draws on a transdisciplinary body of knowledge and practices. Collectively this nexus not only provides a more robust platform which will generate new insights, it also represents a different lens through which to view the seemingly perennial issue of under-participation in higher education by people from low SES backgrounds.

6 References

Abbott-Chapman, J. (2011). Making the most of the mosaic: Facilitating post-school transitions to higher education of disadvantaged students. *The Australian Educational Researcher* 38: 57-71. DOI 10.1007/s13384-010-0001-9.

AIME. (2014). *About AIME*, Web page, Australian Indigenous Mentoring Experience Indigenous Corporation, Redfern, NSW, <http://aimementoring.com/about/aime/> viewed 28 August 2014.

Aird, R., Miller, E., van Megen, K., and Buys, L. (2010). *Issues for Students Navigating Alternative Pathways to Higher Education: Barriers, Access and Equity: A Literature Review*. QUT and Griffith University.

Archer, L., Hutchings, M. and Leathwood, C. (2001). Engaging with commonalities and difference: Theoretical tensions in the analysis of working class women's educational discourses. *International Studies in Sociology of Education 11*(1), 41–62

Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes* 50: 179-211.

Albarracin, D., Gillette, J. C., Earl, A. N., Glasman, L. R., Durantini, M. R., and Ho, M-H. (2005). A test of major assumptions about behavior change: A comprehensive look at the effects of passive and active hiv-prevention interventions since the beginning of the epidemic. *Psychological Bulletin* 131(6): 856-897.

Anderson, I. (2015). *The University of Melbourne Reconciliation Action Plan 2015-2017*. The University of Melbourne.

Anderson, D. S., and Vervoorn, A. E. (1983). *Access to Privilege: Patterns of Participation in Australian Post-Secondary Education*. Canberra: ANU Press

Andreasen, A. R. (1995). *Marketing social change: changing behavior to promote health, social development, and the environment*. San Francisco: Joseey-Bass.

Appadurai, A. (2004). The capacity to aspire: Culture and the terms of recognition. In V. Rao & M. Walton (Eds), *Culture and Public Action* (pp. 59–84). Stanford: Stanford University Press.

Archer, L., Hollingworth, S., and Halsall, A. (2007). University's not for me - I'm a Nike person: Urban,working-class young people's negotiations of "style", identity and educational engagement. *Sociology* 41(2): 219-237. http://doi.org/10.1177/0038038507074798

Armstrong, D., and Cairnduff, A. (2012). Inclusion in higher education: Issues in university-school partnership. *International Journal of Inclusive Education* 16(9): 917-928. DOI:10.1080/13603116.2011.636235.

Aurora Project. (2014a). *About TAI*, Web page, The Aurora Project and Programs Pty Ltd, Alexandria, NSW, <http://www.auroraproject.com.au/node/455> viewed 28 August 2014.

Aurora Project. (2014b). *Academic Enrichment Program for Aboriginal and Torres Strait Islander Students*, Web page, The Aurora Project and Programs Pty Ltd,

Alexandria, NSW, <http://www.auroraproject.com.au/TAI_camps> viewed 28 August 2014.

Australian Bureau of Statistics (ABS). (2011). *1270.0.55.001 - Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas*, July 2011.

Australian Bureau of Statistics (ABS). (2013). *3238.0.55.001 - Estimates of Aboriginal and Torres Strait Islander Australians*, June 2011. http://www.abs.gov.au/ausstats/abs@.nsf/mf/3238.0.55.001

Australian Government Department of the Prime Minister and Cabinet. (2015). *Closing the Gap - The Prime Minister's Report 2015*. http://www.dpmc.gov.au/pmc-indigenous-affairs/publication/closing-gap-prime-ministers-report-2015

Australian Institute of Health and Welfare and Australian Institute of Family Studies (AIHW, AIFS). (2013). What works to overcome Indigenous disadvantage: key learnings and gaps in the evidence 2011-12. Produced for the *Closing the Gap Clearinghouse*. Canberra: Australian Institute of Health and Welfare & Melbourne: Australian Institute of Family Studies. http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Publications/2013/15161.pdf

Australian Productivity Commission. (2012). *Schools Workforce*, Commonwealth of Australia, Canberra.

Australian Youth Affairs Coalition. (AYAC). (2011). *Survey Results: Disability and Tertiary Education*. http://www.ayac.org.au/uploads/Report%20on%20Survey%20Results%20for%20Disability%20and%20Education%20(Tertiary).pdf

Ball, S.J. and Vincent, C. (1998). 'I heard it on the grapevine': 'Hot' knowledge and school choice. *British Journal of Sociology of Education*. *19*(3): 377-400.

Bamblett, L. (2013). Read with me everyday: Community engagement and English literacy outcomes at Erambie Mission. *Australian Aboriginal Studies* 1: 101-109.

Bandias, S., Fuller, D., and Pfitzner, D. (2011). Vocational and higher education in Australia: A need for closer collaboration. *Journal of Higher Education Policy and Management* 33(6): 583-594. DOI: 10.1080/1360080X.2011.621185.

Bat, M., & Guenther, J. (2013). Red dirt thinking on education: A people-based system. *The Australian Journal of Indigenous Education* 42(2): 123-135. doi 10.1017/jie.2013.20

Baxter, A., Tate, J., and Hatt, S. (2007). From policy to practice: Pupils' responses to widening participation initiatives. *Higher Education Quarterly* 61(3): 266-283.

Beddie, F. (2015). *The Outcomes of Education and Training: What the Australian Research is Telling Us, 2011-2014*. Australian Government Department of Education and Training, Canberra.

Behrendt, L., Larkin, S., Griew, R., and Kelly, P. (2012). *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People Final Report.* Canberra: Commonwealth of Australia.

Bernthal, M. J., Rose, R. L., and Kaufman, P. (2006). When norms collide: Normative conflict in the processing of public service announcements. *Journal of Nonprofit and Public Sector Marketing* 16(1/2): 21-39.

Bexley, E., Daroesman, S., Arkoudis, S., and James, R. (2013). *University Student Finances in 2012: A Study of the Financial Circumstances of Domestic and International Students in Australia's Universities*. Melbourne: Centre for the Study for Higher Education, The University of Melbourne.

Biddle, N. and Cameron, T. (2012). *Potential factors influencing Indigenous education participation and achievement: NCVER Research Report*, National Centre for Vocational Education Research, Department of Industry, Innovation Science, Research and Tertiary Education, <http://www.ncver.edu.au/publications/2560.html> viewed 2 September 2014.

Birch, E. R., and Miller, P. W. (2007). The influence of type of high school attended on university performance. *Australian Economic Papers* 46(1): 1-17. doi: 10.1111/j.1467-8454.2007.00302.x.

Black, A. C., Little, C. A., McCoach, D. B., Purcell, J. H., and Siegle, D. (2008). Advancement via individual determination: Method selection in conclusions about program effectiveness. *The Journal of Educational Research* 102(2): 111-123,160. http://search.proquest.com.dbgw.lis.curtin.edu.au/docview/204194601?accountid=10382.

Bloom, P. N., and Novelli, W. D. (1981). Problems and challenges in social marketing. *The Journal of Marketing* 74(2): 79-88.

Bodkin-Andrews, G., Harwood, V., McMahon, S., and Priestly, A. (2013). AIM(E) for completing school and university: Analysing the strength of the Australian Indigenous Mentoring Experience. In R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 113-134.

Bourdieu, P. (1977). Cultural reproduction and social reproduction. In Karabel, J. and Halsey, A. H., (Eds), *Power and Ideology in Education.* OUP, Oxford.

Bowden, M. P., and Doughney, J. (2010). Socio-economic status, cultural diversity and the aspirations of secondary students in the Western Suburbs of Melbourne, Australia. *Higher Education* 59(1): 115-129. http://doi.org/10.1007/s10734-009-9238-5

Bowes, L., Thomas, L., Peck, L., and Nathwani, T. (2013). *International Research on the Effectiveness of Widening Participation*. Leicester: CFE Research, Edge Hill University.

Boyd, D., Trinidad, S., and Fletcher, S. (under review). Regional secondary school students study choices: planning future direction. *Journal for Youth Studies*.

Bradley, D., Noonan, P., Nugent, H., and Scales, B. (2008). *Review of Australian Higher Education: Final Report*. Canberra: Commonwealth of Australia.

Brady, W. (2012), *Indigenous Student Support in Australian Universities*. Unpublished report to the Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People, Department of Industry, Innovation, Science, Research and Tertiary Education, Canberra.

Brett, M., Sheridan, A., Harvey, A. & Cardak, B. (2015). Four barriers to higher education: regional students face and how to over them. Retrieved from: http://theconversation.com/four-barriers-to-higher-education-regional-students-face-and-how-to-overcome-them-49138.

Bridgland, S., Muloin, S., Wilkinson, S., and Kelly, M. (2012). *Adult Learner (low SES) Social Inclusion Project Report 2009 - 2012*. QUT and Griffith University.

Briggs, A., Clark, J., and Hall, I. (2012). Building bridges: Understanding student transition to university. *Quality in Higher Education* 18(1): 3-21. DOI:10.1080/13538322.2011.614468.

Briley, D. A., Harden, K. P., and Tucker-Drob, E. M. (2014). Child characteristics and parental educational expectations: Evidence for transmission with transaction. *Developmental Psychology* 50(12): 2614-2632. http://dx.doi.org/10.1037/a0038094.

Brown, G. (2011). Emotional geographies of young people's aspirations for adult life. *Children's Geographies* 9(1): 7-22. DOI: 10.1080/14733285.2011.540435.

Bryan, J., and Henry, L. (2012). A model for building school-family-community partnerships: Principles and Process. *Journal of Counseling and Development 90*: 408-421.

Bunda, T., Zipin, L., and Brennan, M. (2012). Negotiating university 'equity' from Indigenous standpoints: A shaky bridge. *International Journal of Inclusive Education* 16(9): 941-957. DOI: 10.1080/13603116.2010.523907.

Cairns, G., and Stead, M. (2009). Session 5: Nutrition communication. Obesity and social marketing: works in progress. *Proceedings of the Nutrition Society* 68(01): 11-16.

Callingham, M. (2013). Democratic youth participation: A strength-based approach to youth investigating educational engagement. *Youth Studies Australia* 32(4): n.p.

Centers for Disease Control and Prevention (CDC). (2006). Evolution of HIV/AIDS prevention programs – United States, 1981-2006. *Morbidity and Mortality Weekly Report* 55(21): 597-603. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5521a4.htm

Chesters, J., and Watson, L. (2013). Understanding the persistence of inequality in higher education: Evidence from Australia. *Journal of Education Policy* 28(2): 198-215. DOI: 10.1080/02680939.2012.694481.

Chin, J., and Scott, J. (2015). Changing the binge drinking culture amongst young adults in Australia. In S. Jones, R. Gordon, N. Zainuddin, R. Russell-Bennett, & L. van der Beeke (Eds.), *Proceedings book: World social marketing conference, 19-21 April 2015* (pp. 103-104). Sydney: Fuse Events Ltd. Retrieved from: http://wsmconference.com/wp-content/uploads/2015/04/WSM-2015-Proceedings-book.pdf

Chowdry, H., Crawford, C., Dearden, L., Goodman, A., and Vignoles, A. (2013). Widening participation in higher education: Analysis using linked administrative data. *Journal of the Royal Statistical Society* 176(2): 431-457. DOI:10.1111/j.1467-985X.2012.01043.x.

Cialdini, R. B., and Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology* 55(1): 591-621.

Coalition of Australian Governments (COAG). (2009). *National Integrated Strategy for Closing the Gap in Indigenous Disadvantage*. https://www.coag.gov.au/node/65

Coates, H. B., Edwards, D., and Friedman, T. (2010). *Student Aptitude Test for Tertiary Admission (SATTA) Pilot Program: Evaluation Report for the Department of Education, Employment and Workplace Relations*. DEEWR. http://works.bepress.com/daniel_edwards/56

Cohen, S. (2013). Nudging and informed consent. *The American Journal of Bioethics* 13(6): 3-11.

Colditz, G. A., Emmons, K. M., Vishwanath, K., and Kerner, J. F. (2008). Translating science to practice: community and academic perspectives. *Journal Of Public Health Management And Practice: JPHMP* 14(2): 144-149.

Cole, M. (2000). Introduction: human rights, education and equality. In *Education, Equality and Human Rights*, (Ed.) M. Cole, 1-5. London & New York: Routledge.

Collard, G., Konigsberg, P., Rochecouste, J. and Welch, A. (2015). Australia: Aboriginal education, In Crossley, M., Hancock, G. & Spraque, T. (Eds) *Education in Australia, New Zealand and the Pacific*, Bloomsbury Publishing, UK.

Collier, P. & Morgan, D. (2008). Is that paper really due today? Differences in first-generation and traditional college students' understandings of faculty expectations. *Higher Education* 55(4), 425-446.

Commonwealth of Australia. (2009). *Transforming Australia's Higher Education System*. Canberra: Commonwealth of Australia.

Commonwealth of Australia. (2014). *Completion Rates of Domestic Bachelor Students: A Cohort Analysis*. Canberra: Department of Education.

Corner, A., and Randall, A. (2011). Selling climate change? The limitations of social marketing as a strategy for climate change public engagement. *Global Environmental Change* 21(3): 1005-1014.

Costello, D., and Trinidad, S. (2015). Social inclusion in higher education in Australia. *STARS: Student Transitions Achievements Retention and Success Conference*, July 2015.

Cupitt, C., and Costello, D. (2014). *Bridges to Higher Education Initiative: Literature Review*. Perth: NCSEHE, Curtin University.

Cupitt, C., Costello, D. and Mitchell, G. (2015). *Widening Participation Queenlsand: Student Ambassador Investigations*. Perth: NCSEHE, Curtin University.

da Costa, A. F., Pegado, E., Avila, P., and Coelho, A. R. (2013). Mixed-methods evaluation in complex programmes: The national reading plan in Portugal. *Evaluation and Program Planning* 39: 1–9. http://dx.doi.org/10.1016/j.evalprogplan.2013.02.001

Dahl, S., Eagle, L., and Low, D. (2015). Integrated marketing communications and social marketing: Together for the common good? *Journal of Social Marketing* 5(3): 226-240.

Dalley-Trim, L., Alloway, N., and Walker, K. (2008). Secondary school students' perceptions of, and the factors influencing their decision-making in relation to, VET

in schools. *The Australian Educational Researcher* 35: 55-69. doi:10.1007/BF03216883

Dalley-Trim, L., and Alloway, N. (2010). Looking "outward and onward" in the outback: Regional Australian students' aspirations and expectations for their future as framed by dominant discourses of further education and training. *The Australian Educational Researcher* 37(2): 107-126.

Dann, S. (2007). Reaffirming the neutrality of the social marketing tool kit: social marketing as a hammer, and social marketers as hired guns. *Social Marketing Quarterly* 13(1): 54-62.

Deci, E. L., and Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry: An International Journal for the Advancement of Psychological Theory* 11(4): 227-268. DOI:10.1207/S15327965PLI1104_01

Department of Education and Training. (n.d.). *Aboriginal and Torres Strait Islander Education Action Plan: Focus Schools*, Queensland Government, Brisbane,

Department of Education, Employment and Workplace Relations (DEEWR). (2008). *National report to parliament on Indigenous education and training*, 2008, Department of Education, Employment and Workplace Relations, Canberra.

Department of Education Employment and Workplace Relations (DEEWR). (2010). *Regional Participation: The Role of Socioeconomic Status and Access*. Canberra.

Department of Education, Employment and Workplace Relations (DEEWR). (2011). *'Telling their stories': School Case Studies in Parental Engagement*. Online: DEEWR. http://www.deewr.gov.au/Schooling/Programs/SmarterSchools/Pages/NationalKeyReformProjects.aspx.

Department of Education. (2014a). *Higher Education Participation and Partnerships Programme (HEPPP)*, Web page, Australian Government, Canberra. Retrieved from: https://education.gov.au/higher-education-participation-and-partnerships-programme-heppp.

Department of Education. (2014b). *Higher Education Participation Programme (HEPP)*, Web page, Australian Government, Canberra, Retrieved from: https://education.gov.au/higher-education-participation-programme-hepp.

Department of Education. (2014c). *Undergraduate Applications, Offers and Acceptances, 2014 Report*. Canberra: Department of Education, Australian Government.

Department of Education Tasmania. (2012). *Future Provision of Years 11 and 12 Education in Regional Tasmania: A Discussion Paper.* https://www.education.tas.gov.au/documentcentre/Documents/Future-Provision-of-Years-11-and-12-Education-in-Regional-Tasmania-Discussion-Paper.pdf

Department of Health. (2004). *Choosing Health: Making Healthy Choices Easier*. Retrieved from: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4094550

Desai, D. (2009). Role of relationship management and value co-creation in social marketing. *Social Marketing Quarterly* 15(4): 112-125.

Deshpande, S. (2014). Guidance to authors submitting to the social marketing quarterly. *Social Marketing Quarterly* 20(3): 145-147.

Devlin, M. (2013). Bridging socio-cultural incongruity: Conceptualising the success of students from low socio-economic status backgrounds in Australian higher education. *Studies in Higher Education* 38(6): 939-949. DOI:10.1080/03075079.2011.613991.

Dibb, S. (2014). Up, up and away: social marketing breaks free. *Journal of Marketing Management* (ahead-of-print), 1-27.

Dobson, I. R., and Skuja, E. (2005). Secondary schooling, tertiary entry ranks and university performance. *People and Place* 13(1): 53-62.

Domegan, C. (2007). The use of social marketing for science outreach activities in Ireland. *Irish Journal of Management* 28(1): 103.

Domegan, C. T. (2008). Social marketing: Implications for contemporary marketing practices classification scheme. *Journal of Business and Industrial Marketing* 23(2): 135-141.

Domegan, C., Collins, K., Stead, M., McHugh, P., and Hughes, T. (2013). Value co-creation in social marketing: functional or fanciful? *Journal of Social Marketing* 3(3): 239-256.

Douglass, J. A. (2010). Creating a culture of aspiration: Higher education, human capital and social change. *Procedia Social and Behavioral Sciences* 2: 6981-6995. doi:10.1016/j.sbspro.2010.05.050

Eagle, L. C. (2008). *Social Marketing Ethics: Report for National Social Marketing Centre*. Report Compiled for National Social Marketing Centre, London

Eagle, L. (2009). *Health Partnerships: Guide to the Ethics of Local Partnerships for Health*. Report prepared for the Department of Health via Oxford Strategic Marketing.

Eagle, L., and Dahl, S. (Eds). (2015). *Marketing, Ethics and Society*. London: Sage.

Eagle, L., Dahl, S., Hill, S., Bird, S., Spotswood, F., and Tapp, A. (2013). *Social Marketing*. Harlow, England: Pearson.

Eagle, L., Low, D. R., and Vandommele, L. (2015). Social marketing perspectives on barriers to and enablers of effective sustainability communication (invited contribution). *Sinergie Italian Journal of Management* 33(96): 131-150.

Eccles, J. (2009). Who am I and what am I going to do with my life? Personal and collective identities as motivators of action. *Educational Psychologist* 44(2): 78–89. DOI: 10.1080/00461520902832368

Edwards, D., Brown, J., Rothman, S., Richardson, S., Friedman, T., and Underwood, C. (2013*). Improving the Tertiary Education System, Participation and Results: Project Report.* Canberra: Australian Council for Educational Research.

Edwards, D. & Marks, G., (2008), *'Preliminary Report on University Participation, Access and Entry in Victoria'*. Appendix 4 in Victorian Government Submission to Review of Australian Higher Education, Government of Victoria, Victoria.

Elster, J. (1983). *Sour Grapes: Studies in the subversion of rationality*. Cambridge: Cambridge University Press.

EPHEA submission. (2015). Review of Disability Standards for Education. Retrieved from: http://www.ephea.org/#!australia/c1iyf

Erebus International. (2012). *Evaluation of the University of Sydney's Compass - Find Your Way to Higher Education Program*. Retrieved from: http://www.wattawahts-p.schools.nsw.edu.au/documents/11956504/11962877/The%20Compass%20Journey.pdf

Evans, W. D. (2006). How social marketing works in health care. *BMJ* 332(7551): 1207-1210.

Evans, W. D., Pattanayak, S., Young, S., Buszin, J., Rai, S., and Bihm, J. W. (2014). Social marketing of water and sanitation products: A systematic review of peer-reviewed literature. *Social Science and Medicine* 110: 18-25.

Evans-Lacko, S., Henderson, C., Thornicroft, G., and McCrone, P. (2013). Economic evaluation of the anti-stigma social marketing campaign in England 2009-2011. *The British Journal of Psychiatry* 202(s55): s95-s101.

Fielding, J., Brownson, R., and Green, L. (2011). Public health: Moving from 'what' to 'how'. *Annual Review of Public Health* 31(1): 1-8.

Fishbein, M., and Yzer, M. C. (2003). Using theory to design effective health behavior interventions. *Communication Theory* 13(2): 164-183.

Fleming, M. J., and Grace, D. M. (2014). Increasing participation of rural and regional students in higher education. *Journal of Higher Education Policy and Management 36*(5): 483-495. http://doi.org/10.1080/1360080X.2014.936089

Flood, J. (2013). Aboriginal women and higher education: A pilot study of what drives and sustains mature-age Aboriginal women to study at university.In R.G. Craven & J. Mooney (Eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 209-223.

Foley, K-R., Dyke, P., Girdler, S., Bourke, J., and Leonard, H. (2012). Young adults with intellectual disability transitioning from school to post-school: A literature review framed within the ICF. *Disability and Rehabilitation* 34(20): 1747-1764.

Fox, K. F., & Kotler, P. (1980). The marketing of social causes: The first 10 years. *The Journal of Marketing* 44(4): 24-33.

French, J. (2010). Social marketing on a shoestring budget. *Social Marketing and Public Health Theory and Practice*. Oxford University Press, Oxford UK, 247-261.

Gale, T. (2011). New capacities for student equity and widening participation in higher education. *Critical Studies in Education* 52(2): 109-113.

Gale, T. (2015). Widening and expanding participation in Australian higher education: In the absence of sociological imagination. *The Australian Educational Researcher* 42(2): 257-271. DOI 10.1007/s13384-014-0167-7

Gale, T., and Parker, S. (2013). *Widening Participation in Australian Higher Education*.

Leicester: CFE Research, Edge Hill University.

Gale, T., and Parker, S. (2014). Navigating change: A typology of student transition in higher education. *Studies in Higher Education* 39(5): 734-753. DOI:10.1080/03075079.2012.721351

Gale, T., Hattam, R., Parker, S., Comber, B., Bills, D., and Tranter, D. (2010b). *Interventions Early in School as a Means to Improve Higher Education Outcomes for Disadvantaged (Particularly Low SES) Students.* Component B: A Survey of the Nature and Extent of Outreach Activities Conducted by Australian Higher Education (Table A) Providers. Canberra: Department of Employment, Education and Training.

Gale, T., Parker, S., Molla, T. and Findlay, K. with T. Sealey. (2015). *Student Preferences for Bachelor Degrees at TAFE: The socio-spatial influence of schools*. Report submitted to National Centre for Student Equity in Higher Education (NCSEHE), Australia. Centre for Research in Education Futures and Innovation (CREFI), Deakin University, Melbourne, Australia.

Gale, T., Parker, S., Rodd, P., Stratton, G., and Sealey, T. (2013). *Student Aspirations for Higher Education in Central Queensland: A Survey of School Students' Navigational Capacities.* Report submitted to CQ University, Australia, Centre for Research in Education Futures and Innovation, Deakin University, Melbourne.

Gale, T., Tranter, D., Bills, D., Hattam, R., and Comber, B. (2010a). *Interventions Early in School as a Means to Improve Higher Education Outcomes for Disadvantaged (Particularly Low SES) Students.* Component A: A Review of the Australian and International Literature. Canberra: Department of Employment, Education and Training.

Galliott, N. (2015). Youth aspirations, participation in higher education and career choice capability: where to from here? *The Australian Educational Researcher 42*(2): 133-137. http://doi.org/10.1007/s13384-015-0177-0

Gartland, C. (2014). Student ambassadors: “role-models”, learning practices and identities. *British Journal of Sociology of Education* (July): 1-20. http://doi.org/10.1080/01425692.2014.886940

Gatfield, T. and Chen, C-H. (2006). Measuring student choice criteria using the theory of planned behaviour: The case of Taiwan, Australia, UK, and USA. *Journal of Marketing for Higher Education* 16(1): 77-95. DOI:10.1300/J050v16n01_04

Gemici, S., Bednarz, A., Karmel, T., and Lim, P. (2014a). *The Factors Affecting the Educational and Occupational Aspirations of Young Australians*. Adelaide: NCVER.

Gemici, S., Bednarz, A., Karmel, T., and Lim, P. (2014b). *The Factors Affecting the Educational and Occupational Aspirations of Young Australians - Support Document*. Adelaide: NCVER.

Gemici, S., Lim, P., and Karmel, T. (2013). *The Impact of Schools on Young People’s Transition to University*. Adelaide: NCVER.

Glanz, K., and Bishop, D. B. (2010). The role of behavioral science theory in development and implementation of public health interventions. *Annual Review of Public Health* 31: 399-418.

Goodrick, D. (2012). *Positive Pathways for Young People in Remote Communities: What Works?* Online: Department of Education. https://docs.education.gov.au/documents/positive-pathways-young-people-remote-communities-what-works.

Gordon, R. (2012). Re-thinking and re-tooling the social marketing mix. *Australasian Marketing Journal* (AMJ) 20(2): 122-126.

Gordon, R., McDermott, L., Stead, M., and Angus, K. (2006). The effectiveness of social marketing interventions for health improvement: What's the evidence? *Public Health* 120(12): 1133-1139.

Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., and Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *Milbank Quarterly* 82(4): 581-629.

Grier, S., and Bryant, C. A. (2005). Social marketing in public health. *Annual Review of Public Health* 26(1): 319-339.

Guttman, N., and Salmon, C. T. (2004). Guilt, fear, stigma and knowledge gaps: Ethical issues in public health communication interventions. *Bioethics 18*(6): 531-552.

Hagger, M. and Chatzisarantis, N. (2009). Integrating the theory of planned behaviour and self-determination theory in health behaviour: A meta-analysis. *British Journal of Health Psychology. 14*(2): pp. 275-302.

Haldeman, T., and Turner, J. W. (2009). Implementing a community-based social marketing program to increase recycling. *Social Marketing Quarterly* 15(3): 114-127.

Hall, L. (2015). What are the key ingredients for an effective and successful tertiary enabling program for Aboriginal and Torres Strait Islander students? An evaluation of the evolution of one program. *Australian Journal of Adult Learning* 55(2): 244-266.

Hancock, K. J., Shepherd, C. C. J., Lawrence, D., and Zubrick, S. R. (2013). *Student Attendance and Educational Outcomes: Every Day Counts.* Canberra: Department of Education, Employment and Workplace Relations.

Hardeman, W., Sutton, S., Griffin, S., Johnston, M., White, A.J., Wareham, N.J., and Kinmonth, A. L. (2005). A causal modelling approach to the development of theory-based behaviour change programmes for trial evaluation. *Health Education Research* 20*:* 676–687.

Harris, V., and Marlowe, J. (2011). Hard yards and high hopes: The educational challenges of African refugee university students in Australia. *International Journal of Teaching and Learning in Higher Education* 23(2): 186-196.

Harrison, N. (2012). The mismeasure of participation: How choosing the wrong statistic helped seal the fate of *Aimhigher*. *Higher Education Review* 45(1): 30-61.

Hastings, G. and Angus, K. (2012). When is social marketing not social marketing? *Journal of Social Marketing* 1(1): 45-53.

Hatoss, A., and Huijser, H. (2010). Gendered barriers to educational opportunities: Resettlement of Sudanese refugees in Australia. *Gender and Education* 22(2): 147-160.

Henry, M., Pooley, J. A., and Omari, M. (2014). Student motivations for studying online: A qualitative study. *Teaching and Learning Forum 2014*. https://ctl.curtin.edu.au/events/conferences/tlf/tlf2014/refereed/henry.pdf

Hodges, B., Bedford, T., Hartley, J., Klinger, C., Murray, N., O'Rourke, J., and Schofield, N. (2013). *Enabling Retention: Processes and Strategies for Improving Student Retention in University-based Enabling Programs*. Sydney: Office of Teaching and Learning, Commonwealth of Australia.

Holland, C. (2015). *Progress and priorities report 2015: Close the Gap*. Close the Gap Steering Committee. https://www.humanrights.gov.au/sites/default/files/document/publication/CTG_progress_and_priorities_report_2015.pdf

Holmes, J. H., Lehman, A., Hade, E., Ferketich, A. K., Gehlert, S., Rauscher, G. H., Abrams, J., and Bird, C. E. (2008). Challenges for multilevel health disparities research in a transdisciplinary environment. *American Journal of Preventive Medicine* 35(2, Supplement 1): S182-S192.

Homel, J., and Ryan, C. (2014). *Educational Outcomes: The Impact of Aspirations and the Role of Student Background Characteristics.* NCVER, Adelaide.

Hornik, J., Cherian, J., Madansky, M., and Narayana, C. (1995). Determinants of recycling behavior: A synthesis of research results. *The Journal of Socio-Economics* 24(1): 105-127.

Hughes, H., and Hughes. M. (2012). *Indigenous Education 2012: Policy Monograph 129*, Centre for Independent Studies, St Leonards, New South Wales.

Hughes, K. (2015). The social inclusion meme in higher education: Are universities doing enough? *International Journal of Inclusive Education* 19(3): 303-313. DOI:10.1080/13603116.2014.930518.

Ind, N. and Coates, N. (2013), "The meanings of co-creation". *European Business Review, 25*(1), 86-95.

Inspire-Aspire South Yorkshire. (2010). *Scoping Report / The Journey So Far*. Inspire-Aspire South Yorkshire.

iSMA ESMA and AASM. (2013). Consensus Definition of Social Marketing. Retrieved from http://www.i-socialmarketing.org/assets/social_marketing_definition.pdf

James, R., Bexley, E., Anderson, A., Devlin, M., Garnett, R., Marginson, S. and Maxwell, L. (2008). *Participation and Equity : A Review of the Participation in Higher Education of People from Low Socioeconomic Backgrounds and Indigenous People.* Melbourne, Victoria: Centre for the Study of Higher Education.

James, R., Krause, K-L., and Jennings, C. (2010). *The First Year Experience in Australian Universities: Findings from 1994 to 2009*. Melbourne: Centre for the Study of Higher Education, The University of Melbourne.

Jang, H. (2008). Supporting students' motivation, engagement, and learning during an uninteresting activity. *Journal of Educational Psychology* 100(4): 798-811. DOI: 10.1037/a0012841

Jardine, A. (2011). *ASPIRE: Challenging Attitudes about Higher Education*. University of New South Wales. http://www.studentequity.unsw.edu.au/sites/default/files/uploads/ASPIRE%20Challenging%20Attitudes%20brochure%20WEB.pdf.

Jardine, A. (2012). *Indicators of Persistence and their Influence on the First Year Experience of University Students from Low Socio-Economic Backgrounds*. Thesis. Centre for the Study of Higher Education, The University of Melbourne.

Jennings, J. L., Deming, D., Jencks, C., Lopuch, M., and Schueler, B. E. (2015). Do differences in school quality matter more than we thought? New evidence on educational opportunity in the twenty-first century. *Sociology of Education* 88(1): 56–82. DOI: 10.1177/0038040714562006

Johnson, E. J., Shu, S. B., Dellaert, B. G., Fox, C., Goldstein, D. G., Häubl, G., Larrisk, R. P., Payne, J. W., Peters, E., Schkade, D., Wansink, B., and Weber, E. U. (2012). Beyond nudges: Tools of a choice architecture. *Marketing Letters* 23(2): 487-504.

Jung, J. Y. (2013a). Adolescent decision-making processes regarding university entry: A model incorporating cultural orientation, motivation and occupational variables. *Tertiary Education and Management* 19(2): 97-111. DOI:10.1080/13583883.2012.747107

Jung, J. Y. (2013b). Amotivation and indecision in the decision-making processes associated with university entry. *Research in Higher Education* 54(1): 115-136. DOI:10.1007/s11162-012-9267-2

Kao, G., & Thompson, J. (2003). Racial and ethnic stratification in educational achievement and attainment. *Annual Review of Sociology,* 29: 417–442. doi:10.1146/annurev.soc.29.010202.100019.

Kamin, T., and Anker, T. (2014). Cultural capital and strategic social marketing orientations. *Journal of Social Marketing* 4(2): 94-110.

Kanno, Y., and Varghese, M. M. (2010). Immigrant and refugee ESL students' challenges to accessing four-year college education: From language policy to educational policy. *Journal of Language, Identity and Education* 9(5): 310-328. DOI: 10.1080/15348458.2010.517693.

Karimshah, A., Wyder, M., Henman, P., Tay, D., Capelin, E., and Short, P. (2013). Overcoming adversity among low SES students: A study of strategies for retention. *Australian Universities Review* 55(2): 5-14.

Kent, M. (2015). Disability and eLearning: Opportunities and barriers. *Disabilities Studies Quarterly* 35(1). http://dsq-sds.org/article/view/3815/3830.

Kintrea, K., St Clair, R., and Houston, M. (2015). Shaped by place? Young people's aspirations in disadvantaged neighbourhoods. *Journal of Youth Studies* 18(5): 666-684. DOI: 10.1080/13676261.2014.992315.

Kiyama, J. M. (2010). Family lessons and funds of knowledge: College-going paths in Mexican American families. *Journal of Latinos and Education* 10(1): 23-42. DOI:10.1080/15348431.2011.531656.

Koshy, P. (2014), *Student Equity Performance in Australian Higher Education 2007-2012*, National Centre for Student Equity in Higher Education, Curtin University, Perth, WA, <http://www.ncsehe.edu.au/wp-content/uploads/2014/02/Student-Equity-Performance-in-Australian-Higher-Education-2007-to-2012-FINAL_V2.pdf> viewed 31 August 2014.

Koshy, P. and Islam, A. (2015). *An Evaluation of Widening Tertiary Participation in Queensland*. Perth: National Centre for Student Equity in Higher Education (NCSEHE), Curtin University.

Koshy, P. and Seymour, R. (2015). *Student Equity Performance in Australian Higher Education: 2007 to 2014*. National Centre for Student Equity in Higher Education (NCSEHE), Perth: Curtin University.

Kotler, P. and Zaltman. (1971). Social marketing: An approach to planned social change. *Journal of Marketing* 35(3): 3-12.

Kotler, P. and Lee, N. (2008). *Social Marketing: Influencing Behaviors for Good*, 3rd ed., Sage, Thousand Oaks, CA.

Kotler, P., and Roberto, E. (1989). *Social Marketing*. New York: The Free Press.

KPMG. (2015a). *Evaluation of Bridges to Higher Eduacation, Final Report*. http://www.bridges.nsw.edu.au/__data/assets/pdf_file/0007/898504/04302015Bridges_to_Higher_Education_Final_Report.pdf

KPMG. (2015b). *The Bridges to Higher Education Final Report*. http://www.bridges.nsw.edu.au/about/how_bridges_has_made_a_difference

KPMG. (2015c). *Evaluation of the Disability Support Program*. Department of Education and Training, Commonwealth of Australia.

Kreps, G. L., & Maibach, E. W. (2008). Transdisciplinary Science: The Nexus Between Communication and Public Health. *Journal of Communication*, 58(4), 732-748.

Lamb, S., and Rice, S. (2008). *Effective Intervention Strategies for Students at Risk of Early Leaving: Discussion Paper*. Melbourne: The University of Melbourne.

Lander, J., Mooney-Somers, J., and Plater, S. (2015). The fallacy of the bolted horse: changing our thinking about mature-aged Aboriginal and Torres Strait Islander university students. *Australian Journal of Indigenous Education* 44(1): 59-69.

Lebihan, R. (2009). The woman who's causing a commotion. *Australian Financial Review*, Education Section, February 2, p. 28.

Lefebvre, R. C. (2011). An integrative model for social marketing. *Journal of Social Marketing* 1(1): 54-72.

Lefebvre, R. C. (2012). Transformative social marketing: co-creating the social marketing discipline and brand. *Journal of Social Marketing* 2(2): 118-129.

Lefebvre, R. C., and Flora, J. A. (1988). Social marketing and public health intervention. *Health Education and Behavior* 15(3): 299-315.

Leigh, A. (2008). Returns to education in Australia. *Economic Papers* 27(3): 233.

Leonardo, Z. (2013). The story of schooling: critical race theory and the educational racial contract. *Discourse: Studies in the Cultural Politics of Education* 34(4): 599-610. DOI: 10.1080/01596306.2013.822624

Lewthwaite, B., and Wiebe, R. (2014) Responding to students' learning preferences in chemistry. *Journal of Science Teacher Education* 25(3): 263-287. http://dx.doi.org/10.1007/s10972-013-9369-5

Li, I. W. and Dockery, A. M. (2015). *Socio-economic Status of Schools and University Academic Performance: Implications for Australia's Higher Education Expansion*. National Centre for Student Equity in Higher Education (NCSEHE), Perth: Curtin University.

Lim, P., and Gemici, S. (2011). *Measuring the Socioeconomic Status of Australian Youth*. Adelaide: NCVER.

Lim, P., and Karmel, T. (2011). *The Vocational Equivalent to Year 12*. Adelaide: NCVER.

Lim, P., Gemici, S., and Karmel, T. (2013). *The Impact of School Academic Quality on Low Socioeconomic Status Students*. Adelaide: NCVER.

Lowe, B., Lynch, D., and Lowe, J. (2014). The role and application of social marketing in managing water consumption: a case study. *International Journal of Nonprofit and Voluntary Sector Marketing* 19(1): 14-26.

Luca, N. R., and Suggs, L. S. (2013). Theory and model use in social marketing health interventions. *Journal of Health Communication* 18(1): 20-40. DOI:10.1080/10810730.2012.688243

Luck, D. J. (1974). Social marketing: Confusion compounded. *The Journal of Marketing* 38(October): 70-72.

Luck, J., Hagigi, F., Parker, L., Yano, E., Rubenstein, L., and Kirchner, J. (2009). A social marketing approach to implementing evidence-based practice in VHA QUERI: The TIDES depression collaborative care model. *Implementation Science* 4(1): 64-64.

Lucke, J. (2013). Context is all important in investigating attitudes: Acceptability depends on the nature of the nudge, who nudges, and who is nudged. *The American Journal of Bioethics* 13(6): 24-25.

Luzeckyj, A., King, S., Scutter, S., and Brinkworth, R. (2011). The significance of being first: A consideration of cultural capital in relation to "first in family" student's choices of university and program. A practice report. *The International Journal of the First Year in Higher Education* 2(2): 91-96. doi:http://dx.doi.org.dbgw.lis.curtin.edu.au/10.5204/intjfyhe.v2i2.89

Maher, C. A., Lewis, L. K., Ferrar, K., Marshall, S., De Bourdeaudhuij, I., and Vandelanotte, C. (2014). Are health behavior change interventions that use online

social networks effective? A systematic review. *Journal of Medical Internet Research* 16(2): 1-13.

Marshall, R., Cook, S., Mitchell, V., Summerskill, S., Haines, V., Maguire, M., Sims, R., Gyi, D., and Case, K. (2015). Design and evaluation: End users, user datasets and personas. *Applied Ergonomics* 46: 311-317. http://dx.doi.org/10.1016/j.apergo.2013.03.008

Martin, A.J., P. Ginns, B. Papworth and H. Nejad. (2013). The role of academic buoyancy in Aboriginal/ Indigenous students' educational intentions: Sowing the early seeds of success for post-school education and training. In R.G. Craven & J. Mooney (Eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 57-79.

Martin, J. (2015). Healthier. Happier. Using online assessment and digital support tools to facilitate the reduction of overweight and obesity in Queensland. In S. Jones, R. Gordon, N. Zainuddin, R. Russell-Bennett, & L. van der Beeke (Eds.), *Proceedings book: World social marketing conference, 19-21 April 2015* (pp. 137-139). Sydney: Fuse Events Ltd. Retrieved from: http://wsmconference.com/wp-content/uploads/2015/04/WSM-2015-Proceedings-book.pdf

Mâsse, L. C., Moser, R. P., Stokols, D., Taylor, B. K., Marcus, S. E., Morgan, G. D., Hall, K. L., Croyle, R. T., and Trochim, W. M. (2008). Measuring collaboration and transdisciplinary integration in team science. *American Journal of Preventive Medicine* 35(2, Supplement 1): S151-S160.

Matthews, J. (2008). Schooling and settlement: Refugee education in Australia. *International Studies in Sociology of Education* 18(1): 31-45. DOI: 10.1080/09620210802195947.

MCEECDYA. (2010). *Aboriginal and Torres Strait Islander Education Action Plan 2010-2014*, Ministerial Council for Education, Early Childhood Development and Youth Affairs, Commonwealth of Australia, Melbourne.

McGregor, C., Fleming, A., Koehn, D., and Fu, H. (2013). *Aboriginal Inquiry: Lifting All Learners: An Impact Assessment of the Aboriginal Enhancement Schools Network (AESN)*. British Colombia: Aboriginal Enhancement Schools Network. http://inquiry.noii.ca/.

McInerney, D.M., and King, R.B. (2013). Harnessing the power of motivational factors for optimizing the educational success of remote Indigenous students: A cross-cultural study.Iin R.G. Craven & J. Mooney (EEds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 81-111.

McKenzie-Mohr, D. (2000). Fostering sustainable behavior through community-based social marketing. *American Psychologist* 55(5): 531-537.

Means, B., Toyama, Y., Murphy, R., Bakia, M., and Jones, K. (2010). *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.* Washington, D.C.: Department of Education, Office of Planning, Evaluation, and Policy Development.

Michie, S., and Abraham, C. (2004). Interventions to change health behaviours: Evidence-based or evidence-inspired? *Psychology & Health* 19(1): 29-49.

Michie, S., and Johnston, M. (2012). Theories and techniques of behaviour change: Developing a cumulative science of behaviour change. *Health Psychology Review* 6(1): 1-6. http://dx.doi.org/10.1080/17437199.2012.654964

Michie, S., Fixsen, D., Grimshaw, J. M., and Eccles, M. P. (2009). Specifying and reporting complex behaviour change interventions: The need for a scientific method. *Implementation Science* 4(1): 40-45. doi:10.1186/1748-5908-4-40

Michie, S., Johnston, M., Francis, J., Hardeman, W. and Eccles, M. (2008). From theory to intervention: Mapping theoretically derived behavioural determinants to behaviour change techniques. *Applied Psychology: An International Review* 57: 660-680. doi: 10.1111/j.1464-0597.2008.00341.x

Mitchell, T. (2014). *Bendigo Education Partners Join Forces*, Web page, La Trobe University, <http://www.latrobe.edu.au/news/articles/2014/release/bendigo-education-partners-join-forces> viewed 22 August 2014.

Mlcek, S. H. (2011). Competing knowledges in lifelong education. *International Journal of Lifelong Education* 30(6): 815-829. DOI: 10.1080/02601370.2011.628127.

Mols, F., Haslam, S. A., Jetten, J., and Steffens, N. K. (2015). Why a nudge is not enough: A social identity critique of governance by stealth. *European Journal of Political Research* 54(1): 81-98.

Moodie, G. (2015). Accessed January, 27 on: https://theconversation.com/vocational-training-is-too-complex-too-job-specific-too-underfunded-36204

Morrice, L. (2013). Refugees in higher education: Boundaries of belonging and recognition, stigma and exclusion. *International Journal of Lifelong Education* 32(5): 652-668. DOI: 10.1080/02601370.2012.761288.

Morris, M., Golden, S., Ireland, E., and Judkins, M. (2005). *Evaluation of Aimhigher: Excellence Challenge. The Views of Partnership Coordinators 2004.* DfES Research Report 650. London: DfES.

Naidoo, L. (2015). Educating refugee-background students in Australian schools and universities. *Intercultural Education* 26(3): 210-217. DOI: 10.1080/14675986.2015.1048079.

Nambisan, P., and Nambisan, S. (2009). Models of consumer value cocreation in health care. *Health care management review* 34(4): 344-354.

National Association of Attorney's General. (1998). *Master Settlement Agreement Retrieved from Washington*: http://www.naag.org/backpages/naag/tobacco/msa/msa-pdf/MSA%20with%20Sig%20Pages%20and%20Exhibits.pdf/file_view

National Centre for Student Equity in Higher Education (NCSEHE) Website. (2015). Aspire UWA. Accessed 26 September 2015. https://www.ncsehe.edu.au/aspire-uwa/

National Congress of Australia's First Peoples 2013, *National Education Policy*, Strawberry Hills, NSW, <http://nationalcongress.com.au/wp-content/uploads/2013/11/CongressEducationPolicyWeb.pdf> viewed 28 June 2014.

National Social Marketing Centre. (2006). *It's Our Health! Realising the Potential of Effective Social Marketing*. Retrieved from: http://www.nsms.org.uk/public/default.aspx?PageID=16

National Social Marketing Centre. (undated). *Social Marketing Benchmark Criteria*. National Social Marketing Centre, London.

Naylor, R., Baik, C., and James, R. (2013). *Developing a Critical Interventions Framework for Advancing Equity in Australian Higher Education*. Melbourne: Centre for the Study of Higher Education, The University of Melbourne.

Neiger, B. L., Thackeray, R., Barnes, M. D., and McKenzie, J. F. (2003). Positioning social marketing as a planning process for health education. *American Journal of Health Studies* 18(2/3): 75-81.

Nielsen, L. (2013). *Personas – Focused Design*. London: Springer.

Newton, J. D., Newton, F. J., Turk, T., and Ewing, M. T. (2013). Ethical evaluation of audience segmentation in social marketing. *European Journal of Marketing* 47(9): 1421-1438.

Ng, F., Shirley, D., Willis, K., Lewis, S., and Lincoln, M. (2015). The E12 experience: Students' perceptions of a widening participation scheme. *The International Journal of the First Year in Higher Education* 6(1): 35-47. doi: 10.5204/intjfyhe.v6i1.260

O'Shea, S. E. (2014). Transitions and turning points: Exploring how first-in-family female students story their transition to university and student identity formation. *International Journal of Qualitative Studies in Education* 27(2): 135-158. DOI:10.1080/09518398.2013.771226

Ouschan, R., Sweeney, J. C., and Johnson, L. (2006). Customer empowerment and relationship outcomes in healthcare consultations. *European Journal of Marketing* 40(9/10): 1068 - 1086.

Partington, G., Galloway, A., Sibbel, J., Gray, J., Grote, E., Gower, G., and Goh, K. (2009). *Longitudinal Study of Student Retention and Success in High School (Follow the Dream)*. Mount Lawley, W.A.: The Centre for Indigenous Australian Knowledges, Edith Cowan University.

Pearson, N., Denigan, B., and Götesson, J. (2009). *The Most Important Reform: Position Paper*, Cape York Partnerships, Cairns, Queensland.

Peattie, K., and Peattie, S. (2003). Ready to fly solo? Reducing social marketing's dependence on commercial marketing theory. *Marketing Theory* 3(3): 365 - 385.

Perugini, M., and Bagozzi, R. (2001). The role of desires and anticipated emotions in goal directed behaviours: Broadening and deepening the theory of planned behaviour. *British Journal of Social Psychology* 40: 79-98.

Prodonovich, S., Perry, L. B., and Taggart, A. (2014). Developing conceptual understandings of the capacity to aspire for higher education. *Issues in Educational Research* 24(2): 174-189. http://www.iier.org.au/iier24/prodonovich.html

Queensland Department of Education, Training and Employment, Central Queensland University, Queensland University of Technology, Australian Catholic University,

James Cook University, University of the Sunshine Coast, University of Queensland, Griffith University and University of Southern Queensland. (2012). *Memorandum of Understanding: Widening Tertiary Participation in Queensland: A coordinated approach. Review and Endorsement 2012*, Queensland Government, Brisbane.

Quelch, J. (2014). Dumb ways to die: Advertising train safety. *Harvard Business School Case*. 514-079 (January 2014. Revised June 2014).

Raciti, M., Powell, B., Czok, C., and Copley, N. (2014). Developing school-to-university pathways for Aboriginal and Torres Strait Islander peoples: A social marketing case study. In Rundle-Theile, S., Kubacki, K., and Arli, D. (Eds). *Proceedings of the 2014 Australian and New Zealand Marketing Academy Conference* 506-512.

Rains, S. A. (2013). The nature of psychological reactance revisited: A meta-analytic review. *Human Communication Research* 39(1): 47-73.

Ramadier, T. (2004). Transdisciplinarity and its challenges: the case of urban studies. *Futures* 36(4): 423-439.

Redmond, G., Wong, M., Bradbury, B., and Katz, I. (2014). *Intergenerational mobility: New Evidence from the Longitudinal Surveys of Australian Youth.* Adelaide: NCVER.

Richardson, A. K., Green, M., Xiao, H., Sokol, N., and Vallone, D. (2010). Evidence for truth®: The young adult response to a youth-focused anti-smoking media campaign. *American Journal of Preventive Medicine* 39(6): 500-506.

Rissman, B., Carrington, S., and Bland, D. (2013). Widening participation in university learning. *Journal of University Teaching and Learning Practice* 10(1): 1-20. http://ro.uow.edu.au/jutlp/vol10/iss1/2.

Robinson-Cimpian, J. P., Lubienski, S. T., Ganley, C. M., and Copur-Gencturk, Y. (2014). Teachers' perceptions of students' mathematics proficiency may exacerbate early gender gaps in achievement. *Developmental Psychology* 50(4): 1262–1281. DOI: 10.1037/a0035073.

Rossi, J., and Yudell, M. (2012). Value-ladenness and rationality in health communication. The *American Journal of Bioethics* 12(2): 20-22.

Rothes, A., Lemos, M. S., and Gonçalves T. (2014). Motives and beliefs of learners enrolled in adult education. *Procedia - Social and Behavioral Sciences* 112: 939–948. doi:10.1016/j.sbspro.2014.01.1252

Rothschild, M. L. (1999). Carrots, sticks, and promises: A conceptual framework for the management of public health and social issue behaviors. *Journal of Marketing* 63(4): 24-37.

Rothschild, M. L., Mastin, B., and Miller, T. W. (2006). Reducing alcohol-impaired driving crashes through the use of social marketing. *Accident Analysis and Prevention* 38(6): 1218-1230.

Rundle-Thiele, S. (2015). Looking back and moving forwards: An agenda for social marketing research. *Recherche et Applications en Marketing* (English Edition), ahead of print: 1-6.

Rundle-Thiele, S., Schuster, L., Dietrich, T., Russell-Bennett, R., Drennan, J., Leo, C., and Connor, J. P. (2015). Maintaining or changing a drinking behavior? GOKA's short-term outcomes. *Journal of Business Research* 68: 2155-2163.

Russell-Bennett, R., Wood, M., and Previte, J. (2013). Fresh ideas: services thinking for social marketing. *Journal of Social Marketing* 3(3): 223-238.

Sankupellay, M., Mealy, E., Niesel, C., and Medland, R. (2015) Building personas of students accessing a peer-facilitated support for learning program. *Australian Conference on Human-Computer Interaction (OzCHI)*, 7 - 10 December 2015, Melbourne, Australia.

Saunders, S. G., Barrington, D. J., and Sridharan, S. (2015). Redefining social marketing: beyond behavioural change. *Journal of Social Marketing* 5(2): 160-168.

Schuster, L., Drennan, J., and Lings, I. (2013). Consumer acceptance of m-wellbeing services: A social marketing perspective. *European Journal of Marketing* 47(9): 1439-1457.

Scott, P. (1995). *The Meanings of Mass Higher Education* The Society for Research into Higher Education and Open University Press, Buckingham, UK.

SCRGSP. (2013b). *Report on Government Services 2013: Indigenous Compendium*, Steering Committee for the Review of Government Service Provision, Productivity Commission, Melbourne. Retrieved from: http://www.pc.gov.au/__data/assets/pdf_file/0020/122834/indigenous-compendium-2013.pdf.

SCRGSP. (2011). *Overcoming Indigenous Disadvantage: Key Indicators 2011 Report*, Steering Committee for the Review of Government Service Provision, Productivity Commission, Melbourne. Retrieved from: http://www.pc.gov.au/__data/assets/pdf_file/0018/111609/key-indicators-2011-report.pdf

SCRGSP. (2014). *Overcoming Indigenous Disadvantage: Key Indicators 2014*. Commonwealth of Australia. http://www.pc.gov.au/research/ongoing/overcoming-indigenous-disadvantage/key-indicators-2014/key-indicators-2014-report.pdf

Sellar, S., and Gale, T. (2011). Mobility, aspiration, voice: a new structure of feeling for student equity in higher education. *Critical Studies in Education* 52(2): 115-134. DOI:10.1080/17508487.2011.572826.

Sellar, S., Gale, T., and Parker, S. (2011). Appreciating aspirations in Australian higher education. *Cambridge Journal of Education* 41(1): 37-52. DOI:10.1080/0305764X.2010.549457.

Sharrock, P., and H. Lockyer. (2008). One to one and face to face: A community based higher education support strategy retaining Indigenous Australian university students. *The Australian Journal of Indigenous Education* 37: 28-39.

Shechtman, N., DeBarger, A. H., Dornsife, C., Rosier, S., and Yarnall, L. (2013). *Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21st Century*. U.S. Department of Education, Office of Educational Technology.

Skene, J. (2010). Developing productive relationships with partner schools to widen participation. *The International Journal of the First Year in Higher Education* 1(1): 77-83.

Snowden, C., and Lewis, S. (2015). Mixed messages: public communication about higher education and non-traditional students in Australia. *Higher Education* 70: 585-599. DOI 10.1007/s10734-014-9858-2.

Snyder, L. B., Hamilton, M. A., Mitchell, E. W., Kiwanuka-Tondo, J., Fleming-Milici, F., and Proctor, D. (2004). A meta-analysis of the effect of mediated health communication campaigns on behavior change in the United States. *Journal of Health Communication* 9(1): 71-96.

Solórzano, D. (1997). Images and words that wound: critical race theory, racial stereotyping and teacher education. *Teacher Education Quarterly* 24: 5–19.

Solórzano, D. (1998). Critical race theory, racial and gender microaggressions, and the experiences of Chicana and Chicano Scholars. *International Journal of Qualitative Studies in Education* 11: 121–136

Sonn, C., and Quayle, A. (2013). Developing praxis: Mobilising critical race theory in community cultural development. *Journal of Community and Applied Social Psychology* 23: 435–448. DOI: 10.1002/casp.2145

Southgate, E., and Bennett, A. (2014). Excavating widening participation policy in Australian higher education: Subject positions, representational effects, emotion. *Creative Approaches to Research 7*(1): 21-45. Retrieved from: http://apo.org.au/files/Resource/car7_1_southgate_bennett.pdf

Stead, M., Gordon, R., Angus, K., and McDermott, L. (2007). A systematic review of social marketing effectiveness. *Health Education* 107(2): 126 - 191.

Stewart, A. (2010). *Widening Participation? Yes We Can! Insights from Policy and Leading Practice in Three Countries: England, Ireland and USA*. The Equity Office, University of Queensland. Retrieved from: http://www.uq.edu.au/equity/docs/Report%20Study%20Tour%20FINAL.pdf.

Sweat, Michael D, Denison, J., Kennedy, C., Tedrow, V. and O'Reilly, K.. (2012), Effects of condom social marketing on condom use in developing countries: a systematic review and meta-analysis, 1990-2010. *Bulletin of the World Health Organization* 90(8): 613-622.

Tamim, R. M., Bernard, R. M., Borokhovski, E., Abrami, P. C., and Schmid, R. F. (2011). What forty years of research says about the impact of technology on learning: A second order meta-analysis and validation study. *Review of Educational Research* 81(1): 4- 28.

Thaler, R. H., and Sunstein, C. R. (2008). *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven: Yale University Press.

Thomson, S., and Hillman, K. (2010). *Against the Odds: Influences on the Post-School Success of 'Low Performers'*. Adelaide: NCVER.

Thomson, S., K. Hillman and N. Wernert. (2012). *Monitoring Australian Year 8 Student Achievement Internationally: TIMSS 2011*, Australian Council for Educational Research, Camberwell, Victoria.

Toohey, A., and Doran, M. (2013). The odd couple: can skills recognition in VET cohabit with university learning? In Griffin, T (EEd.) *21st National Vocational Education and Training Research Conference 'No Frills': refereed papers*, NCVER, Adelaide, 94-100.

Townsend, P. (2015). Mob learning - Digital communities for remote Aboriginal and Torres Strait Islander tertiary students. *Journal of Economic and Social Policy 17*(2/2), 1-23.

Trainor, A. (2007). Perceptions of adolescent girls with LD regarding self-determination and postsecondary transition planning. *Learning Disability Quarterly* 30: 31-45.

Trinidad, S., and Costello, D. (2015). Social inclusion in higher education in Australia. In *STARS, Crown Conference Centre, Perth July 1-4*. STARS, Crown Conference Centre, Perth July 1-4. Retrieved from http://unistars.org/papers/STARS2015.pdf

Tuckey, E. (2015). headspace "We've Got Your Back" campaign: Supporting young Australians through tough times. In S. Jones, R. Gordon, N. Zainuddin, R. Russell-Bennett, & L. van der Beeke (Eds.), *Proceedings book: World social marketing conference, 19-21 April 2015* (pp. 152-154). Sydney: Fuse Events Ltd. Retrieved from: http://wsmconference.com/wp-content/uploads/2015/04/WSM-2015-Proceedings-book.pdf

Vinson, T., Rawsthorne, M., Beavis, A., and Ericson, M. (2015). *Dropping Off the Edge 2015*. Jesuit Social Services / Catholic Social Services Australia. https://aifs.gov.au/cfca/2015/07/21/report-dropping-edge-2015

Wacker, J. G. (1998). A definition of theory: Research guidelines for different theory-building research methods in operations management. *Journal of Operations Management* 16: 361–385.

Watson, L., Hagel, P., and Chesters, J. (2013). *A Half-Open Door: Pathways for VET Award Holders into Australian Universities*. Adelaide: NCVER.

Watson, S. (2013). New digital technologies: Educational opportunities for Australian Indigenous learners. *The Australian Journal of Indigenous Education* 42: 58-67. doi:10.1017/jie.2013.8.

Watt, H. M., Shapka, J. D., Morris, Z. A., Durik, A. M., Keating, D. P., and Eccles, J. S. (2012). Gendered motivational processes affecting high school mathematics participation, educational aspirations, and career plans: a comparison of samples from Australia, Canada, and the United States. *Developmental Psychology* 48(6): 1594-1611.

Weadon, H., and Baker, A. (2014). Deviating from the norm: Innovative student pathways for successful TAFE/University transition. *International Journal of Training Research* 12(3): 192–202.

Wheelahan, L. (2009). Do educational pathways contribute to equity in tertiary education in Australia? *Critical Studies in Education* 50(3): 261-275. DOI:10.1080/17508480903156854

Wilks, J., and Wilson, K. (2014). *'Can't be what you can't see': The Transition of Aboriginal And Torres Strait Islander Students into Higher Education: Literature Review*. Sydney: Office for Learning and Teaching, Department of Education.

Wiebe, G. D. (1951-52). Merchandising commodities and citizenship in television. *Public Opinion Quarterly* 15(4): 679 - 691.

Win, R., and Miller, P. W. (2005). The effects of individual and school factors on university students' academic performance. *The Australian Economic Review* 38(1): 1-18.

Wisker, G. (1996). *Empowering women in higher education*. London: Kogan Page.

Wodtke, G. T., Harding, D. J., and Elwert, F. (2011). Neighborhood effects in temporal perspective: the impact of long-term exposure to concentrated disadvantage on high school graduation. *American Sociological Review* 76(5): 713– 736. DOI: 10.1177/0003122411420816

Woods, D., Husbands, C., and Brown, C. (2013). *Transforming Education for All: the Tower Hamlets* Story. Tower Hamlets: Mayor of Tower Hamlets.

World Advertising Research Centre. (2013). Thailand Health Promotion Foundation (HPF): The Smoking Kid - A Personal Message to the Smokers. Retrieved from www.warc.com

Wymer, W. (2011). Developing more effective social marketing strategies. *Journal of Social Marketing* 1(1): 17-31.

Xu, D., and Jaggars, S. S. (2013). The impact of online learning on students' course outcomes: Evidence from a large community and technical college system. *Economics of Education Review* 37: 46-57. http://dx.doi.org/10.1016/j.econedurev.2013.08.001.

Xu, D., and Jaggars, S. S. (2014). Performance gaps between online and face-to-face courses: Differences across types of students and academic subject areas. *The Journal of Higher Education* 85(5): 633-659. DOI: 10.1353/jhe.2014.0028.

Yalari. (2010). *Yalari Annual Report 2010-2011*. http://issuu.com/yalari/docs/yalari_annual_report_2010_11

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education* 8(1): 69-91. DOI:10.1080/1361332052000341006

7 Appendices

#	Title	Compiler
Appendix 1	Partnerships in Higher Education – data from NCSEHE Publication – Partnerships in Higher Education (2014)	Jenny De Vries NCSEHE
Appendix 2	University Equity Programs Data from NCSEHE Publication – Access and participation in Higher Education: Outreach/Access/Support (2013)	Jenny De Vries NCSEHE
Appendix 3	NCSEHE Approach to Social Marketing 'Widening Participation' (WP) Project: NVivo coding framework by author	Diane Costello NCSEHE
Appendix 4	Initiatives Summary Table - Current Australian Programs, Organisations and Government Departments/Initiatives	Maria Raciti University of the Sunshine Coast
Appendix 5	Social Media Summary Table – Current initiatives and groups found on various social media related to Indigenous participation in higher education	Maria Raciti University of the Sunshine Coast
Appendix 6	Literature Summary Table - Social Marketing Approach to Widening Participation Project: Critical Table by Year	Maria Raciti University of the Sunshine Coast
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Appendix 1: Partnerships in Higher Education

Partnerships in Higher Education – data from NCSEHE Publication – Partnerships in Higher Education (2014)

Partners	Description	Objectives	Outcomes	Future	Partner Type
Australian National University ➢ Access and Inclusion ➢ ANU School of Art Secondary schools in regional SE NSW	Visual Arts Portfolio Workshop Provides secondary students with admission information about tertiary visual arts programs, augmented by practical art making experiences typical of first year undergraduate study	• Aims to build aspiration in and to academically support LSES regional secondary students who have potential to enrol in tertiary visual or design arts courses • Informs students and teachers about the portfolio and interview process for application • Explains that ATAR not required • Raise awareness about scholarships	Students and teacher feedback indicates that program had high impact Students not on tertiary pathways prompted to aspire to HE 5 students travelled to ANU Open Day for portfolio review	With new HEPP funding model not clear of how program will be implemented in 2015 Ideally future versions would endeavour to sustain engagement of repeat participants by varying visual and design arts by including printmaking Include career advisors and enhance student profiles to understand the diverse career opportunities that can result from this study area	Intra-university Inter-sectoral
Australian Catholic University University of Sydney The University of Technology, Sydney Macquarie University The University of Western Sydney NSW Department of Education and Communities TAFE NSW the Universities Admissions Centre (NSW and ACT) Pty Ltd over 250 schools, local government organisations, Indigenous organisations and other community, philanthropic and social enterprise organisations	Bridges to Higher Education Engaging young people who previously might not have considered higher education as an option, the *Bridges* *to Higher Education* program works with schools, TAFE and community partners in Greater Western Sydney. *Bridges to Higher Education* was funded $21.2 m by the Commonwealth Government's HEPPP	• improve academic outcomes • increase awareness, confidence and motivation • build school and community capacity • increase capacity to access higher education	*Bridges* programs have had a highly positive effect on students' readiness to face the academic challenges they are likely to encounter throughout high school and university, with 90 per cent of students stating they feel better prepared for university as a result of *Bridges*, and 91 per cent of parents and carers reporting they have a better capacity to support their child with their higher education goals. There is emerging evidence to suggest that *Bridges* is changing student attitudes towards learning, with 85 per cent of students reporting they have developed better study skills and 96 per cent of participating teachers reporting that participation had helped them expand their teaching practices. Parent and carer knowledge of higher education options and benefits has increased, with 82 per cent reporting improved knowledge of higher education options. Evidence also shows an increase in students' confidence to challenge cultural or gender-specific expectations relating to their education options	Is applying multiple strategies to enable sustainability. Workforce capability development, embedding activities into school or university practice, creating links to schools and/or university curriculum, developing accessible materials and resources that can be applied in the longer term, and emphasising efforts which promote students' capacity for independent learning are being trialled across projects.	Inter university Inter sectoral Social/Community
155 schools in Central Queensland Region Central Queensland University East Coast TAFE Central Queensland Institute of TAFE Central Queensland Indigenous Development Ltd. (CQID) Australian Defence Force (ADF) other organisations have also contributed as minor partners.	CQUniversity Widening Participation From 2011–2014, the *Central Queensland University Widening Participation* team worked with over 20,000 students to promote, raise and support aspirations of school students towards university. Eight *Widening Participation* programs were delivered to students in Years 5–12 across 155 schools. Student-centred activities included on-campus experiences, aspiration building exercises, demystification and awareness-raising about university, and career development. Programs include Indigenous and primary school specific activities and a mentoring program with Year 11-12 students an current CQU undergraduate students	• increase the participation of under-represented groups in HE in regional Queensland, the *CQUniversity Widening Participation* team developed the *Engage Education* series of programs for school students	The Engage Education programs are now presented across all year levels (past Year 5) so more students are successively participating in programs and becoming familiarised with university. In early 2014, the survey question 'I believe it is possible for me to go to university' showed an increase in agreement of 19 per cent after completion of the program. Many students mentioned that university was a 'scary place' before the program in their feedback. Post-program, students said their fears were allayed once they were able to walk around and see the university for what it was, and the welcoming nature of the university community.	In 2014 over 7,000 Central Queensland students will be exposed to the *Engage Education* programs. Every year level from 6–12 in cluster schools from across the region will have the opportunity to participate in the final round of current *Engage Education* programs in 2014. A successive strategy will leverage off the current *Widening Participation* strategy and will be developed for long-term sustainability and community engagement. CQUniversity is committed to providing all students with equitable access to higher education regardless of their location or socioeconomic status.	Intra university Inter sectoral Social/community

			Feedback indicates that students display a marked increase in interest in pursuing higher education. Teachers have commented on increased engagement in the classroom immediately following the Engage Education programs. One teacher provided this feedback after the MET program: “Many have not really seen university study in their daily and family lives, so the idea that uni is for anyone, anywhere, anytime is really positive for these students.”		
Charles Darwin University (CDU) >>Office of the Pro Vice Chancellor – Indigenous Leadership >>Office of the Pro Vice Chancellor – Academic Northern Territory Department of Education Batchelor Institute of Indigenous Tertiary Education North Australian Indigenous Land and Sea Management Alliance Ltd Australian Centre for Indigenous Knowledges and Education.	Whole of Community Engagement Initiative In partnership with local stakeholders, Charles Darwin University has embarked on a *HEPPP Whole-of-Community Engagement (WCE)* initiative which will work with six remote Indigenous communities across the Northern Territory to build aspiration, expectation and capacity to participate in higher education. This large-scale multi-site participatory action research project involves community engagement leaders, mentor and enrichment officers, and a community teacher’s liaison leader working closely with community based Indigenous mentors, leaders and organisations to drive innovative bottom-up strategies and solutions built on, and responsive to, Indigenous knowledges	• identify and explore current Indigenous community perspectives (both Western and Indigenous) about higher education • identify the facilitators of, and barriers to, contemporary pathways into higher education for remote and very remote Indigenous communities • embed and link Indigenous community perspectives and concerns within the development and implementation of existing strategies to building aspiration, expectation and capacity to participate in higher education • identify and co-create ongoing opportunities for community, research, academic and public policy leaders to build relationships and evidence translation activities associated with promoting pathways into higher education • identify means for making higher education relevant and more culturally and physically accessible to Indigenous students and adult learners.	In early stages of planning and steering committee being established which includes representatives from each of the participating communities and all HEPPP-WCE staff: Program manager 3 community engagement leaders 3 mentor and enrichment officers Community teacher’s liaison leader All positions are research active roles and will use participatory action research methodology	Iterative process that involves ongoing reflection, subsequent planning and resulting action. Participation and feedback from local community members are paramount to success of program	Intra university Inter sectoral Social/community
Charles Sturt University TAFE Western DEEWR Western NSW Local Health District Bila Muuji Aboriginal Health Services	iSmile Dental Assisting Training Program A supported pathway program for Aboriginal students to a career in oral health or related areas in the health industry. Commences with a Certificate II, and builds through Cert III and IV at TAFE Western to guaranteed entry into the Bachelor of Oral Health Therapy and then to Bachelor of Dentistry at Charles Sturt University Students share facilities with TAFE Western and CSU Oral health and dental students	• Address severe shortage of oral health and dental practitioners in the area • By tailoring and training rural and remote students they will be more likely to stay in the area • Enable Indigenous students to study in their own area and provide pathway for strong employment opportunities • Increase dental assistants, oral health therapists and dental practitioners in area	Early stages of program so difficult to provide evidence of success however anecdotal outcomes have been encouraging Students highly enthusiastic and engaged in their learning and they are building professional networks which they can draw on in their future careers As program is a series of qualification, the students are able to use their skills in the workplace as they progress through the program which is benefitting communities which have experienced a shortfall of staff in the field	Will undertake a review and evaluation of the program as the first intake nears completion Will include mapping student knowledge and skills to succeed in practice or further study Mentoring program being developed for students interested in further study Early stages of planning a research project to evaluate the effectiveness of the program	Inter sectoral Social/Community
Curtin University – AHEAD, Boat Club and Stadium Clontarf Aboriginal College Rowing WA	Row AHEAD: Clontarf to Curtin Engages students in self-development through the sport of rowing Students take part in weekly training sessions with the aim of participating in 4 state regattas held by Rowing WA. Students also attend weekly academic development sessions	• Provide opportunities to meaningfully engage with university students • Provide new sporting opportunities • Provide academic support opportunities • Provide opportunities to culturally engage in rowing, promoting ownership through pride in Aboriginal and Torres Strait Islander identity, culture and spirituality	Qual feedback overwhelmingly positive Learning to row in single sculls, doubles and quads Rowing as individuals and teams Completion of personalised land training, improving fitness and flexibility Completion of academic sessions on rowing history and theory, developing literacy and study skills Improvements in attitude toward school and	Program has generated positive community interest Program is WACE accredited recognising students resilience demonstrated through the program Rowing community has donated 2 boats for exclusive use by students and offered to provide instructor training to Clontarf staff member to support longevity of the program	Intra university Inter sectoral Social/community

			learning		
30 schools across South Western Victoria and Eastern, Southern and Western Metropolitan Regions of Victoria Barwon Adolescent taskforce The Smith family Deakin University	Deakin Engagement and Access Program (DEAP) Outreach program for yr7-12 students at schools in Melbourne, Geelong and Victoria's Barwon South Western region Using a strengths based approach to building community capacity DEAP works with partner schools to deliver on campus and in school activities. Activities encourage aspiration for post school education and cover academic enrichment, study skills and Special Entry Access Scheme (SEAS) workshops DEAP works with under-represented schools, parents, carers, families and community organisations to encourage and support young people	• Build on the aspirations of young people to participate in HE by improving their capacity to achieve academically, developing an understanding of pathways and preparing students for the transition to university	Qual feedback show that DEAP has had a positive impact on students engagement with school and interest in post school study	Will broaden collaboration with community partners to maximise the reach and impact of activities Further community based activities being developed in collaboration with Headspace (National Youth Mental Health Foundation) More focus onto other disadvantaged groups Plans to develop disability related workshops Will be expanded to target students in yr3-6 as aspirations are influenced early in life by social context and parental attitudes	Inter sectoral Social/community
Edith Cowan University National Indigenous Science Education program (NISEP) Macquarie University WA primary and high schools	Old Ways, New Ways New outreach initiative bringing together western and Aboriginal knowledge and perspectives on science Developed to encourage and support Aboriginal and Torres Strait Islander students from LSES communities	• Improve participation of Aboriginal and Torres Strait Islander students in science subjects • Focus is on findings ways to help students reach their full potential by improving educational and employment outcomes • Enhance confidence, leadership and communication skills while providing positive role models to inspire students • Facilitate integration of locally relevant and specific Indigenous knowledge into the teaching of science	600 students participated to date Forged stronger links ECU's LSES metro and regional school partners Established strong dialogue around embedding cultural knowledge further into the school curriculum Continued engagement aims to demystify HE pathways an early evidence suggests goal is being achieved Further longitudinal studies to be undertaken	Additional schools added for the year Science demonstration at ECU at end of 2014 Students to attend campus for a day ECU team plans to develop written resources to preserve and share the scientific knowledge of the Nyoongar people Ongoing funding currently being explored Continue to explore further science based outreach activities with the education providers	Intra university Inter university Inter sectoral Social/Community
Federation University Australia	FedReady Intensive course designed to prepare and support LSES students to get a head start at uni. Centrally co-ordinated strong partnerships between a number of areas which deliver skills such as time management, essay writing, referencing and academic reading Existing students use their experiences to normalise challenges faced by students transitioning to HE	• Enhance skills in LSES students transitioning into HE to help reduce attrition • Enable students to develop independent learning skills and provide them with access to the student experience through use of current students in the program • Afford students access to broad range of information and services prior to entering HE • Ensuring students are aware as they can be of the range of assistance available to them • Broadly increase the participation in further support programs and their studies	Surveys revealed overwhelmingly positive feedback that program is beneficial and would recommend it to others Intra university relationships strengthened across the institution and increased staff awareness of support available for students Improved staff capacity to refer students to vital support services in timely manner, thereby improving the student experience	Replicate the knowledge and information in an online context Interactive student component will be transferred to online forums and reflections which will integrate students into existing support systems	Intra university
Anglicare Victoria Federation University regional campuses Australian Catholic University Ararat Lions Club Teaching staff and students from secondary schools in Grampians region	Hike to Higher Education Designed in response to Anglicare Vic 4 pillars of engagement of sport, art, music and environment Relies on current HE students. They act as Ambassadors and share their experiences and knowledge with secondary students in the region. HE students mentor secondary students in the trek experience from Port Fairy to	• Encourage students to discover their passion and build their academic and career journey from that passion • Provide secondary students the opportunity to work closely with HE students in an environmental setting that is supportive and scenic • Strongly aligned with Fed Uni Regional School Outreach Program (RSOP)	Surveys, interviews and verbal feedback are recorded and documented to further improve the program Early indications predict that 78% of students will successfully complete secondary education and access HE Absenteeism has decreased with attendance increasing from 84 to 93% within a 12mnth period Contributes to the success of the RSOP	Plans to provide more experiences through program expansion Further increase the presence of HE within the community and to continue to raise student aspiration to successfully complete yr12 There is still a need to continue these programs and experiences	Inter university Social/community

	Warrnambool and Grampians treks		program as stated in evaluation.		
Flinders University Public, Catholic and Independent secondary schools Australian Council for Education Research	Flinders uniTEST Aptitude test designed to assess students abilities and aptitude over 3 core areas of quantitative, critical and verbal/plausible reasoning that underpin studies in HE and are needed to succeed Partners with secondary schools to deliver uniTEST, enabling greater opportunity to participate in HE Focusses primarily on the education and access needs of students from LSES and regional/rural backgrounds	• Provide greater access to HE for students who not otherwise be selected on yr12 performance alone *uniTEST and Yr12 scores play a complementary role in the selection process and the two in combination provide a more powerful means of predicting first year performance than either measure on its own (ACER 2010)*	Enabled 350 students to participate in HE 91% retention rate in HE School leaders see test as valuable and innovative in assisting students gain entry to HE Moved from paper based to online and provides greater access to students from regional and rural locations and streamlines the testing process	Online testing popular as it reduces the administering of the test Flinders Uni reviews course offerings eligible via the test to expand to more students Test provides a baseline to consider further research into efficacy of aptitude testing for HE admission	Inter sectoral
Griffith University Queensland Uni of Technology (QUT) TAFE Queensland Brisbane TAFE Queensland Gold Coast Cooparoo Centre for Continuing Secondary Education Kingston Centre for Continuing Secondary Education Eagleby Learning Centre	Adult Learner Network Partnership for Adult Learner engagement and support strategy focussed on low income adults bridging to HE via generic preparation or yr12 equivalent programs Activities include multifaceted leaner support, staff PD, research, shared professional practice and public policy activism	• Learn about the motivations, learning experiences and outcomes of low income adult learners bridging back to education • Investigate ways to enhance access to tertiary preparation and bridging programs, support program completion and facilitate transition into tertiary studies •	Evidence based approach was devised to inform program delivery and institutional and state policy development regarding these pathways Strengthening cross sectoral and cross institutional collaboration and partnerships and sharing good practice are good goals Activities include: demystification and awareness raising Information on access Scholarships and other financial support Career development On campus experiences University transition days Changing funding arrangements affect capacity to offer financial support Website (www.bridgetostudy.com.au) provides online resources for students, staff and general community Research findings disseminated at conferences and to network members Partnerships activities coincided with a rise in program enrolments Prior to this partnership no tertiary preparation programs were being run by either university	Partnership has already negotiated continued funding arrangements following end of grant to sustain program. Shows the value partners place on their work and dedication to maintaining the program Committed to HEPP funds to maintain dedicated adult learner staff, maintain key program elements and expand adult learner strategies from their knowledge and contacts developed via the program The Network monitors changes in VET policy and informs managers of implications and maintains an advocacy role with DETE	Inter university Inter sectoral
James Cook University Smithfield State High School Trinity Beach State School	Tropical North Learning Academy Mission is to engage young minds to meet the challenges of the future by offering unique world class education programs from the early years to university and beyond TNLA partners provide a range of learning enhancements called academies, for students at all stages of learning to ensure smooth transitions between the key junctures of schooling	• Improve awareness of pathways from primary school, through secondary school and on to tertiary education. It builds linkages and pathways between partners to provide opportunities for students and their families to consider and pursue HE • Improve the connection and engagement between members of the TNLA, improve working relationships between partners in development of knowledge, practice ad engagement that advance the objectives • A means by which relevant strategic opportunities can be identified, evaluated and pursued by partners either jointly or independently with ultimate aim of significantly improving the enrolment and retention in each of the partner institutions	TNLA has become the key motivator for students at the 3 institutions to achieve within their own studies. Program is highlighted in school newsletter which discusses interactions with JCU Over 1300 interactions between staff, students and parents over 12mnths, anecdotal evidence suggests a widening appreciation of the range of options available to students within JCU and across the HE sector Too early for quantitative data	Activities being planned by partners with the central focus on the development of personnel connection and institutional understanding so that each partner can deliver on their mission in the best possible way New research on indicators on when HE aspirations is best fostered JCU is keen to determine whether earlier intervention leads to improved impact	Inter sectoral

La Trobe University Bendigo TAFE Bendigo Senior Secondary College Schools from Greater Bendigo, Loddon, Macedon Ranges, Central Goldfields Buloke, Mount Alexander, Campaspe, Gannawarra and Swan Hill	Bendigo Tertiary Education Partnership A 2 year program for 2014-2015. Delivered across 9 regional local government areas that make up a catchment for La Trobe Bendigo campus Program has 3 major elements: *Foundation:* sustainability through robust governance and planning underpinned by data and evidence which provides a picture of regional student aspiration, participation, attrition, attainment and destination landscapes *Scaffolding:* Provide integrated Pathways hub to support teaching staff, parents and students to broaden aspirations to include tertiary study. Interventions include school outreach and engagement, capacity building of school teaching staff, career information for parents and industry engagement and participation *Reinvigoration:* Redevelop 2 HE courses to allow regional participation and collaborative delivery strategies between TAFE and the university	• Grow the breadth and depth of HE programs an pathway offerings in regional Vic through developing a long term sustainable partnership • Integrated elements of Foundation, Scaffolding and Reinvigoration will provide a broad and sustainable model for raising aspirations and participation in HE for young people in the region	Improved collaboration between partners MOU established, agreed terms of reference for governance joint communication strategy progress developing joint marketing strategies joint pathway activities	Pathways Hub Co-ordinator will continue to facilitate outreach and engagement activities on TAFE and uni campuses with student ambassadors Continue to provide capacity building PD activities for Careers, Managed Independent Pathways and Pathways Teachers	Inter sectoral
Australian Catholic uni Deakin Uni Federation Uni Australia La Trobe Uni Monash Uni RMIT Uni Swinburne Uni Uni Melbourne Victoria Uni DEECD Independent schools Victoria Cath Ed Commission of Australia Schools Professional groups	Learn, Experience, Access Professions (LEAP) Targets students from LSES communities to improve participation if HE Uni's provide shared delivery of many activities themed under 6 professions which are traditionally under-represented with students from LSES communities Website complements and extends these activities to further inform students of opportunities with HE Include school workshops, on campus experience days, profession located events and multi day programs for senior students	• Demystify links between school, HE and professions • Achieved by stimulating students interests in particular fields, enabling experiential learning and engagement with career possibilities • Activities challenge and extend students increasing their confidence and enthusiasm for personal possibilities • LEAP enhance student understanding of entry to specific fields, supporting informed decision making for successful entry	Feedback from both students and teachers provides indication of program achievements Effective in providing information about nature of work in target professions Successful in providing information about pathways to professions considered very important by students in upper years Teachers believe LEAP having positive impact on students 89% agreed that activities helped students understand value of HE	Currently investigating optimum structure to continue delivery of activities developed to date along with the website as a communication tool with target schools	Inter university Inter sectoral
Macquarie Uni Charles Sturt Uni Edith Cowan Uni Hotspots and Firesticks Program Yaegl Local Aboriginal land Council Ullugundahi Elders Association Dharug Elders Wirradjuri Elders Sydney Olympic Park Authority Redfern Community Centre Glebe Youth Services Australian Museum Web Video Productions Fizzics National Science Week Australia Inspiring Australia Dusseldorp Forum	National Indigenous Science Education Program (NISEP) Outreach program that engages with schools and communities in metro and rural LSES regions. LEAP-NISEP provides a peer supported learning program delivered on school and university campuses and at partner organisations across NSW and nationally Provides positive role models for younger students that broaden their experience of Aboriginal student excellence and that allow peer-supported learning. HEPPP Funded since 2011 Also supported through Inspiring Australia funding	• Stimulate interest in Science and secondary and tertiary education especially by Indigenous youth in a community inclusive manner • Increase Indigenous participation in HE • Increase level of engagement with Science • Increase confidence in science • Communicate relevance of science • Develop communities of practice for sustainability of science outreach	Before and after surveys identify that students have increased confidence and interest in science and further education Teacher and AEO surveys note improvements in confidence, motivation and an overall interest in study and further education. Parents report that program has influenced their child's confidence in academic abilities and 100% of teachers report that NISEP activities have influenced student engagement with science classes Program is building capacity in raising ambitions and building capacity regarding presentation skills, team work and increased confidence Students identified key components in effecting positive changes in:	Hope to build sustainable growth through development of new partnerships, strengthen existing partnerships and expand range of science outreach activities. Establish a website and social media and use a consistent logo and brand to attract a larger audience and empower existing partners Incorporate Opening Real Science scheme and Professional and Community engagement program at Macquarie Uni to increase student mentoring and science outreach capabilities	Inter university Inter sectoral Social/community

			Hands on Informal structure Feeling of being trusted and involved Inspiring influence of mentors		
Monash Uni Uni of Melbourne John Monash Science School Elizabeth Blackburn Science School	SEAMS - Strengthening Engagement and Achievement in Mathematics and Science Aims to increase participation and attainment of LSES and Indigenous students in science and mathematics related disciplines in higher education. Program targets Indigenous in early secondary school and LSES and Indigenous in senior secondary school. Engages students in challenging maths and science experiences through residential camps and online activities to encourage engagement and achievement, boosting students access to a range of uni courses	• Increase participation and attainment of LSES and Indigenous students in tertiary study involving maths and science • Improving students engagement and achievement through strategically tailored curricula, teaching and learning • encourage Indigenous students to pursue mathematics and science to senior secondary level and into tertiary level • Increase achievements in maths and science fields and increase choice for university study	Students reported increased confidence , knowledge and skills after participating in SEAMS camps Maths and Science knowledge has increased	Students will be tracked through the program to measure longer term impact. Program will be expanded to involve more schools and maintain a balance of metro and regional schools Aim is develop a sustainable high impact program in 2015 More focus on chemistry and maths in senior camps as key requisites for scientific and health courses Funding options beyond HEPPP are being explored Want to build on the positive experiences of the first cohort	Inter university
Murdoch Uni Curtin Uni Challenger Inst of TAFE AIME – Aust Indigenous Mentoring Experience Dept of Ed WA Catholic Ed Office AISWA Rockingham City Council CCIWA Rockingham Education Development Group Peel Development Commission Multiple schools NFP organisations – Big Picture Education Australia South Metro Youth Link Youth Connect	MAP4U Works with 22 high schools to develop sustainable, school led programs. Partnerships are guided by the school/university compacts (MOU's) linking performance indicators, as designed by key stakeholders (including the schools) with each schools context. Resulting programs fall into 4 categories: *Building Academic Aspirations and Achievement (BAAA)* *Innovative Curriculum and Pedagogy (ICP)* *Big Picture Academies (BPA)* *University Enabling Programs (UEP)* Uses institutional and community assets to sustain effective programs designed to increase participation in higher education Increase participation in HE of under-represented students from the SW corridor of Perth Activities include curriculum and pedagogy initiatives, • university school outreach programs • development of parental support • programs students-teacher pathway planning • development of academic and alternative learning academies within schools • aligning schools with university pathway programs	• The major objective is to increase participation in higher education among students from financially disadvantaged backgrounds.	A survey was developed to collect baseline data including: student demographics educational and occupational aspirations information sources for education or career plans parent/guardian support expectations for future projected future achievements favorite things about school, and school experience. Post-program surveys and follow-up interviews were also designed to gauge whether students who participated in MAP4U programs demonstrate enhanced educational aspirations, and increased intention to apply and attend university, in comparison to students who did not participate in MAP4U programs. The data revealed students demonstrated high aspirations towards obtaining a university degree	MAP4U will continue to refine school-driven programs to inspire and support the educational aspirations of young people from financially disadvantaged backgrounds living in the Kwinana, Rockingham and Mandurah regions	Intra university Inter university Inter sectoral Social/community
Dept of Ed, Training and Employment Australian Catholic Uni Central Queensland Uni Griffith Uni James Cook Uni Queensland Uni of Technology Uni of Queensland Uni of Southern Queensland Uni of Sunshine Coast	Queensland Widening Participation Consortium 8 Indigenous engagement initiatives target school students, adult learners, parents and communities and include mentoring programs, tertiary preparation and community, school and campus based events. Activities guided by MOU which outlines	• Stimulate interest in tertiary education and to widen the tertiary participation of LSES and Indigenous Queenslanders •	Qualitative feedback from students, staff and principals indicate that activities are having a positive impact on student engagement with school and their interest in pursuing further study. In some schools evidence is emerging of a new culture where university is both achievable and desirable	Benefits of collaboration is being realised and relationships have been developed with schools and communities which they are keen to maintain. New forms of collaboration are being investigated as HEPPP funding draws to an end. Some uni's have committed institutional funds to maintaining elements of the project and some corporate funding is supporting delivery	Inter university Inter sectoral Social/Community

Multiple schools, community groups and organisations	philosophy and approach, scope and scale of the school and Indigenous programs. Uni's have tailored activities to build on pre-existing programs and respond to local needs			of Indigenous engagement projects	
Southern Cross Uni Uni of New England Clarence Valley Education Forum Clarence Valley Council NSW DEC Aboriginal Education Consultative Group Maclean HS McAuley Catholic College Grafton HS South Grafton HS Induna Education and Training Unit North Coast TAFE Catholic Education Office Comm Dept of Prime Minister and Cabinet – Indigenous Affairs Group	The Stellar Program Facilitates a whole of community approach to encourage the interest, aspirations and attainment of local students who are significantly under-represented at university It has been a catalyst for introducing new ways of being, bringing together education, government bodies, students and the community. Run from yr6-12	• Improve uni participation rates by increasing knowledge and understanding of university and careers, building confidence and motivation and improving academic readiness for HE •	Having positive effect of student and parent interest and intention towards university	Partners want to continue close relationships which have been developed and want to continue working on project together. HEPPP funded activities will continue until end of 2015 when funding finishes. Will continue to focus on building community relationships as a key platform to provide role models to support parents and carers who support their children to reach their potential	Intra university Inter university Inter sectoral Social/community
Children's University Trust UK SA Water South Australian Museum City of Playford Carclew (South Australian youth arts organisation) South Australian Migration Museum Art Gallery of South Australia Adelaide City Council Adelaide Zoo Adelaide Botanic Gardens Adelaide Arcade Adelaide Festival Centre Tandanya National Aboriginal Cultural Institute Red Cross Rundle Mall Group Sammy D Foundation The University of Adelaide The Other Side of Science The Australian Research Council Centre of Excellence for the History of Emotions Barr Smith Library Confucius Institute (The University of Adelaide) Upside Down Circus.	Children's University Australia (CU) provides extracurricular learning opportunities to children aged 7–14, and volunteering for 15–18 year olds. *CU* seeks to engage children in learning in its broadest sense and provide the scaffolding to develop self-efficacy, confidence and aspirations. *CU* is child directed; with each child choosing to be involved, and choosing what they would like to participate in. Although open to all, *CU* aims to reach children facing disadvantage and is at the forefront in cultivating children's love of learning and boosting their aspirations. The benefits for students are to extend the learning opportunities beyond school and to assist children in making their own decisions about learning. It allows them to explore and develop new talents and interests and interact with people who have similar interests. *CU* also offers children the chance to manage and measure their own success through receiving certificates and public recognition.	• offering superior educational experiences for children outside of school • through *CU*, children are encouraged to explore and discover new ideas, concepts and experiences via public and restricted (school-based) 'Learning Destinations'. • The model leverages local educational and learning activity providers, including sports clubs, museums, galleries and school clubs. • A strong emphasis is placed on acknowledging the value of accessing the wide range of learning experiences and environments in which children engage.	Evidence from the pilot group showed that children engaged in *CU* activities had increased school attendance, punctuality, and students' behaviour showed marked improvement. *CU* emphasises the value of accessing the wide range of learning experiences and environments in which children engage. Nurturing successful and independent learners is at the forefront of the *CU* mission; for children to develop resilience, optimism and confidence. Evidence has shown that children who participate in *CU* become more adaptable learners, and able to make their own choices. The University of Cambridge's evaluation of the program shows that participants have better attendance, attainment and achievement in school. The 10 noted measures of success for *CU* participants are attendance, attainment, achievement, attitudes, adventure, awards, agency, aspiration, adaptability and advocacy.	Various uni's interstate have expressed an interest in expanding the program and recognise that it is a powerful tool for building community engagement and capacity. CU will also look to establish greater links with Aboriginal and Torres Strait Islander communities and develop partnerships and learning opportunities that are culturally appropriate and engaging for Indigenous children	Intra university Inter university Inter sectoral Social/Community
Uni of Canberra The Aurora project The Australian National University Commonwealth Dept of Education Charlie Perkins Trust for Children and Students	The Aspiration Initiative Family Conference The Aspiration Initiative (TAI) is the name for a collective of Indigenous education projects. We are broadening the conversation about what is possible for Indigenous Australians in	• Increase the number of Aboriginal and Torres Strait Islander students eligible for direct entry to university from high school • Increase the uptake of Indigenous scholarships for tertiary study • Increase the number of Indigenous	Feedback that conference was useful, beneficial and relevant and that participants would attend another conference. Valuable to meet with TAI staff	Upcoming camp for students to be held in NSW and Vic For yr11 students and the theme is growth Focus will be on political literacy and the development of an academic voice and standpoint	Inter university Inter sectoral Social/Community

ACT Aboriginal and Torres Strait Islander Education Consultative Group	relation to academic achievement – from school attendance and minimum benchmarks to academic excellence in Australia and on the world stage. The Aspiration Initiative projects include: • TAI's Academic Enrichment Program for Indigenous students - a pioneering, 5½ year pilot program for high school students in NSW, Victoria and WA. • Indigenous Scholarships guidebooks - the Indigenous students' guide to postgraduate scholarships in Australia and overseas (2010) (Postgraduate Guide), and the Indigenous students' guide to undergraduate scholarships in Australia (2011) (Undergraduate Guide). • The Indigenous Scholarships website - a website detailing university scholarships, and a monthly e-newsletter (since October 2011). • Aurora Indigenous Scholars International Study Tour - an annual opportunity for a number of high performing students and graduates to visit leading universities in the UK and US. • International scholarships - scholarship opportunities for graduates to study overseas through the Charlie Perkins Scholarship Trust and Roberta Sykes Indigenous Education Foundation.	scholars successfully completing postgraduate studies at leading international universities •		Camp will explore how students engage with TAI and the world – socially, culturally and academically – and will culminate in students producing writing that will be published on www.dusseldorp.org.au Want to expand student networks and offer educationally enriching activities that assist with senior study skills and focus on transition to university Further government funding has been obtained which will enable new activities to be undertaken.	
Uni of New South Wales Centennial Park Education Centennial Parklands Foundation ASPIRE Partner Schools	Centennial Parklands Education Access Pass Offers opportunities for students from disadvantaged, regional and remote schools to visit Sydney's iconic Centennial Parklands precinct. The program actively engages students in scientific methodologies and investigations such as classification of species, water quality testing, environmental impact studies and exploration of the factors influencing the growth, development, adaptation and diversity of ecosystems. Staff from the Education Precinct at Centennial Parklands work closely with UNSW ASPIRE to tailor activities appropriate to the varying interests and needs of visiting school groups. This partnership highlights to students the diverse skills required to manage ecosystems. This partnership overcomes the issue of social exclusion as a result of transport disadvantage	• To open students eyes to the a broader spectrum of educational and career opportunities, such as those presented by the existence of green spaces in urban environments • Explicit connections are made between activities, the broad degree programs to which they relate, and the subsequent career pathways available to students •	Qual feedback indicates that activities offered are engaging and valuable. Teachers report that students leave the park precinct with a broadened understanding of study and career opportunities available to them. For regional students they get a sense that living in a large city such as Sydney might be possible and enjoyable for them	Focussing on partnership developing STEM related academic enrichment resources and opportunities in order to engage students in the primary and early secondary years. Ongoing relationship with Centennial Park	Inter sectoral Social/Community
Uni of Newcastle Family Action Centre – faculty of Health and Medicine	UNI4YOU Provides activities to support the engagement of economically and geographically	• Increase awareness of access pathways and understanding of the support available to enable successful completion	58% increase in HE enrolments from the community in 2014	Continued promotion and scheduling of activities in current area of influence Additional support for student's partners and	Intra university Social/Community

AIM HIGH Program English Language and Foundation Studies (ELFS) The Smith Family Irrawang Public School Thou Walla Family Centre Schools and Community Centre Cessnock East Public School San Remo Neighbourhood Centre	marginalised adults in the Uni of Newcastle's enabling program, *OPEN FOUNDATION* Aspiration is stimulated through pre-enrolment study and information sessions in accessible locations within communities. Weekly study meetings encourage students successful completion of *OPEN FOUNDATION.*	• Provide information and support to adults that may never have tertiary identified tertiary study as an option for them or have previously attempted tertiary study but not succeeded due to socio environmental factors •		extended family will be offered. Expanded to additional communities	
Uni of South Australia Dept for Education and Child Development South Australian Aboriginal Sports Training Academy Tauondi College Port Adelaide Football Club Australian Indigenous mentoring Experience	UniSA Partnerships 4 key programs focus on capacity building and academic achievement for Aboriginal and Torres Strait Islander students and graduates Deadly Alumni Australian Indigenous Mentoring Experience South Australian Aboriginal Sports Training Academy Aboriginal Power Cup All funded through HEPPP	• To become the university of choice for Aboriginal and Torres Strait Islander people in South Australia and beyond • Provide deeper engagement with STEM learning concepts	Formal Alumni chapter being finalised and further partnerships with the Indigenous Internship program (Career Trackers) are being developed. Educational program engages via sport at SAASTA and uses this engagement as a way to improve student achievement and increase awareness of HE pathways	Continue with existing program New partnership between Uni SA and Port Adelaide Football Club will extend the focus on Aboriginal education	Intra university Inter sectoral Social/community
Uni of Southern Queensland Queensland Dept of Education Training and Employment Small town Culture 80 Primary and secondary schools in Queensland Darling Downs and South West Region	Small Town Culture Is a music label developed by Josh Arnold, singer/songwriter and supported by USQ to enable students to have their voices heard. Josh delivers workshops and helps students to write, sing and perform music about their home towns and their aspirations for the future. The work builds self confidence in students from culturally diverse and Indigenous backgrounds	• Empower students to make choices about their future that results in improved HE participation • Achieved by building self confidence in students and pride in their school and community and encouraging school engagement and attendance • Gives students the opportunities to interact with the university in a non-threatening environment that encourages a connection with HE	Data shows positive response to the workshops and to Josh as a teacher and mentor Participants would like the opportunity to continue working with STC Comments indicate an increased pride in the community and positive experience for the students leading to a range of outcomes.	As success of program has become widely known, the expansion of its content has become apparent. ST Music Camp has been funded which brings together talented students from regional and remote areas of SW Queensland. This will enable students to work with musicians and music producers to develop their musicality and build relationships with peers that will help in their future studies and life beyond school	Inter sectoral Social/community
Uni of Sydney Sydney College of the Arts Faculty of Education and Social work Sydney Medical School South cares Centipede (Out of School Hours Care) 25 metro and regional NSW primary and secondary schools	Compass Film and Animation Workshops Program delivers highly engaging workshops that reinforce communication, team work, problem solving, creativity, literacy and digital literacy skills. The experiential nature of the creative imagining of a narrative and depiction of the story arc using digital technology results in increased technical and production skills for the students involved.	• Projects developed with schools using principles of community development to ensure that content is relevant, aligns with key learning areas in the curriculum, meet school plan outcomes and provide learning enrichment in areas identified by the school community • Working with academics and project staff ensure that meaningful links between interests and future option in HE are reinforced •	The experiential nature of the program results in increased technical and production skills for the students involved. The collaborative nature of film projects also builds significant teamwork skills Qual feedback from students and staff reflect success in achieving these outcomes Teachers have also said that their skills have been developed as well.	FPSMA (Film Production and Stop Motion Animation) is highly valued program in Compass partner schools. New funding sources are being investigated to ensure longevity of the program. School contribution model will be trialled to supplement existing funds. Sustainability strategy of using pre-service teachers to delivers workshops in schools, or a volunteer option for experienced uni students to run workshops	Intra university Inter university Inter sectoral Social/Community
Uni of Tasmania Tasmanian Dept of Education Parks and Wildlife Services Tas TAFE The Smith family Colony 47 Circular Head Aboriginal Corporation Six Rivers Aboriginal Corporation South East Tasmanian Aboriginal Corporation Weetapoona Aboriginal Corporation Guildford Young College St James Catholic College Burnie City Council	Pathways to Success The project will augment existing UTAS programs and services to expand pathways to higher education through key university-community partnerships. These pathways are aimed at preparing the four key industries of health, manufacturing, tourism and food to help drive a stronger future economy. Importantly, as a partnership venture involving UTAS, the Department of Education, TasTAFE, and numerous educational and community organisations, the Pathways to Success project aims to grow and strengthen the professional	• Aims to increase participation in HE and enable current and future students, families and communities to engage with career possibilities aligned with Tasmania's industries of the future: food, tourism, advanced manufacturing and health • Target Tasmanians who identify as Aboriginal or from LSES backgrounds • Ensure target groups can participate in a future skilled economy • Increase participation in HE through initiatives which build aspiration, provide smooth transitions and enable current	Qualitative data collected. Feedback that excursions provide valuable information and inspiring personal journeys from industry representatives. Format was considered engaging and led to the objectives of the activity. Participants indicated a clearer understanding of relevant training and skills required to pursue careers in tourism.	Plan Campus open days and evenings Speakers to highlight jobs of the future and educational pathways to these jobs Health focussed initiatives include career information sessions for current support workers in aged care and disability. Advanced manufacturing initiatives include Developing Regional Interest in Future technologies. The aim is to develop positive relationships between schools, students and industry while showcasing authentic learning experiences in local advanced manufacturing industries. Mapping connections is also a future project	Intra university Inter sectoral Social/Community

	networks that will help sustain and develop successful project initiatives long after the project has run its course.	and future students, families and communities to engage with careers aligned with Tasmania's industries of the future • Desired outcomes include informed and lifted aspirations and understanding of the value of HE and an improved rate of successful transitions to HE courses that are preparation for jobs in industries of the future		to provide state wide audit of industry resilience within advanced manufacturing	
Uni of WA Aspire WA School of Indigenous Studies SPICE – secondary science teachers enrichment program International Centre for Radio Astronomy Research (ICRAR) jnt venture with Curtin Uni 16 Aspire UWA partner schools Scitech Discovery Centre	Aspire to Astronomy Works with partner schools in WA to inspire and educate students about the benefits of HE The roadshow was a collaboration of education and teacher enrichment partners who are passionate about science and astronomy and keen to share this enthusiasm with regional communities	• Overarching objective was to engage regional students, their families and communities in discussions about the importance of HE • Engage the community with the richness of uni life • Inform them of opportunities and support available to regional students at uni • Provide unique PD opportunity for teachers • Create an opportunity for scientific experts to reach a large number of students • Promote the Square Kilometre Array (SKA) project	Tours all successful with all objectives met and at times exceeded. Delivered an inspirational experience that fostered positive attitudes towards science and education in regional communities Positive relationships that developed as a result of the tours have led to all initiating further regional projects	Further collaboration have been inspired with new and current collaborators. Collaboration has raised interest in pursuing further research on understanding barriers for regional students	Intra university Inter university Inter sectoral Social/Community
Uni of Wollongong AIME Dr Gawaian Bodkin Andrews – Macquarie uni	AIME and the Uni of Wollongong Mutually beneficial partnership has resulted in outputs to AIME for use in their program, funded educational opportunities for Indigenous students at both undergraduate and postgraduate levels; and the design of statistical tools for the collection of quant data on the program	• Program addresses educational inequity through a mentoring program designed to improve high school completion rates of Indigenous students • Partnership was designed to analyse and evaluate the progress against KPI's and report on the viability of an expansion	Dissemination of key findings that supports the ongoing benefits of AIME model Research team has adapted approaches to data analysis, engaging in group analysis so that a range of perspectives and epistemologies can be applied to the data collected.	Current funding goes through to 2014. Ongoing analysis is required	Social/Community
Uni of Wollongong Dept of State Training Dept of Ed and Workplace Relations Regional Development Australia UOW College Eurobodalla Adult Education Illarawa retirement Trust Southern pathology TAFE NSW	Supported Pathways Programs Designed to improve participation of LSES and Indigenous people in HE Involves collaboration with local government agencies and RTO's to raise educational capacity of the Illawarra SE Region Partners identify skills shortages in the region and provide tangible pathways and vocational qualifications to further education and employment	• Design programs that meet the needs of each organisation around employment and develop skills and knowledge of individuals they work with to make a successful transition between each phase of the pathway •	Ten students successfully completed the programs and were offered employment with 5 moving into employment and 5 enrolling into uni degree Program expanded in 2014 to 158 students across 5 RTO's Program has provided awareness to pursue HE and the skills and knowledge to translate that awareness into success in HE	Value recognised and keen to continue partnership into the future	Intra university Inter sectoral Social/Community

Appendix 2: University Equity programs

University Equity Programs Data from NCSEHE Publication – Access and participation in Higher Education: Outreach/Access/Support (2013)

University	Program Name	Description	Objectives	Additional Info	Future	Instrument	O/A/S
Australian Catholic University	Meet the Professor	Yr5 & 6 students tour their local ACU campus to meet staff and students and participate in activities related to university life	• Students to experience being on uni campus • Participate in educative and interactive activities	• Demystify university for target groups • Reflect on importance of education • Sowing seed of university as positive and achievable future option	Annual reviews with internal and external partners	Before and after Surveys	Outreach
Australian National University	ANU Regional Partnerships Program	Consists of a number of school based programs and ANU campus and residential programs that provide educational enrichment to school students from primary to yr12. Community based partnerships Admission package to support entry to ANU Transition grants to assist with moving to Canberra	• Raises awareness about university study • Enhances educational outcomes for students from partnership schools • Encourages consideration of university as post school option		Admissions package embedded into admissions policy at ANU Transition grants covered by ANU endowment Sustainability of on campus and outreach activities of concern		Outreach Access
Australian Catholic University Macquarie University University of Sydney University of Technology, Sydney University of Western Sydney	Enquiring Minds (Bridges to Higher Education)	11 part TV series for 7 to 12yr olds to think about where their passions can take them in the future. Developed by Television Sydney and launched March 2013. Details the experiences of 21 primary schools students meeting university students and professionals who have developed their careers by following their passion. Gives students a real-life picture of how their academic skills, their passion and motivation could frame their future.	• Inspire people between 7 and 12 years old from under-represented communities to think about how their passions and interests can be turned into careers through education	TV series is supported by fully interactive website with teacher curriculum support and an online game for children. Resources have been mapped against the Australian Curriculum. Offers downloadable lesson plans for use in the classroom	Continued resources available for schools and networks Syndication locally, nationally and internationally. Partner universities integrate into widening participation strategies		Outreach
Central Queensland University	Facilitated Distance Learning Program	Supporting commencing students undertaking a fully distance program of study in the School of Education and the Arts. Two way communication between academics and students. Program of professional development for academic staff to ensure consistent approach to curriculum implementation, facilitation skills, support strategies and project objectives.	• Provide a model of distance education that is responsive to the needs of a diverse cohort (regional low SES) fully online for the first year. • Improve participation and retention of undergraduate students from low SES backgrounds	HEPPP funded position of Distance Facilitator to have personal contact with all identified students.	Program being successful in enhancing a model of teaching and learning for students who are new to distance learning and tertiary learning. Further research to enhance engagement of students		Support
Charles Darwin University	Into uni: Learnline in Colleges	3 year program in conjunction with partnership schools with significant numbers of Indigenous schools. Encourages Indigenous students from low ses to complete schools and progress into higher education	• Assist school students develop effective study skills • Engender a positive view of LMS enabled learning • Remove concerns about LMS as barrier to HE aspirations • Facilitate smooth transition from school to HE	Fully HEPPP funded. Allows teachers to have time for PD and program development	Next step is to explore how technologies assist students to maintain contact with school and campus while they are not there.	Focus Groups and Database tracking. Asses changes in attitude Enrolments and Retention rate	Outreach
Charles Sturt University	Student Success Team	Team supports students in their first semester at uni. Staffed by students based in call centre at regional campus. New students contacted by phone and email	• Assist students from low ses background transition into uni • Provide support to those showing signs of disengaging from their studies	HEPP funded from 2011Each year SST has grown from just over 3000 students in 2011 to 6000 in 2013	Working towards embedding SST in organisation		Support
Curtin University	StepUp to Curtin	Offers equity students opportunity to enter courses they may otherwise miss out on. Also provide assistance with housing, scholarships and book grants	• Create inclusive entry pathway for eligible students with ATAR of 60-69.95 • Recognise and support students from disadvantaged backgrounds with potential to succeed at university	HEPPP funded Co-ordinator position since 2010	Want to expand to reach wider disadvantaged community. Improve academic staff awareness and engagement with the program	Enrolment and Retention rates	Access Support

Deakin University	Work placement Program	Offers uni students paid, 4 week work placements as well as career planning support to students who may have financial difficulties and rely on part-time employment	• Increase tertiary retention and completion rates • Improve graduate outcomes by increasing participation in work experience for low ses students	HEPPP enabled uni to develop programs of finding and undertaking work placements, addressing specific challenges of income replacement, awareness application and preparation. Most of funds spent on bursaries and student wages Host supervision payments also covered as well as Co-ordinator positon at uni	Great demand and expansion to enhance retention and completion rates	Graduate Destination Survey	Support
Edith Cowan University	ECU Mates	Trains ECU students to become mentors and mates to lower secondary students from low ses backgrounds Programs provides guidance, friendship and educational support to students who are unlikely to undertake HE	• Provide inclusive mentoring program to secondary students from identified low Index of Community Socio-Educated Advantage schools who rarely receive funding support • Provide socio-emotional and educational support by implementing resilience strategies to promote success at school and later into HE • Facilitate positive contributions by students and staff of the uni	Part-time Co-ordinator funded by HEPPP Additional support from students and staff through volunteering efforts	More schools have requested to join program. Want to undertake research and expand to double existing numbers of students and ECU Mates to benefit all.		Outreach Access
Federation University Australia	Regional Schools Outreach Program	Works in partnership with 49 regional Victorian schools to address the relationship between geographic and socio-economic factors which result in lower rates of access to HE of regional and remote students compared to metro areas In school, on campus and online activities with students and their families Age specific activities across Yrs5-12 Key feature is student ambassadors who co-deliver programs and provide points of contact for information and inspiration	• Increase access to HE among students from regional/remote and low ses backgrounds in western Victoria •	Fully HEPPP (Partnerships) funded (to end 2014) RSOP conducts annual evaluations Consistent positive feedback about RSOP's impact	Future development and responsiveness will be informed by longer term evaluation currently underway. Qualitative data from students, parents, principals and teachers Quantitative data from applications to HE and school retention Evaluation report prepared but not public information		Outreach
Flinders University	Inspire e-Mentoring	Existing for 10yrs as Inspire Mentor Program Now extended to rural and regional students to raise aspirations and consider pathways to uni In partnership with Dept of Education and Child Development for children at risk of disengaging with education Enables students to explore pathways with undergrad and post grad mentors in HE Helps develop understanding of HE	•	Online learning platform Saba Centra 7 provides safe environment for communicating Sessions are monitored and supported by DECD staff to provide safe and productive relationship for mentors and mentees Culminates with visit to campus to experience life as uni student, participate in on campus activities and interact with mentors	Continue to work in partnership with public, Catholic and Independent schools Expect 750 students will be impacted over next 2 yrs		Outreach Access
Griffith University	Widening Tertiary Participation Program for Pasifika Communities	Aims to encourage aspirations for university study, build capacity of current and future students, and enhance community engagement with HE Made up of 3 programs *Legacy-Education-Achievement-Dream (LEAD)* yr10-12 students *Pasifika Cultural Graduation* – honours cultural identity, encourages student progression and promotes success *Griffith Pasifika Student Association* – supports transition, engagement and retention of current Griffith uni Pasifika students	• Encourage aspirations for uni study • Build capacity of current and future students at Griffith uni • Enhance community engagement with HE	Includes participatory action leaning projects to create ownership, engagement and authentic learning Active involvement of school and community personnel of Pacific Island heritage and integral as role models NZ and Pacific Island people cannot get HECS and affects Griffith uni Funded HEPPP position of Pacific Island Liaison Officer since 2011 External grants fund additional activities	Insufficient data gathered to gauge the true impact of program Evaluation report prepared but not public information		Outreach Access Support
James Cook University	Get *Into* Uni	Flexible program which provides relevant,	• Ensure all low ses, Aboriginal	Program tailored to address existing	Ongoing evaluation, research and		Outreach

		community-driven support and engagement Regional based with 8 community hubs to stimulate interest in and awareness of HE Aims to alleviate potential barriers to access and participation faced by low ses and Aboriginal and Torres Strait Islander groups Across Yr5/6 to yr12 and adult and non-school leavers cohorts Activities held on uni campus, schools and communities Covers 500000m² of north and far north Queensland including island communities of Torres Strait, Gulf and east coast	and Torres strait Islander students have access to tertiary awareness and preparation programs • Meaningful engagement that embraces diversity of communities, creating opportunities and enduring benefits for the region	school and community practice and agendas; culture and cultural events or programs, access to uni campus and resources issues of remoteness and isolation; and background and education levels/experiences School and Community engagement teams, project costs and outreach activities funded by HEPPP since 2011 Measured across outputs and outcomes which indicate engagement and impact across target groups, partners and stakeholders Other data sources are Queensland Tertiary Admissions Centre and Queensland Widening Participation Consortium	partner analyses		
La Trobe University	Uni Bridges	Involves embedding real world context into yr10 and VCE curriculum through engaging and innovative learning tasks designed around a topical social theme	• Increase yr10-12 engagement with science, technology, engineering and maths (STEM) • Improve students achievement with STEM • Provide STEM teachers with additional PD • Provide alternative entry pathway to selected STEM courses at La Trobe	Has 4 key elements: *Curriculum*: Teacher PD, thematic approach to STEM, use of technology and science bloggers *Outreach:* curriculum based activities, multiple contact throughout the year *Admission:* entry to selected degrees based on school recommendations *Evaluation:* evaluation against objectives to be completed in 2013 HEPPP funding enables teacher release for PD	Potential to transform science and maths to be more engaging to students through cross disciplinary and cross sectoral curriculum bridges Students can be reached and inspired and supported to examine fulfilling careers through HE Unis and schools can partner to identify, promote and support academic preparedness of students	Student Surveys Focus Groups	Outreach Access
Aus Cath Uni Deakin University La Trobe University Monash University RMIT University Swinburne Uni Uni of Melbourne Victoria University Federation University Catholic Ed Commission	LEAP Learn, Experience, Access, Professions	This program seeks to extend the generic aspiration raising offered directly through individual school-university partnerships, enabling partners to draw on more opportunities than would otherwise be possible. Co-ordinated Outreach activities developed and delivered through a partnership of Victorian universities Initially focussing on the design, engineering , health and law professions consists of applied learning activities and online material to engage students.	• Stimulate student interest in particular fields enabling them to experience and engage with a range of career possibilities • Enhance students and families understanding of how to prepare for entry to specific fields, supporting informed decision making • Challenging and extending students, increasing confidence and enthusiasm for personal possibilities	*Understanding the professions* (yr7-9) demystifies the professions and careers and shows the journey from school to outcomes in the field *Making it Happen* (yr10-12) builds learner confidence, knowledge and the tools to support students to reach their goals. Funds through HEPPP competitive grant from 2011 Consortium members also contribute funds Funding covers operational costs, including development of targeted hands on activities and web content along with their delivery to approximately 250 schools	Findings are that regional/remote students face bigger challenges to HE than metro students. LEAP will look to embed across Victorian Universities and promote HE as a pathway to professions		Outreach Access
Macquarie University	LEAP Macquarie Mentoring Program	This is a needs based mentoring program that aims to support high school students from refugee backgrounds to participate and succeed in HE	• Develop confidence, resilience and self-belief • Raise aspirations towards further study • Develop social and cultural capital to navigate tertiary education system • Develop study and research skills • Develop awareness of school and university cultures and expectations in the Australian context	Mainly HEPPP funded with support of DEC for teacher relief. Funding trains mentors, transporting them to and from high schools each week and hosting students and teachers at Macquarie for one day a semester to experience uni life	LEAP responding to requests to expand to new schools and support more students from refugee backgrounds to investigate options for them to participate in HE, develop their confidence and engage in their education		Outreach Access

			• Increase understanding of tertiary education pathways			
Monash University	Improving Selection for Social Inclusion Through Special Entry Admission Scheme (SEAS)	Uni recognises that a range of personal factors affects students school achievement and that ATAR alone may not reflect student academic potential\Uni considers factors such as financial disadvantage, mature age, attending a rural or isolated school, or school underrepresented in HE, Indigenous status, non-English speaking backgrounds, difficult personal circumstances, and disability or long term medical conditions	• Recognise that students who have been disadvantaged will perform better at uni than school result suggest • Extend opportunity to students who have achieved well in spite of adversity and who could succeed at Monash • Provide consistent and transparent way of taking into account the nature and extent of disadvantage	Staff undertaking analysis and policy development funded through HEPPP. They work in collaboration with Monash staff from other organisational units to develop the SEAS calculator	Uni will continue to promote SEAS to all applicants and to monitor and refine operation of the program to widen participation and support achievement at Monash Uni	Access
Murdoch University	First Year Advisor Network (FYAN)	A generalised support service to the diverse first year cohort and as a hub to access specialised support at the university	• Assist first year undergraduate students in their transition to university through individual and cohort based initiatives • Providing individualised support and promoting student access to a wide range of university services • Facilitating deeper engagement of first year students	HEPPP funded 15 F/T positions since January 2011 A large amount of student contact Consider student engagement to be a two way process involving the student and the institution	FYAN recognises the need to be flexible to accommodate the changing needs of students and staff population Regular systematic and data driven evaluations of FYAN occur and take into account student and staff feedback, outcomes of student contact, new research in the field and data about student retention and engagement	Support
Queensland University of Technology (QUT)	Robotics@QUT	Robotics is a proven tool for engaging and motivating students to participate in Science, Technology, Engineering and Mathematics Uses dynamic robotics activities to encourage STEM literacy, problem solving and collaborative learning in yr6-12 school students. Program works well across a range of ages and abilities and is a hook for building interest across all STEM areas and tertiary study. Connected to school curriculum and allows whole family engagement Fun and boosts technical and thinking skills of students	• Improve maths literacy, information Communications technology (ICT), problem solving, metacognition and group collaboration • Builds interest and aspiration for tertiary study • Enhance school STEM curriculum • Engage school community in student learning • Provides pre-service teachers with practical experience in LSES schools	Research shows these types of robotics activities contribute to improved literacy in ICT, skills in problem solving, metacognition and group collaborations Some robots include robotic art, drag racers, sumo wrestlers, solar panel cars, Lego building challenges and Duplo building challenges STEM disciplines are key drivers of innovation and the economy and LSES student need better access to STEM at school and beyond, if they are to have equal participation in society	Research suggests reasons for STEM aversion and university aversion in young working class people suggests links and overlaps worthy of further investigation Practice level collaborations between mainstream STEM and WP outreach programs should be encouraged	Outreach
RMIT University	I Belong	Addresses barriers of the city as alien and inaccessible to young people from LSES schools and communities and the impact this has on access and entry to pathways and professions Delivers a distinctive and scaled program, focussed on tertiary tasters aligned with city and industry exploration and peer engagement	• Build on the participation of 1500 Middle years students to grow informed aspiration, awareness and opportunity for tertiary outcomes leading to pathways and employment across specialised professions and industries • Achieve national parity for Indigenous students participation and LSES participation underpinned by RMIT admission policy and targets for Indigenous and LSES growth • Grow cultural awareness and understanding to support indigenous participation through family, school and community brokerage and cultural awareness delivered	Senior years program has a student lifecycle and student cohort focus Tertiary masterclass delivery, unpacking specialised disciplines and industry outcomes aimed at yr11-12 students On campus transition days, study ad learning skills enhancement Peer engagement using current tertiary students at RMIT Funded through HEPPP competitive partnership grant and supplemented by RMIT allocation of all partnership funds to support the middle and senior years program	Over 2013-2015 it aims to deliver the program to over 3000 students across the senior secondary years HEPPP funding is crucial support for Indigenous and rural participation and deepen opportunity	Outreach Access

			through an identified senior advisor Indigenous participation position			
STEMM Partnerships include: Demi International Beauty Academy Horizon 2; University of the Sunshine Coast Burnside SHS	STEMM program	University of the Sunshine Coast offers support to teenage Mums (non-Indigenous and Indigenous Australians) through the Burnside High School and the STEMM (Supporting Teenagers with Education, Mothering and Mentoring).	Students have the option to study the following pathways: • Certificate II in Nail Technology (SIB20210): • Certificate III in Beauty Services (SIB30110): • Diploma of Beauty Therapy (SIB50110): • Certificate III in Early Childhood Education and Care (CHC30113): • Tertiary Pathways Programs	Instead of attending mainstream classes, the STEMM curriculum provides a program tailored around their educational, social, physical and emotional needs in a non-judgmental environment. STEMM is located in one building incorporating a teaching classroom (with computer access) and two rooms which operate as adjunct care facilities for the babies and children. This is supported by Playground Australia and the wonderful volunteers who support the girls and bring valuable life skills to the program.		Outreach Access Support
Southern Cross University	UNI-BOUND Program	Supports uni commitment to access an participation and success of students 4 main components: *Yr7 Uni opens up your world*: Students visit campus and explore aspiration through storytelling and mixed media presentations. Intro to uni, uni staff and mentors. Opportunity to explore uni campus *Yr8 Thinking about Uni:* Students participate in seminar presented by staff and student mentors at their school. Learn about uni and post school pathways *Yr9 Going to Uni:* Students visit SCU campus, attend lectures, investigate career choices and attend study skills seminars. Mentors share their stories about getting into and studying at uni *Residential School:* Students stay in residential college on campus and undertake a longer program of events at uni. Designed as an immersive experience of being a uni student	• Increase knowledge and understanding of higher education and career options • Build confidence and motivation towards higher education • Improve academic attainment for higher education	HEPPP funded since 2010 and assisted the growth of the program to include more regional school and cohorts of students Developed Monitoring, Evaluation, Reporting and Improvement Plan in 2012/2013 Success measured through student feedback surveys, pre and post event feedback surveys (qual and quant data) on measurable change, post event review and evaluation meetings with key stakeholders including program staff, uni staff, school staff, principals and project leaders, longitudinal tracking of students from matriculation to university	Activities will continue to be enhanced and expanded to include additional activities and events and numbers of students in program Academic support model will be developed and delivered to high school students aimed at increasing confidence, motivation and preparation for HE	Outreach
Swinburne University	Student Support Program Student Equity and Disability Services (SEADS)	The program provides assistance with study and living expenses to undergraduate students from LSES backgrounds or those experiencing significant financial disadvantage	• Increase retention and completion of LSES students or those experiencing significant financial disadvantage through providing financial assistance in the form of grants and scholarships. Financial assistance is seen as critical in the retention and completion of students from LSES backgrounds	HEPPP funds activities and staffing costs Measurement of success is reflected by the number of students assisted and their success, attrition and grade point average rates in addition to an online yearly survey of grant/scholarship recipients Initial evaluation identified that grants and scholarships alleviated financial pressures and enabled them to have resources to undertake and complete course requirements and gave them more time to devote to study	Further evaluation is being undertaken to determine if and how it is making a difference to the retention and completion of LSES students	Support
The University of Adelaide	Adelaide Compass	An early intervention initiative designed to show LSES students that uni is a viable option for their future	• Develop an understanding of uni and change perceptions about it	Fully HEPPP funded Independent evaluation being undertaken	Development of new tailored outreach activities that use areas of strength. Program will be expanded	Outreach Access

		Delivers fun learning activities to primary and early high school students	• Focuses on building student attainment and aspiration to show that uni is possible, practical and achievable for them • Aligns with uni Strategic plan	Anecdotal evidence indicates strong increase in awareness of uni and further study options Since introduction enrolments to uni from pilot school have increased by 600 per cent	to new geographic areas through adapting metro activities for regional context including Indigenous specific stream		
University of Canberra	UC 4 Yourself	Aims to break down barriers to HE for students in yrs7-10 Component of Aspire UC Program Provides opportunity for students to visit UC to experience campus environment and see what it's like to be a UC student 30 schools involved in program The Expos include interactive demonstrations, hands on displays and student-academic led workshops Offered 6 times during the year and engages multiple school groups	• Raise aspirations of students from disadvantaged backgrounds for HE • Help students identify and overcome barriers to HE • Introduce students to uni environment, available courses and potential career paths • Smooth transition between school and uni	Fully HEPPP funded Pre and post-test surveys to examine student intentions to go to uni and knowledge and understanding of post school options Analysis of new format program underway (2013)	Recent HEPPP funding for 3 projects aimed at breaking down barriers to HE delivered through a specialist Aspire UC Foundation program will be delivered in school hubs across the region through support for teacher PD and programs undertaken in partnership with external organisations		Outreach
The University of Melbourne	Telescopes in Schools	Partnership Outreach program with Quantum Victoria, Museum Victoria, ARC Centre for Excellence for All-sky Astrophysics and CSIRO targeting LSES schools in metro and regional schools Activities include night and day observing, talks from astrophysicists, practical exercises and capturing images through telescopes	• Bring together students, parents and teachers from LSES schools with academic staff in collaborative environment to improve awareness o HE as post school option • Increase student aspiration for tertiary level science study through use of research grade technical equipment to explore aspects of astronomy and astrophysics • Provide ongoing teacher support through regular PD and close collaborative relationships with academic staff • Establish and maintain positive long term relationships between LSES schools participating in the program and uni	HEPPP Funding used to set up initial program development and administration in addition to seed funding which purchased the telescopes and accessories Ongoing running costs funded by the Laby Foundation Measured through: Program uptake and participation Increase in student enrolment in senior school science subjects Publicity and media coverage – national TV coverage, local newspapers – broadening coverage to the wider community	Quant and qual data being collected for longitudinal study exploring shifts in student motivation and parental influence in choosing STEM subjects and their pathways into HE after program participation		Outreach
The University of New England	The First Year Experience Strategy	This is the uni response to strategically managing the multi-faceted issue of student transition and success in the critical first year 3 Initial projects: *Informal Learning Spaces:* ensure that students can access additional learning support in purpose built surroundings *First Year Experience Co-ordinators*: Creates academic roles which foster best practice in First Year Experience Programs *Vice Chancellors Scholars:* Celebrates achievements of most academically gifted students and rewards them by providing unique opportunities for academic and professional development	• Support the successful transition from commencing student to progressing student • Recognise factors that impact on students from regional and remote and LSES backgrounds • Objective behind VC Scholars program is to provide a well-publicised incentive to all students to aspire to achieve outstanding academic results	Fully HEPPP funded A committee has guided the development of a number of interlinked activities. This committee reports to the Academic Board's Teaching and Learning Committee and is open to all staff Still a work in progress. Measurement of success is iterative and includes: Measurement of collaboration and the ability of cross functional areas and disciplines to address needs of first year cohort Participation data will be used at program level to measure fit for purpose of both spaces and student support activities Instructional design improvements via First year coordinators network and	The success of strategically using HEPPP funds to change the culture of institution-student interactivity will drive the future deployment of funds at UNE The First Year Experience Strategy provides a watching brief for sustainable programs and interventions		Support

				emphasis on the science of teaching and learning as it relates to students from regional and remote backgrounds. Will be further measured by student evaluations and tracking of progression rates		
University of New South Wales	The ASPIRE Program	ASPIRE works with students longitudinally over a number of years to encourage them to make informed choices about their higher education opportunities Multifaceted program reaching out to 6000 students in 55 partner schools across Sydney and regional NSW Aims to address educational disadvantage by widening participation at uni by students from LSES schools. Engages with students from K-12 Supports Social inclusion agenda of the government	• Raise awareness and aspirations of students to participate in HE • Assist in raising the academic attainment of students • Assist students to make informed decisions on progression to HE • Address some of the barriers that prevent students from accessing higher education	Supported by HEPPP Partnership funds (baseline and competitive). Additional funds from Citi Foundation and UNSW An evaluation framework using qual and quant set up to gauge impact. Results include: Overall decline in negative attitudes to HE over time Overall increase in offers to uni from ASPIRE schools greater than those schools not in ASPIRE Schools with high level engagement in program show higher % increase in offers to uni than schools with low levels of engagement	If funding ceases then ASPIRE will build ongoing resources for schools to use in the future. Resources will be linked to key stages within the school curriculum	Outreach Access
University of Newcastle	Open Foundation by Distance	Off-campus enabling program for Mature Age students offered since 2003	• Enhance experience and engagement of students from diverse backgrounds seeking entry to HE through Open Foundation by Distance	Fully HEPPP funded for 3 years Enabled the appointment of key staff including distance support co-ordinator and a team of study advisors Enabled critical staff development and training and production of innovation materials and resources Data collected through student feedback, institutional data and software usage statistics Some measures of student engagement has increased by more than 500% compared to previous years	Culture of reflection, collaboration and continual improvement now drives innovation Online orientation and online and face to face support resources have had positive impact on student experience and engagement in online enabling program	Access Support
University of Queensland	UQ Young Achievers Program	Supports tertiary study and career aspirations of motivated secondary students from low income families who might now otherwise have access to HE Focussed on nurturing and developing the educational ambitions of yr11-12 students through mentoring, on-campus experiences, information on university study options, pathways and application processes, opportunities for personal growth and financial assistance through bursaries and scholarships	• Raise awareness and interest in tertiary education within educationally disadvantaged communities • Increase number of students from low income families enrolling in and graduating from university • Develop civic minded student role models willing to assist in raising the tertiary aspirations of others	Success of program is measured through: # of participants who successfully complete yr11-12 Active engagement of participants in all program and events and activities including mentoring and completion of school/community volunteer projects Feedback from surveys, reflective workshops and interviews (with participants, parents/guardians, mentors and school staff Proportion of participants who apply, receive and accept an offer at a university UQ completions in future years	Early outcomes and feedback indicate that program is helping to raise educational aspirations of students from low income families Further program development is on embedding the academic and emotional support systems to optimise retention and graduation rates for Young Achievers at UQ UQ is committed to long term sustainability of program	Outreach Access
University of South Australia	UniSA College	Commenced 2011 Responsible for pre degree and pathway programs and conducts outreach activities for students who traditionally not pursued university studies Outreach uses academic expertise to identify current and emerging STEM ideas and develops interactive experiential programs using specialised equipment and facilities Academic programs also equip students with low	• Implement the uni's Participation Strategy aimed at increasing the number of students from LSES backgrounds enrolled in uni • Raise awareness , increase access and support achievement	Partly set up with HEPPP funds Outreach for secondary students and community groups continue to be funded through HEPPP	Secondary programs will be expanded from 2014 Enrolment in academic programs will be expanded to include 1200 students Results from activities will continue to be disseminated through relevant outlets??	Outreach Access

		or no previous experience, with the skills and confidence they need to succeed at university					
University of Southern Queensland	DARE (Dream Aspire Reach Experience)	Address barriers related to participation for Aboriginal and Torres Strait Islander people. Curriculum based and focusses on building aspiration through face to face mentoring and engagement with parents, teachers and Indigenous communities Working with partners to support school attendance and completion rates and raising awareness of further education opportunities Underpinned by Indigenous protocols and knowledge is integral in building engagement, rapport and trust Targets yr10 students 16 week program conducted group setting in schools Indigenous and non-Indigenous undergraduates, elders, community leaders, business owners, health service staff, Community Ed counsellors, police officers and Indigenous liaison are mentors Cross cultural awareness training and support for mentors Cultural understanding, historical awareness, self-identity development incorporated to benefit mentors and mentees	• Raise aspirations of Indigenous students to HE • Improve secondary school attendance and completion rates of Indigenous students • Improve English literacy and numeracy skills of Indigenous students • Promote healthy and positive lifestyles to improve participation in education • Promote and foster cultural respect and understanding • Bridge the gap between schools, communities and universities	Partially HEPPP funded supporting leadership camps, traditional game days and awards evenings. In-kind support from USQ Partnership with Arrow Energy supports scholarships and extend to include 2 additional schools Success is judged on school participation, secondary student enrolment patterns and attendance rates, academic improvement records from schools, surveys, focus groups and reflective journals	In second year and impact tarting to be seen Plans to continue due to support from Aboriginal and Torres Strait Islander communities and expand across all 3 campuses	Surveys Focus groups	Outreach Access
The University of Sydney	Compass – Your way to Higher Education	Supports Primary and high school students motivation, skills and capacity to pursue HE opportunities Partners with schools with populations of communities traditionally under-represented in HE Divided into 4 stages: Discover yr3-6: Museum, theatre and science activities on campus and skills development at schools Explore yr7-8: Introduces uni campus and opportunity of HE Inquire yr9-10: Activities to develop critical thinking, independent study and learning skills Experience yr11-12: Focusses on HSC and HE preparation	• Provide enriched learning experiences and skill development for students • Support teacher skills and capacity • Build students understanding of and positively influence attitudes towards HE • Fulfil the university's social inclusion objectives	Funded through Bridges to Higher Education Initiative which is funded through HEPPP and donations to Uni of Sydney	Growing its work with Aboriginal and TI communities with programs focussing on literacy, skills enhancement and pathways to HE		Outreach Access
University of Tasmania	University Preparation Program (UPP)	Identified as a key strategy for improving access and pathways into university for all students Improves HE access by providing a pathway for those students who do not meet the university admission requirements Assist students build skills needed for uni success Includes academic writing, mathematics, ICT and general study skills Incorporated into UTAS central admissions system, so students not eligible for entry into bachelor degree may automatically receive offer into UPP	• Provide pathway for students who don't meet general admission requirements or who face barriers to HE • Provide students with necessary skills and knowledge to undertake degree studies • Familiarise students with academic culture and provide supported introduction to uni environment	Partial funding from HEPPP contributes to overall delivery of the program Measured by the number of students enrolling in the course, retention of these students and their success transitioning into degrees	Is a key strategy for improving access and pathways into uni for all students Research identified how key learnings can be applied into other pre-degree contexts Further research will inform development of expanded framework for evaluating success of alternate pathways to uni using qual and quant measures		Access Support
University of Technology, Sydney	U@Uni Summer School Program	3 yr program for students from partner schools in south west Sydney Targets yr10 students who need extra motivation or skills to aspire or gain entry into HE or might be the first in family	• Encourage motivation for university study well before enrolment through integrated programs developed in partnership with targeted	Funded for student resources, staff and support to students as they progress through the 3yr program Measured through evidence based qual and quant data	Will continue to support yr10 students into HE, build stronger connections with parents, teachers and communities and develop existing engagement with program		Outreach

		Boost enthusiasm for HSC study, demystify university, build interpersonal skills and raise aspirations. Activities include: 2 week summer school in design, engineering, business, health, film and science School visits, follow-up workshops of critical thinking, study skills and stress management Information to assist making informed choices about post high school options and other support available for them to attend HE	schools , TAFE's and communities	Included in Bridges to Higher Education Evaluation Program	alumni to mentor participants in the program		
University of the Sunshine Coast	The Creative Writing Excellence Program	Partnership with schools in the Sunshine Coast region 8 week course that teaches basic elements of creative writing to school students who show an interest. The short story is the model used. Each workshop focusses on specific element of narrative Culminates with students writing short story which is edited and published in an anthology	• Introduce students to university experience • Demystify tertiary environment • Fosters development of long term mutually productive partnerships with schools and enhance USC reputation in region • Encourage youth in exploring and developing their creativity while enhancing reading, comprehension and analytical skills so they can explore the career opportunities in the creative industries including editing and publishing	Supported by participating schools and HEPPP funding 4 core aspirational measurement items measuring • current education interest • awareness of tertiary education • likelihood of tertiary education • career linkage awareness	Long term commitment with the aim of continuing to build an aspiration for HE particularly among those who might not otherwise have the opportunities or awareness		
University of Western Australia	Aspire UWA	Supports students with academic potential but facing significant challenges to achieve HE goals Partnerships with 21 metro and 31 regional and remote secondary schools Started 2009 Hands on activities delivered in schools and on campus for middle school students and provide insights into opportunities HE offers Pathway program for medical and dentistry students who are sometimes the first from their school ever to enter these disciplines Specialist support to all Indigenous students which offers a wide range of activities aimed specifically at encouraging and supporting these students	• improving the motivation and attainment of students in LSES communities • encouraging and supporting Indigenous students in culturally appropriate ways • supporting school staff through professional development workshops and scholarships • engaging parents and the wider community	Funded through HEPPP Competitive Grant awarded in 2011. In-kind support from UWA Multifaceted evaluation strategy: Surveys Enrolment data Interviews and focus groups have helped to refine engagement strategies	Current grant concludes 2014 Sustainability plan being developed to ensure continuation at current level of engagement Investigating online strategies to strengthen current suite of activities		Outreach
University of Western Sydney	Fast Forward Expansion	Partnership with GWS schools to helps students to see the value of continuing their education through to yr12 and beyond Started in 2004 Encourages students to strive for their personal best and to see tertiary study as a realistic and viable post-school option Recognises importance of engaging students with the concept of lifelong learning and benefits of post school education as early as possible so that they can knowledgeably plan pathways in their senior years at school and post school study	• Increasing the numbers of schools involved in the program • Growing the number of program offerings available to new and existing students • Increase parental/carer involvement by providing opportunities for them to learn about the program and gain an understanding of how they can play a part in raising aspirations for their child.	Expansion of program fully funded through HEPPP Project officers have been employed Yr12 Conference HSC prep In-school mentoring and workshops Parent information sessions Recruitment and training of 100+ uni students to become mentors	Further expansion planned in 2013 with a new program targeting 16 high schools Targeting policy developed to select schools and students in consultation with Dept of Ed and Communities and Catholic Education Office	Surveys	Outreach Access
University of Wollongong	The In2Uni Program	Partnership with DEC and CEO. A whole of region commitment to providing students from non-traditional background with increased opportunities to access HE Works with 58 primary schools and high schools on east coast of NSW On-site campus experiences	• Develop, foster and sustain mutually beneficial collaborations and partnerships with key stakeholders • Build aspirations of LSES students towards HE • Build capacity to successfully	HR and program costs have been partially funded by HEPPP since 2010 Contributions from DEC and CEO to ensure program sustainability Measured by level of student, parent and teacher participation and engagement in the program	Will operate under UOW Students Diversity and Outreach Framework. Will continue to develop opportunities for engagement with equity students through embedding outreach strategies at its regional campuses and expanding the scope		Outreach Access

		Mentoring HSC study assistance Transition advice Financial assistance Recognises the importance of positive role models for students through the use of trained university mentors in all programs on offer	navigate pathways to HE • Strengthen relationships with parents and local school communities to build awareness and knowledge about HE		of the Summer Masterclasses on offer		
Victoria University	AVID Australia (Advancement Via Individual Determination)	Innovative uni-readiness system that explicitly prepares students from LSES, diverse and disadvantaged backgrounds for tertiary success Early childhood, primary, secondary and tertiary programs Works simultaneously to support students, teachers and school leaders to improve academic, social and emotional aspects for underachieving students	• Build stronger school-university partnerships • To generate whole school improvement • To assist teaching and leadership staff to better meet needs of underachieving students by using explicit teaching pedagogies to build their handwriting, inquiry, collaboration, organisation and reading skills • To increase the numbers of LSES, diverse and disadvantaged students aspiring to access and succeed at university	HEPPP funded and receives in-kind support from the AVID Centre and participating schools and universities Funds provide ongoing PD for teachers and school leaders, student support and facilitates outreach activities including campus visits and accommodation for students from rural and regional areas	Research underway to evaluate short and long term data and track whole school impact	Teacher observations Stakeholder interviews in school communities Student achievement measures	Outreach Access

Appendix 3: NCSEHE APPROACH TO SOCIAL MARKETING 'WIDENING PARTICIPATION' (WP) PROJECT: NVivo Coding Framework by Author

Source	Abstract/Key Summary	NVivo Coding Framework
Abbott-Chapman, J. (2011). Making the most of the mosaic: facilitating post-school transitions to higher education of disadvantaged students. Australian. Educational Research, 38, 57–71. DOI 10.1007/s13384-010-0001-9	Research studies of post-school education and training conducted in Australia and internationally have revealed a mosaic of students' education and employment experiences, with a multiplicity of nonlinear pathways. These tend to be more fragmentary for disadvantaged students, especially those of low socio-economic background, rural students, and mature aged students seeking a 'second chance' education. Challenges faced by students in their transitions to higher education are made more complex because of the intersection of vertical stratification created by institutional and sectoral status hierarchies and segmentation, especially relating to 'academic' and 'vocational' education and training, and the horizontal stratification of regional, rural and remote locations in which students live. If we are to achieve the equity goals set by the Bradley Review (Bradley et al., Review of Australian Higher Education Final Report, 2008) we need to acknowledge and work with the complex realities of disadvantaged students' situations, starting at the school level. Interrelated factors at the individual, community and institutional level which continue to inhibit student take-up of higher education places are discussed in the context of discursive constructions of 'disadvantage' and 'choice' in late modernity. Research highlights the need to facilitate students' post-school transitions by developing student resilience, institutional responsiveness and policy reflexivity through transformative education.	**Cohort**: LSES, Rural, Mature Age; Regional, Remote **Pathway**: Secondary; Tertiary **Place:** Australia **Influences:** Institutional **Theme**: WP; Aspiration **Influences:** Institutional Responsiveness; Policy Reflexity **Program**: Transformative Education
Andrews, J. (2012). Compendium of Effective Practice.	Pathways to Trinity: a modelled pre-entry and first-year initiative to support disabled students in the process of transition from school to college. The Pathways to Trinity website hosts longitudinal surveys for completion by students, parents and practitioners, which provide quantitative and qualitative data on the transition experience. One quote from data collected on the website shows the value to potential students and their families: A lot of universities offer support to disabled students once they are on site, but it is rare to find any that offer help to get the students there in the first place. The Irish DARE/HEAR systems are outstanding (and pretty much unique) in this regard.	**Cohort**: Disability **Pathway**: Secondary;Tertiary **Place:** UK **Influences:** **Theme**: WP; Aspiration **Influences:** Institutional **Program**: Outreach; Digital;
Allen, T. D., Eby, L. T., O'Brien, K. E., & Lentz, E. (2008). The state of mentoring research: A qualitative review of current research methods and future research implications. *Journal of Vocational Behavior*, *73*(3), 343–357. http://doi.org/10.1016/j.jvb.2007.08.004	Research regarding mentoring relationships has flourished during the past 20 years. This article reviews the methodology and content of 200 published mentoring articles. Some of the major concerns raised in this review include over reliance on cross-sectional designs and self-report data, a failure to differentiate between different forms of mentoring (e.g., formal versus informal), and a lack of experimental research. Implications and suggestions for future research are offered.	**Cohort**: University students including equity groups **Pathway**: University **Place: USA** **Influences:** Mentors **Theme**: WP; Mentoring **Program**: Mentoring
Archer, L., Hollingworth, S., & Halsall, A. (2007). "University"s not for Me – I'm a Nike Person': Urban,Working-Class Young People's Negotiations of "Style", Identity and Educational Engagement. *Sociology*, *41*(2), 219–237. http://doi.org/10.1177/0038038507074798	This article explores how urban working-class young people's performances of embodied identities – as enacted through practices of "taste" and style – are played out within the educational field.The article considers how such practices may con-tribute to shaping young people's post-16 "choices" and their views of higher edu-cation as "not for me". Drawing on data from longitudinal tracking interviews with 53 individual young people and discussion groups with a further 36 pupils, the article discusses the double-bind experienced by these young people as a result of their performances of style. It is argued that whilst the young people seek to generate worth and value through their investments in style, these practices may also play into oppressive social relations and contribute to fixing the young people within marginalized and disadvantaged social positions.	**Cohort**: LSES **Pathway**: Tertiary **Place:** UK **Influences:** Peer; SES; Style Identity **Theme**: WP; Aspiration
Arco-Tirado, J. L., Fernández-Martin, F. D., & Fernández-Balboa, J.-M. (2011). The impact of a peer-tutoring program on quality standards in higher education. *Psychometrika*, *62*(6), 773–788. http://doi.org/10.1007/s	The purposes of this study were, on one hand, to determine the impact of a peer tutoring program on preventing academic failure and dropouts among first-year students (N = 100), from Civil Engineering, Economics, Pharmacy, and Chemical Engineering careers; while, on the other hand, to identify the potential benefits of such tutoring program on the cognitive and metacognitive learning strategies and social skills of student mentors in their last year of studies or already in a postgraduate program (N = 41) at the University of Granada (Spain). The intervention consisted of ten 90-min tutoring sessions during the first semester lead by student tutors, tutoring contents like planning and time management, cognitive and metacognitive learning strategies, motivational strategies and the use of materials designed ad hoc for this program. The results show differences in favour of the treatment group on grade point average, performance rate, success rate and learning strategies and, also, statistically significant pre-post differences for the tutors on learning strategies and social skill	**Cohort**: All students **Pathway**: University **Place:** Spain **Influences:** Peers **Theme**: WP; Success **Program**: Tutoring

Armstrong and Cairnduff, 2012	The significant under-representation of people from low socio-economic backgrounds in higher education in Australia has been placed squarely at the front of the Australian Federal Government's higher education agenda. The barriers for students from low socio-economic backgrounds to access higher education are broad and multi-causal. The significance of policies and interventions promoting the theme of 'inclusive education', not just in Australia, but also internationally, must be understood within their particular social context and the assumptions which underpin what we say and do unpicked. Both government and universities have begun to address some of the trenchant issues inhibiting the participation in higher education of young people from disadvantaged communities. Government has focused its attention on those levers that it most readily controls – targets and funding. In this article, we will briefly discuss the context within which current higher education policy on social inclusion has developed in Australia. We will then explore the ways in which universities have engaged with this policy framework. In particular, we will examine some of the challenges and opportunities this has created for one Australian research-intensive university whose recent history has been characterised more by its exclusivity than by an agenda of widening participation, as it embarks on a programme of increased engagement with schools and communities and critical reflection of its own practice.	**Cohort**: LSES **Pathway**: University **Place:** Australia-International **Influences:** social contexts **Theme**: WP; Success **Policy**: Social Inclusion
Arnold, S. (2012). An Exploration of College of Agriculture Ambassador Programs. *NACTA Journal*, *56*(4), 22–29.	This grounded theory case study, sought to explore the structure and organization of College of Agriculture ambassador programs. The population consisted of all four-year public universities with an identifiable College of Agriculture ambassador program. A total of 31 ambassador programs and 74 participants were included in the final sample. The study revealed the common components of an ambassador program as leadership development, promotional activities, relationship building, student benefits and standardized college presentations. Participants reported gains in leadership skills, academic knowledge and self-confidence in the many events offered through the program. A structured retreat and continuous training were important leadership development components. Being a knowledgeable expert was a major responsibility as ambassadors were considered the "face" of the college, particularly in recruitment. There were many incentives reported that made involvement worthwhile, including networking with key people. It was hoped that ambassador programs can utilize results to improve organizational functions and overall student leadership.	**Cohort**: All students **Pathway**: University **Place: USA** **Influences:** Peer **Theme**: WP; **Program**: Mentoring
Artiles, Alfredo J. Thorius, Kathleen King Bal, Aydin Neal, Rebecca Waitoller, Frederico R. Hernandez-Saca, D. (2011). Artiles et al 2011 Culture & Disability. *Learning Disability Quarterly*, *34*(3), 167–179.	The construct of culture has been largely invisible in the research and long-standing debates in the learning disabilities (LD) field, such as those pertaining to the definition of LD and how research knowledge is used in local settings. When used, the idea of culture tends to be defined as unrelated to LD and studied as restricted to individual/group traits. We challenge the culture–LD dichotomy and the limited conception of culture used in this knowledge base. For this purpose, we make the case for a cultural model of learning that can inform scholarship about the nature of LD, and we propose a culture- based model for the study of research knowledge use in professional practices. Moreover, we offer a third perspective on culture to study the strategies that the LD research community might be using to demarcate and maintain a cultureless paradigm of LD. Our discussion offers potentially rich opportunities for a culturally minded and reflexive stance in the LD field that is urgently needed in our increasingly diverse society.	**Cohort**: Learning Disabilities **Pathway**: Education **Place: US** **Influences:** Pedagogy; Culture **Theme**: Aspiration;
Aboriginal and Torres Strait Islander Education: 2012-2013. (2013). Report to the Legislative Assembly, ACT.	This is the seventh report to the ACT Legislative Assembly on the performance of Aboriginal and Torres Strait Islander Education and covers the period July 2012 to June 2013. The vast majority of Aboriginal and Torres Strait Islander students in the ACT attend public schools. In 2013 there were 1,379 Aboriginal and Torres Strait Islander students attending public schools, which represents 3.2 per cent of total enrolments, and an increase of 42 students on 2012 enrolment numbers. This report to the Legislative Assembly details the progress achieved by the Directorate in advancing the key priorities of the Aboriginal and Torres Strait Islander Education Matters Strategic Plan 2010-2013. The four key priority areas of the strategic plan are: (1) Learning and Teaching; (2) School Environment; (3) Pathways and Transitions; (4) Leadership and Corporate Development.	**Cohort**: ATSI **Pathway**: Tertiary-Career **Place: ACT, Australia** **Influences:** Mentoring; Formal and Informal Strategies **Theme**: Aspiration **Program**: Holistic level programs; people rich
Bat, M., & Guenther, J. (2013). Red Dirt Thinking on Education: A People-Based System. *The Australian Journal of Indigenous Education*, *42*(02), 123–135. http://doi.org/10.1017/jie.2013.20	In Australia, the 'remote education system' presents itself as a simple system where the right inputs, such as quality teachers and leaders will engender the outputs that have been set by the system, such as certain levels of English literacy and numeracy. The system has measures in place, including national testing, to report on its success. For the most part, this system seems to be working quite well. However, this modelling breaks down when the education system of remote Australia is presented. This remote system is presented in much of the literature and in the press, as disadvantaged, under-resourced and underperforming. Reported results indicate that current activities are not bringing the desired outcomes. The so-called mainstream system makes adjustments using its model of input to output, but without success. There is a clear need for change. Just what this change might look like is the focus of this article. Theorising in this space is considered from two positions; the first being the published work of a number of Indigenous Australian educators and leaders writing in this	**Cohort**: ATSI; Remote **Pathway**: Secondary; University **Place: Australia** **Influences:** Pedagogy; Curricula **Theme**: Aspiration **Influences:** Formal intermediaries and advisers **Program**: social inclusion

	space; the second, a consideration of western theorising using complex adaptive systems. Throughout the article, a metaphor of 'red dirt thinking' is applied as a mechanism to ground the thinking in the lives and lands of the Aboriginal and Torres Strait Islander peoples of remote Australia.	
Baxter, J. (2012). Who am I and What Keeps Me Going ? Profiling the Distance Learning Student in Higher Education Distance Learning Student in Higher Education. *The International Review of Research in Open and Distance Learning*, *13*(4), 107–129.	Student retention and progression has exercised the higher education (HE) sector for some time now, and there has been much research into the reasons why students drop out of higher education courses (Allen, 2006; Buglear, 2009). More recently the Higher Education Academy Grants Programme Briefing (HEFCE, 2010) outlined a number of areas that emergent project data revealed as being important to both the retention and progression of students, including areas outlined by a number of researchers as being essential to student success: expectations, support, feedback, and involvement. But there has been less research, particularly within the distance learning sector, into factors that encourage students to stay (O'Brien, 2002). This small scale qualitative project using feminist qualitative research methods and based in the Open University, UK builds upon an intensive institu- tional research project analyzing what type of interventions make a positive difference to student progression and success. The research revealed insights into factors linked to the expectations, identities, and support of students which proved influential in terms of their resilience and motivation to remain on course.	**Cohort**: Distance Learning students **Pathway**: University **Place: UK** **Influences:** Student Identity; **Theme**: WP; Aspiration **Program**: Retention; Success; Online support
Behrendt, L.; Larkin, S. Griew, R. & Kelly, P. (2012). Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: Final Report. Australian Government. This document can also be accessed via the Innovation website at: www.innovation.gov.au/IHER.	In commissioning the Bradley Review, the government recognised the important role higher education plays in driving productivity and delivering a strong and steady supply of highly skilled labour—in effect, nation building. But for higher education to truly support nation building, all Australians must be able to contribute to and share in its benefits. The Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People (the Review) builds on the Bradley Review and examines how improving higher education outcomes among Aboriginal and Torres Strait Islander people will contribute to nation building and reduce Indigenous disadvantage.	**Cohort**: ATSI; LSES; **Pathway**: University/VET **Place: Australia** **Influences:** Peers; Digital; Culturally responsive; Family **Theme**: WP; Aspiration **Program**: Mentoring; Outreach; people rich; Holistic level
Belanger Akbari & Madgett (2009)	This article has two objectives: the first one endeavours to capture the level of PSE that 18-20-year-old youth of the Canadian population envisioned for themselves at the turn of the new millennium under an optimistic scenario (aspirations) that would allow them to overcome any socio-economic limitations. "Opportunity Structures" Affecting Aspirations and Attainment Research on incidental environment or opportunity structures is extensive and includes such topics as family structure, urban-rural residence, gender, visible minorities and immigrants, education costs, hours of employment, local and global economic conditions, differentiated secondary education systems, and many more. Geographic location emphasises cultural inequalities; Distance from a degree-granting institution is a deterrent to university attendance particularly for lower-income families; Urban families have higher expectations, are more educated, earn more, own computer at home for school work Gender Visible :minorities and immigrants - Since the mid 1970s, educational and occupational aspirations for men have remained relatively unchanged, but have risen dramatically for females. The relative participation rate of females has overtaken that of males. Notwithstanding some specific exceptions, educational aspirations are universally high across ethnic and racial lines. Exceptions and the rule can be tracked in SAT, grades, and in academic curricula. Visible minority immigrant students are more likely to have higher university aspirations than non-visible minority, particularly among girls.	**Cohort**: University age; Gender Differences **Pathway**: Tertiary **Place:** Canada; Regional; Urban **Influences:** Socio-Economic; Formal Intermediaries & advisers; Peers; Parents; **Theme**: WP; Aspiration **Program**: Holistic level
Beltman, S., & Schaeben, M. (2012). Institution-wide peer mentoring: Benefits for mentors. *The International Journal of the First Year in Higher Education*, *3*(2), 33–44. http://doi.org/10.5204/intjfyhe.v3i2.124	Extensive research has shown the benefits of mentoring, including peer mentoring, for higher education students, especially in their first year. However, few studies have focussed exclusively on the outcomes for the mentors themselves. This paper reports the findings of data gathered over three years about a university-wide peer mentoring program. Benefits identified by 858 mentors were coded inductively and four major categories emerged: altruistic, cognitive, social and personal growth. The findings have implications for the promotion of mentor programs to administrators and to prospective mentors. The study provides evidence that university-wide peer mentoring programs offer multiple positive outcomes for the mentors involved, and potentially for higher education institutions administering and supporting such programs.	**Cohort**: All university students **Pathway**: University **Place: WA** **Influences:** peer mentoring; institutional support **Theme**: WP **Program**: peer mentoring
Beresford, Q. (2001). Policy and Performance: Aboriginal Education in Western Australia in the 1990s. *Australian Journal of Education*, *45*(23), 23–34.	Concern about low rates of participation and achievement among Aboriginal students intensified from the late I960s. Twenty years later this concern was formalised into the National Aboriginal Education Plan (NAEP), a commonwealth/state agreement which identified 21 goals for Aboriginal education, grouped into four main purposes: to increase Aboriginal involvement in educational decision making; to improve equality of access for Aboriginal people to educational services; to increase Aboriginal participation to the same level as all Australians; and to achieve equitable and appropriate outcomes for Aboriginal people. This policy took effect from January 1990. Although progress in achieving these goals is recognised as being very slow (Partington, 1998, p. 4), there has been little examination at the state level of the effectiveness of the policy process underpinning Aboriginal education.	**Cohort**: ATSI **Pathway**: University **Place: WA** **Influences:** Pedagogy; Leadership **Theme**: WP; Aspiration

Bissett, S. Z. (2013). Bala ga lili: Meeting Indigenous Learners Halfway. *Australian Journal of Environmental Education*. http://doi.org/10.1017/aee.2013.2	The author's experience of the day-to-day issues faced as an educator in an Aboriginal school are recounted, along with perspectives gained as part of a research project. The proposition is argued that an Education for Sustainability approach, where learning is structured around a negotiated environmental issue within local community, represents a cultural accommodation or halfway point between mainstream formal schooling and the needs of Indigenous learners. This article contends that such an educative approach meets Indigenous learners 'halfway', through compatibility with Indigenous values frameworks and employing culturally appropriate pedagogicalmethods. The argument is made that by demonstrating a will- ingness to negotiate worthwhile environmentally based projects that address community ecological concerns, EfS may be able to improve community support and mitigate impediments to the engagement of Indigenous learners with formal education. A critical pedagogy of place (Grunewald, 2003) is discussed as a theoretical framework that combines place-based pedagogy with empowering educational theory. Indigenous learners' connection with place is recognised in this approach and ascribed a positive rather than negative value.	**Cohort**: ATSI **Pathway**: School **Place:** Australia **Influences:** Pedagogical; Curriculum **Theme**: Aspiration **Program**: Place based pedagogy
Bowden, M. P., & Doughney, J. (2009). Socio-economic status, cultural diversity and the aspirations of secondary students in the Western Suburbs of Melbourne, Australia. *Higher Education*, *59*(1), 115–129. http://doi.org/10.1007/s10734-009-9238-5	Using data from a recent survey of Australian secondary students, we find that those from higher socio-economic backgrounds are more likely to aspire to attend university. The same can be said for students who do not speak English at home. We find that students with an ethnic minority background are more likely to perceive higher levels of support from parents. However, we find that all students believe they receive encouragement from their parents to do well at school (rather than discouragement or disinterest), and that there is little difference in the level of importance placed on the views of parents between students from English and non-English speaking background. While interest in university education is strong across all socio-economic groups, particularly for students who do not speak English at home, there is a considerable gap between aspirations and enrolment levels. We suggest that this "aspirations gap" is larger for students from low socio-economic backgrounds. This analysis also supports growing evidence that the postcode methodology for allocating socio-economic status to individuals is unreliable.	**Cohort**: LSES, NESB **Pathway**: Secondary; University **Place:** Melbourne, Victoria **Influences:** Parents **Theme**: Aspiration; WP
Briley, D. A., Harden, K. P., & Tucker-Drob, E. M. (2014). Child Characteristics and Parental Educational Expectations: Evidence for Transmission With Transaction. *Developmental Psychology, 50*(12), 2614–2632. Retrieved from http://dx.doi.org/10.1037/a0038094.supp	Parents' expectations for their children's ultimate educational attainment have been hypothesized to play an instrumental role in socializing academically relevant child behaviors, beliefs, and abilities. In addition to social transmission of educationally relevant values from parents to children, parental expectations and child characteristics may transact bidirectionally.We explore this hypothesis using both longitudinal and genetically informative twin data from the Early Childhood Longitudinal Study–Birth and Kindergarten cohorts. Our behavior genetic results indicate that parental expectations partly reflect child genetic variation, even as early as 4 years of age. Two classes of child characteristics were hypothesized to contribute to these child-to-parent effects: behavioral tendencies (approaches toward learning and problem behaviors) and achievement (math and reading). Using behavior genetic models, we find within-twin-pair associations between these child characteristics and parental expectations. Using lon- gitudinal cross-lagged models, we find that initial variation in child characteristics predicts future educational expectations above and beyond previous educational expectations. These results are consistent with transactional frameworks in which parent-to-child and child-to-parent effects co-occur.	**Cohort**: Pre-School/School; NESB **Pathway**: University/VET **Place: US** **Influences:** Teachers; Tutors; Parents; Family Transmission of Educationally Relevant Values **Theme**: Aspiration, WP, Success
Bryan, J., & Henry, L. (2012). A_model_for_building_school-family-community_partnerships: Principles and Process. *Journal of Counseling & Development*, *90*, 408 – 421.	The extant literature documents the importance of school counselors' roles in school–family–community partnerships, yet no model exists to guide school counselors through the process of building partnerships. The authors propose a model to help school counselors navigate the process and principles of partnerships. They define partnerships; discuss the principles of democratic collaboration, empowerment, social justice, and strengths focus that should infuse partnerships; enumerate a partnership process model; and discuss implications for practice and research.	**Cohort**: LSES **Pathway**: School; University **Place: US** **Influences:** School Counsellors; Parent; School; Community; Partnerships **Theme**: Aspiration WP **Program**: Partnerships
Bunda, T., Zipin, L., and Brennan, M. (2012). Negotiating university 'equity' from Indigenous standpoints: A shaky bridge. *International Journal of Inclusive Education* 16(9): 941-957. DOI: 10.1080/13603116.2010.523907	Indigenous presence in the Australian university is a relatively recent phenomenon, initially framed by policies of equity that were, and continue to be, problematic in their assumptions – what they say and don't say – about cultural difference, justice, sovereignty and more. From the lead author's Aboriginal standpoint, the paper analyses the repercussions of 'equity' thinking that have intersected with Indigenous experiences of higher education activity in Australia, covering the range of aspects of university life and work: staffing, teaching, curriculum, governance, research and community engagement. The paper critiques how dominant notions of 'equity' subordinate or cannibalise possibilities for what higher education could mean for Indigenous peoples; and it gestures towards what might emerge from a standpoint of Indigenous agency to re-imagine the university.	**Cohort**: ATSI **Pathway**: School; University **Place: Australia** **Influences:** Indigenous Pedagogy/Agency **Theme**: Aspiration; WP **Policy:** Social Inclusion; Education Equity
Camarena, P. M., & Sarigiani, P. A. (2009). Postsecondary Educational Aspirations of High-Functioning Adolescents With Autism Spectrum Disorders and Their Parents.	Individual interviews with 21 high-functioning adolescents diagnosed with an autism spectrum disorder and their parents were used to assess postsecondary educational aspirations and thoughts concerning obstacles and resources that shape edu- cational achievement of this group. The results from these semistructured interviews revealed that both the adolescents and their parents have clear postsecondary educational goals but have significant concerns about the readiness	**Cohort**: Disability (Autism Spectrum Disorder) **Pathway**: University **Place: US** **Influences:** Parents; Families; Institutions

Focus on Autism and Other Developmental Disabilities. http://doi.org/10.1177/1088357609332675	of postsecondary institutions to meet the adolescents' needs. The special significance of social challenges and the ways that families frame educational aspirations are noted. Results from this analysis have direct application to both educational and family settings.	**Theme**: Social/Institutional Barriers
Cantwell, R., Archer, J., & Bourke, S. (2001). A Comparison of the Academic Experiences and Achievement of University Students Entering by Traditional and Non-traditional Means. *Assessment & Evaluation in Higher Education*, *26*(3), 221–234. http://doi.org/10.1080/02602930120052387	The changing demographic profile of many universities has been reflected in the increasing presence of mature-aged students on campus and the increased acceptance of non-traditional qualifications allowing entry to undergraduate programmes. Recent research has suggested that such changes have not been accompanied by a diminution of academic standards. In the present study, we examine the academic performance of students entering a university via traditional and non-traditional means using database records for three years of entry. Analysis revealed a marginal disadvantage in academic performance for students entering via non-traditional enabling programmes, but a positive effect for mature age on entry. The results were broadly consistent with earlier studies and confirm the equity goals of more open access to undergraduate study.	**Cohort**: Mature Age; Non-Traditional entrants; **Pathway**: University **Place: NSW** **Influences:** Equity Policy **Theme**: WP; Aspiration
Carbonaro, W., & Workman, J. (2013). Dropping out of high school: Effects of close and distant friendships. *Social Science Research*. http://doi.org/10.1016/j.ssresearch.2013.05.003	Prior research highlights the role of friends in influencing whether a student completes high school. Students who drop out tend to have fewer friends, as well as friends who are less oriented toward school success. We distinguish between close and distant friendships by developing a theoretical framework which predicts close and distant friends likely have distinct effects on dropping out. Close friendships provide valuable emotional support, and forging numerous close friendships at school should decrease one's risk of dropping out. In contrast, the characteristics of distant friends help shape students' social identities and beliefs about "what's normative." Our analyses of the Add Health data set confirm our expectations. Students with more close friendships are less likely to drop out, but close friends' characteristics are unrelated to dropping out. Distant relationships (as measured by affect and regularity of interaction) with friends who have a high risk of dropping out significantly increase a student's own risk of dropping out.	**Cohort**: At risk students **Pathway**: University **Place: US** **Influences:** Friends; Peers **Theme**: WP
Carey, M., & Russell, S. (2011). Pedagogy Shaped by Culture: Teaching Narrative Approaches to Australian Aboriginal Health Workers. *Journal of Systemic Therapies*, *30*(3), 26–41. http://doi.org/10.1521/jsyt.2011.30.3.26	In this paper we describe our practice of teaching narrative approaches in a diploma course for Australian Aboriginal Health Workers. The shifting practice of teaching as it is shaped by Aboriginal cultural knowledges, skills, and ceremony and by the lived experience of the Course participants is explored. The pedagogy that is emerging through this work is founded upon principles of cultural partnership and of accountability as non-Aboriginal teachers. Understandings of learning as an identity project are also explored as a framework for a pedagogy that maintains a focus on the social political context of experience. The two-year Course is an initiative to support the Indigenous health workforce by providing training that is responsive to the social, emotional wellbeing, and mental health of Indigenous communities in the context of the history of colonization in Australia.	**Cohort**: ATSI **Pathway**: University **Place: Australia** **Influences:** Pedagogy; partnerships non-Aboriginal Teachers Accountability; **Theme**: Aspiration; WP **Program**:
Castleman, B. L., & Page, L. C. (2015). Summer nudging: Can personalized text messages and peer mentor outreach increase college going among low-income high school graduates? *Journal of Economic Behavior and Organization*, *115*, 144 – 160. http://doi.org/10.1016/j.jebo.2014.12.008	Several recent low-cost interventions demonstrate that simplifying information about college and financial aid and helping students access professional assistance can generatesubstantial improvements in students' postsecondary outcomes. We build on this growingliterature by investigating the impact of two applications of behavioral principles to mitigate summer "melt," the phenomenon that college-intending high school graduates fail to matriculate in college anywhere in the year following high school. One intervention utilized an automated and personalized text messaging campaign to remind college-intending students of required pre-matriculation tasks and to connect them to counselor-based support. Another employed near-aged peer mentors to provide summer outreach and support. The interventions substantially increased college enrollment among students who had less academic-year access to quality college counseling or information. Both strategies are cost–effective approaches to increase college entry among populations traditionally underrepresented in higher education and, more broadly, highlight the potential for low-cost behavioral nudges and interventions to achieve meaningful improvements in students' educational outcomes.	**Cohort**: LSES **Pathway**: University **Place: USA** **Influences:** Counsellor-based support **Theme**: WP; **Program**: behavioural support
James, R., Bexley, E., Anderson, A., Devlin, M., Garnett, R., Marginson, S. and Maxwell, L. (2008). *Participation and Equity : A Review of the Participation in Higher Education of People from Low Socioeconomic Backgrounds and Indigenous People.* Melbourne, Victoria: Centre for the Study of Higher Education.	The purpose of the report is to shed light on the factors associated with the persistent underrepresentation of low SES people and Indigenous people in Australian universities with a view to informing policies and strategies and providing a framework for further analysis of equity for people from low SES backgrounds. The report includes a summary of barriers and inhibiting factors as well as suggestions for possible ways of defining and measuring socioeconomic status for higher education purposes. Recommendations for future work are also proposed.	**Cohort**: ATSI; LSES **Pathway**: University **Place: Australia** **Influences:** Socio-economic; Institutional **Theme**: WP; Barriers **Policy:** Social Inclusion
Cilesiz, S., & Drotos, S. M. (2014). High-Poverty Urban High School Students' Plans for Higher Education: Weaving Their Own Safety Nets. *Urban Education*. http://doi.org/10.1177/0042085914543115	This qualitative study investigates high-poverty urban high school students' views of and plans regarding higher education, using Bourdieu's theory of reproduction in education as theoretical framework. Interview data from 76 students from six high-poverty urban schools in a metropolitan area in the Midwestern United States were analyzed using grounded theory. Findings suggest that students (a) viewed higher education as rewarding in many ways, (b) perceived attending college to involve multiple risks, and (c) devised risk- minimizing strategies to facilitate their intended pursuit of higher education.	**Cohort**: LSES **Pathway**: University **Place:** Urban, US **Influences:** Systemic **Theme**: WP; Aspiration; **Program**: Risk Minimizing

Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: a controlled comparative evaluation of residential students in UK higher education. *Higher Education*, *68*, 927–942. http://doi.org/10.1007/s10734-014-9752-y	Peer mentoring is becoming increasingly popular in UK higher education, however, there remains little good quality, theoretically driven and evaluative research. The current study aims to bridge the gap between theory, practice and evaluation by providing a controlled evaluation of a peer mentoring scheme within UK universities. 109 first year undergraduates from two matched universities completed questionnaires at two time points: during the first week of university and again 10 weeks later. Results focused on direct, mediating and moderating effects of mentoring on levels of wellbeing, integration and retention. Peer mentored individuals showed higher levels of integration to university. Four times as many non-peer mentored students had seriously considered leaving university compared to peer mentored students. Integration partially mediated the relationship between mentoring and intention to stay at university. Moderating effects analyses indicate that mentoring may buffer the effect of the transition to University. Results are discussed in relation to Tinto's theory of student retention, the benefits and practicalities of peer mentoring within UK universities and the methodological limitations within this study.	**Cohort**: **Pathway**: **Place:** **Influences:** **Theme**: **Program**:
Cornelius, V. E., & Wood, L. N. (2012). Academic to student mentoring within a large Australian business school. *Asian Social Science*, *8*(14), 1–8. http://doi.org/10.5539/ass.v8n14p1	This paper presents an overview of the options available to universities to employ mentoring by academics for the successful academic transition of students to university. Much has been written about the use of peer mentors to assist with the personal transition to university however students crave personal contact with their professors. We review the literature on mentoring; the social and institutional factors that impact upon first year attrition, the merits of mentoring interventions and the impact these have on a student's sense of belonging and ultimately retention. We describe a pilot implementation of First STEP Mentoring in a large Australian business school.	**Cohort**: At Risk **Pathway**:University **Place: Australia** **Influences:** Mentors; Sense of Belonging **Theme**: WP **Program**: Mentoring
Cupitt, C., Costello, D. & Mitchell, G. (2015). Queensland Ambassadors Project Report. NCSEHE	In 2014, widening participation activities reached approximately 545 schools across Queensland and in excess of 70,000 student engagements occurred in the year. Aboriginal and Torres Strait Islanders in school and community settings participated in a variety of Indigenous engagement activities, including over 500 secondary school participants in Indigenous mentoring programs. Partners agreed to take responsibility for delivering school outreach activities in a designated local cluster of low SES schools, such that all low-income primary and secondary schools in the state were covered. Based on campus proximity and existing school partnerships, the resulting clusters were of unequal size and complexity, and resource allocation recognised this.	**Cohort**: ATSI, LSES **Pathway**: Primary; Secondary; Tertiary **Place:** Queensland **Influences:** Peer **Theme**: WP **Program**: Ambassador
Cupitt & Costello (2014). Bridges to Higher Education Literature Review. NCSEHE.	While many of the factors at play for Indigenous students are the same as those affecting LSES and regional and remote students, there are additional complexities due to the significant number of students who are the first in family to attend secondary school within this cohort (Behrendt et al. 2012, 22), along with factors such as racism and inter- generational disenfranchisement (Bunda, Zipin and Brennan 2012, 942; Mlcek 2011, 825). Being the first in their family to attend secondary school means students are likely to have limited access to the resources and information they need to raise aspirations and develop a career path that includes university study. This literature review reports on intervention strategies and programs aimed at widening participation in, and improving equity of access to, higher education (HE). It offers an analysis of the available evidence of Australian and international best practice in terms of what effectively enables progression to higher education, with a focus on people from low socio-economic backgrounds (LSES), Aboriginal and Torres Strait Islander peoples, and those from regional and remote areas The most commonly recommended approaches for improving Indigenous outcomes in recent literature are sustained and holistic. They focus on community-based programs, targeting key intervention points from early on and then consistently throughout their studies, within a larger whole-of-school or cohort-wide strategy, or within dedicated post-school progression pathways. There are a growing number of university-led programs taking this kind of approach, particularly targeted at secondary school students, and those entering higher education via alternate pathways as mature-age learners.	**Cohort**: ATSI; Mature Age; Lifelong Learning; LSES **Pathway**: Primary; Secondary;Tertiary; Alternative pathways **Place:**Regional/Remote **Influences:** Holistic level community based **Theme**: WP - Aspiration **Program**:Holistic and Sustained
Curtis, D., Drummond, A., Halsey, J., & Lawson, M. (2012). *Peer mentoring of students in rural and low SES schools: increasing aspiration for higher education*. Retrieved from http://www.ncver.edu.au/publications/2562.html	University participation of rural and low socioeconomic status (SES) students is lower than for those from metropolitan areas or with higher socioeconomic status. This study explores the aspirations and intentions for university education among low SES and regional school students and looks at how peer mentoring might influence them. The findings show that, compared with their higher SES peers, low SES students have less favourable attitudes towards school, lower achievement at school, and less ambitious post-school study and career aspirations. Students who received sustained mentoring showed a higher likelihood of enrolling in a university course.	**Cohort**: LSES, Regional **Pathway**: University **Place:** **Influences:** Mentor **Theme**: WP **Program**: peer mentoring
Czaika, M., & Vothknecht, M. (2014). Migration and aspirations – are migrants trapped on a hedonic treadmill? *IZA Journal of Migration*. http://doi.org/10.1186/2193-9039-3-1	Based on longitudinal information from two waves of the Indonesian Family and Life Survey (IFLS) in 2000 and 2007, we find evidence that migrants are self-selected along higher individual aspirations acquired (or, inherited) before migration. About 70 per cent of aspiration differentials can be explained by factors such as young age, good education, or superior socio-economic background, while the residual seems to be linked to an individual pre-disposition for higher aspirations. However, despite the fact that migration is economically beneficial for most migrants, the migration experience itself seems to further increase economic aspirations, hereby trapping migrants on a "hedonic treadmill".	**Cohort**: NESB; Migrants **Pathway**: University **Place: International** **Influences:** Family/Culture **Theme**: WP; Aspiration
Dehdarirad, T., Villarroya, A. & Barrios, M. (2014).	In addition to other factors that place women at a disadvantage in all fields, career preferences, ability, and biological differences have been the main variables proposed in the literature to explain their underrepresentation in STEM (science, tech- nology, engineering, and mathematics) disciplines. Empirical research in these fields has pointed to career preferences	**Cohort**: Gender Differences Female **Pathway**: Tertiary **Place: France; Germany; US**

	and choices, both freely made and constrained, as important causes of women's underrepresentation in academia (Ceci and Williams 2011), and it is suggested that some of these choices originate before or during adolescence (Ginther and Kahn 2009; Ferriman et al. 2009; Mason and Goulden 2009). Hence, adolescent girls frequently prefer careers linked to the humanities and social sciences as opposed to STEM- based fields. U.S. studies suggest that women and men in general hold the same implicit gender-stereotypic knowledge (which is consistent with the idea that stereotypes are shared within a given culture), but that if stereotypic associations conflict with- or are threatening to-self-knowledge (associating STEM with men when you are a woman in STEM), counter-stereotypic associations can be created. Research suggests that gender- STEM stereotypes have the potential to undermine girls' and women's self-perceptions of ability, performance and interest in pursuing a career in counter-stereotypic (masculine) disciplines.	**Influences:** Social/Cultural; Career Aspirations; gender-math stereo-types **Theme**: Aspiration WP **Program**: STEM
Dalley-Trim, L. & Alloway, N. (2010). Looking "Outward and Onward" in the Outback: Regional Australian Students' Aspirations and Expectations for their Future as Framed by Dominant Discourses of Further Education and Training. The Australian Educational Researcher, 37(2), 107-125.	This paper investigates regional Australian students' aspirations and expectations for their future and, more specifically, the manner in which these are formulated around a view to move outward – that is, away from regional, remote and rural communities – and onward – that is, to make something of their lives. Drawing upon interview data, the paper highlights the ways in which rural students from across Australia expressed high-level aspirations, most of which centred on future careers. It explores features of student talk which demonstrates that many of them had thought about their futures in detailed ways and had accumulated knowledge and "street savvy" that would assist them in steering their futures. The paper also examines the ways in which student talk about the changing context of the world of work and the inescapability of further education emerge as a naturalised discourse in justifying their future plans. Finally, the paper explores the implications of such research findings for career advisers and teachers working in regional areas of Australia.	**Cohort**: ATSI; Regional; Remote; Rural **Pathway**: Secondary; University **Place: NSW, Queensland; SA; WA** **Influences:** Teachers; Tutors; **Theme**: Aspiration; Motivation; Awareness
Department of Education Employment and Workplace Relations (DEEWR). (2010). *Regional Participation: The Role of Socioeconomic Status and Access*. Canberra.	Lower participation in regional areas can generally be conceived as being related to location or individual level factors. One of the prominent location-based factors examined in the literature is the role that access and proximity to campuses plays in influencing regional participation. It is suggested that persons living closer to university campuses are more likely to attend higher education due to ease of access and lower travelling times. Access is also often closely linked to the costs associated with attending university. The further a person resides from a university campus the more likely it is that there will be additional costs to study, such as, relocation expenses. Also included within the category of location-based influences is the quality of schooling and outcomes for students in particular regions. Much of the research literature cites lower Year 12 retention rates as a contributing factor to lower post-school participation in education in regional areas. Often, lower Year 12 retention is attributed to poor quality schooling and lack of schooling choice in regional areas.	**Cohort**: Rural Regional LSES **Pathway**: Secondary; Tertiary/University **Place:** Australia **Influences:** School**;** socio-economic; cultural context **Theme**: WP
Devlin, M., Kift, S., Nelson, K., Smith, L., & McKay, J. (2012). Effective teaching and support of students from low socioeconomic status backgrounds: Resources for Australian higher education (Final Report). Office for Learning and Teaching, Commonwealth of Australia.	The project found that the sociocultural incongruity that exists between students from low socioeconomic status (LSES) backgrounds and the institutions in which they study can be bridged through the provision of an empathic institutional context that: • values and respects all students • encompasses an institution-wide approach that is comprehensive, integrated and coordinated through the curriculum • incorporates inclusive learning environments and strategies • empowers students by making the implicit, explicit, and • focuses on student learning outcomes and success.	**Cohort**: LSES **Pathway**: University **Place: Australia** **Influences:** Institutional-wide; inclusive learning **Theme**: WP **Program**: Resources for student empowerment
DiRenzo, M. S., Weer, C. H., & Linnehan, F. (2013). Protégé career aspirations: The influence of formal e-mentor networks and family-based role models. *Journal of Vocational Behavior*, *83*(1), 41–50. http://doi.org/10.1016/j.jvb.2013.02.007	Using longitudinal data from a nine-month e-mentoring program, we analyzed the influence of formal e-mentor networks and family-based role models on increases in both psychosocial and career-related outcomes. Findings indicate that e-mentor network relationship quality positively influenced general- and career-based self-efficacy which, in turn, enhanced the objective career aspirations of underprivileged youth. Moreover, we address both the compensatory and complementary perspectives of social capital to assess the moderating influence that access to educational role models within the family has on this process. Implications of the findings and areas for future research are discussed.	**Cohort**: Online students **Pathway**: University **Influences:** Mentors; Family role models **Theme**: WP; Social capital **Program**: e-mentoring
Dobson, I. R., Rea, J., Aarrevaara, T., Bloom, W., Devos, A., Doughney, J., … Wheelahan, L. (2003). Overcoming adversity among low SES students A study of strategies for retention. Authors: Karimshah. A.,Wyder, M. Henman, P., Tay, D., Capelin, E. & Short, P. AUR Editorial Board Editorial Policy. Retrieved from www.flickr.com/photos/pw-pix.	The Bradley Review in 2008 and the Australian government's response echoed policy concerns that young people from low socioeconomic status are underrepresented in tertiary education. In order to address this, responses to both recruitment and retention are necessary. While many studies have looked at reasons for student attrition, few investigated the factors that enabled students from low socio-economic status (SES) backgrounds to stay in university. Over 1,000 domestic undergraduate students at the University of Queensland completed an online survey, in which students from low SES backgrounds were compared with students who were not. It was found that while most students experienced a combination of financial, relationship, mental and physical health stress, students from low SES backgrounds experienced more stressors as well as higher levels of stress. While the majority of respondents were aware of student support services, these did not appear to be a major influencing factor on students' reported decisions to stay at university.	**Cohort**: LSES; Mature Age; **Pathway**: University/VET **Place:** Queensland **Influences:** Parents **Theme**: WP; Awareness; Barriers;
Douglass, J. A. (2010). Creating a culture of aspiration: Higher education, human capital and social change. In *Procedia - Social and Behavioral Sciences*. http://doi.org/10.1016/j.sbspro.2010.05.05	In the United States, developing human capital for both economic and social benefits is an idea as old as the nation itself and led to the world's first mass higher education system. Now most other nations are racing to expand access to universities and colleges and to expand their role in society. Higher education will grow markedly in its importance for building a culture of aspiration and, in turn, the formation of human capital, the promotion of social economic mobility, and for determining national economic competitiveness. This essay briefly discusses the vital role of human capital for national economies, past and future. It also examines the public and private benefits of higher education, the effort of nation-states,	**Cohort**: LSES; **Pathway**: Secondary; University/VET **Place: USA; UK** **Influences:** Institutional; **Theme**: Creating culture of aspiration; Social economic mobility

0	and region, to build a culture of aspiration, and the convergence of approaches towards building a "Structured Opportunity Market" in higher education. Increasingly institutions and developed and developing nations, and, in some cases, supranational entities such as the European Union, will move to most if not all of the components of the Structure Opportunity Market; those that don't will be compelled to offer in both domestic and international forums a rational reason why they are not adopting some aspects of the model. The paper concludes with a few observations on the emerging and growing higher education system in China. It is probably not too much of an exaggeration to say that the both the social and economic future of nations and regions will depend heavily on the educational attainment of their population, and, as a corollary, both the size and quality of their higher education institutions and systems. In postmodern economies, and increasingly in developing economies, there will be growing dependency on supported and expanding "knowledge accumulation" that will be vital for greater national productivity and global competitiveness. As the first nation to pioneer the idea of mass higher education, the United States has essentially provided the proving ground for the simple idea that the talent, training, and creativity of its citizens is as important a factor for generating economic prosperity as a nation's natural resources, or its strategic geographic location, or its military, political, or cultural influence. How do economists and historians explain long-term economic growth of nations, and their comparable competitive position? A consensus has emerged: one major factor is vibrancy and the maturity of their public and p…	
Doyle, T., & Prout, S. (2012). Indigenous student mobility, performance and achievement: Issues of positioning and traceability. *International Journal of Educational Research*. http://doi.org/10.1016/j.ijer.2011.12.002	While population mobility is a fundamental component of the lived experience of many Australian Aboriginal and Torres Strait Islander families, the ways in which educators and education systems respond (or fail to respond) to mobility demonstrates that there is very little understanding of this social and cultural phenomena. At the local school level, student mobility has significant impacts upon the work of teachers and administrators, as well as upon the social and academic outcomes of both mobile and non-mobile students. It is consequently widely constructed as an "Indigenous problem" that must be overcome by educators. Simultaneously, existing education administrative and performance data are collected and used in ways that erase and/or oversimplify the relationship of mobility to schooling. This paper critically examines the role of administrative and performance data in reinforcing assumptions about student (immobility), and the potential of such data to provide a more accurate and complete framework for engaging with highly mobile Indigenous students. .	**Cohort**: ATSI **Pathway**: University **Place: Australia** **Influences: socio-cultural** **Theme**: WP; aspiration
Drummond, A., Halsey, R. J., Lawson, M., & Breda, M. Van. (2012). the Effectiveness of a University Mentoring Project in Peri-Rural Australia. *Australian and International Journal of Rural Education*, *22*(2), 29–41.	The Bradley report (2008) recommended that there be an increase in the percentage of young Australians completing a university degree, with a subsequent target set by the Australian Federal Government to 40% of 25-34 years olds holding a first degree by 2025. As students who transition to university following completion of high school in medium-high social economic status urban areas is already often high (>90% in some cases), one obvious target for any increase is in peri-rural (distance from metropolitan areas approaching 80km) and rural areas (distance from metropolitan areas >80km in accordance with Jones, 2000). In 2010, a youth mentoring project was initiated targeting year nine students in a peri-rural area school. The project sought to increase the interest of these students in attending university post high school graduation. The present paper presents the preliminary data for 18 students in the first round of the mentoring project. Participants were asked to rate their estimated percentage chance they would attend university following school completion, as well as to estimate how much contact they had with university mentors across several questionnaire items. The present results imply that if rural students can make meaningful contact among university students through pilot programs such as the present one, then they are more likely to consider university as a viable option for themselves.	**Cohort**: Peri-Rural **Pathway**: University **Place: Australia** **Influences: Mentor** **Theme**: WP; Aspiration **Program**: peer mentoring
Everett, K., & Hummell, E. (2013). Creating inter-cultural spaces for co-learning. *Estudis Australians*, (10), 1988–5946.	Among the many inhibitors to social inclusion and mobility faced by Indigenous peoples in Australia, under-representation of Indigenous students in Higher Education has long featured as a concern for government and human rights advocates. This is due to the attendant lower social indicators than those of the wider Australian society which characterise Indigenous peoples' life experience. UNESCO's guidelines on inter-cultural education published in 2007 provide some principles for groundwork to develop classrooms which are inclusive but not assimilationist. Models of how this might be done in practice, however, are scarce. In this paper we consider a model for inter-cultural education which uses joint analysis and dialogue surrounding self-representation of Indigenous peoples by Indigenous and non-Indigenous peers to then co-create a new, inter-cultural representation. The "Daruganora" program involves Indigenous students leading dialogue with non-Indigenous peers and teachers to jointly interpret a purpose-built Indigenous art exhibition. We explain in this paper how spaces created by this dialogue can allow open, honest and respectful interaction between Indigenous and non-Indigenous people relating to Indigenous representations of identity. We argue that Daruganora provides a model for inter-cultural classrooms.	**Cohort**: ATSI **Pathway**: University **Place: Australia** **Influences:** Inter-cultural spaces **Theme**: WP; Aspiration **Program**: Respectful interaction
Ferrier, F. (2006). A Review of Higher Education Equity Research in Australia 2000-2005, Working Paper No. 64, (64), 29. Retrieved from http://monash.edu/education/non-cms/centres/ceet/docs/workingpapers/wp64mar06ferrier.pdf	The studies reviewed here build on this earlier work in several respects. They continue a strong focus on people from low socio-economic backgrounds but extend understanding of the factors that influence their participation in higher education through more in-depth work that illuminates how, where, and to what extent, factors at the local level (e.g. schools, neighbourhoods, regional communities) influence their decisions and experiences. This is aided particularly by the (first) use of theories of habitus as a tool to analyse data from interviews and case studies.	**Cohort**: LSES; Rural; Regional **Pathway**: Primary; Secondary; University **Place: ACT** **Influences:** **Theme**: WP; Aspiration **Program**: Aspire -School Outreach

Fleming, M. J., & Grace, D. M. (2014). Increasing participation of rural and regional students in higher education. *Journal of Higher Education Policy and Management*, *36*(5), 483–495. http://doi.org/10.1080/1360080X.2014.936089	Regional and rural students in Australia face unique challenges when aspiring to higher education. These challenges reflect systematic disadvantage experienced by rural and regional populations as a whole. In an effort to redress these inequities, and aided by the Australian Government's Higher Education Participation and Partnerships Program (HEPPP), the University of Canberra's flagship Aspire UC Schools Outreach Program involves multiple in-school sessions for students in years 7–10. This article presents findings from the delivery of this program to nearly 3000 students in 2012. Increased considerations of post-school study and work options were seen across all year levels and across all options, with greatest increases evident for university aspirations, and by Year 10 students. Moreover, girls exhibited greater positive changes in post-program aspirations than did boys. The program's success is attributed to its depth and intensity and the concomitant recognition of the distinctive nature of rural and regional communities.	**Cohort**: Urban; Rural; LSES **Pathway**: University/VET **Place: Australia** **Influences:** Teachers; Tutors **Theme**: Aspiration; Increase WP applications to HE; **Program**: Schools Outreach
Fleming, M. J., & Grace, D. M. (2015). Eyes on the future: The impact of a university campus experience day on students from financially disadvantaged backgrounds. *Australian Journal of Education*, *59*(1), 82–96. http://doi.org/10.1177/0004944114567689	Students from financially disadvantaged backgrounds, rural areas, non-English speaking backgrounds and those who are Aboriginal and Torres Strait Islander, have traditionally been underrepresented in higher education in Australia. The UC 4 Yourself experience day is an outreach program by the University of Canberra for schools identified as having substantial numbers of students from financially disadvantaged backgrounds. It provides a full day of participation in, and gaining information about, university life. The current article reports on two survey studies (N=525; N=183) investigating the effectiveness of this program. Students who participated in the program were more likely to plan to attend university and were better able to imagine themselves as university students after their campus visit. Findings from the two studies suggest that the actual visit, despite its brevity, provides a unique experience by simultaneously establishing a knowledge base and facilitating the psychological transformation necessary to imagine a new future.	**Cohort**: Rural; NESB; ATSI **Pathway**: University **Place: Australia** **Influences:** Imagined futures **Theme**: Aspiration, WP **Program**: Imagined future
Frawley, J., & Fasoli, L. (2012). Working together: intercultural leadership capabilities for both-ways education. *School Leadership & Management*. http://doi.org/10.1080/13632434.2012.708328	This article explores the concept of interculturalism and its complementary relationship with the Aboriginal Australian idea of 'both ways'. The need for Aboriginal and non-Aboriginal staff to learn to be intercultural teachers and leaders, as well as the needs of the system to work interculturally to achieve educational outcomes, is emphasised. This article suggests that in order for Aboriginal and non-Aboriginal educational leaders to work within an inter- cultural world, new leadership capabilities must be learned and acquired.	**Cohort**: ATSI **Pathway**: University **Place: Northern Territory** **Influences:** Intercultural Leaders and Teachers; **Theme**: Aspiration; WP **Program**:
Gale, T. (2015). Widening and expanding participation in Australian higher education: In the absence of sociological imagination. *The Australian Educational Researcher*, 257–271. http://doi.org/10.1007/s13384-014-0167-7	Social inclusion in Australian higher education was high on the agenda of the recent Rudd/Gillard Australian Government. This paper offers an assessment of that agenda, particularly the extent to which it worked in favour of under-represented groups. It argues that the Government's widening and expansion policies and its equity and aspiration strategies lacked sociological imagination, projecting deficits onto individuals who refused to be taken in by its ambitions for higher education participation. The paper concludes that in the absence of a sociological imagination in government policy, the freedoms of disadvantaged groups continued to be curtailed: not just to choose futures in keeping with their goals but also the freedom to formulate choices.	**Cohort**: LSES/Disadvantaged **Pathway**: University **Place: Australia** **Influences:** Institutional **Theme**: WP barriers
Galliott, N. (2015). Youth aspirations, participation in higher education and career choice capability: where to from here? *The Australian Educational Researcher*, *42*(2), 133–137. http://doi.org/10.1007/s13384-015-0177-0	ncouraging all school students to go to university has been questioned by a number of researchers in recent years (Graham et al. 2015). In this special issue, Sam Sellar examines promises made by educational policymakers to young people in relation to opportunities of social mobility and employability associated with receiving higher levels of education. Drawing on work of Gilles Deleuze, Sellar examines the way in which the term 'potential', as well as its 'realisation' and 'wasting' is used in educational policies to exploit feelings of individuals associated with learning and earning. While it is obvious that not every person can derive equal benefit from the same kind of degree or qualification, Sellar argues that the broken promises of educational systems and policymakers are often 'explained away' by lack of talent or aspiration on the side of the individual.	**Cohort**: LSES/Disadvantaged **Pathway**: University **Place: Australia** **Influences: Institutional** **Theme**: WP Aspiration; Barriers to Social Mobility
Gartland, C. (2012). Inspiring Engineers? Student ambassadors and the importance of learning contexts in HE outreach activity. *Innovation, Practice and Research in Enginering Education*, 1–13.	Over the last decade employing student ambassadors has been increasingly popular in university outreach activity across the UK. Engineering skills are perceived as important to meet the demands of increasingly globalised economies and there has been a focus in outreach work on this subject area. The focus on increasing and widening participation in engineering in the UK has been driven by both the need to find new talent to sustain the British economy and by anticipated benefits to society as a whole. Ambassadors are widely held to be effective in aspiration and attainment-raising work and are frequently cited as role models for pupils by both policy-makers and practitioners. There is however no educational research into what pupils learn during interactions with students and whether ambassadors do contribute to increasing and widening participation in engineering. The focus of this paper is the impact of the learning contexts in which ambassadors worked on pupils' learning. The paper draws from a larger study of the outreach work of student ambassadors in STEM (science, technology, engineering and maths) subjects. It deploys in depth ethnography drawing on approaches from across the social sciences to trace the discourses surrounding student ambassadors. The positioning of ambassadors, how this impacts on their relationships with pupils and the learning that takes place were considered using social psychology and grounded theory. Findings indicate that discourses employed by pupils, ambassadors and organisers relating to teaching and learning were notably different in different learning contexts. In learning contexts where ambassadors work as subject experts alongside pupils, pupils can identify closely with them as fellow students. In this capacity student ambassadors can contribute to inspiring young engineers and potentially disrupt and challenge pupils' gendered, raced and classed trajectories within engineering.	**Cohort**: STEM equity students **Pathway**: University **Place: Australia** **Influences:** Peers **Theme**: Aspiration, WP **Program**: Student Ambassadors

Gartland, C. (2014). Student ambassadors: "role-models", learning practices and identities. *British Journal of Sociology of Education*, (July), 1–20. http://doi.org/10.1080/01425692.2014.886940	Employing students to market higher education (HE) and widen access is established practice in the United Kingdom and other developed countries. In the United Kingdom, student ambassadors are held to be effective in aspiration and attainment-raising work and cited as "role-models" for pupils. The focus of this paper is student ambassador outreach work in STEM (science, technology, engineering and mathematics including medicine) at two contrasting universities. The study deployed ethnography and approaches from across the social sciences to trace and analyse discourses surrounding ambassadors, and to explore their positioning within learning contexts, relationships with pupils and the learning that takes place. Findings indicate that where ambassadors work collaboratively with pupils in contexts with "informal attributes", pupils can identify closely with them. However, in contexts with more "formal attributes", differences, not similarities, are highlighted. Stakeholder interests are found to significantly impact on learning contexts and on ambassadors' efficacy as HE "role-models".	**Cohort**: LSES **Pathway**: University **Place: UK** **Influences:** Peers **Theme**: Role Models; Aspiration; WP **Program**: Student Ambassadors
Gedera, D., Williams, J., Wright, N., Gedera, D., Williams, J., & Wright, ·. N. (n.d.). Identifying Factors Influencing Students' Motivation and Engagement in Online Courses 2.1 Introduction. http://doi.org/10.1007/978-981-287-230-2_2	The emergence of educational technologies offers flexible learning opportunities to the twenty-first-century learners. Research affirms that online courses provide learners with some flexibility in terms of time, place and pace (Gedera and Williams 2013). However, the anonymous nature of the online learning environment can lead to de-motivation and disengagement with subsequent minimal participation or even with-drawal. In face-to-face classrooms, students' levels of motivation can be observed to a certain extent with few of the physical cues available. However, online courses present challenges and concerns in relation to students' motivation and active par-ticipation. The challenge of engaging online learners seems common across subject matter, levels and institutions. Therefore, in order for the learners to have positive learning experiences, it is vital to identify factors that affect students' motivation and engagement in online courses. Through a case study, this chapter highlights some pedagogical and practical ideas and strategies that teachers may like to consider when designing online courses to enhance students' motivation and engagement.	**Cohort**: University **Pathway**: University **Place:** International **Influences:** Pedagogical **Theme**: WP **Program**: Digital Technologies
Gemici, S., Bednarz, A., Karmel, T., & Lim, P. (2014). *The factors affecting the educational and occupational aspirations of young Australians, Research Report 66*. Retrieved from http://www.lsay.edu.au/publications/2711.html	Key messages • The most influential factors for students' aspirations for completing Year 12 include their academic performance and immigration background and whether their parents expect them to go to university. • Students whose parents want them to attend university are four times more likely to complete Year 12 and 11 times more likely to plan to attend university compared with those whose parents expect them to choose a non-university pathway. • The higher education plans of peers also have a strong influence: students whose friends plan to attend university are nearly four times more likely to plan to attend university. • Two of the strongest predictors of occupational aspirations are parental influences and academic performance. Students whose parents want them to attend university have expected occupational status scores that are approximately 12 points higher, on a 0 to 100 scale, than those students whose parents have no university expectations for them. • The job aspirations of 15-year-olds are somewhat unrealistic. By age 25 years, the age until which data are available for analysis, a significant portion of young people fall short of what they set out to achieve in terms of occupation. However, this does not mean that they cannot achieve their desired occupations at a later stage in life. Overall, this report illustrates just how important parents and peers are to young people's aspirations. Developing policies and interventions that successfully leverage the influence of parents may yield a substantial pay-off with respect to raising aspirations.	**Cohort**: LSES to HSES; NESB **Pathway**: Secondary; University **Place:** Australia **Influences:** Parents; Peers **Theme**: Aspiration WP
Gemici, S., Lim, P., & Karmel, T. (2013). The impact of schools on young people's transition to university. *Longitudinal Surveys of Australian Youth - Research Reports*, *61*(1), 6–57.	Key messages • The attributes of schools do matter. Although young people's individual characteristics are the main drivers of success, school attributes are responsible for almost 20% of the variation in TER. • Of the variation in TER attributed to schools, the measured characteristics account for a little over a third. The remainder captures 'idiosyncratic' school factors that cannot be explained by the data to hand and that can be thought of as a school's overall 'ethos'; no doubt teacher quality and educational leadership are important here. • The three most important school attributes for TER are sector (that is, Catholic and independent vs government), gender mix (that is, single-sex vs coeducational), and the extent to which a school is 'academic'. For TER, the average socioeconomic status of students at a school does not emerge as a significant factor, after controlling for individual characteristics including academic achievement from the PISA test. • However, the characteristics of schools do matter for the probability of going to university, even after controlling for TER. Here, the three most important school attributes are the proportion of students from non-English speaking backgrounds, sector, and the school's socioeconomic make-up.	**Cohort**: LSES; Refugees; NESB; Regional **Pathway**: Schools; Tertiary **Place:** Australia **Influences:** Schools-Role Models **Theme**: WP; Aspiration **Program**:
Gibson, S. (2012). Narrative accounts of university education: socio-cultural perspectives of students with disabilities. *Disability & Society*.	Research in higher education, linked to national and international policy, suggests the need for educationalists to show greater understanding and awareness of the lived experiences of undergraduate students with disabilities. These sources argue that this knowledge should then be used to inform their understandings as tutors and facilitate inclusive and effective teaching strategies. This research had a primary focus on first-year students with disabilities' learning experiences; their	**Cohort**: Disability **Pathway**: School/University/VET **Place: UK** **Influences:;** Teachers; Tutors; Formal intermediaries and

http://doi.org/10.1080/09687599.2012.654987	transitions from school or college to university and their feed- back on positive and negative learning experiences at both levels. Rich, complex stories were uncovered taking the research beyond the lecture theatre and seminar room, into the students' union bar and back to the Year 10 classroom. It is the intention of this paper to relay some of the stories shared, in particular drawing out findings related to effective learning practices and to note the significance of placing a socio-cultural lens on the question of inclusion in education	advisers; **Theme**: WP; Aspiration; Social inclusion **Program**: socially inclusive pedagogy and curricula
Guenther, J. (n.d.). Successful remote schools: what are they?	In the context of Australian schools, educational "success" is a much sought after prize. Successful schools and students are lauded for their achievements. Parents take great pride in seeing their children graduate from school and go on to bigger and better things. If educational success is a much sought after prize in the mainstream of schooling, it is the holy grail of education for those students who come from remote Aboriginal and Torres Strait Islander communities. In the dominant discourse, laments of failure in remote schools are explained away as a result of disadvantage, dysfunction, poverty and gaps that need closing. Magic bullets and quick fixes are often suggested as the solutions for an intractable problem. The fixes include sending kids to boarding schools, getting better quality teachers, improving attendance, and imposing sanctions for parents whose kids truant. But let's take a step back for a moment. Just what is success? And what does it look like in the minds of remote education stakeholders? This lecture responds to these basic questions in the light of findings from the Cooperative Research Centre's Remote Education Systems project, which has engaged over 1000 remote education stakeholders over the last four years. It turns out that success isn't what we might think it is. It isn't about year 12 completion, quality teachers, going on to university and it certainly isn't about NAPLAN scores. Rather, success in the eyes of remote education stakeholders—and more particularly, remote Aboriginal community members—is about parent and community involvement in schools. It's about community engagement. And while academic outcomes are important for remote stakeholders, to a large extent this just means being able to read, write and count. These findings explain to some extent why the magic bullets and quick fixes haven't worked.	**Cohort**: ATSI; Remote **Pathway**: University **Place: Australia** **Influences:** Parent & community involvement and engagement **Theme**: Aspiration; WP **Program**: Alternative Pedagogy
Guenther, J. (2015a). Complexity and chaos in remote schools Lecture Number 3 in a series presented by the Remote Education Systems project within the Cooperative Research Centre for Remote Education.	The dominant discourse surrounding education for remote Aboriginal and Torres Strait Islander students uses a language of deficit, disadvantage and failure. Analysis of the CRC-REP's Remote Education Systems project data challenges the validity of these descriptors on the basis that stakeholders of remote schools do not describe education in this way.Analysis of the data suggests that many stakeholders describe education in terms of complexity framed by the challenges associated with an array of student, family, community, cultural, school and teacher/teaching factors. While education systems generally have been described as "complex", the term may be more apt for remote education systems. Their tendency to operate balanced "on the edge of chaos and order", the unpredictability of their behaviour, the array of elements in the systems, and the way the systems co-evolve with their environments all point to a neat fit with the idea of "complex adaptive systems". Treated as a complex adaptive system this will be of interest to those with an interest in remote education, from strategic policy, teaching, leadership, teacher preparation, community development or administrative perspectives.	**Cohort**: ATSI; Remote **Pathway**: University **Place: Australia** **Influences:** Holistic approach **Theme**: WP; Aspiration **Program**: Strategic policy, teaching, leadership, community developmentr
Guenther, J. (2015b). Remote Education Systems RES project qualitative findings overview: What success looks like.	About the project The Remote Education Systems (RES) project aims to find out how remote Aboriginal and Torres Strait Islander communities can get the best benefit from the teaching and learning happening in and out of schools. It is doing this by engaging with members of communities, schools, government agencies and other end users who want to find ways of improving outcomes for students in remote Australia. To date we've engaged directly with more than 1000 remote education stakeholders across the country. The idea of "Red Dirt Thinking" has captured the imagination of people all over the place. When we first coined the phrase, back in 2012 we used it as a metaphor for a contextualised way of conceptualising what education could look like in remote communities—rooted in the pervasive red dirt of very remote Australia. We are now getting requests from education regions and central offices asking how red dirt thinking might be applied to curriculum, pathways beyond school, community engagement and workforce development.	**Cohort**: ATSI, Remote **Pathway**: University **Place: Place** **Influences:** Schools, Communities; Government agencies/stakeholders **Theme**: Aspiration; WP **Program**: Red Dirt Thinking
Guenther, J., Disbray, S., & Osborne, S. (2015). *Building on Red Dirt Perspectives: What_counts_as_important*. Broome.	The Remote Education Systems project within the Cooperative Research Centre for Remote Economic Participation has, over the last four years, gathered and analysed qualitative data directly from over 230 remote education stakeholders and from more than 700 others through surveys. The research was designed to answer four questions: 1) What is education for in remote Aboriginal and Torres Strait Islander communities?; 2) What defines "successful" educational outcomes from the remote Aboriginal and Torres Strait Islander standpoint?; 3) How does teaching need to change in order to achieve "success" as defined by the Aboriginal and Torres Strait Islander standpoint?; and 4) What would an effective education system in remote Australia look like? Based on this data, the paper reveals how perceptions differ for Aboriginal and Torres Strait Islander people from remote communities compared with people who come from elsewhere. The analysis points to the need for some alternative indicators of "success" to match the aspirations of local people living in remote communities. It also points to the need for school and system responses that resonate with community expectations of education, and to develop narratives of aspiration and success alongside community views.	**Cohort**: ATSI, Remote **Pathway**: University **Place: Australia** **Influences:** Family, Community; Institutional **Theme**: Aspiration; WP **Program**: Community Narratives of Aspiration and Success
Harwood, V., McMahon,S., O'Shea, S., Bodkin-Andrews, & Priestly, A. (2015). Recognising aspiration: the AIME program's effectiveness in inspiring Indigenous young	A strong feature of the widening participation agenda is improving the aspirations of groups that are underrepresented in higher education. This paper seeks to reposition the utility of this as a focal point of educational interventions by showcasing the success of a mentoring program that takes a different approach. The Australian Indigenous Mentoring Experience (AIME) significantly and positively impacts Australian Indigenous high school students' aspirations to finish school and	**Cohort**: ATSI; LSES; Regional; Urban **Pathway**: Secondary; University/VET; Employment **Place:** Australia **Influences:** Pedagogy; Formal intermediaries and advisers;

people's participation in schooling and opportunities for further education and employment. Australian Educucational Research, 42, 217–236.	continue to further study, training or employment. AIME is not read as a classic intervention program for raising aspirations. Instead, AIME builds upon the cultural wealth of participants and adopts an approach that seeks to inspire individuals rather than remediate them. The paper draws on survey data and fieldwork to present an example case study for resisting the assumption that young people's aspirations are deficit and in need of 'improving'. The paper describes how AIME works within young people's 'windows of aspiration' to positively impact their engagement in school and further education, training and employment.	**Theme**: Aspiration, WP; **Program**: AIME; empowerment;
Harris, A., Marlowe, J. & Nyuonc, N. (2015) Rejecting Ahmed's 'melancholy migrant': South Sudanese Australians in higher education, Studies in Higher Education, 40:7, 1226-1238, DOI: 10.1080/03075079.2014.881346	This paper draws on related research studies in two urban centres (Melbourne and Adelaide, Australia) with South Sudanese men and women engaged in varying degrees with higher education. The co-authors examine some gendered differences in the process and demands of resettlement, including within employment and education, and its implications for rapidly changing public versus private gender roles. We argue against essentialising discourses of the 'liberatory' nature of education in the west, versus constructions of 'cultural knowledge' as innate, burdensome, and less useful in western contexts. Drawing on Ahmed's critique of discourses of the 'melancholy migrant' which position western knowledges and gendered practices as progressive and therefore more desirable, the authors interrogate the possibility of multiple forms of knowledge and new migrants – especially South Sudanese – as enriched by their previous experiences and knowledges, rather than impoverished by them.	**Cohort**: Refugees; Mature Age **Pathway**: Tertiary **Place:** Melbourne; Adelaide **Influences:** Pedagogies; Strengths-based;
Harris, V., & Marlowe, J. (2011). Hard Yards and High Hopes: The Educational Challenges of African Refugee University Students in Australia. *International Journal of Teaching and Learning in Higher Education*, 23(2), 186-196 http://www.isetl.org/ijtlhe/ ISSN 1812-9129	This paper considers the experience of a small group of young adults who were born in Africa, entered Australia under the humanitarian entry program, and are enrolled in tertiary education. It investigates the expectations and experiences of these students and the associated teaching staff at a South Australian university. This body of students comprises a diverse group of individuals, and their educational success is equally varied. In focus groups many of the students revealed a range of pressures such as challenges adapting to new educational contexts, high community expectations, and difficult home environments for study. Students recounted a mixed educational experience with staff as they interfaced with practical issues of seeking academic support, accessing study materials, and studying in another language. Perhaps reflecting the determination and self-reliance that has brought them to this point, they primarily speak of academic success as their own responsibility, as well as their best support being other students from the same background. An awareness of, and a response to, these issues may help to ease refugee students' transition to tertiary study.	**Cohort**: Refugees **Pathway**: University **Place: Australia** **Influences:** Teachers Pedagogy **Theme**: Aspiration; WP **Program**: Effective transition support
Harrison, N. (2012). Aborigines of the Imaginary: applying Lacan to Aboriginal education. *Asia-Pacific Journal of Teacher Education*. http://doi.org/10.1080/1359866X.2011.643764	This paper applies the work of Jacques Lacan, a French psychoanalyst, to decipher the desire of the teacher in Aboriginal education. It argues that the images of Aboriginal people represented in Australian classrooms are effects of the teacher's Imaginary, the Imaginary being one of the three psychoanalytic domains theorised by Lacan over a period of 30 years of teaching. The author questions whether it is possible for teacher education courses to move the student teacher beyond the Imaginary, and beyond the inventions of Aboriginal people that he or she has produced in his or her own mind. A possible way out of this endless cycle of romantic idealism and deficiency is proposed outside the usual approaches to cultural awareness training and professional development.	**Cohort**: ATSI **Pathway**: University **Place: Australia** **Influences:** Teachers Pedagogy **Theme**: Aspiration, WP **Program**: Alternative imaginations
Harsh, J.A., Maltese, A.V, & Robert, H. A. (2012). Perspective of Gender Differences in Chemistry and Physics Undergraduate Research Experiences.	The loss of talented women from the science, technology, engineering, and mathematics (STEM) pipeline has been widely recognized within science education as a pressing issue, particularly in the physical sciences. To provide a gender-based perspective of a popular educational device, the present study evaluated undergraduate research experiences (UREs) from a longitudinal perspective in respect to participation, learning enhancements, and contribution to the pursuit of a postgraduate education. Data from practicing scientists and graduate students indicated that women were more likely to participate in these research programs than their male counterparts. Of those who had participated (n = 1829), similar patterns in conferred gains for men and women were reported; however, gender-based variations were observed within items associated with self-efficacy, science interest, and the practice of authentic research. Women were found to identify UREs as a primary reason for entering graduate school at a significantly higher rate than their male counterparts. Results of this study suggest the long-term efficacy of UREs as a gateway for women interested in STEM careers and provide support in justifying research programs and initiatives for women in traditionally male-dominated fields.	**Cohort**: Women; STEM **Pathway**: Tertiary **Place:** US **Influences:** Institutional **Theme**: WP Aspiration **Program**: Undergraduate Research Experiences
Harwood, V., McMahon, S., O'Shea, S., Bodkin-Andrews, G., & Priestly, A. (2015). *The Australian Educational Researcher*. http://doi.org/10.1007/s13384-015-0174-3	Recognising aspiration: the AIME program's effectiveness in inspiring Indigenous young people's participation in schooling and opportunities for further education and employment.	**Cohort**: ATSI **Pathway**: School; University **Place: Australia** **Influences:** Community **Theme**: Aspiration; WP **Program**: Outreach
James, R. (2001). Participation disadvantage in Australian higher education : An analysis of some effects of geographical location and, *42*(4), 455–472. Published by: Springer Stable URL: http://www.jstor.org/stable/3448100	Abstract. This paper describes the results of a study that re-examined the relatively low higher education participation rate of people living in rural or isolated Australia. The focus of the study was the goals and plans of Australian school students in their senior school years and the underlying attitudes towards education. The study suggests higher education participation for people in rural and isolated areas may be affected less by distance from university campuses than by socioeconomic circumstances and the influences of rural social and cultural contexts. Socioeconomic effects are generally more pronounced and pervasive than any effects of location identified policy and programs are discussed.	**Cohort**: LSES, Rural; Remote **Pathway**: Secondary; University/VET **Place:** Australia **Influences:** Distance; Rural and Social and Cultural Contexts **Theme**: Aspiration; WP

James, R. (2008). Participation and Equity: A review of the participation in higher education of people from low socioeconomic backgrounds and Indigenous people. Prepared for Universities Australia by the Centre for the Study of Higher Education University of Melbourne.	The purpose of the report is to shed light on the factors associated with the persistent under- representation of low SES people and Indigenous people in Australian universities with a view to informing policies and strategies and providing a framework for further analysis of equity for people from low SES backgrounds. The report includes a summary of barriers and inhibiting factors as well as suggestions for possible ways of defining and measuring socioeconomic status for higher education purposes. Recommendations for future work are also proposed. It is likely that lower levels of educational achievement are the precursor for other effects. Imbalances in higher education participation reflect endemic educational disadvantage that begins in the earliest years of schooling. People from low SES backgrounds are more likely to have lower perceptions of the attainability of a university place, less confidence in the personal and career relevance of higher education and may be more likely to experience alienation from the cultures of universities.	**Cohort**: ATSI; LSES; Rural; Remote; Urban **Pathway**: University/VET **Place: USA; UK and Others** **Influences:** Teachers; Tutors; Family; Parents **Theme**: Increase knowledge of pathways; Aspiration **Program**:
Jardine, A. (2012). *Indicators of persistence and their influence on the first year experience of university students from low socio-economic backgrounds*. University of Melbourne.	This study focuses on the first year experience of Australian university students from low socio-economic status (SES) backgrounds. Firstly, it examines pre commencement expectations and post commencement experiences from the perspective of six indicators of persistence identified from the literature. It then explores considerations of university drop-out and transfer from the same perspective. The findings indicate that in many cases students enter university with unrealistic and unmet expectations. However the emergent patterns appear complex. The discord between expectations and experiences is greatest with the three indicators of persistence that are influenced by the institutional habitus. However, significant differences between low SES students and their peers are more likely to occur across the indicators influenced by individual habitus. The findings lend support to the concept of habitus and support the assumption that students from low SES backgrounds enter with less capital. The major contributing influence relates to aspects of the academic environment. Individual, academic, external and social indicators of persistence all played a significant role in students' transfer considerations.	**Cohort**: LSES **Pathway**: University **Place:** Melbourne **Influences:** Persistence; habitus/social capital **Theme**: WP **Program**: Persistence
Kanno, Y., & Varghese, M. M. (2010). Immigrant and Refugee ESL Students' Challenges to Accessing Four-Year College Education: From Language Policy to Educational Policy. *Journal of Language, Identity & Education*, *9*(5), 310–328. http://doi.org/10.1080/15348458.2010.517693	Research on English as a second language (ESL) students in higher education has traditionally focused on their academic writing, leaving larger issues of their college access and success unexplored. This article examines the challenges that first-generation immigrant and refugee ESL students face in accessing four-year college education through a qualitative interview study at a U.S. public university. Drawing on Bourdieu's cultural reproduction theory, we argue that what inhibits ESL students' access to and participation in four-year college education is not simply their limited English proficiency but also the structural constraints unique to this population, their limited financial resources, and the students' own tendency to self-eliminate. Based on our results, we call for a shift in higher education policy from one focusing narrowly on remediating ESL students' limited English proficiency to a more comprehensive set of policies that address the structural and economic, as well as linguistic, factors that together inhibit ESL students' college access and participation.	**Cohort**: Refugees **Pathway**: University **Place: US** **Influences:** Structural; Economic **Theme**: WP **Program**: systemic barriers
Karcher, M. J. (2005). The effects of developmental mentoring and high school mentors' attendance on their younger mentees' self-esteem, social skills, and connectedness. *Psychology in the Schools*, *42*(1), 65–77. http://doi.org/10.1002/pits.20025	Far more has been written about the possible outcomes of cross-age mentoring than about actual outcomes and the processes that lead to change. This study examined the effect of mentors' attendance on their mentees' outcomes after six months of developmental mentoring. Developmental mentoring is a structured, cross-age peer mentoring program designed to promote children's development by facilitating connectedness. In this randomized study of 73 Caucasian, rural youth, multiple analyses of covariance revealed that connectedness to school and parents at posttest were significantly greater for mentees than for the comparison group. Regression analyses revealed that changes in self-esteem, social skills, and behavioral competence were highly related to mentors' attendance, suggesting relational processes accounted for more change than did exposure to program curricula. However, the relationship between mentors' inconsistent attendance and mentees' decline in self-esteem and behavioral competence suggests that absent mentors may do more harm than good.	**Cohort**: Rural, LSES **Pathway**: School **Place: US** **Influences:** School/Parents **Theme**: WP, Connectedness **Program**: Cross-age mentoring
Karcher, M. J. (2007). *Cross-Age Peer Mentoring*. Retrieved from http://www.mentoring.org/news_and_research/research_and_studies/research_in_action	Cross-age peer mentoring is a unique and somewhat different approach to mentoring than the better-known adult-with-youth mentoring model. In cross-age mentoring programs (CAMPs) the mentor is an older youth, typically high school-aged, who is paired or matched with an elementary or middle school-aged child. Meetings almost always take place in the school context, although there probably are countless camps, youth centers, and other youth organizations which informally, or for a short duration, pair younger youth with older youth for the purpose of providing the younger youth guidance, social support, or instruction. This article focuses primarily on one-to-one relationships between teenage mentors and younger mentees in the schools for two reasons. First, because descriptions and evaluation data on these programs in other contexts are rarely reported in the research literature, it is unknown what the impact of such programs are or how their practice may vary from setting to setting. Second, no reports of cross-age peer mentors working with multiple youth in a group mentoring format were found in the literature search conducted to inform this article. This makes it hard, at this time, to know how group peer mentoring programs (i.e., one mentor with several mentees) operate and what the potential benefi ts might be. Therefore, CAMPs, as described here, are generally one-on-one and usually in the school context, as these were the most commonly reported types of programs in the research literature.	**Cohort**: Educationally Disadvantaged **Pathway**: School **Place: US** **Influences:** Peers **Theme**: WP, Aspiration **Program**: cross-age mentoring
Karimshah, A., Wyder, M., Heman, P., Tay, D., Capelin, E. & Short, P. (2013). Investigating the factors that enable	The Bradley Review in 2008 and the Australian government's response echoed policy concerns that young people from low socioeconomic status are underrepresented in tertiary education. In order to address this, responses to both recruitment and retention are necessary. While many studies have looked at reasons for student attrition, few investigated the factors	**Cohort**: LSES **Pathway**: University **Place:** Urban

students from low SES backgrounds to stay in university. Australian Universities Review, 55 (2), 5-14. Published by NTEU. ISSN 0818–8068	that enabled students from low socio-economic status (SES) backgrounds to stay in university. Over 1,000 domestic undergraduate students at the University of Queensland completed an online survey, in which students from low SES backgrounds were compared with students who were not. It was found that while most students experienced a combination of financial, relationship, mental and physical health stress, students from low SES backgrounds experienced more stressors as well as higher levels of stress. While the majority of respondents were aware of student support services, these did not appear to be a major influencing factor on students' reported decisions to stay at university.	**Influences:** **Theme**: Multiplicity of Barriers **Program**: Support services not a major influence
Kintrea, K., St Clair, R., & Houston, M. (2015). Shaped by place? Young people's aspirations in disadvantaged neighbourhoods. *Journal of Youth Studies*, (July 2015), 1–19. http://doi.org/10.1080/13676261.2014.992315	This paper aims to better understand the relationship between young people's aspirations towards education and jobs, and the context in which they are formed, especially to understand better the role of disadvantaged places in shaping young people's aspirations. Policy makers maintain that disadvantaged areas are associated with low aspirations and there is support for this position from academic work on neighbourhood effects and local labour markets, but evidence is slim. Using a two- stage survey of young people in disadvantaged settings in three British cities, the paper provides new data on the nature of young peoples' aspirations, how they change during the teenage years, and how they relate to the places where they are growing up. The findings are that aspirations are very high and, overall, they do not appear to be depressed in relation to the jobs available in the labour market either by the neighbourhood context or by young people's perceptions of local labour markets. However, there are significant differences between the pattern of aspirations and how they change over time in the three locations. The paper then challenges assumptions in policy and in the literature that disadvantaged places equal low aspirations and suggests that understanding how aspirations are formed requires needs a nuanced approach to the nexus of class, ethnicity and institutional influences within local areas.	**Cohort**: LSES; NESB; Urban **Pathway**: University **Place: UK** **Influences:** Peers; Family **Theme**: Aspiration; WP; class/ethnicity/Institutional barriers
Kippen, S., Ward, B., & Warren, L. (2006). Enhancing Indigenous Participation in Higher Education Health Course in Rural Victoria, 35.	The poor health status of Australia's Indigenous people is well-documented, as are the links between health and education. Aboriginal communities recognise the utmost importance of improving educational, physical, social and economic well-being in an environment where disproportionate numbers of Aboriginal students fail to complete secondary schooling. The aim of this paper is to highlight the issues of access, participation, retention and outcomes for Indigenous students wishing to study or currently studying health courses at a tertiary leveL This project used a qualitative descriptive approach, conducting in-depth interviews with a number of key stakeholders and students in rural Victoria. Sixteen participants were interviewed, 14 of whom were from the Indigenous community. Participants identified key issues that were linked to the university and broader community environment. Factors in the university environment included lack of Indigenous staff within the mainstream university system, limited support and culturally inappropriate teaching that lead to negative learning experiences and poor motivation to continue with education. In the broader community, the isolating experience of leaving close-knit rural communities and the influence of past experiences on students' aspirations for tertiary education was highlighted. The importance of community support and liaison with the university and marketing of health courses to the Indigenous communities in the region were key issues that participants identified as needing further attention.	**Cohort**: ATSI **Pathway**: University **Place: Victoria** **Influences: Pedagogy;** **Theme**: social barriers; WP **Program**: ATSI Education Health Course; social inclusion
Knowles, C., & Parsons, C. (2009). Evaluating a formalised peer mentoring programme: student voice and impact audit. *Pastoral Care in Education*, *27*(3), 205–218. http://doi.org/10.1080/02643940903133888	Over the past 10 years, mentoring of children and young people has become an increasingly important feature of social policy in the United Kingdom. This is evidenced in the rapid growth in the number of mentoring schemes operating in a range of educational settings. In 2006 the Mentoring and Befriending Foundation was contracted by the Department for Education and Skills to pilot nationally a formal and sustainable peer mentoring scheme in 180 secondary schools in England, generating 3600 matched pairs. The evaluators, appointed by the Department for Education and Skills, had the overarching aim of supporting the development of evidence-based peer mentoring and enhancing the capacity of those involved to engage in evaluation practice. This article reports the methodology and main findings of the evaluation of the programme. It was evident that schools engaged positively and productively with the project and with this structured form of mentoring. Qualitative interview evidence, self-report data from the "About Me" scale, and the teacher and mentee and mentor "voice" attested to benefits, but impact data (attendance, attainment, behaviour) did not provide corroborative evidence of a positive effect.	**Cohort**: All students including equity **Pathway**: School; University/VET **Place: UK** **Influences:** Peer Mentors **Theme**: Aspiration; WP **Program**: Mentoring
Koerner, C., & Harris, J. (2007). Inspired learning: Creating engaged teaching and learning environments for university and school students through university to school mentor programs. *International Education Journal*, *8*(2), 354–364.	The Inspire Peer Mentor Program (Inspire) operates of Flinders University in the southern suburbs of Adelaide, and has received funding from the Department of Family and Community Services and Indigenous Affairs (FaCSIA). The experience gained during the past three years has indicated that a mentoring program between the University and schools located in its local region, which includes key areas of low socio-economic status, can be a major form of community engagement for Higher Education. Inspire received a commendation in the recent Australian Universities Quality Agency (AUQA) Report (2006) as a strategy for community engagement. This article is written in two sections. The first will use the experience gained from Inspire to discuss the Higher Education sector's involvement in school-based mentoring programs as a strategy for community engagement. Catherine Koerner's analysis of the literature on mentoring, finds that mentoring programs can be an effective intervention with communities to increase school retention rates and engagement with formal learning if they are adequately resourced. She argues that the implication of this finding for the tertiary sector is that mentoring programs can be a strategic form of community engagement. In the second section, John Harris provides a case study of the adoption of the school-based mentoring model by the Teaching Experience Office of the School of Education at Flinders University as one example of how mentoring is being embedded within faculty programs. Anecdotal evidence suggests that those preservice teachers who had participated, as Inspire mentors were better prepared for their teaching practicums. As a	**Cohort**: LSES **Pathway**: School; University **Place: South Australia, Adelaide** **Influences:** peer; community engagement **Theme**: WP, Aspiration **Program**: Outreach

	result, second year education students are placed on 20 days of school experience over two semesters to better prepare them for their teaching practicums in their third and fourth years of their Education Degree.	
Koshy, P. and Seymour, R. (2015). *Student Equity Performance in Australian Higher Education: 2007 to 2014*. National Centre for Student Equity in Higher Education (NCSEHE), Perth: Curtin University.	Our research found that students are consistently misclassified under area measures, with the number of low SES students likely to be considerably smaller as a result. Given this finding, the development of a household measure may provide a more refined measure of socio-economic disadvantage on the basis of an individual student's household characteristics.	**Cohort**: LSES; Equity groups **Pathway**: University **Place:** Australia **Influences:** socio-economic **Theme**: WP
KPMG - 2013 - Evaluation Framework - Bridges to Higher Education	Early childhood and primary years in widening participation strategies.These findings are supported by research demonstrating that the impact of socio-economic background on university attendance and attainment occurs well before university entry, and therefore greater impact can be achieved with interventions directed at students in earlier years of schooling. Other related considerations are the commitment that this requires from higher education institutions and schools, both in terms of time and resources - a stable infrastructure and reliable investment models are both important in supporting sustained improvements in participation among disadvantaged communities.	**Cohort**: LSES **Pathway**: Early Childhood; Primary; Tertiary **Place:** New South Wales **Influences:** Formal Intermediaries and Advisors (Institutional; Infrastructure) **Theme**: WP **Program**: People rich
Ladwig, J. G., & Luke, A. (2014). Does improving school level attendance lead to improved school level achievement? An empirical study of indigenous educational policy in Australia. *Australian Educational Research*, *31*, 171–194. http://doi.org/10.1007/s13384-013-0131-y	Current federal government policy initiatives in Aboriginal education and social welfare reform are based on assumptions about the relationship between increased attendance and increased student performance on standardized tests. There are empirical assumptions underlying these policy interventions and their accompanying public debates. Our aim here is to empirically explore the relation-ships between patterns of student attendance and patterns of student achievement in schools with significant cohorts of Aboriginal and/or Torres Strait Islander students at the school level. Based on an analysis of the publicly available data reported on the "MySchool" website, we find that reforms and policies around attendance have not and are unlikely to generate patterns of improved achievement. Questions about the rationale and rhetoric of government policy focused at the school level as opposed to the need to focus on pedagogy and curriculum are discussed.	**Cohort**: ATSI **Pathway**: School; University **Place: Australia** **Influences:** Pedagogy and Curriculum **Theme**: WP; Aspiration **Policy:** Social Inclusion
Laughland-Booÿ, J., Mayall, M., & Skrbiš, Z. (2015). Whose choice? Young people, career choices and reflexivity re-examined. *Current Sociology*, *63*(4), 586–603. http://doi.org/10.1177/0011392114540671	Young people making future career choices are doing so in an environment that often highlights the benefits supposedly wrought by individualisation and reflexive choice. It is argued that those who demonstrate reflexivity in their decision-making would have an advantage in the negotiation of future risks. The authors of this article agree with theorists who note that career choices are still strongly influenced by a person's location in the class structure. However, unlike some writers who suggest youth from more privileged socio-economic backgrounds are more likely to evaluate risk and demonstrate reflexivity, the authors suggest the opposite. Interviews were conducted with young people aged 16–17 who are participating in an ongoing project designed to follow a cohort of young Australians from adolescence into later life. Our findings suggest that while a more privileged location may afford young people security from many potential risks and problems, this may in fact encourage a non-reflexive perspective and they may choose careers based on social norms rather than ability. Instead, we argue that it is young people from less privileged backgrounds who tend to demonstrate reflexivity in their career planning.	**Cohort**: LSES **Pathway**: University **Place: International** **Influences:** Social/Cultural Capital; Social Norms; **Theme**: Aspiration; WP
Madriaga, M., Hanson, K., Kay, H., & Walker, A. (2011). Marking-out normalcy and disability in higher education. http://doi.org/10.1080/01425692.2011.596380	This article advocates for socially just pedagogies in higher education to challenge senses of normalcy that perpetuate elitist academic attitudes towards the inclusion of disabled students. Normalcy is equated here with an everyday eugenics, which heralds a non-disabled person without "defects", or impairments, as the ideal norm. This article attempts to mark the pervasiveness of normalcy in higher education by presenting findings from a systematic experience survey of disabled students and non-disabled students within one higher education institution in the United Kingdom. The findings indicate that disabled students who have institutional disability support express more difficulties in their learning and assessment than students with no known disability. However, it was found that there was no significant difference in academic achievement between the two cohorts of students. In relation to the latter point, the evidence also shows that disabled students who do not receive institutional disability support underperform.	**Cohort**: Disability **Pathway**: University **Place: UK** **Influences:** Socially just pedagogies **Theme**: Aspiration; WP **Program**: Institutional disability support
Marshall, J. H., Lawrence, E. C., & Peugh, J. (2013). College Women Mentoring Adolescent Girls: The Relationship between Mentor Peer Support and Mentee Outcomes. *Mentoring & Tutoring*, *21*(4), 444–462. http://doi.org/10.1080/13611267.2013.855860	In this study, we examined the effectiveness of peer support for college women mentors who engaged in one-to-one and group mentoring with at-risk adolescent girls. Using data from 162 mentoring pairs, results suggested that mentor support positively predicted mentees' self-reported improvement after a year of mentoring. An examination of mentees' selfesteem outcomes revealed that mentor peer support was associated with higher outcomes only for those mentees who had higher pre-program scores; for those with below average pre-scores, mentor support was associated with lower self-esteem. Taken together, these results indicate that mentor support may serve as an important function beyond ongoing training, though its effectiveness may vary based on mentee characteristics. Implications are discussed.	**Cohort**: At risk girls **Pathway**: University **Place: International** **Influences:** Mentor Support **Theme**: WP; Mentee characteristics **Program**: Mentoring
Matějů, P & Smith, M.L. (2015) Are boys that bad? Gender gaps in measured skills, grades and aspirations in Czech elementary	This article examines gender gaps in academic performance (grades in mathematics and reading) between boys and girls of ninth-grade elemen- tary schools in the Czech Republic. Our analysis is based on 2003 data from the Programme for International Student Assessment, encompassing the academic performance and family background of ninth-grade pupils.	**Cohort**: Male; Female **Pathway**: Tertiary **Place:** Czech

schools, British Journal of Sociology of Education, 36:6, 871-895, DOI: 10.1080/01425692.2013.874278	Similar to research on other countries, we find that girls strongly outperform boys in grades in Czech language, but that this gender gap is not explained by measured ability in reading nor on family back- ground or student attributes. We also find gender bias in mathematics grades, after controlling for measured ability and other factors. Girls are also substantially more likely than boys to apply to secondary grammar schools, as well as aspire to a college education, even after controlling for measured ability. One possible explanation could be gender bias on the part of teachers, in that they value the learning and classroom characteristics of girls more than boys in ways that are not captured by the variables measured in PISA. If teachers systematically assess boys' and girls' academic achievement differently based on such unobserved behavioural characteristics, it would explain the direction of the gender bias in grades in both Czech language and mathematics. In addition, the particularly large gender gaps we observed in Czech language could also be caused by boy–girl differences in the ways teachers assess Czech language skills not measured in PISA, such as the stereotype that girls have better handwriting than boys.	**Influences:** **Theme**: Aspiration **Barriers**: Gender Bias; Teacher Assessments **Program**:
Matthews, J. (2008) Schooling and settlement: refugee education in Australia, International Studies in Sociology of Education, 18:1, 31-45, DOI: 10.1080/09620210802195947	Schools are a stabilising feature in the unsettled lives of refugee students. They provide safe spaces for new encounters, interactions and learning opportunities. They also deliver literacy, the key to educational success, post-school options, life choices, social participation and settlement. Currently Australian schools are poorly funded and ill- equipped to provide effective English as a Second Language teaching and support. A new cohort of refugee students mainly from Africa and the Middle East are struggling. This article discusses the importance of educational interventions that keep in mind both the immediacy of 'what is happening now' and broader post-colonial conditions. It identifies the limits of piecemeal partnership interventions and the domination of psychological approaches that individualise the issues and overemphasise pre-displacement conditions of trauma. Such approaches disregard the socio-political conditions of post-displacement and issues of racialisation, acculturation and resilience. The article argues for good practice approaches to schooling and settlement that involve whole-school accounting for organisational processes and structures, policy, procedure, pedagogy and curricula.	**Cohort**: Refugees **Pathway**: Secondary; Tertiary **Place:** Queensland **Influences:** Pedagogy; Curricula **Theme**: WP **Program**: Institutional; Holistic
McCallum, S., Schultz, J., Sellke, K. & Jason Spartz, J. (2015). An Examination of the Flipped Classroom Approach on College Student Academic Involvement. *, 27*(1), 42-55. http://www.isetl.org/ijtlhe/	Recently, the adoption of the flipped classroom approach is starting to extend from primary and secondary education to the undergraduate level. Interest in the flipped classroom approach has been fueled by early studies that indicate improved student performance outcomes such as tests score gains (McLaughlin et al., 2014; Stone, 2012).	**Cohort:** All students including equity **Pathway**: Primary; Secondary; Tertiary **Place:** USA **Influences:** Peer Cohort based**;** Pedagogy; Curricula; Institutional **Theme**: WP **Program**: Flipped Classroom; Enhanced Academic Curriculum; Digital
MLcek, S. H. (2011) Competing knowledges in lifelong education, *International Journal of Lifelong Education, 30*(6), 815-829, DOI: 10.1080/02601370.2011.628127. http://dx.doi.org/10.1080/02601370.2011.628127	This is a discussion paper about access to, and participation in learning opportunities for Ma¯ori learners in New Zealand, and Indigenous learners in Australia. Teaching and learning practice in three separate institutional education programmes—one in New Zealand and two in Australia—highlight the problematic nature of inclusion based on competing knowledge systems and frameworks. These systems relate to differing worldviews about how knowledge is privileged and disseminated within society. One view is that whiteness behaviour, through a western worldview, is the erasure of inequality because it presents as the norm in many adult education teaching situations; quite often manifested as indulgent practice, but one that also reinforces the hegemony of normativity. In contrast, an Aboriginal/Indigenous worldview is one that places knowledge within a spiritual realm; constantly resituating the individual into the nexus between individual and cultural ties. The discussion here, is about ideas of whiteness behaviours being present in curriculum delivery, whereby mainstream ideals produce planes of engagement that encapsulate white subjectivities which are both visible and invisible, and represent just one chronology of whiteness. That is, consciously and unconsciously patterned behaviours of delivering curriculum, no matter what the discipline area, have the potential to produce accessibility and achievement, but many would argue that these same behaviours also reproduce inequalities. Ideas from the above theme, take on a whole new perspective with a focus on building workplace and academic skills to the exclusion of cultural identity develop- ment.	**Cohort:** ATSI; Indigenous **Pathway**: School; University **Place: Australia; NZL** **Influences:** inclusive worldviews **Theme**: WP; Barriers: Pedagogy **Policy:** Social Inclusion
Middleton, M., Dupuis, J., & Tang, J. (2013). Classrooms & Culture: The Role of Context in Shaping Motivation & Identity For Science Learning in Indienous Adolescents. *International Journal of Science and Mathematics Education*. http://doi.org/10.1007/s10763-012-9385-5	Many rural indigenous communities rely on science knowledge and innovation for survival and economic advancement, which requires community members to be motivated for learning science. Children in these communities have been viewed by some as unmotivated due to their low science achievement as they progress in school, particularly into majority secondary schools. Current theories of motivation, such as achievement goal theory, take classroom context into account when examining individual motivation. However, motivational climate can also be considered as tightly woven with the cultural and social practices of a community rather than individual perception. In this study, researchers spent time in two indigenous villages observing classrooms, participating in community events, and talking with community members. During those visits, Attayal/Sediq children in Taiwan (n018) and Mopan Mayan children in Belize (n0 18) participated in three semi-structured interviews about their experience learning science in school, home, and community. Results indicate that motivation for learning science is closely linked with their identity as science learners. Three themes emerged to illuminate how social practices may or may not support individual identity, and consequently motivation, for learning science—	**Cohort**: Indigenous; Rural **Pathway**: School **Place:** Taiwan & Belize **Influences:** Self Identity as science learners; **Theme**: Aspiration **Program**: classroom context and motivation

	student/teacher relationships, support for learning, and motivational climate. Differences between children in Taiwan and Belize are explored. Implications for motivation theory, educational practice, and policy are discussed.	
Mooij, T., & Smeets, E. (2006). Design, Development and Implementation of Inclusive Education. *European Educational Research Journal*. http://doi.org/10.2304/eerj.2006.5.2.94	In inclusive education different pupils, including pupils with special educational needs and high ability pupils, can be stimulated to learn according to their capacities and potentials. The research question concentrates on the design features of inclusive education that will optimally promote the motivation and learning processes and outcomes of all pupils, and how relevant changes can be developed and implemented in educational practice. A model of guidelines concerning "multilevel contextual learning theory" was expected to aid in designing psychologically appropriate learning processes and motivating educational, organisational, and managerial characteristics and procedures for all pupils. From 2003 to 2005, a pilot in which researchers and teachers collaborated was carried out in three Dutch pre-schools. Initial findings resulted in the development of a prototype of a pedagogicaldidactic kernel or competence structure and a prototype of Internet-based software. Using these results, the screening of children's entry characteristics by infant day care teachers, parents, and preschool teachers was developed and implemented in practice. Construction and use of diagnostically based instructional, playing and learning procedures were first based on the screening results. The preschools differed much in rates of development and implementation. It is concluded that the proposed approach to the design, development and implementation of inclusive education that was applied seems promising in realising desired progress with pupils in early educational practice. However, policy and financial support are necessary to make more progress.	**Cohort**: All students including equity **Pathway**: School **Place: Europe** **Influences:** Inclusive Education programs **Theme**: WP; Aspiration **Program**: Early Education
Morrice, L. (2009). Journeys into Higher Education: the case of refugees in the UK. http://doi.org/10.1080/13562510903315282	Higher Education (HE) is one of the routes that refugees who come to the UK from professional and highly educated backgrounds can re-establish their lives and professional identities. This research follows up a group of such refugees who were the first cohort on a programme designed to support refugees gain access to HE or appropriate employment. The findings highlight the challenges facing the group over the three year period since the course finished and the long and often complicated journey into HE. The paper uses Bourdieu's concepts of field, capital and habitus to theorise the experiences of the refugees. It is suggested that an understanding of HE and the UK employment market as cultural fields enables a shift of focus away from refugees as deficient or lacking and instead encourages reflection upon what these fields fail to give value to or recognise.	**Cohort**: Refugees **Pathway**: University **Place: UK** **Influences:** cultural capital; social and affective learning **Theme**: WP; Barriers
Morrice, L. (2013). Refugees in higher education: boundaries of belonging and recognition, stigma and exclusion. http://doi.org/10.1080/02601370.2012.761288	For highly educated refugee professionals who flee to the UK, gaining a university qualification is one of the key strategies which can be used to re-establish a professional identity and find employment, and yet little is known about their experiences in higher education. This article utilises Bourdieu's framework of field, capital and habitus to conceptualise what happens to this group of migrants as they move across social space, and as they enter and move through university. By juxtaposing four case studies it draws out the diversity and commonalities in experience, and how pre-and post-migratory expe-riences shape the encounter with higher education. The article serves as a reminder against over-generalising or universalising the needs of refugee students. It underlines the affective dimension of being a refugee and the material realities of global inequality and forced migration which shape and mark refugee habitus.	**Cohort**: Refugees **Pathway**: University **Place: UK** **Influences:** field, capital, habitus **Theme**: Aspiration; WP; Barriers to social inclusion
Naidoo, L. (2015). Educating refugee-background students in Australian schools and universities. *Intercultural Education*. http://doi.org/10.1080/14675986.2015.1048079	Although refugee-background students are often members of the targeted sub-population, their educational journeys frequently require special forms of support to ensure academic success. This article reports and discusses the findings of a multisite, qualitative study of refugee-background learners across three regional areas. Based on semi- structured interview data, participants from three universities and six high schools identified three primary domains that educators must address to promote student success: prior life experiences, language development and the culture of learning environments.	**Cohort**: Refugee **Pathway**: Primary; Secondary; Tertiary **Place:** Regional**;** **Influences:** **Barriers:** prior life experiences; language development; culture of learning environment **Theme**: WP Aspiration **Program**:
O'Shea, H., Onsman, McKay, J. (2011). Students from low socioeconomic status backgrounds in higher education: An annotated bibliography 2000–2011.	The objective of this document is to present an annotated bibliography of recent literature (2000-2011), in the broad area of the ex-perience of students from low socioeconomic backgrounds (LSES) in higher education. This bibliography was originally developed by Dr Helen O'Shea in 2010 as a contribution to the literature base for the research project, 'Focusing on their success: Students from low socioeconomic backgrounds at Deakin University', funded by the Strategic Teaching and Learning Grants Scheme (STALGs). In 2011, it was developed and updated by Associate Professor Andrys Onsman and Dr Jade McKay as part of the Australian Learning and Teaching Council project, 'Effective teaching and support of students from low socioeconomic backgrounds: Resources for Australian higher education'. The bibliography provides a summary of recent literature and a useful entre to the vast literature in the area, and is intended to serve as a resource for HE researchers who wish to undertake scholarly or research work in the area of the low-SES student experience.	**Cohort**: LSES; ATSI; Disability; NESB; FiF; **Pathway**: University **Place:** Australia/International **Influences: Family** **Theme**: Aspiration; WP
Papasotiriou, M., & Windle, J. (2012). The social experience of physically disabled Australian university students. *Disability & Society*. http://doi.org/10.1080/09687599.2012.692027	Research on the university experience of disabled students has focused on barri- ers in learning and teaching, while the social world of university has as yet gained little attention as a distinctive object of study. Here we examine social experience and socially imposed restrictions through the lenses of social capital and self-concept. A qualitative study investigated the formation of social capital and changes in self-concept amongst physically disabled Australian university students. Data were collected through semi-structured interviews and analysed using a grounded theory approach. The study found weak social attachments at university, but stronger attachments outside. Self-concept did not appear to be	**Cohort**: Disability **Pathway**: University/TAFE **Place: Australia** **Influences:** Family **Theme**: Aspiration; Barriers; Benefits & Outcomes

	structured in any direct way by university-generated social capital, partly as a consequence of its weakness.	
Parsons, C., Maras, P. F., Knowles, C., Bradshaw, V., Hollingworth, K., & Monteiro, H. (2008). *Formalised peer mentoring pilot evaluation*. Retrieved from http://gala.gre.ac.uk/2272/	The Formalised Peer Mentoring Pilot project, managed by MBF, has performed very well in its first year of operation in 180 secondary school projects. Training, support documentation and the support agents have been well received. Mentors and Mentees have responded overwhelmingly positively to their experience and schools report a number of beneficial outcomes. The formalisation has clear benefits (where to meet, when, for how long, with what agenda). There is much positive evidence given which is anecdotal and qualitative, which is strongly represented in the "voice" of the mentees and mentors. Schools however, are much less able to provide quantitative evidence of impact on mentors or mentees in terms of attendance, attainment and behaviour. Mentees were "pleased to have a mentor" (T1 86%; T2 78%), felt the 'mentor was helpful (89%; 82%) and were "confident there was someone to go to" (82%; 75%). Mentors were "pleased to be a mentor" (T1 94%; T2 93%), thought it would be good for them/was good for them (89%; 93%) and felt it would be helpful to the pupils being mentored (84%; 91%). The About Me questionnaire shows small decreases over all (ie the negative movement expected of adolescents as they get older) in the four subscales concerned with identification with school, but these results are not statistically significant. The Impact Audit of attainment, attendance, behaviour and "other" area, does not show consistent improvements. There is the suggestion of greatest positive impact on those most in need. Formalised Peer Mentoring is clearly popular and highly rated by staff and pupils. Impact evaluations at school level need to be systematised to assess changes in key goals of the scheme. The contribution of Formalised Peer Mentoring needs to be seen as one strategy in the support for pupils and other targeted approaches may need to be taken, eg towards attendance.	**Cohort**: At risk students; **Pathway**: School; University **Place: UK** **Influences:** Peer mentoring **Theme**: Formalised **Program**: Outreach;
Pearce, K. (2012). Building community, educational attainment and university aspirations through university-school mentoring partnerships. *Research and Development in Higher Education*, *35*(1), 232 – 241.	The Australian Government aims to increase tertiary participation, through in part, encouraging students from low socioeconomic backgrounds to undertake higher education. The purpose of this program was to determine the benefits of a university–high school mentoring partnership involving third year university students and "disadvantaged" year 12 high school students, and to explore whether such a partnership could influence the educational attainment and university aspirations of year 12 students. Twenty-nine year 12 students from 8 different state high schools studying chemistry at the UniSA because their high schools lacked chemistry laboratories were mentored by four third year undergraduate students. The university mentors assisted in practical and tutorial classes for 26 weeks during the university semester. The educational attainment and aspirations of higher education improved for all high school students. Almost all the high school students reported their ability to solve tutorial problems and their self-confidence increased after working with mentors. All related to the mentors as positive role models and most valued the informal conversations about university life. All the high school students had applied to go to university even though 65% reported being the "first in family" to attend university. Just over half the students reported changing their preferred course during year 12; the mentors anecdotally reported that the "lure of an iPad" catalysed some of the institutional changes. In conclusion, the high school students believed the undergraduate mentors were positive role models who helped to increase their educational attainment and aspirations of higher education.	**Cohort**: LSES **Pathway**: School/University **Place: SA** **Influences:** Course specific mentors **Theme**: Aspiration; WP **Program**: Outreach
Pereira, R. Potier, B. & Smith, A. (2014). UniPASS Facebook Groups: Initial Report, Curtin University.	UniPASS is a nationally accredited peer-learning program where weekly group study sessions are run by trained senior students, who are employed as facilitators. Apart from improving academic performance, study skills and social integration, its follow-on benefits include improved student experience, transition, retention and retained revenue. UniPASS uses peer to peer relationships in a collaborative learning environment to meet the above aims. The sessions provide a place where the facilitator creates a non- hierarchical, non-threatening learning environment. The facilitators are trained in peer-learning techniques and do not re-teach content; instead, they enable students to become active, independent learners with better support networks. UniPASS targets units that have a history of difficulty for students as opposed to targeting at-risk students directly. This enables UniPASS to be inclusive and voluntary, avoiding any remedial stigma so that students at varying levels of achievement can integrate and work to improve.	**Cohort**: All students including equity groups **Pathway**: University **Place: Western Australia** **Influences:** peer-cohort based Educator **Theme**: WP; Aspiration **Program**: Digital; Unit based peer-study support
Pereira, R. (2014). UniPASS Results 2012-2014, Curtin University.	This report evaluates the suitability of Facebook as an online peer-learning platform. Overall, it is the most successful online platform used for the UniPASS peer-learning program. The UniPASS Facebook group is quite different in the level and focus of learning when compared to face-to-face UniPASS. Due to the limitations of the platform in covering content in depth it is suggested that the UniPASS Facebook groups be seen as unit specific academic engagement and study skills support rather than academic peer education.	**Cohort**: All students including equity groups **Pathway**: University **Place: Western Australia** **Influences:** peer-cohort based Educator **Theme**: WP; Aspiration **Program**: Digital; Unit based peer-study support
Raciti, M. (2014). Developing School-to-University Pathways for Aboriginal and Torres Strait Islander Peoples: A Social Marketing Case Study. ANZMAC Conference.	Social marketing addresses social issues in ways that enhance the quality of life of individuals and society as a whole (Hastings *et al.*, 2012). Indeed, social marketing is advocated by Kotler and Lee (2009) as a fitting framework for addressing social inequities such aUnis those experienced by minority groups. This paper reports the outcomes of a two-year research project that successfully developed pathways for Aboriginal and Torres Strait Islander students to move from school-to-university. Our case study was undertaken within a participatory research paradigm employing a range of upstream, mid-stream and downstream efforts to attend to the barriers that constrain Aboriginal and Torres Strait Islander peoples' access, participation, success and completion of higher education. Ultimately, effective pathways to university creates opportunities for Aboriginal and Torres Strait Islander people to undertake a university degree, leading to a myriad of benefits for	**Cohort**: ATSI **Pathway**: University **Place:** Australia **Influences: Formal intermediaries and advisers; Theme**: WP Aspiration; Increase knowledge of Pathways; Awareness **Program**: WP Transition; Success

	individuals, their community and Australian society as a whole.	
Raven, N. (2015). Evaluating the long-term impact of widening participation interventions : the potential of the life story interview, *2*(1), 43–55.	One of the key challenges facing those working in the field of widening participation is in determining the long-term impact of outreach interventions. Whilst there is value in considering the more immediate effect of such activity on participants' experiences, it is long-term evaluation that can reveal the consequences of involvement on such schemes. However, in seeking to evaluate in this way practitioners face the problem of identifying suitable research methods. This article considers a qualitative method that has the potential to offer a long-term perspective: the life story interview. Using a pilot study based upon a small, purposive sample of undergraduates from widening participation backgrounds, the method is shown to be able to generate rich insights into the learner journey. However, its successful application is dependent upon the role of the interviewer and the quality of the conversations they are able to facilitate. Drawing upon evidence from the pilot study, and derived from the interviewer's research journal and the interview transcripts, the practices that facilitate interviewee engagement are explored. The article concludes by reflecting on the comparative strengths of the life story interview, whilst also acknowledging its value as part of a mixed-methods approach.	**Cohort**: Equity students **Pathway**: University **Place: UK** **Influences:** socio-economic; lived experiences **Theme**: WP; Aspiration **Program**: Outreach
Reay, D., Crozier, G., & Clayton, J. (2009). "Strangers in Paradise"?: Working-class Students in Elite Universities. *Sociology*, *43*(6). http://doi.org/10.1177/0038038509345700	This article draws on case studies of nine working-class students at Southern, an elite university. It attempts to understand the complexities of identities in flux through Bourdieu's notions of habitus and field. Bourdieu (1990a) argues that when an individual encounters an unfamiliar field, habitus is transformed. He also writes of how the movement of habitus across new, unfamiliar fields results in "a habitus divided against itself " (Bourdieu, 1999a). Our data suggest more nuanced understandings in which the challenge of the unfamiliar results in a range of creative adaptations and multi-faceted responses. They display dispositions of selfscrutiny and self-improvement – almost "a constant fashioning and re-fashioning of the self " but one that still retains key valued aspects of a working-class self. Inevitably, however, there are tensions and ambivalences, and the article explores these, as well as the very evident gains for working-class students of academic success in an elite HE institution.	**Cohort**: LSES **Pathway**: Elite University **Place: UK** **Influences:** self-identity; habitus transformation **Theme**: WP; Aspiration; Transition
Reddick, R. J., Welton, a. D., Alsandor, D. J., Denyszyn, J. L., & Platt, C. S. (2011). Stories of Success: High Minority, High Poverty Public School Graduate Narratives on Accessing Higher Education. *Journal of Advanced Academics*, *22*(4), 594–618. http://doi.org/10.1177/1932202X11414133	Worrisome trends in achievement have been identified for students of color in high minority, high poverty (HMHP) high schools, as they are less likely to attend college and encounter greater challenges in accessing higher education than peers in wealthier schools. To address this inequity, this article presents descriptions of how these school environments affected the motivation and attitudes of students of color in an urban Texas context considering postsecondary education, and examines how this population utilized and leveraged forms of capital to achieve their postsecondary goals. Findings from the qualitative study revealed that students found support for their higher education goals through invested teachers, counselors, community members, and peers, though they encountered unsupportive examples from these populations as well. Additionally, participants negotiated stereotypes about their schools and communities, while holding positive attitudes about their communities. Given the fact that Texas, like many other states, is an emerging majority-minority state and residential segregation is increasing across much of the nation, this article contributes to our knowledge of how an often-neglected population successfully realizes their college aspirations. At a time when more complex issues of desegregating schools and communities continue to be discussed in the public policy arena, the authors provide recommendations to researchers, educators, and parents invested in ensuring that students in HMHP high schools access college.	**Cohort**: LSES; NESB; **Pathway**: University **Place: USA** **Influences:** School; Teachers; Counsellors; Community members; Peers **Theme**: Aspiration; WP
Rothman, S. and Hillman, K. (2008). Career Advice in Australian Secondary Schools: Use and Usefulness. Australian Council of Educational Research. *LSAY Research Reports.* LSAY Research Report; No 53 http://research.acer.edu.au/lsay_research/3	Some school-based factors also had an influence on how useful students found career advice, particularly those related to school climate. In addition, cohort members who found career advice useful also reported that they were influenced by their teachers and career advisors when considering the type of work they would like to do after school. One of the strongest associations was between perceptions of the usefulness of career advice and the number of career advice activities accessed during the year. As young people participated in more activities, they found career advice overall to be more useful. Two important groups of students perceived career advice more favourably than did other students. There was a small but statistically significant relationship between lower achievement scores and more positive comments about the usefulness of career advice. Young people who were unsure about whether they would complete Year 12 also had more positive comments about career advice. This indicates that career advice programs are valued by young people who are more vulnerable when making the transition from school, and that career advisors should continue to provide support to these young people.	**Cohort**: LSES **Pathway**: University **Place: Australia** **Influences:** School climate **Theme**: Aspiration; WP **Program:** Career Advice
Sabo, M., Sarquis, M., & Ennis, C. (1997). The PACT Ambassador Outreach Program: More than just a bunch of "old white-haired scientists ." *Journal of Chemical Education*, *74*(4), 450 – 451.	Partnership for the Advancement of Chemical Technology (PACT) is a 300-member industrial-academic consortium that is working to create a well educated, chemistry-based workforce through curriculum development, teacher enhancement opportunities, and student outreach including school-to-work experiences. This article describes the PACT Ambassador Program, a student outreach initiative that fosters direct interaction between high school students and scientists from the workforce.	**Cohort**: All students **Pathway**: University (Chemistry workforce) **Place:** **Influences**: Industrial-academic consortium **Theme**: WP; Aspiration **Program**: Outreach
See, B. H., Gorard, S., & Torgerson, C. (2015). Promoting post-16 participation of ethnic minority students from disadvantaged backgrounds: a systematic review of the most promising interventions. *Research in*	There is widespread international concern that young people from disadvantaged backgrounds and some ethnic minorities are less likely to continue education or training after compulsory schooling, or are less likely to follow the highest-status and prestigious routes. Based on work done in the UK, this paper presents the results of a systematic review of evidence from 1996 to 2011. The review identified only 14 intervention studies with a robust evaluation, intended to encourage participation and retention in post-compulsory education for disadvantaged ethnic minority groups. Of these, the most	**Cohort**: LSES; NESB **Pathway**: Secondary; University/VET **Place: UK** **Influences:** Adult Mentors **Theme**: Aspiration

Post-Compulsory Education, *17*(4), 409–422. http://doi.org/10.1080/13596748.2012.738968	promising approaches were the use of extrinsic motivation for behaviour and attendance (payment by results), and the close personal engagement of adult mentors. Both were tried in the USA, and so the paper concludes that they should be adapted for contexts elsewhere, including the UK, and tested carefully. Given limitations of funding for research, other approaches should not receive priority.	**Program**: Extrinsic motivation;
Sellar, S., & Gale, T. (2011). Mobility, aspiration, voice: a new structure of feeling for student equity in higher education. *Critical Studies in Education*. http://doi.org/10.1080/17508487.2011.572826	There is a changed "structure of feeling" emerging in higher education systems, par- ticularly in OECD nations, in response to changed social, cultural and economic arrangements. Taking a student equity perspective, the paper names this change in terms of "mobility", "aspiration" and "voice". It argues that (1) newkinds and degrees of mobil- ity are now a significant factor in sustaining unequal access to and experience of higher education for different student groups, (2) despite government and institutional aspira- tions to expand higher education, students' desires for university are not a given among new target populations and (3) while universities are seeking to enroll different students in greater numbers, the challenge now is how to give greater voice to this difference. Drawing on these themes of mobility, aspiration and voice and taking recent changes to higher education policy in Australia as the case, the paper presents a new concep- tual framework for thinking about student equity in HE. The framework extends from established approaches that focus on barriers to accessing higher education in order to focus on people's capacities in relation to higher education participation.	**Cohort**: Equity Students **Pathway**: University **Place: Australia** **Influences:** Systemic **Theme**: Aspiration (Critique)
Sinclair, S., McKendrick, J.H., & Scott, G. (2010). Failing young people? Education and aspirations in a deprived community. Education, Citizenship and Social Justice 5(1) 5–20. Reprints and permission: http://www.sagepub.co.uk/journalsPermission.nav	Recent UK government statements and education policies have emphasized the need to instil a 'culture of aspiration' among young people in deprived communities to address social exclusion. Specific proposals include raising the school leaving age to 18 and extending compulsory employment training. These statements and measures express the employment-oriented model of citizenship that underpins New Labour's approach to social justice. This article reflects on this approach by discussing survey evidence that explored the attitudes towards education and employment among young people in a deprived community in Glasgow. These data show that the majority of these young people were ambitious regarding their post-school career paths and optimistic about their employment prospects. Emphasizing the alleged low aspirations of young people in deprived communities fails to address the socio-economic conditions and opportunities that limit educational attainment and inhibit their accomplishment of full citizenship.	**Cohort**: LSES; Secondary; Tertiary **Pathway**: University/Vet; **Place:** UK **Influences:** Institutional; Socio-Political **Barriers:** Socio-economic conditions; Opportunities **Theme**: WP; Aspiration; Transition **Program**
Singh, S., & Tregale, R. (2015). From homeland to home: Widening Participation through the LEAP- Macquarie Mentoring (Refugee Mentoring) Program. *International Studies in Widening Participation*, *2*(1), 15–27.	Mentoring is often conceptualised as a one-to-one interaction between peers, or as an academic to student interaction, with the aim of developing self-esteem, connectedness, identity, and academic attitudes within one party. While various researchers have provided support for effectiveness of mentoring in fostering the aforementioned qualities, limited studies have looked at the impacts of outreach mentoring programs. This article examines the impact of the LEAP-Macquarie Mentoring (Refugee Mentoring) program on high school students from refugee backgrounds who are mentees on the program and on the university students who are mentors on the program. A qualitative study was completed involving five focus groups, individual and semi structured interviews with 54 mentees and diary analysis of 45 mentors. Transcripts of interview and focus groups were analysed using a grounded approach. Key findings highlighted that the LEAP-Macquarie Mentoring (Refugee Mentoring) program supported both mentors and mentees in making a smooth personal, social, and academic transition from high school to university, helped them develop leadership potential, and provided them with a connection to community.	**Cohort**: Refugee **Pathway**: University **Place: NSW** **Influences: mentors** **Theme**: WP; Aspiration **Program**: Outreach mentoring
Slater, M. D., Buller, D. B., Waters, E., Archibeque, M., & LeBlanc, M. (2003). A test of conversational and testimonial messages versus didactic presentations of nutrition information. *Journal of Nutrition Education and Behavior*, *35*(5), 255–259. http://doi.org/10.1016/S1499-4046(06)60056-0	OBJECTIVE: Conversational and testimonial approaches to presenting messages relevant to fruit and vegetable consumption were compared with a traditional didactic message. DESIGN: A Greco-Latin square, within-subjects experimental design was employed with 3 formats and 3 topics. SETTING: Community centers. PARTICIPANTS: Thirty-one ethnically diverse adults. INTERVENTION: Presented conversational, testimonial, and didactic nutrition messages. VARIABLES MEASURED: Believability, clarity, and perceived usefulness of messages presented; identification with sources in message; and self-efficacy with respect to produce consumption. ANALYSIS: Analysis of variance. RESULTS: Conversational formats were perceived as more believable than the control newsletter article. No differences were found with respect to clarity, usefulness, or self-efficacy. Identification with characters did significantly interact with message format in predicting the message assessment variables. However, the conversation and testimonial versions did not increase identification with persons in the message over the didactic presentation. CONCLUSIONS AND IMPLICATIONS: Audience response to narrative messages is contingent upon identification with persons portrayed in the message. The results underscore the need for careful pretesting of involvement with the story and identification with persons portrayed to maximize the effectiveness of narrative messages in health interventions.	**Cohort**: Ethnically Diverse **Pathway**: **Place:** **Influences:** Communication Strategies **Theme**: **Program**: Narrative Messages
Smeding, A. Sex Roles (2012). Women in Science, Technology, Engineering, and Mathematics (STEM): An Investigation of Their Implicit Gender Stereotypes and Stereotypes' Connectedness to Math Performance. *Sex Roles*, *67*, 617–629 DOI 10.1007/s11199-012-0209-4	In spite of many barriers facing women's enroll- ment in Science, Technology, Engineering, and Mathemat- ics (STEM), some women are successful in these counter- stereotypic disciplines. The present research extended work primarily conducted in the United States by investigating implicit gender-STEM stereotypes—and their relation to performance—among female and male engineering and hu- manities students in Southern France. In study 1 (N055), we tested whether implicit gender-math stereotypes—as measured by the Implicit Association Test (IAT; Greenwald et al. 1998)—would be weaker among female engineering students as compared to female humanities, male engineering and male humanities students. In study 2 (N0201), we tested whether this same results pattern would be observed with implicit gender-reasoning stereotypes (using a newly created IAT) and, in addition, whether implicit gender-reasoning stereotypes would be more strongly (and negatively) related to math grades for female humanities students as compared to the three other groups. Results showed	**Cohort**: Women STEM **Pathway**: University/VET **Place:** France **Influences:** Peers **Barriers:** Gender-STEM stereotypes **Theme**: Aspiration **Program**: counter gender-STEM stereotypes associations

	that female engineering students held weaker implicit gender- math and gender-reasoning stereotypes than female humanities, male engineering and male humanities students. More- over, implicit stereotyping was more negatively related to math grades for female humanities students than for the three other groups. Together, findings demonstrate that fe-male engineering students hold weaker implicit gender- STEM stereotypes than other groups of students and, in addition, that these stereotypes are not necessarily negatively associated with math performance for all women. Discussion emphasizes how the present research helps refine previous findings and their importance for women's experience in STEM.	
Snowden, C. & Lewis, S. (2015). Mixed messages: public communication about higher education and non-traditional students in Australia. *Higher Education, 70*, 585–599. DOI 10.1007/s10734-014-9858-2. Published online, 29 January 2015, Springer Science+Business Media Dordrecht 2015	The paper argues that the persistence of communication practices and messages that promote the superiority of university and the low success rates of students from disadvantaged backgrounds contributes to the persistence of entrenched views about post-secondary education. The limited discursive framing of university education in Australia in those messages is likely to prevent universities from increasing the partici- pation rates of students from non-traditional higher education backgrounds and thus undermine national educational and associated economic goals, while contributing to an increasing social divide where educational achievement is the fault line. Public communication has a powerful role in tertiary education choice in Australia by influencing perception of the two higher education sectors and student choice. The ability of the university sector to broaden its potential student cohort to enroll more students from disadvantaged or ''non-academic'' backgrounds is related to the construction of the mes- sages about access to the sector and the likelihood of success. The content analysis as described above identified that a consistent, but mixed set of messages was conveyed in each sector through a range of positioning statements. Such messages are expected to ''connect'' with the low socio-economic cohorts of potential students, their peers and families and influence decision-making about educational path-ways and choices. However, we contend that they are countered by mixed messages in the public sphere, which lead to confusion, particularly when considered in the context of the increased marketisation of student enrollment. The marketing efforts of institutions have escalated in recent years and are now considered essential to secure student enrollment. However, the plethora of advertising, open days, Internet marketing and other mediated promotional material creates a crowded and confusing media environment. For non-tra- ditional audiences, contradictory messages emanating from public discourse on education add further to confusion, leading to construal of unknown or less familiar educational	**Cohort**: LSES **Pathway**: University/VET **Place:** Australia **Influences:** Public Communication **Theme**: Aspiration, WP **Program:** counter contradictory messages
Stevenson, J., & Willott, J. (2007). The aspiration and access to higher education of teenage refugees in the UK. *Compare: A Journal of Comparative and International Education*. http://doi.org/10.1080/03057920701582624	Refugee young people are an educationally diverse group. However, unlike groups such as Gypsy/Roma and Travellers, in the UK they do not attract targeted educational funding. In addition, neither the UK integration or refugee educational strategies nor the Higher Education Funding Council for England's strategic plan refer to higher education as a progression route for young refugees, as distinct from other minority ethnic young people. Our research with young refugees has shown that many have specific issues affecting their educational achievements, including interrupted education, experience of trauma, concerns about status and English language difficulties. Our findings also show that that despite these multiple disadvantages many view higher education as a route out of poverty and discrimination and are highly aspirational and motivated. We argue that homogenizing the support needs of young refugees along with those of other minority ethnic students is both inappropriate and insufficient and the continued failure to focus on them as a specific widening participation group will perpetuate their continued absence from the UK higher education system.	**Cohort**: LSES; FiF; Mature age; Refugee **Pathway**: University **Place: Australia** **Influences:** Family; Formal intermediaries and advisers **Theme**: WP; Aspiration **Program**: Addressing barriers
Stoeger, H., Duan, X., Schirner, S., Greindl, T., & Ziegler, A. (2013). The effectiveness of a one-year online mentoring program for girls in STEM. *Computers and Education*, *69*, 408–418. http://doi.org/10.1016/j.compedu.2013.07.032	Although the performance of girls in science, technology, engineering, and mathematics (STEM) is continually improving and is no longer below that of boys in most domains, girls' interests in STEM and participation rates are still too low. Online mentoring may help ameliorate this situation. To test this assumption, a one-year personal mentoring program for eleven to eighteen-year-old female college-preparatory students was evaluated. Mentee and mentor communicate with one another and with other program participants via email, online chat, and forums. To measure program effectiveness, we randomly assigned participants (N = 312) to either a treatment group (N = 208) or a waiting-list control group (N = 104). We collected questionnaire data at three points in time. In comparison to the waiting-list group, the treatment-group participants showed greater levels of desirable short-term and long-term developments. Our findings indicate various advantages for online mentoring for promoting girls' interests in STEM.	**Cohort**: STEM (female) **Pathway**: University **Place: Germany** **Influences:** Online mentoring **Theme**: WP; Aspiration **Program**: Online mentoring for girls
Taylor, Y. (2008). Good students, bad pupils: constructions of "aspiration", "disadvantage" and social class in undergraduate-led widening participation work. *Educational Review*. http://doi.org/10.1080/00131910801934029	This C-SAP funded research explores undergraduate student involvement in widening participation initiatives at a traditional university and the ways that students promote and market their university and higher education more generally. It seeks to explore the widening participation messages disseminated by students in their work with pupils and teachers, the ways that these are taken up and/or resisted, and the interactions between university students and "local" school pupils. The idea of peer led discussion, whereby "sameness" is encouraged and endorsed, is positively promoted within student tutoring programmes. However, this study found a sharpening of notions of "us" and "them" amongst many student participants and a vocalization of educational success stories versus educational "failures". While involvement in such programmes may be a way that students can contribute to their locality and foster career skills, this study interrogates the scope of "all round benefits" in widening participation and suggests that social class is mobilized in constructions of the "good student" as against the "bad pupil". Widening participation initiatives need to engage with-and beyond-such interpersonal positioning in order to erode continued structured inequalities.	**Cohort**: All students **Pathway**: University **Place: UK** **Influences:** Structured Inequalities **Theme**: WP; Aspiration **Programs:** Engage beyond 'interpersonal positioning'

Terrion, J. L., & Leonard, D. (2007). A taxonomy of the characteristics of student peer mentors in higher education: findings from a literature review. *Mentoring & Tutoring: Partnership in Learning*, *15*(2), 149–164. http://doi.org/10.1080/13611260601086311	Peer mentoring in higher education is regarded as an effective intervention to ensure the success and retention of vulnerable students. Many universities and colleges have therefore implemented some form of mentoring program as part of their student support services. While considerable research supports the use of peer mentoring to improve academic performance and decrease student attrition, few studies link peer mentoring functions with the type of peer best suited to fulfill these functions. This literature review categorizes the abundant student peer mentor descriptors found in mentoring research. The result is a preliminary taxonomy that classifies ten peer mentor characteristics according to mentoring function served (career-related or psychosocial). The proposed taxonomy and the discussion developed in this article help shed light on the dynamics of successful student peer mentoring relationships in higher education.	**Cohort**: Vulnerable Students **Pathway**: University **Place: Canada** **Influences:** Peer Mentors **Theme**: Aspiration; WP **Program**: Mentoring
Thomas, L., Bland, D., & Duckworth, V. (2012). Teachers as advocates for widening participation. *Widening Participation and Lifelong Learning*, *14*(2), 40–58.	In England and Australia, higher education institutions (HEIs) are expected to widen participation (WP) in higher education (HE) to enhance social justice and improve individual and national economic returns. Furthermore, HEIs are the major providers of initial and in-service teacher education. This article surveys international literature to explore ways in which teacher education programmes could and do contribute to preparing teachers to advocate for WP, including drawing on learning from WP research that demonstrates the value of current HE students engaging young people in schools and colleges to support them in seriously considering progressing to HE. We conclude that teachers and preservice teachers are well placed to be advocates for WP. In the majority of higher education institutions, however, WP and teacher education functions are not working collaboratively to embed advocacy for WP into teacher education programmes.	**Cohort**: Equity Students **Pathway**: University **Place: Australia; UK** **Influences:** Teachers **Theme**: WP; Aspiration **Program**: Teacher Education
Trainor, A. A. (not dated). PERCEPTIONS OF ADOLESCENT GIRLS WITH LD REGARDING SELF-DETERMINATION AND POSTSECONDARY TRANSITION PLANNING.	Existing research has documented disparate out-comes between young women and men with disabilities in many transition domains, including employment, postsecondary education, and parenting. Similarly, students with learning disabilities (LD) have unique postsecondary transition needs. Promoting self-determination and active participation in transition is recommended in practice regardless of gender and disability type. Because both gender and disability status impact the postsec-ondary trajectories of young adults, helping young women with LD meet the demands of adulthood, including responding to opportunities for self-determination, is a salient issue. Using qualitative interview data and analysis, this study examined the per-ceptions of adolescent females with LD regarding self-deter-mination during transition. Findings indicated that participants perceived they were self-determining individuals, yet several key component skills necessary for self-determination were missing. Connections to practice and future research are presented. Adolescent girls with learning disabilities (LD), par-ticularly those who are from groups outside the dominant European American, English-speaking, middle and high socioeconomic income brackets, face unique challenges to postsecondary achievement and success. An analysis of the postsecondary trajectories of young adults, taking into consideration disability, gender, socioeconomic status (SES), and race/ethnicity, reveals the complexity of disparate outcomes. For young women with disabilities who are transitioning into adulthood, both economic and educational disadvan-tage are disproportionately high (Rousso & Wehmeyer, 2001). According to the U.S. Census Bureau (2004), the rate of employment for men and women with disabilities ages 16 to 64 is 40.5% and 33.5%, respectively. Women with disabilities earn less than their male counterparts and are more likely to be living in poverty (Jans & Stoddard, 1999). This is particularly true for young women of color and those who experienced low SES as children (Wagner, Newman, Cameto, & Levine, 2005).	**Cohort**: Disability; Gender; LSES; NESB **Pathway**: University **Place: US** **Influences:** Structures for Transition **Theme**: WP; Aspiration
Trinidad, S. & Kelly, M. (2015). National Centre for Student Education in Higher Education. (NCSEHE). Partnerships in Higher Education. https://www.ncsehe.edu.au/publications	This is a NCSEHE Publication of HEPPP equity programs undertaken by numerous Universities in Australia. This list includes Australian Universities' programs related to Schools' 'outreach access' and 'outreach support' for equity students toward HE aspiration; access and retention.	**Cohort**: LSES; ATSI; NESB; Rural; Regional; Remote and others **Pathway**: Primary; Secondary; University/VET **Place:** Australia **Influences:** Holistic levels (e.g. individual, school; family; communities; institutional) **Theme**: Aspiration; Transition, WP **Program**: Various
Trinidad, S., & Costello, D. (2015). Social Inclusion in Higher Education in Australia. In *STARS, Crown Conference Centre, Perth July 1-4*. STARS, Crown Conference Centre, Perth July 1-4. Retrieved from http://unistars.org/papers/STARS2015.pdf	The Australian Government's focus on social inclusion has been the driving force for collaboration in the higher education (HE) sector, where partnerships have been formed between disadvantaged school communities and universities to raise aspiration and achievement (Armstrong & Cairnduff, 2012). Given the paucity of research in Australia focussing on such partnerships, holistic approaches to HE collaborations are examined for their contribution to the social inclusion agenda. Adopting a social-ecological theoretical lens, these partnerships are examined for their contribution in raising aspiration and HE participation among disadvantaged populations. Given the complexities implicated with HE social inclusion interventions, social justice oriented evaluation frameworks are advocated.	**Cohort**: LSES **Pathway**: University **Place:** not specific **Influences: M**ulti-sector Partnerships **Theme**: WP; Aspiration; Social Inclusion; **Program**: Holistic approaches
Vasalampi, K., Nurmi, J. E., Jokisaari, M., & Salmela-Aro, K. (2012). The role of goal-related autonomous motivation, effort and progress in the transition to university. *European Journal of Psychology of Education*, *27*(4), 591–604. http://doi.org/10.1007/s10212-011-0098-x	This study investigated the extent to which autonomous motivation, effort and progress relating to current educational goals predict success in dealing with the challenging transition to university. Our study included two measurement points: (1) before the entrance examination, at which point participants (n0280) documented ratings of their autonomous motivation, effort and progress regarding their educational goals; and (2) after receiving the results of the examination, at which time their success or failure of passing the entrance examination was checked by referring to the university archives. The results of the path model showed that when young adults pursued their educational goals for autonomous reasons, they invested special effort in their goal, and this led to a high level of goal progress. Goal progress, in turn, predicted their	**Cohort**: All Secondary students **Pathway**: Secondary; University **Place: Spain** **Influences:** Goal-elated autonomous motivation **Theme**: Aspiration; WP

	successfully passing the university's entrance examination.	
Ware, J., & Stein, S. (2013). From "Mentor" to "Role Model": Scaling the Involvement of STEM Professionals through Role Model Videos. *Journal of Educational Multimedia and Hypermedia*, *22*(2), 209–223.	Mentors and role models can play a significant role in high school students' motivation to pursue specific careers later in life. Although the use of role models in the classroom is an important research topic, little research has been conducted on scaling up STEM role models reach through the use of video vignettes. This essay outlines a series of best practices to extend the use of role models from single to multiple classrooms in the form of pedagogically scaffolded video profiles. It also outlines key distinctions between the terms "mentor" and "role model" that hindered initial STEM professional participation in the project.	**Cohort**: STEM equity groups **Pathway**: University (STEM) **Place: International** **Influences:** Role Models **Theme**: STEM Aspiration, WP **Program**: Pedagogically scaffolded video profiles of professionals
Watson, S. (2013). New Digital Technologies: Educational Opportunities for Australian Indigenous Learners. *The Australian Journal of Indigenous Education, 42(*1), 58 - 67 DOI: 10.1017/jie.2013.8, Published online: 18 October 2013	This article presents a number of possibilities that digital technologies can offer to increase access for Indige- nous people to higher education in Australia. Such technologies can assist Indigenous high school students acquire the knowledge and skills they require to be accepted into higher education courses. They can also assist Indigenous students to bemore successful in their higher education studies. While this article is contextualised to the Australian higher education setting specifically, the principles derived within may be applied to other disadvantaged groups worldwide. It may be concluded that the despite the barriers to the uptake of digital technologies, the potential offered holds much promise for such groups. In Australia, Indigenous people are themost severely under-represented in higher education, with access rates that have been declin- ing over the past 6 years. Therefore, this issue has been classified as a matter of the highest national priority (Bradley, Noonan, Nugent, & Scales, 2008, p. 16). Concurrently, evidence is mounting that digital learning environments are able to produce positive learning outcomes for Indigenous students, albeit with a number of barriers to their uptake. This literature review explores: current trends in digital technologies and tertiary instructional practices, barriers to the uptake of digital technologies for Indigenous learners in Australia, and the potential of digital technologies for accommodating Indigenous learning styles. A number of implications for practice are discussed, based on the review of the literature.	**Cohort**: ATSI **Pathway**: University/VET **Place:** Australia **Influences:** Pedagogy **Theme**: Aspiration; WP **Program**: Digital Technologies and Indigenous Learning Styles
Wilks, J., & Wilson, K. (2012). Going on to uni? Access and participation in university for students from backgrounds of disadvantage. *Journal of Higher Education Policy and Management*. http://doi.org/10.1080/1360080X.2012.642335	This article reports on a research project that investigated the aspirations of primary and secondary school students about access to, and participation in higher education. The research was undertaken at schools in low socio-economic status regional and rural areas of north-eastern New South Wales. The paper discusses the background to the research and the methodologies used. It reports findings on the impact and intersections of demographics, financial factors, geographic location, and cultural and social capital in relation to the formation of students' perceptions, choices and decisions about participation in higher education.	**Cohort**: LSES, Rural Regional **Pathway**: University **Place: NSW** **Influences:** Social/Cultural Capital **Theme**: Aspiration; WP
Ylonen, A. (2010). The role of student ambassadors in higher education: an uneasy association between autonomy and accountability. *Journal of Further and Higher Education*, *34*(1), 97–104. http://doi.org/10.1080/03098770903477136	The Aimhigher programme is one of the Labour government's initiatives to widen participation in higher education (HE) for under-represented groups and is related to the government's target of increasing HE participation among 18- to 30-year-olds to 50 per cent by 2010. In effect, these policies date back to the recommendations made by the Dearing Committee in 1997, which investigated the state of HE in the United Kingdom, including widening participation, and to the earlier Robbins Report in the 1960s, which demonstrated the gap in HE participation across different socio-economic groups. Widening participation initiatives focus chiefly on raising aspiration and attainment among young people of the target group – it is within this context that student ambassadors (SAs) play an important role. SAs undertake both short-term and longer-term work through one off or sustained activities, which include helping out on Aimhigher events such as summer schools and going to schools to give talks or to mentor individuals or groups of children. This article argues that the role of SAs can be seen to be underscored by various underlying tensions and complexities, which, given the continued role of SAs in UK HE institutions, require further investigation and analysis.	**Cohort**: LSES **Pathway**: University **Place: UK** **Influences:** peers **Theme**: WP, Aspiration **Program**: Student Ambassadors; Aimhigher
Ylonen, A. (2012). Student ambassador experience in higher education: skills and competencies for the future? *British Educational Research Journal*, *38*(5), 801 – 811. http://doi.org/10.1080/01411926.2011.583636	Lifelong learning, where individuals keep modifying, renewing and updating their existing skills and competencies, is an essential requirement in the knowledge economy. Yet research has shown that employers often find it hard to hire individuals who are equipped with sufficiently rounded competencies in areas such as commitment, enthusiasm and timekeeping. The Student Ambassador (SA) scheme offers university students the opportunity to undertake relatively wellpaid and flexible part-time jobs around widening participation initiatives, which, in general, focus on raising aspiration and attainment of young people from more disadvantaged backgrounds. This article examines research evidence into the SA scheme in South-East London and, in particular, focuses on analysing whether the scheme offers students an ideal part-time job opportunity while in higher education. It will be seen that SAs not only gain complex transferable skills while earning money, but also engage in something that they perceive to be a highly rewarding and valuable experience.	**Cohort**: Life Long Learning/Mature Age **Pathway**: University **Place: UK** **Influences:** Mentors **Theme**: Aspiration; WP **Program**: Student Ambassadors

Appendix 4: Summary Table of Current Australian Programs, Organisations and Government Departments/Initiatives

a) Organisations or programs in Australia with a focus on Aboriginal and Torres Strait Islander participation in higher education

Independent Organisations and Programs		
Name of Organisation/Program	Description	URL
Australian Indigenous Mentoring Experience (AIME)	AIME pairs school students in years nine and above with older learners who provide academic support and encourage students' aspirations for further study	https://aimementoring.com/about/aime/
The Aspiration Initiative	The organisation aims to build individual and community aspirations for education through projects such as school engagement, scholarship provision and publication of undergraduate and postgraduate guides for Indigenous students	http://theaspirationinitiative.com.au/
Australian Communities Foundation	This is an NGO which directs significant funds toward Indigenous scholarships to both universities and independent training facilities. The organisation also dedicates a sub-fund to Indigenous students with a disability	http://www.communityfoundation.org.au/wp-content/uploads/2015/03/TJSF-Annual-Report-2013-14-Feb15.pdf http://www.communityfoundation.org.au/about-acf/our-sub-funds/
Australian Indigenous Education Foundation (AIEF)	An independent organisation providing scholarships for Indigenous students to attend secondary schools and tertiary education facilities. They also provide support services for students in transition from school to further study or employment and for adult learners adjusting to university life	http://www.aief.com.au/
Bar Association of Queensland's Indigenous Students Mentoring Scheme	A program designed to support Indigenous law students to complete their studies and transition into work by assigning each student professional mentors	https://www.qldbar.asn.au/images/Indigenous_mentoring_scheme_introduction.pdf
The Batchelor Institute of Indigenous Tertiary Education's Community Engagement Learning Framework	The institution connects with the community to individualise pathways to further study	http://www.batchelor.edu.au/about/industry-community/strategies-and-mechanisms/
Bridges to Higher Education	This is a co-operative of five universities which aims to widen participation by those who have low SES backgrounds or who identify as Indigenous. The program works with students' key influencers such as parents, teachers and community members, supporting them to foster student aspirations. The organisation now has projects specifically engaging with schools, parents, Indigenous communities and remote communities, with each being approached through different strategies	http://www.bridges.nsw.edu.au/about/projects/indigenous_project http://www.bridges.nsw.edu.au/about/how_bridges_has_made_a_difference
Brisbane Catholic Education's Aboriginal and Torres Strait Islander Mentoring Program	This initiative supports current Indigenous Catholic school students to study teaching by connecting them with a mentor for 6 – 18 months. Students in the program also become eligible for part time work at Brisbane Catholic Education schools	http://www.bne.catholic.edu.au/students-parents/IndigenousEducation/Documents/ATSIMentoringProgramFlyer.pdf
The Graham (Polly) Farmer Foundation's Follow the Dream Initiative	This foundation works to create opportunities for Indigenous students to engage in higher education through high-school mentoring programs	http://pff.com.au/programs/follow-the-dream/
Mid Coast Connect's Initiatives (Multiple)	This is an organisation based in mid-North NSW which works to assist young people in transition from school to study or work. They connect school-leavers with opportunities for work-place learning. They also act as a link between community groups, facilitating partnership on educational projects. For example, Mid Coast Connect has created the Aboriginal Student Teachers in Training (ASTiT) by facilitating collaboration between the Burran Project Organisation and North Coast Department of Education and Communities	http://www.midcoastconnect.com.au/about-midcoast-connect.php
The National Centre of Indigenous Excellence's Learning and Innovation Programs	Programs run by the National Centre of Indigenous Excellence focus on providing academic support for Indigenous school students through mentoring, afterschool and camp programs which increase retention and progression rates	http://ncie.org.au/learning-and-innovation#-/learning-and-innovation
Queensland Widening Participation Consortium	A partnership between Queensland universities to engage Indigenous people and people from low-SES backgrounds of all ages in university study	https://www.ncsehe.edu.au/queensland-widening-participation-consortium/
The Smith Family's Indigenous Youth Leadership Program and Experiential Mentoring Program	The Indigenous Youth Leadership Program is an initiative which provides ATSI students living in remote communities with scholarships to attend secondary school or university. Additionally, the Experiential Mentoring Program focuses on aspiration building by engaging ATSI students in visits/experiences of educational institutions and workplaces	https://www.thesmithfamily.com.au/what-we-do/our-work/supporting-aboriginal-and-torres-strait-islander-families/indigenous-youth-leadership https://www.thesmithfamily.com.au/what-we-do/our-work/supporting-aboriginal-and-torres-strait-islander-families/experiential-mentoring
Titans for Tomorrow's School to Work Program	Titans for Tomorrow is a faction of the Gold Coast Titans National Rugby League Club which supports community initiatives. The School to Work program conducts in-school workshops with year twelve students to support them to complete school and transition into tertiary education or work	http://www.titans4tomorrow.com.au/programs/indigenous/school-to-work-program
Victorian Aboriginal Education Association Incorporated	This is an independent organisation which focuses on representing the interests of Indigenous communities in education policy-making. In terms of widening participation, they provide advice to individuals seeking study as to available scholarships and support	http://www.vaeai.org.au/support/dsp-default.cfm?loadref=95

b) Australian Government departments/initiatives with a focus on Aboriginal and Torres Strait Islander participation in higher education

Australian Government Departments/Initiatives		
Name of Organisation/Program	Description	URL
Aboriginal and Torres Strait Islander Elders and Leaders Awards	This initiative by ATSIHEAC (see below) recognises elders and prominent community members who contribute to and encourage success in higher education by ATSI people	https://education.gov.au/aboriginal-and-torres-strait-islander-higher-education-advisory-council-elders-and-leaders-awards
Aboriginal and Torres Strait Islander Higher Education Advisory Council (ATSIHEAC) – now inactive	The council's role is to provide the Department of Education and Training with advice as to ways of improving Indigenous participation in higher education. The advisory council was disbanded on the 30th of June 2015	https://education.gov.au/aboriginal-and-torres-strait-islander-higher-education-advisory-council
The Australian Government Department of Education and Training	In 2013, the Department of Education, Employment and Work Relations was restructured to become the Department of Education and Training and the Department of Employment. The Australian Government's Department of Education and Training is responsible for the nation's primary, secondary and tertiary institution-related policies	https://education.gov.au/
Australian Government Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education	This department is focused on supporting Australian industries to become more globally competitive. This department formally oversaw Australian Vocational Education and Training programs. However, this responsibility has been transferred to the Department of Education and Training	http://www.industry.gov.au/Pages/default.aspx http://www.industry.gov.au/skills/Pages/default.aspx
The Australian Government Department of the Prime Minister and Cabinet's Indigenous Affairs Group	The group manages the portfolio of Aboriginal and Torres Strait Islander Affairs, as a sub-section of the Department of the Prime Minister and Cabinet	http://www.dpmc.gov.au/indigenous-affairs/about http://www.dpmc.gov.au/pmc/about-pmc
The Australian Government Office for Learning and Teaching	The Office for Learning and Teaching is a sub-department of the Department of Education and Training which focuses specifically on liaising with higher education institutions to improve teaching and learning outcomes.	http://www.olt.gov.au/
The Australian Public Service Commission's Indigenous Pathways Programme	This is a program which prepares students for work in the Australian Public Service over a course of twelve to fifteen months. Students complete a Certificate II or III and undertake work-place learning	http://www.apsc.gov.au/priorities/indigenous/indigenous-pathways/indigenous-traineeships
Commonwealth Scholarships Programme	This is an initiative of the Department of Education and Training which provides financial support for Indigenous people seeking to study. Scholarships include: the Indigenous Access Scholarship; Indigenous Commonwealth Education Costs Scholarship; Indigenous Enabling Commonwealth Educational Costs Scholarship; Indigenous Commonwealth Accommodation Scholarship; and the Indigenous Enabling Commonwealth Accommodation Scholarship.	http://www.education.gov.au/commonwealth-scholarships
The CSIRO's Indigenous STEM Education Program	This is an initiative by the CSIRO to immerse students in studies of science, technology, engineering and mathematics which are imbued with cultural significance, encouraging greater participation in related careers. Particularly relevant is the Bachelor of Science (Extended) Program which provides Indigenous students with an alternative pathway for entry into a science program at the University of Melbourne	http://www.csiro.au/en/Education/Programs/Indigenous-STEM/Program-Info http://www.csiro.au/en/Education/Programs/Indigenous-STEM/BSC/About-BSC
Higher Education Participation Program (HEPP)	HEPP is an initiative by the Department of Education and Training which provides universities with funding for projects which widen participation. It is comprised of an Access and Participation Fund, Scholarship Fund and National Priorities Pool	https://education.gov.au/higher-education-participation-programme-hepp
The Indigenous Advancement Strategy	This is the newly-implemented structure of Indigenous Affairs programmes. Existing policies and programmes have been formed into five main programme streams. Higher education participation is addressed in the 'Children and Schooling' category	http://www.dpmc.gov.au/indigenous-affairs/about/indigenous-advancement-strategy
Indigenous Cadetship Support	This program connects Indigenous tertiary students with workplace learning opportunities while they study. Students are supported through a semester-based scholarship while the business' administration costs are also covered	https://www.ics.employment.gov.au/
Indigenous Engineers: Partners for Pathways	This is a program designed to encourage more ATSI people to become engineering professionals. In 2014, the first National Indigenous Engineering Summit was held and the program has been formed from recommendations at this event. The main interests of the program include developing new pathways and promoting participation in STEM	http://conference.eng.unimelb.edu.au/national-indigenous-engineering-summit/
Indigenous.gov.au	This is an informative website designed to enable Indigenous people to engage with the governments Indigenous Affairs policies and procedures	http://www.indigenous.gov.au/
The Indigenous Youth Mobility Programme (IYMP)	This is an initiative by the Department of Prime Minister and Cabinet which supports Indigenous students to relocate to access higher education. Some of the services offered include: planning of pathways and careers; provision of accommodation; and access to skills development programs	http://iymp.com.au/
National Aboriginal and Torres Strait Islander Higher Education Consortium (NATSIHEC)	The NATSIHEC acts as a representative of Indigenous perspectives in government education policy-making. They also conduct projects encouraging best-practice within Australian universities	http://natsihec.edu.au/ https://education.gov.au/aboriginal-and-torres-strait-islander-higher-education-advisory-council
Prime Minister's Indigenous Advisory Council	This council meets twice annually to make recommendations for policy improvement with regard to Indigenous affairs	http://iac.dpmc.gov.au/
Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People	This is a report by the Department of Education and Training, which investigates the state of tertiary participation by ATSI people. The report has been the catalyst and justification for a number of initiatives. It recommends a focus on supporting Indigenous academic staff and strengthening existing programs	https://education.gov.au/review-higher-education-access-and-outcomes-aboriginal-and-torres-strait-islander-people https://docs.education.gov.au/system/files/doc/other/review_final_report_2012.pdf
Working with Indigenous Students with Disabilities in Tertiary Education Forum	This initiative by DEEWR facilitated discussion between Aboriginal Liaison Officers (ALOs) and Disability Liaison Officers (DLOs) at TAFE institutions. Participants found it worthwhile to share their experiences and learn from guest speakers	http://ndco.wodongatafe.edu.au/Data/Sites/1/0857_ndco_indigenousreport_180210v7small.pdf

c) State and territory government departments with a focus on Aboriginal and Torres Strait Islander participation in higher education

	State/Territory Government Departments/Initiatives		
	Name of Organisation/Program	Description	URL
Australian Capital Territory	Australian Capital Territory Training Excellence Awards	These Aboriginal and Torres Strait Islander Student of the Year Award recognises the achievement of a student in VET programs and school-based traineeships.	https://www.training.nsw.gov.au/training_awards/award_winners.html#Aboriginal_and_Torres_Strait_Islander_Student_of_the_Year
	Adult Community Education Grants Program	This program provides financial assistance for individuals adult learners to access vocational education training	http://www.det.act.gov.au/training/funded_training_initiatives/adult_community_education_grants_program
	Australian Capital Territory Government Education and Training Directorate	Government department for affairs related to education and training	http://www.det.act.gov.au/
	Indigenous Student Aspiration Coordinators	These mentors provide support to Indigenous students from years 5 to 12 with regard to school completion and transitions to further education or employment	http://www.det.act.gov.au/publications_and_policies/publications_a-z/annual_report/annual_report_2011/section_c/c20_aboriginal_and_torres_strait_islander_reporting
	Skilled Capital	This is an ACT government initiative which aims to provide greater access to post-school training programs and support services for students	http://www.skills.act.gov.au/
New South Wales	Aboriginal Centre of Excellence – Western Sydney	The Aboriginal Centre of Excellence facility will provide Indigenous students with access to programs which assist their transition from school to higher education or employment. The nature of these programs is to be determined through community consultation in September 2015. The project began in July 2015 and it is expected to take two years	http://www.aboriginalaffairs.nsw.gov.au/aboriginal-centre-of-excellence-western-sydney/
	The Department of Education and Communities' Aboriginal Education and Training Policy	This policy outlines the goals of the department for Indigenous education in K-12 and tertiary institutions. Aims of the policy include: engaging all learners in the study of Aboriginal culture; increasing student retention; supporting pathways to further study and work; and increased consultation with communities	https://www.det.nsw.edu.au/policies/students/access_equity/aborig_edu/PD20080385.shtml?query=Aboriginal+Education+and+Training
	The Department of Education and Communities Partnership with the New South Wales Aboriginal Education and Consultative Group (AECG)	This partnership is designed to increase community engagement in policy-making. The NSW AECG has a number of community centres through which Indigenous people are comfortable expressing their opinions. This information is shared with DEC with a number of specific aims such as increasing school completion rates; increasing VET attainment; and supporting tertiary students	https://www.det.nsw.edu.au/media/downloads/what-we-offer/aboriginal-services/part_agree.pdf
	New South Wales Department of Education and Communities (DEC)	This department includes the portfolios of Education and Indigenous Affairs	http://www.dec.nsw.gov.au/
	Opportunity Hubs	Opportunity Hubs are government initiated yet independently operated organisations which help students to transition between school and further study or work. Students are matched with opportunities which will help them to achieve their aspirations and supported as they begin that pathway.	http://www.aboriginalaffairs.nsw.gov.au/opportunity-hubs/
Queensland	Indigenous Education - Department of Education and Training Queensland	This faction of Queensland's Department of Education and Training seeks to promote the inclusion of ATSI culture in curricula and promote greater Indigenous participation in education	http://indigenous.education.qld.gov.au/Pages/default.aspx
	Murri Pathways – Student Futures	This is a broad program which is seeks to create more pathways to further education or work for Indigenous Australians	https://ipl.eq.edu.au/programs/student-futures/Pages/Murri-Pathways-%E2%80%93-Student-Futures.aspx
	Pathways	The Pathways Team work within the Department of Education and Training to engage Indigenous year 12 students in career planning. Their approach involves the whole community and recognises all students' aspirations	http://indigenous.education.qld.gov.au/community/schooltowork/Pages/pathways.aspx
	Queensland Government Department of Aboriginal and Torres Strait Islander Partnerships (DATSIP)	This group advises all factions of the Queensland Government engaged in ATSI affairs	https://www.datsip.qld.gov.au/department-of-aboriginal-and-torres-strait-islander-partnerships
	Queensland Skills Gateway	This is an information website designed to help school-leavers and adult learners identify their career aspirations and pathways into that career	http://www.skillsgateway.training.qld.gov.au/
	Remote Area Teacher Education Program (RATEP)	This program allows Indigenous people living in remote communities to study education while remaining in their communities, with the aim of increasing the number of Indigenous teachers in Queensland	http://indigenous.education.qld.gov.au/community/ratep/Pages/default.aspx
	The Solid Partners, Solid Futures Portal	This website brings together all of the Department of Education and Training's current Indigenous programs	https://indigenousportal.eq.edu.au/
	Year 12 Destinations – School to Work	This program supports Indigenous school-leavers to pursue further study or to find work. Students are assigned a support officer during and after their final year of school, who engages with their community and assists with career planning etc.	http://indigenous.education.qld.gov.au/community/schooltowork/Pages/default.aspx
Northern Territory	Adult Learners' Week Grant	This initiative raises awareness of adult learning pathways and provides financial assistance to those commencing study	http://www.dob.nt.gov.au/training/programs-funding/adult-learners-week/Pages/default.aspx
	A Share in the Future – Indigenous Education Strategy 2015 – 2024	This is a ten year plan to improve the engagement rate and quality of Indigenous education in the Northern Territory. Transition pathways and community engagement are some of the main areas targeted for improvement	http://www.education.nt.gov.au/__data/assets/pdf_file/0006/39795/led_review_strategy_brochure.pdf

	Northern Territory Government Department of Business	This department is responsible for the states training portfolio. It oversees Registered Training Organisations (RTOs) among other responsibilities	http://www.dob.nt.gov.au/training/Pages/default.aspx
	Indigenous Responsive Program	This is a scholarship program is an initiative of the Northern Territory Government Department of Business in which Indigenous community members are supported to engage in work-specific training programs	http://www.dob.nt.gov.au/training/programs-funding/ind-responsive-program/Pages/default.aspx
	Northern Territory Government Department of Education and Training	Government department which manages the education and training portfolio	http://www.education.nt.gov.au/
	Transition Support Unit	The Transition Support unit has been formed following the design of the Indigenous Education Strategy. It operates to provide guidance and support to improve students' engagement , primarily in secondary education but also with further study, particularly in remote areas	http://www.education.nt.gov.au/parents-community/indigenous-education-strategy/transition-support-unit
	Garrin Garrin: A Strategy to Improve Learning Outcomes for Aboriginal Victorians	This is the Department of Education and Training strategy for increasing education opportunities for Indigenous school students, school-leavers and adult learners. It evaluates the government and institutional approaches to education with the aim of adjusting poor practices and enhancing the accessibility of services. The project has been designed in consultation with the Victorian Aboriginal Education Association	http://www.education.vic.gov.au/about/programs/aboriginal/pages/garringarrin.aspx
	The Indigenous Training and Recruitment Initiative (INTRAIN)	This program aims to enhance Indigenous representation in health and community-based professions. Indigenous students are supported to study in these fields through the provision of scholarships. INTRAIN scholarships are also available for students commencing post-graduate study	http://www.dhs.vic.gov.au/for-individuals/financial-support/scholarships/aboriginal-scholarships/intrain-scholarships http://www.dhs.vic.gov.au/for-individuals/financial-support/scholarships/aboriginal-scholarships/postgraduate-intrain-scholarships
	Local Learning and Employment Networks	This program engages youth in programs for further training through partnerships with business and schools	http://www.education.vic.gov.au/about/programs/pathways/pages/networks.aspx
	Managed Individual Pathways	This initiative requires all schools to engage students in years 8 – 12 in career planning to facilitate their transition when leaving school	http://www.education.vic.gov.au/school/teachers/support/Pages/mips.aspx
	Victoria State Government Department of Education and Training	The Education and Training Department of Victoria	http://www.education.vic.gov.au/Pages/default.aspx
	Victoria State Government Higher Education and Skills Group	This sector's purpose is to engage Victorians in tertiary education. They oversee state higher education institutions and facilitate partnerships between employers, educators and individuals	http://www.education.vic.gov.au/about/department/structure/Pages/default.aspx
	Vocational Education and Training Indigenous Tutorial Assistance Scheme (VET ITAS)	This is a scholarship fund for Indigenous students engaged in apprenticeships and VET programs	http://www.dob.nt.gov.au/training/policies/Pages/tertiary-tution-policy.aspx
South Australia	Government of South Australia Department of Education and Child Development	State government department for both education and children's affairs	http://www.decd.sa.gov.au/
	Information for Mature-Aged Tertiary Students	This page by the Government of South Australia provides advice for adult learners commencing tertiary education	https://www.sa.gov.au/topics/education-skills-and-learning/university-and-higher-education/mature-age-students
	South Australia Certificate of Education Personal Learning Plan	All year 10 students are required to complete a subject in which they create individualised plans for their study and career aspirations	https://www.sace.sa.edu.au/web/personal-learning-plan/
	Terry Roberts Memorial Scholarship	This scholarship is awarded to an Indigenous student beginning study on a full time basis at the University of South Australia	http://www.statedevelopment.sa.gov.au/aboriginal-affairs/terry-roberts-memorial-scholarship
Tasmania	The Department of Education Tasmania	Government sector for education matters	https://www.education.tas.gov.au/Pages/default.aspx
	Tasmania's Aboriginal Education Framework	This framework informs the Tasmanian Governments approach to Indigenous student support and the inclusion of Indigenous cultural awareness in education programs. It focuses on engaging whole-institutions, partnering with the community and including ATSI perspectives in curricula	https://www.education.tas.gov.au/documentcentre/Documents/Tasmanias-Aboriginal-Education-Framework-(2012%E2%80%932015).pdf
Western Australia	Aboriginal Mentoring Consultations Project	The Department of Training and Workplace Development engaged with Aboriginal communities to gain their perspective on best practice in mentoring. The results were then presented in a report and used to inform policy-making	https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.dtwd.wa.gov.au%2Femployeesandstudents%2Faboriginalworkforcedevelopmentcentre%2Fresources%2Fpublications%2FDocuments%2FConsultations%2520on%2520mentoring%2520for%2520Aboriginal%2520people%2520executive%2520summary.DOC
	Aboriginal School-Based Traineeships	This program by the Department of Education and the Department of Training and Workforce Development promotes Indigenous engagement in school-based traineeship programs.	http://www.dtwd.wa.gov.au/employeesandstudents/apprenticeshipoffice/Pages/default.aspx http://www.ais.wa.edu.au/images/member/ffootprints/indigenous-school-based-traineeships.pdf
	Follow the Dream: Partnerships for Success	This program, created in partnership with the Graham (Polly) Farmer Foundation, supports Indigenous secondary school students to complete their schooling and transition into tertiary study. Students participate in career planning and receive advice and support from program manager.	http://www.det.wa.edu.au/aboriginaleducation/detcms/navigation/teaching-and-learning/follow-the-dream/

	Government of Western Australia Department of Education's Aboriginal Education Sector	This faction of the Department of Education addresses Indigenous engagement in education from K-12 and in tertiary study	http://www.det.wa.edu.au/aboriginaleducation/detcms/portal/
	Government of Western Australia Department of Training and Workforce Development	Government department which engages with training affairs	http://www.dtwd.wa.gov.au/Pages/default.aspx
	Rural and Remote Education Advisory Council	A committee which provides advice to the Department of Education as to the needs of all students in rural and remote areas	http://rreac.des.wa.gov.au/Pages/default.aspx
	Western Australian Aboriginal Education and Training Council	This group advises the Western Australian Minister for Education.	http://www.des.wa.gov.au/associatedareas/Pages/WAAETC.aspx

Appendix 5: Summary Table of Current Practices – Current initiatives and groups found on various social media related to Indigenous participation in higher education

	Name of Initiative/Group	Description	Media Used	URL
Institutional/Organisational	Aboriginal Employment and Career Development NSW DEC	Facebook page of the NSW Department of Education' s Aboriginal Employment and Careers Initiative	Facebook Twitter	https://www.facebook.com/aboriginalemploymentNSWDEC/timeline https://twitter.com/OurMobCareers
	Aboriginal Learning Circle	A collective initiative of five NSW TAFE Institutes which aims to attract more Aboriginal and Torres Strait Islander students and employees through changes to organisational culture	Facebook	https://www.facebook.com/aboriginallearningcircle/timeline
	AIME	Online presence of the Australian Indigenous Mentoring Experience	Facebook Linked-In Twitter Youtube	https://www.facebook.com/aimementoring/timeline http://www.linkedin.com/company/aime-mentoring http://www.twitter.com/aimementoring http://www.youtube.com/aimementoring
	Australian Indigenous Education Foundation (AIEF)	AIEF is an NGO which provides scholarships and career support for Indigenous youth to attend both secondary and tertiary institutions	Facebook	https://www.facebook.com/AIEFoundation/timeline
	Burunga Indigenous Student Committee	Facebook page of the University of the Sunshine Coast's Indigenous support centre	Facebook	https://www.facebook.com/pages/Buranga-Indigenous-Student-Committee/494642883946602?fref=ts
	CareerTrackers Indigenous Internship Program	An NGO which connects Indigenous learners to paid internship placements	Facebook	https://www.facebook.com/CareerTrackers/timeline
	Community of Excellence (Indigenous Social Network)	The Facebook page of an organisation which pairs Indigenous students with mentors and opportunities for institutional or workplace learning	Facebook	https://www.facebook.com/CommunityofExcellence/timeline
	Critical Classroom	An initiative which provides schools with education resources for Indigenous students	Twitter	https://twitter.com/CriticalClassrm
	Indigenous Education Ambassadors Program	An initiative of the Department of Education, Employment and Work Relations (DEEWR) whereby Indigenous professionals visit institutions to engage with and inspire ATSI learners	Youtube	https://www.youtube.com/watch?v=yBP1ojr3nxo
	Indigenous.gov.au	The Facebook page of the Australian Government's information and engagement website on Indigenous affairs	Facebook	https://www.facebook.com/indigenous.gov.au/timeline
	INDIGILAB	INDIGILAB facilitates programs which engage Indigenous students in science and technology	Twitter	https://twitter.com/INDIGILAB
	Learn Earn Legend! Campaign	A campaign by DEEWR encouraging ATSI students to complete secondary and tertiary education. The Campaign also engages with National Rugby League teams in both online and in-school initiatives	Youtube Facebook (NRL School to Work Program)	https://www.youtube.com/watch?v=n_BiBLOjnC8&index=5&list=PL2iz6Bg-RJYdOmnx2kJc1KaQnykAkzyLu https://www.facebook.com/LEL.NRLS2W?fref=ts
	Learning Ground	This group shares new information and resources regarding Indigenous higher education. Their website provides a comprehensive database of Indigenous education research	Twitter Website	https://twitter.com/LearningGround http://opac.acer.edu.au/ierd/index.html
	The National Centre of Indigenous Excellence	An independent operator providing training the fields of: arts and culture; health and wellness; learning and innovation; and sport and recreation. One example of this is the Indigenous Digital Excellence initiative, a secondary school robotics program.	Facebook	https://www.facebook.com/theNCIE?fref=pb&hc_location=profile_browser
	National Indigenous Research and Knowledges Network	This is an online group of Indigenous researchers from universities nationally	Facebook	https://www.facebook.com/pages/National-Indigenous-Research-and-Knowledges-Network-Nirakn/547321605298124?fref=pb&hc_location=profile_browser
	National Indigenous Tertiary Education Student Games	A sports tournament which engages ATSI university staff and students annually	Facebook	https://www.facebook.com/IndigenousGames?fref=pb&hc_location=profile_browser
	National Indigenous Youth Leadership Academy (NIYLA)	An NGO which supports school-leavers and university students to engage in community leadership. NIYLA also facilitates a 'Professional Network' which shares information about career opportunities	Facebook	https://www.facebook.com/IndigenousLeadership/timeline
	Nyngun Aboriginal Education Consultative Group	A support service for Indigenous students undertaking higher education in the local area	Facebook	https://www.facebook.com/NynganLAECG/timeline
	OTEN Aboriginal Student Support	Support service for Indigenous students undertaking study at Western Sydney Institute of TAFE's Open Training and Education Network	Facebook	https://www.facebook.com/oten.aboriginalsupport/timeline
	Stronger Smarter Institute	A group which provides professional development opportunities for school teachers with the aim of creating a culture of high expectations and aspirations for further study among Indigenous students	Twitter	https://twitter.com/StrongerSmarter?lang=en
	The Indigenous Literacy Foundation	The Indigenous Literacy Foundation is an NGO which supports indigenous students in remote locations to access resources and raising awareness	Facebook	https://www.facebook.com/IndigenousLiteracyFoundation/timeline
	Tribal Warrior Association	An independent group which provides training in cultural tourism	Facebook	https://www.facebook.com/pages/Tribal-Warrior-Association/224393807586457?sk=timeline
	UTS: Jumbunna IHL (University of Technology Sydney: Jumbunna Indigenous House of	UTS: Jumbunna IHL is the Facebook page of the UTS's Indigenous student support service. The page is a source of information for ATSI people considering applying to the university as well as its current students.	Facebook	https://www.facebook.com/UTSJumbunnaIHL/timeline

	Learning)			
	Victorian Aboriginal Education Association Incorporated (VAEAI)	A community organisation which represents Indigenous interests in education policy-making. They also support specific, culturally engaging education programs through their subordinate organisations, called Local Aboriginal Education Consultative Groups	Facebook	https://www.facebook.com/vaeai/timeline
	VocEdAustralia	This initiative provides public information on vocational education and training pathways	Twitter	https://twitter.com/VocEdAustralia
	Waterloo Aboriginal Education Centre	The Facebook page of the Indigenous support centre at University of Waterloo	Facebook	https://www.facebook.com/WaterlooAboriginalEducationCentre/timeline
	Wirltu Yarlu Aboriginal Education	A faction of the University of Adelaide which supports Indigenous people to commence and continue study	Facebook	https://www.facebook.com/wirltu.yarlu/timeline
	Wollotuka	The University of Newcastle's Indigenous support service	Twitter	https://twitter.com/Wollotuka
	Yulang Aboriginal Education and Training Unit	A department of Sydney TAFE which focuses on providing ATSI people with advice on pathways to higher education	Facebook	https://www.facebook.com/YulangAboriginalEducationUnit/timeline
organic	Aboriginal and Torres Strait Islander Students and Young Professionals	This is a community paged designed to foster networking between young Indigenous people as they begin work and study	Facebook	https://www.facebook.com/pages/Aboriginal-and-Torres-Strait-Islander-Students-and-Young-Professionals/556107691073086?sk=timeline
	Aboriginal and Torres Strait Islander Youth	A community page connecting Indigenous youth and sharing content on Indigenous affairs	Facebook	https://www.facebook.com/AboriginalTorresStraitIslanderYouth?fref=pb&hc_location=profile_browser
	ANU Indigenous Students	A closed group which provides a platform for connecting Indigenous students at the Australian National University and sharing educational news	Facebook	https://www.facebook.com/groups/170390093020061/
	Griffith Indigenous Student Association	Facebook page of the Indigenous Student Association at Griffith University, independently organised by students	Facebook	https://www.facebook.com/griffithindigenous?fref=ts
	JCU Indigenous Health Students United	A network of Indigenous students undertaking studies in the health faculty of James Cook University	Facebook	https://www.facebook.com/groups/423509114340601/
	JCU Townsville, Indigenous Student Association	A closed group for students at James Cook University interested in Indigenous affairs	Facebook	https://www.facebook.com/groups/333618236750423/
	Murri – Employment, Education and Training	This is a closed Facebook group in which job opportunities and education information is shared. It currently has over 4000 members	Facebook	https://www.facebook.com/groups/CCMawaga/
	Tafesa Anangu Education Worker Students	This page is for communication between students completing a Certificate III in Children's Services in remote areas of South Australia	Facebook	https://www.facebook.com/certificate3.AEW/timeline
	UNSW Indigenous Students	A private group which aims to connect Indigenous students at the University of New South Wales	Facebook	https://www.facebook.com/groups/456433687750339/
	UWS Indigenous Student Collective	Student union formed to serve Indigenous students at the University of Western Sydney	Facebook	https://www.facebook.com/uwsisc?fref=ts

Appendix 6: SOCIAL MARKETING APPROACH TO WIDENING PARTICIPATION PROJECT:

CRITICAL TABLE BY YEAR

YEAR	AUTHOR(S)	SOURCE	METHODOLOGY	KEY FINDINGS /THEMES	CODE
2015	Anderson, I	'Indigenous Higher Education – Pathway to 2020,' *Aboriginal and Torres Strait Islander Higher Education Advisory Council,* at Universities Australia Higher Education Conference 2015.	Conference Presentation	• The Aboriginal and Torres Strait Islander Higher Education Advisory Council (ATSIHEAC) present that commencement and completion by Indigenous students has increased over the last ten years. • The ATSIHEAC's visions for 2020 are: population parity in universities; ATSI students commencing degrees in a broader range of disciplines; more ATSI academics, researchers and industry professionals; engagement with Indigenous knowledge in curricula; and for universities to celebrate Indigenous culture. • The ATSIHEAC endorses a whole-of-institution approach and institutional change rather than a deficit view of students • The groups consultations with universities has led to a report (currently being published) on best practice which will be used to advise the government • The CSIRO's STEM pathway, a program encouraging ATSI participation in the study of science, technology, engineering and mathematics, is endorsed and plans are being formed to expand its reach • Supporting the commencement and completion of HDR students is one of the committee's main goals. The committee is considering a similar approach to that which has been quite successful in New Zealand	#Pathways #Non-school-leaver
2015	Anderson, I	'The University of Melbourne Reconciliation Action Plan 2015-2017,' *The University of Melbourne.*	Policy review	• The University of Melbourne has extended their initial Reconciliation Action Plan with the aim of encouraging "relationships, respect and opportunities," (p. 9)	
2015	Asmar, C, Page, S & Radloff, A	'Exploring Anomalies in Indigenous Student Engagement: Findings from a National Australian Survey of Undergraduates,' *Higher Education Research & Development,* vol. 34, no. 1, p. 15-29.	Analysis of data from the Australasian Survey of Student Engagement conducted in 2009	• Despite high engagement levels, Indigenous students were still found to be more likely to complete their study than other cohorts • Participation by ATSI students has risen, while rates of retention and completion have not improved • Involvement in higher education by ATSI peoples is highest amongst women in a higher age-bracket and from a low SES background • The authors suggest that students' motivation differs with age, influencing the likelihood of completion • A 'whole-of-institution' approach is thought to create the most supportive atmosphere and reduce attrition rates	#Low-SES
2015	Australian Government	'Closing the Gap Prime Minister's Report 2015,' *Australian Government,* Commonwealth of Australia, Canberra.	Quantitative data report and analysis of progress towards goals	• The Australian Government reports that it is "on-track" to achieve the goal of halving the gap for Indigenous Australians aged 20-24 in Year 12 attainment or equivalent attainment rates by 2020. This will positively influence Indigenous participation in higher education. • Large differences still occur in completion by students in metropolitan, outer urban, rural/regional and remote areas	#Metropolitan #Outer urban #Remote #Rural/regional #School-leaver
2015	Beddie, F	'The Outcomes of Education and Training: What the Australian Research is Telling Us, 2011-2014,' *Australian Government Department of Education and Training,* Canberra.	Policy review	• Government approaches to widening participation in education by ATSI students has focused on primary education. The Department of Education and Training espouses that success with these programs will enable participating students to successfully engage in higher education later in life • The report suggests that supporting adults to engage in higher education will positive influence their children and others who perceive them as role models • More consideration needs to be given to individual experiencing multiple forms of disadvantage • Policies would be improved by greater recognition of digital learning modes and flexible structures • VET structures would be improved by redefining student competence and their approach to assessment and community engagement. Such improvements would benefit community perceptions of VET programs which is currently problematic	#Digital #Key influencers
2015	Bodkin-Andrews, G, Harwood, V, Mcmahon, O'Shea, S & Priestly, A	'Recognising Aspiration: The AIME Program's Effectiveness in Inspiring Indigenous Young People's Participation in Schooling and Opportunities for Further Education and Employment,' *Australian Educational Researcher,* vol. 42, no. 2, p. 217-236.	Case study of AIME program conducted through observation and quantitative surveys	• The success of the AIME Program in supporting ATSI students is attributed to its recognition of cultural capital. • Positive results are observed in programs, such as AIME, which recognise the aspirations of participants, rather than assuming that they have low expectations	#Aspiration #School-leaver
2015	Chirgwin, S	'Burdens Too Difficult to Carry? A Case Study of Three Academically Able Indigenous Australian Masters Students Who Had to Withdraw,' *International Journal of Qualitative Studies in Education,* vol. 28, no. 5, p. 594-609.	Case study	• The literature suggests that ATSI students are less likely to be university-ready than others. Universities are also unlikely to be "culturally ready," (p. 595) to support ATSI students • Having chosen students who were academically able and studying in institutions tailored to ATSI education, these issues were eliminated and the impacts of external factors were assessed. The study found that factors such as health, work commitments, family and community obligations added stress to the students. • Students were all unwilling to withdraw but felt that their other commitments took precedence	

2015	Collard, G Konigsberg, P, Rochecouste, J & Welch, A	'Australia: Aboriginal Education,' in Crossley, M, Hancock, G & Spraque, T (Eds) 2015, *Education in Australia, New Zealand and the Pacific,* Bloomsbury Publishing, UK.	Literature and policy review	• Pathways for ATSI students who have completed VET qualifications to higher education receive little attention • A whole-of-university approach is necessary in supporting ATSI students • More engagement with ICT is endorsed due to its ability to engage remote students and its links to Indigenous cultural philosophies • The authors consider that there are three main barriers to achieving population parity in higher education: non-Indigenous Australians lack of awareness/respect for ATSI culture; access to higher education being dependent on success in prior learning; and the influence of continued social disadvantage	#Digital #Pathways #Remote
2015	Costello, D, Cupitt, C & Mitchell, G	'Widening Tertiary Participation Queensland: Student Ambassador Investigations,' *National Centre for Student Equity in Higher Education,* Curtain University, Perth.	Interviews with Student Ambassadors in widening participation programs	• 35% of student ambassadors were motivated to join the program as a way of contributing to communities of which they are a part – for example, Indigenous, people in rural areas or those with a disability • Students from equity backgrounds are more likely to seek involvement in programs such as AIME which promote higher education. This was especially prevalent among student ambassadors at James Cook University, of which 38% were Indigenous • Long term mentoring programs are described as to Indigenous ways of teaching and have thus, been more successful for ATSI students • Mentoring has also been a means of building university-wide appreciation for Indigenous culture	#Key influencers
2015	Day, A, Martin, G, Nakata, M & Nakata, V	'Indigenous Students' Persistence in Higher Education in Australia: Contextualising Models of Change from Psychology to Understand and Aid Students' Practices at a Cultural Interface,' *Higher Education Research & Development,* vol. 34, no. 3, p. 501-512.	Literature review	• The review indicates a need for more research into students' methods of negotiating academic challenges and strategies for success • Understanding individual responses to challenges should inform institutions' support services • These support services often aim to help students adjust to the institutional culture, and rarely consider changes to the institution to recognise the cultural capital of the student • Students' need for institutional support changes as they act to overcome their own challenges, meaning many procedures are too general to be effective • Students own approach to persisting in times of challenge should be supported	
2015	Hall, L	'What are the Key Ingredients for an Effective and Successful Tertiary Enabling Program for Aboriginal and Torres Strait Islander Students? An Evaluation of the Evolution of One Program,' *Australian Journal of Adult Learning,* vol. 55, no. 2, p. 244-266.	Quantitative data analysis and personal narratives about the Preparation for Tertiary Studies (PTS) program offered at the Australian Centre for Indigenous Knowledges and Education and Charles Darwin University	• Quantitative data suggests that teaching metacognition and using metalanguage – aligned with Indigenous pedagogies - in the PTS program led to a higher completion rate • A holistic learning approach helps students to identify their own learning styles and build self-awareness • Students expressed appreciation for the environment of high expectations, a recognition of different ways of learning, social learning experiences and connection with peers/teachers and digital learning tools • More research is needed to address the large gap between enrolment and completion • Progression to VET or University study by PTS students is very high	#Awareness #Digital #Key influencers #Non-school-leaver #Pathways
2015	Holland, C	'Close the Gap Progress and Priorities Report 2015,' *Close the Gap Campaign Steering Committee,* Australia.	Literature and policy review, critical analysis of census data	• Federal government reforms, which endorse the power of the states and territories to lead their own affairs, may prevent the Close the Gap strategy from being implemented as desired, perhaps stalling progress in widening participation and other programmes • The Indigenous Advancement Strategy (IAS) which began in January 2014 identifies strengthening pathways to higher education as part of the Children and Schooling Programme. Its goals are aligned with the Close the Gap strategy with the potential for greater co-operation. Concern is expressed that only few ATSI organisations were consulted in its formation • Many ATSI representative organisations hold fears that these changes oversimplifying the issues • Funding cuts are also a point of stress for ATSI groups in the new structure • The links between community health and engagement in education are reinforced	#Pathways #School-leaver
2015	Holland, C	'Murra Mullangari – Pathways Alive and Well,' in 'Close the Gap Progress and Priorities Report 2015,' *Close the Gap Campaign Steering Committee,* Australia.	Case study of a program encouraging ATSI students to study health sciences	• The program, led by the Australian Indigenous Doctors Association, aimed to increase awareness of potential careers and pathways to further study and to build aspirations for careers in health among ATSI school-leavers. • Qualitative surveys reveal that the program is meeting these aims with many enrolling in health programs.	#Aspirations #Awareness #Pathways #School-leaver
2015	Kelly, M & Trinidad, S	*Partnerships in Higher Education,* Curtain University, Perth.	Case Study of university equity programs which use a partnership approach	• Successful partnerships should engage social justice evaluation • Most Australian public universities are employing a cross-sectorial social approach • Effective principles for equity partnership programs include: shared purposes and goals; relations with partners; capacities for partnership; partnership governance and leadership; and trust (p. 3)	
2015	King, A, Reed, R & Whiteford, G	'Re-conceptualising Sustainable Widening Participation: Evaluation, Collaboration and Evolution,' *Higher Education Research & Development,* vol. 34, no. 2, p. 383-396.	Case study of mentoring program for students at Macquarie University who identify as culturally or linguistically diverse	• Three strategies for achieving a sustainable approach to widening participation in university study are presented: opportunities for comprehensive, reflexive evaluation; partnerships with industry professionals; and continually revising the framework for widening participation • Approaching widening participation in higher education as a solution to broader social issues may raise the profile of the issue • The program examined is considered exemplary in that 100% of students were retained. Program outcomes included: increasing students' capacity, confidence, sense of belonging, motivation and social capital	#Disability #Low-SES #NESB

2015	Lander, J, Mooney-Somers, J & Plater, S	'The Fallacy of the Bolted Horse: Changing Our Thinking About Mature-Aged Aboriginal and Torres Strait Islander University Students,' *Australian Journal of Indigenous Education,* vol. 44, no. 1, p. 59-69.	Literature and policy review, analysis of media and private sector texts	• The literature review found that institutions and the mainstream media fail to address mature-age Indigenous students as a distinct group. Mature-age students in general are well-supported and celebrated which ATSI students are considered mostly through a deficit model. • Mature-age ATSI students are described as more likely to study in block-mode, engage in work-place experience and view their study as a way of benefitting the community • Contrastingly, much literature recognises the value of older role-models to young ATSI people considering study.	#Awareness #Key influencers #Non-school-leaver
2015	Lewis, S, Lincoln, M, Ng, F, Shirley, D & Willis, K	'The E12 Experience: Students' Perceptions of a Widening Participation Scheme,' *The International Journal of the First Year in Higher Education,* vol. 6, no. 1, p. 35-47.	Critical analysis of the University of Sydney's Early Offer Year 12 (E12) Scheme. Qualitative survey and interviews with participants	• E12 is an alternative pathway for university entry whereby students from schools in low SES areas are assessed qualitatively rather than by ATAR ranking. Students expressed that the program enabled them to enter university when they otherwise would not have been successful. • More research is needed to assess the value of financial assistance in widening participation pathways • Students' social engagement positively influenced their grades and retention	#Low-SES #Pathways #School-leaver
2015	Townsend, P	'Mob Learning – Digital Communities for Remote Aboriginal and Torres Strait Islander Tertiary Students,' *Journal of Economic and Social Policy,* vol. 17, no. 2, p. 20-44.	Literature review of mobile devices and digital communities amongst remote Aboriginal and Torres Strait Islander people. Mixed methods research including interviews and focus groups involving Indigenous pre-service teachers in remote communities	• Use of ICT, particularly mobile devices and digital communities in learning was seen to create a more engaging and personal experience for learners • Students valued being able to study in any location, at any time • Online communities were regarded as a form of academic assistance, administration and encouragement • Students gained confidence from accessing support digitally • Digital pedagogies are argued to align with Indigenous cultural philosophy, thus, supporting student success	#Digital #Key influencers #Remote
2015	Trinidad, S & Whiteford, G	'Equity Scholarship Provision in Australian Universities: Insights and Directions,' *National Centre for Student Equity in Higher Education,* Curtain University, Perth.	Quantitative and qualitative data analysis of university policy and reports nationally	• Equity scholarships for ATSI students is reported on and publicised much more than data on other equity groups • Providing a scholarship targeted to a specific group is often ineffective – the targeted group often need desire and support to apply	#Aspirations #Awareness #Disability #Low-SES
2014	Ellis, B, Kirkham, R, Parry, L & Thomas, K	'Remote Indigenous Students: Raising their Aspirations and Awareness of Tertiary Pathways,' *Australian and International Journal of Rural Education,* vol. 24, no. 2, p. 23-35.	Program review using qualitative and quantitative data	• Raising students aspirations requires community members and other key influencers to collaborate and is most effective whilst children are young • UniCamps, a program where students from remote towns spend time experiencing university life have been effective at raising awareness of higher education possibilities outside participants home towns • Confidence is identified as a key attribute for success in transition from secondary to tertiary study • The experience enabled students to envision themselves in tertiary study	#Aspirations #Awareness #Key influencers #NESB #Pathways #Remote
2014	Sheehan, G., T. Di Biase & K. Clarke	'The Koorie Footprints to Higher Education Program: An analysis of program strengths and challenges' in A. Gunstone (ed), *Developing Sustainable Education in Regional Australia*, Monash University Publishing, Melbourne. pp. 189-216.	Review of program reports and presentations Interviews with staff Mapping of program characteristics onto Design and Evaluation Matrix for University Outreach (DEMO) to estimate likelihood of program success	• The KFtHE program appears to employ four strategies: building confidence, working together, and, to a lesser extent, assembling resources and engaging learners. • The likely effectiveness of the KFtHE program is assessed as "Quite-Likely to Very-Likely" to assist Indigenous students to aspire to and participate in higher education. • Further research is now needed to drive future development of the program in the context of growing Indigenous student numbers and community engagement on the Gippsland campus.	#Aspirations #School-leaver
2013	Bodkin-Andrews, G., V. Harwood, S. McMahon & A. Priestly	'AIM(E) for completing school and university: Analysing the strength of the Australian Indigenous Mentoring Experience' in R.G. Craven & J. Mooney (eds),	Multi-group analyses using Confirmatory Factor Analysis and structural equation	• Strong psychometric properties allow an increased level of confidence in the AIME measures • AIME is an effective tool for increasing educational aspirations of ATSI students and their levels of School Self-concept and School Enjoyment • Mentoring must be extended well beyond simplistic notions of role-modelling	#Aspirations #Key influencers #School-leaver

		Seeding Success in Indigenous Australian Higher Education, Emerald Group Publishing Limited, Bingley, UK. pp. 113-134.	modelling to explore psychometric validity of measures used by AIME, and whether they take account of background variables (eg gender, parental education)		
2013	Craven, R.G. & A. Dillon	'Seeding success in Indigenous Australian higher education: Indigenous Australian students' participation in higher education and potential ways forward' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 3-27.	Analysis of statistical reports, government reports and scholarly literature to examine Indigenous student participation rates, identify successful strategies and issues for the seeding student success.	• Improving educational outcomes requires whole-of-government approach across housing, health, employment, cultural celebration etc as well as education • Enabling programs seed success in higher education participation, as do external modes of attendance • Australian government initiatives have resulted in gains in participation, but there is a paucity of independent empirical research evidence on what seeds success • It is critical to engage Indigenous and non-Indigenous leading researchers in such research and in supporting Indigenous scholars • Aiming for population parity in Indigenous participation in education is insufficient. Targets need to be above population parity • Further research is urgently needed on what seeds success in postgraduate studies • ARC needs to fund the best research of leading Indigenous PhD students to forge next generation of leading Indigenous scholars.	#Non-school-leaver
2013	Flood, J.	'Aboriginal women and higher education: A pilot study of what drives and sustains mature-age Aboriginal women to study at university' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 209-223.	Narrative inquiry using auto-ethnographical and autobiographical methods	• The women participants were not encouraged to undertake higher education when younger, but were encouraged later in life (by employers, family, peers etc). • Money (HECS) is a significant issue for the participants • Aboriginal mature-age women who complete higher education are 'highly motivated, master jugglers who overcome great odds to complete degrees' (Wilson and Rosen 1999) • The women's choice to study has made them role models for their families and communities • The women have retained 'their own cultural pride while acquiring the required elements of western civilization' (Strauss and Jolly 2002)	#Key influencers #Non-school-leaver
2013	Foxall, D.	'Barriers in education of Indigenous nursing students: a literature review', *Nursing Praxis in New Zealand*, vol. 29, no. 3, pp. 31-37.	Literature review (16 articles)	• Barriers to retention of Maori students in nursing courses include lack of cultural and academic support, family obligations and financial hardship • Strategies to address recruitment barriers include changing pre-entry requirements, promotion of nursing programs, role models, streamlining enrolment processes • Strategies to address retention barriers include increasing cultural relevance of curriculum, supporting cultural needs of students, engaging communities, and funding support • Partnerships between academic institutes and Indigenous communities is needed to ensure provision of culturally safe, supportive environments.	#Key influencers #Pathways
2013	Larkin, S.	'Indigenous standpoint and university corporate identity: Transforming an organizational culture' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 227-250.	Literature and document review Case study of Charles Darwin University	• Advocacy response to Behrendt report (see above) and others • Argues that dominant neoliberal epistemologies operate in the service of the state, and devalue Indigenous epistemologies • This is perpetuated in universities that devalue knowledge and contributions of Indigenous staff • Argues that Indigenous standpoints should inform policy and practice in universities, through access to senior executive leadership, formal policy status, traction and engagement, generating problematics and solutions, and university responsiveness	
2013	Martin, A.J., P. Ginns, B. Papworth & H. Nejad	'The role of academic buoyancy in Aboriginal/ Indigenous students' educational intentions: Sowing the early seeds of success for post-school education and training' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 57-79.	Survey and statistical analysis of 350 Aboriginal and 592 non-Aboriginal high school students Critical literature review	• Connects academic buoyancy (capacity to effectively deal with everyday academic adversity and challenge) with post-school educational intentions • Predictive effect of academic buoyancy on educational intentions was higher in Aboriginal student populations than non-Aboriginal, especially in senior high school. Factors include greater anxiety in Aboriginal students. • Proposals for intervention include teacher professional development, strategies for students to manage risks, parental engagement, access to information, and access to educational resources to ameliorate economic and social disadvantage	#Awareness #Key influencers #Low-SES #School-leaver

2013	McInerney, D.M. & R.B. King	'Harnessing the power of motivational factors for optimizing the educational success of remote Indigenous students: A cross-cultural study' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 81-111.	Literature review Questionnaire survey of two groups of post-secondary students (Indigenous Australian and Native American). Comparison through structure-oriented analysis and level-oriented analysis	• Takes a positive perspective rather than 'deficiency' model to look at psychological factors in successful learning • Social goals more important for 'deep learning' in Indigenous Australian group and performance goals more important for Native American group. Self-concept and mastery orientation high in both. • Concludes that greater support is needed for students in post-secondary study and interventions should target students' self-concept, mastery-oriented and socially-oriented motivations.	#Key influencers
2013	Mooney, J. & S.J. Moore	'Shifting the emphasis: Embedding and reflecting on introducing Aboriginal studies and perspectives' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK. pp. 301-318.	Review of literature and reports Descriptive report and reflection on project Auto-ethnographic account of project	• Description of deep learning journeys of an Aboriginal coordinator and non-Aboriginal staff in project led by Aboriginal people • Project is a response to recommendations of a 2004 'Audit of Aboriginal Studies/Perspectives and Related Issues in the Faculty of Education and Social Work' • Project aimed to equip staff to embed Aboriginal perspectives and Reconciliation into curriculum and programs, through land-based learning and deep learning processes	
2013	Nakata, M.	'The rights and blights of the politics in Indigenous higher education', *Anthropological Forum: A Journal of Social Anthropology and Comparative Sociology*, vol. 23, no. 3, pp. 289-303.	Political and theoretical analysis of human rights, self-determination and social justice discourse and its framing of debate on Indigenous higher education	• Argues for an alternative to polarised debate in Indigenous affairs • Proposes that higher education prioritise an Indigenous engagement with the world of ideas beyond concern with distinction between categories of 'Western' and 'Indigenous'. • Argues for more attention to the complexity of the 'middle ground' i.e. at cultural interface	
2013	National Congress of Australia's First Peoples	*National Education Policy*, Strawberry Hills, NSW, <http://nationalcongress.com.au/wp-content/uploads/2013/11/CongressEducationPolicyWeb.pdf> viewed 28 June 2014.	Review of current policy Consultation with members, delegates and partner organisations Recommendations	• Congress rejects a deficit model of Indigenous education and makes a number of recommendations building on successful programs as follows • Strengthening parental, family and community involvement in education, and supporting carers to deal with underlying issues such as housing and employment, if required. • Better incorporating the teaching of Indigenous histories and cultures into educational institutions and curricula, including languages. • Enhancing support for the special needs of Indigenous people with disabilities and other health conditions • Increasing the number of Indigenous educators and improving career development opportunities. • Increasing education resources for Indigenous people and increasing their involvement in decisions at all levels. • Supporting the expansion of programs that demonstrate success in education through on-going funding. • An accountability framework and objective measures are needed to assess the success of education programs. • Supporting the involvement of Indigenous people at the community level in resource allocation. • Congress is also developing specific policies on early childhood, school, vocational and higher education.	#Awareness #Disability #Key influencers
2013	Power, T., L. Geia & R. West	'Creating connections: Enhancing Indigenous education through collaboration', *Contemporary Nurse*, vol. 46, no. 1, pp. 95-96.	Editorial to special journal issue	• Overview of papers	
2013	Schofield, T., R. O'Brien & J. Gilroy	'Indigenous higher education: Overcoming barriers to participation in research higher degree programs', *Australian Aboriginal Studies*, vol. 2, pp. 13-28.	Literature and policy (Australian and overseas) Analysis of government and university policy responses in Australia	• Critical issue is to maintain an ongoing research focus on organisational dynamics of university governance and management and their impact on Indigenous RHD participation • Need also to examine Indigenous participation in university governance and management	
2013	Sherwood, J., N. Watson & S. Lighton	'Peer support: Mentoring responsive and trusting relationships' in R.G. Craven & J. Mooney (eds), *Seeding Success in Indigenous Australian Higher Education*, Emerald Group Publishing Limited, Bingley, UK.	Literature review Collaborative Community Participatory Action Research Focus groups In-depth interviews	• The study linked safety to student engagement in higher education and their ability to provide peer support • Racism is a strong reoccurring theme in unsafe classrooms • Sharing class-room stories supported student learning, created safe space, and modelled the idea of a relational pedagogy.	#Key influencers

		pp. 187-208.			
2012 2014	Australian Council for Educational Research Steering Committee for the Review of Government Service Provision	*Review of the* Overcoming Indigenous Disadvantage: Key Indicators Report, Commonwealth of Australia. *Final responses to the recommendations of the review of the* Overcoming Indigenous Disadvantage (OID) *report 2013.*	Stakeholder consultation Review of governments' performance reports against targets Stakeholder consultation. Review by Steering Committee of recommendations.	• Most commonly identified limitations were around the reporting of data, need for greater analysis of the interconnections and linkages between indicators, and the need for a more strengths-based approach in the reporting of Indigenous experience. • Recommendations concerning future such reports, including more frequent smaller reports, greater involvement of Indigenous people in preparation of report. • Responses to review recommendations in accordance with two core objectives of the OID report, covering seven key areas of reporting.	
2012	Behrendt, L., S. Larkin, G. Griew & P. Kelly	*Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: Final Report*, Commonwealth of Australia, Canberra.	Document review, public submissions, consultation with vice-chancellors, Indigenous students, graduates and staff, education researchers, Elders and business people.	• Wide ranging recommendations on strategies to achieve parity of Indigenous population in higher education, role of careers advisers, building on the Higher Education Participation and Partnerships program, university collaboration on ATSI tutoring best practice, review of Indigenous Education Units, improving effectiveness of enabling programs, better access by ATSI students to information, expanding demand for ATSI professionals and support from professional communities, better access to higher education for remote and regional students, improved financial support for students, development of teaching and learning strategies for ATSI students, relevant training of HDR supervisors and other strategies to increase number of ATSI researchers and university staff, and greater support for research in the area of ATSI studies, improved cultural awareness in universities, development of an ATSI higher education and research strategy and a monitoring and evaluation framework.	#Awareness #Key influencers #Pathways #Remote #Rural/regional
2012	Bishop, A.R., M.A. Berryman, J.B. Wearmouth & M. Peter	'Developing an effective education reform model for Indigenous and other minoritized students', *School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice*, vol. 23, no. 1, pp. 49-70.	Case study research on schools in the Te Kotahitanga research and development programme to assess effectiveness of programme over several years on improving educational achievement of Maori students.	• Those schools that have been the most effective implementers of the Te Kotahitanga intervention have seen the greatest gains being made by Maori students in the 1st year of national assessments • In order to support classroom change most effectively, there needs to be a means of institutionalising a more effective and responsive leadership model within the schools.	
2012	Demostheno us, C.M.	'Inclusion/exclusion for Aboriginal and Torres Strait Islander students: Understanding how 'We' matters', *Journal of Social Inclusion*, vol. 3, no. 1, pp. 71-85.	Ethnomethodology (Conversation Analysis and Membership Categorisation) Focus group and transcript analysis	• Analysis of use of the personal pronoun 'we' in focus group discussion • Study demonstrated that the relevant identifying category that participants used to provide their retrospective accounts of university life was couched in terms of racial group membership, and that race can impact the way in which students participate in and experience university.	#Key influencers
2012	Herbert, J.	'"Ceaselessly circling the centre": Historical contextualization of Indigenous education within Australia', *History of Education Review*, vol. 41, no. 2, pp. 91-103.	Review of archival materials, historical texts and education reports. Alignment of review data with the data gathered through face-to-face interviews and	• Indigenous peoples and their education appear still to remain at the periphery of political decision-making • Indigenous students have the capacity to change this discourse through the empowerment they are gaining from their education • The increased corporatisation of universities has also opened doors for students who had been unable to access higher education, including Indigenous students who are repositioning themselves as in control of their own futures	

			focus group meetings conducted by the author		
2012	Hughes, H. & M. Hughes	*Indigenous Education 2012: Policy Monograph 129*, Centre for Independent Studies, St Leonards, New South Wales.	Document and statistical analysis to identify current characteristics of Indigenous education, trends, causes of literacy and numeracy shortfalls Critical policy review	• Indigenous education is well funded. Most Indigenous-specific expenditure, however, is spent on programs for which there is no evidence of positive impact. • 'Halving the gap' is not an acceptable target. Governments must have the objective of equal outcomes for all Australian students • Principals need to have control over staff recruitment, capital budgets, operating expenses, before- and after-school programs • Student, parent and school expectations for attendance and education need to change • Training reforms are needed to link training to actual job offers	#Key influencers #Pathways #School-leaver
2012	Taylor, J., M. Gray, B. Hunter, M. Yap & J. Lahn	*Higher Education and the Growth of Indigenous Participation in Professional and Managerial Occupations: CAEPR Working Paper No. 83/2012*, Centre for Aboriginal Economic Policy Research, ANU, Canberra.	Statistical overview of employment growth Critical review of literature and reports on economic and social returns and barriers	• If the educational level of the Indigenous population was increased to that of the non-Indigenous population, the value of this hypothetical change is $1.09 billion per annum. • The increase in Indigenous enrolments in degree courses has not been accompanied by a broadening of the distribution of enrolments across fields of study. • Indigenous people are much less likely to live in a city or regional centre with one or more higher education institutions than are non-Indigenous people. • In 2010, non-Indigenous Australians were two times more likely to be enrolled in a VET course than a university course; Indigenous Australians were eight times more likely. • the ageing Australian population has benefitted by being educated before it became 'old'; the risk now, unless major effort is made, is that the Indigenous population might become 'old' before it becomes educated.	#Metropolitan #Non-school leaver #Outer urban #Pathways #Rural/regional
2012	Wainwright, J., H. Gridley & E. Sampson	'Facing a world of NO: How accessible is a career in psychology for Aboriginal and Torres Strait Islander Australians?', *The Australian Community Psychologist*, vol. 24, no. 2, pp. 143-151.	In-depth interviews with three Aboriginal women graduates of psychology	• Interviewees felt culturally unsafe in their courses. • Processes for admission to postgraduate study or guiding interns through their supervised practice experience remain rigid, impervious to change, demoralising and discouraging to supervisors and supervisees alike, and completely embedded within western notions of 'professionalism' and what constitutes 'psychological' practice. • There is a lack of acknowledgement of the impact of colonisation on current experiences and failure to adequately address contemporary Indigenous issues and equip students with appropriate skills to respond.	#Pathways
2011	Cole, W.M.	*Uncommon Schools: The Global Rise of Postsecondary Institutions for Indigenous Peoples*, Stanford University Press (Chapter 2 'Indigenous Education in Global and Historical Perspective.'	Critical literature and policy review	• Universal expansion of higher education is partly responsible for development of colleges and universities adapted to identities and aspirations of Indigenous peoples. • Establishment of Indigenous postsecondary institutions is part of an international Indigenous rights movement and global "Indigenous" identity. • Assertions of Indigenous agendas, and government responses, have followed a broadly common trajectory in Australia, Canada, New Zealand and the United States and elsewhere.	#Aspirations #Pathways
2011	Indigenous Higher Education Advisory Council	*National Indigenous Higher Education Workforce Strategy*, Universities Australia, Commonwealth of Australia, Canberra.	Policy review Consultation with stakeholders	• A set of proposed key actions to build an Indigenous higher education workforce, including enhancing employment pathways for existing Indigenous employees, community engagement (promotional literature, work experience programs), embedding the activities of the NIHEWS in universities and establishing a Monitoring Committee	#Aspirations #Awareness
2011	Rigby, W., E. Duffy, J. Manners & H. Latham	'*Closing the Gap*: Cultural safety in Indigenous health education', *Contemporary Nurse*, vol. 37, no. 1, pp. 21-30.	Qualitative study using focus groups Case study of program for mental health workers in School of Nursing, Midwifery and Indigenous Health at CSU	• The mental health program offers a culturally safe learning environment • Key positive factors including quality of staff, flexible approach to learning and teaching, group identity and cohesion, ownership of the course by students • Negative factors relate to academic and administrative support services (tutoring programs, travel and accommodation), and participation of non-Indigenous students	#Key influencers
2011	Wood, A.	'Law studies and Indigenous students' wellbeing: closing the (many) gaps', *Legal Education Review*, vol. 21, no. 1-2, pp. 251-276.	Statistical and policy review Literature review Case study of ANU College of Law	• Identifies 'gaps' as educational, authenticity, financial, psychosocial support, recognition. Greatest policy issue is obtaining data to identify the gaps. • Examines whether these are addressed at ANU College of Law, and concludes that College programs have been a success in achieving ACT population parity (students and staff) • College initiatives include valuing Indigenous epistemologies and ways of learning, respecting Indigenous peoples and cultures, and expecting reciprocity. • Lessons from ANU is that commitment to redress disadvantage must come from highest levels of university.	#Metropolitan

2010	Ministerial Council for Education, Early Childhood Development and Youth Affairs	*Aboriginal and Torres Strait Islander Education Action Plan 2010-2014*, Commonwealth of Australia, Melbourne.	Review of earlier reports and reviews. Draft strategic plan development Consultation with stakeholders Public consultation	• Initial implementation to be in a group of 'focus schools' • Plan identifies national, systemic and local level action over 5 years, in six priority domains to improve outcomes in Aboriginal and Torres Strait Islander education. • Six domains are: readiness for school; student engagement and connections; attendance; literacy and numeracy; leadership, quality teaching and workforce development; and pathways to real post-school options	#Key influencers #Pathways #School-leaver
2010	Skene, J.	'Developing productive relationships with partner schools to widen participation', *The International Journal of the First Year in Higher Education*, vol. 1, no. 1, pp. 77-83.	Practice Report on schools program conducted by University of Western Australia	• Aspire UWA is an outreach program to raise aspirations for tertiary study, starting with Year 9 students • Is developing relationships with schools (students, teachers and principals) in Pilbara and outer metropolitan Perth • Program continuing to develop in light of feedback from students and staff	#Aspirations #Metropolitan #Outer urban
2010	West, R., K. Usher & K. Foster	'Increased numbers of Australian Indigenous nurses would make a significant contribution to 'closing the gap' in Indigenous health: What is getting in the way?', *Contemporary Nurse*, vol. 36, no. 1-2, pp. 121-130.	Literature and policy review Comparison of published studies on barriers to completion	• Strategies to increase Indigenous health workforce have seen only minimal improvements in nursing. • In addition to increasing student numbers, universities need to provide better support • In depth analysis is needed of entrenched oppression and its impact on identities • Recommends a critical Indigenist pedagogy addressing colonisation, racism, and including Indigenous knowledge and experience, more education of non-Indigenous nurse academics, further research on successful programs, and increased employment of Indigenous nurses as academics as support and role models	#Key influencers
2009	Coopes, R.	'Can universities offer a place of cultural safety for Indigenous students?' in J. Frawley, M. Nolan & N. White (eds), *Indigenous Issues in Australian Universities: Research, Teaching, Support*, Charles Darwin University Press, Darwin. pp. 106-113.	Critical literature review and discourse analysis of 'cultural safety' and application in Australian universities. Development of 4 cultural safety principles for education	• Increased Indigenous presence on campuses and Indigenous support units ameliorate Indigenous students' sense of isolation and promote cultural safety • Presence of Indigenous academics is more welcoming to Indigenous students • It is also an opportunity for Indigenous input into curriculum development and more Indigenous research conducted by Indigenous people • Indigenous support units have supported increased Indigenous presence in universities, but continue to face difficulties.	
2009	Courtenay, P. & S. Gair	'Toward critical mass: Work in progress at James Cook University' in J. Frawley, M. Nolan & N. White (eds), *Indigenous Issues in Australian Universities: Research, Teaching, Support*, Charles Darwin University Press, Darwin. pp. 29-35.	Report on educational and curriculum changes in Social Work and Community Welfare program at James Cook University, to support and retain Indigenous students, and emerging issues for the future	• Indigenous student numbers in the Department began to decline in the 1990s • Staff research identified barriers hindering Indigenous students from completing the Social Work degree at JCU • Responses included formation of an Indigenous Reference Group to advise the Department • An Indigenous student support officer was funded • Department has committed to orientation program for students • The decline in numbers of Indigenous students began to reverse in 2005	#Key influencer #Rural/regional
2009	Frawley, J., M. Nolan & N. White	'Canvassing the issues: Indigenous Australians in higher education' in J. Frawley, M. Nolan & N. White (eds), *Indigenous Issues in Australian Universities: Research, Teaching, Support*, Charles Darwin University Press, Darwin. pp. 1-6.	Overview of chapters	• Refer individual chapters summarised elsewhere in this table	
2009	Hampton, R.	'Indigenous governance and leadership in Australian universities' in J. Frawley, M. Nolan & N. White (eds), *Indigenous Issues in Australian Universities: Research, Teaching, Support*, Charles Darwin University Press, Darwin. pp. 7-14.	Critical literature and document review of government policies and institutional governance arrangements affecting Indigenous people	• At USQ, and Indigenous Employment and Career Development Strategy has been adopted but no strategies put in place, and no identified positions published. • More generally, key issues in universities of Indigenous involvement in decision-making, racism, curriculum, and student support do not appear to have been adequately addressed • This contrasts with NZ and Canada institutions which offer Indigenous Studies courses and research as part of national policy and higher education strategies • Australia needs Indigenous centres of study and teaching to develop and promote Indigenous cultures	#Outer urban

			Case Study of University of Southern Queensland		
2009	Tarwirri, E.B. Chan & M. Stewart	Circles in the sand: Creating pathways and connections in Indigenous legal education' in J. Frawley, M. Nolan & N. White (eds), *Indigenous Issues in Australian Universities: Research, Teaching, Support*, Charles Darwin University Press, Darwin. pp. 36-46.	Program description Outline of challenges for future	• Tarwirri (the Indigenous Law Students and Lawyers Association of Victoria) has established programs to create pathways and connections in Indigenous legal education, including community education and secondary school programs, pre-law seminars, mentoring and cadetships • Program aims are to improve number, success and wellbeing of Indigenous law students and lawyers. • Program promotes cultural education of non-Indigenous law students, and offers inspiration for future Indigenous students	#Aspirations #Key influencers #Non-school-leaver #Pathways #School-leaver
2008	Ellender, I., M. Drysdale, J. Chesters, S. Faulkner, H. Kelly & L. Turnbull	'When a dream becomes a nightmare: Why do Indigenous Australian medical students withdraw from their courses', *The Australian Journal of Indigenous Education*, vol. 37, pp. 40-47.	Analysis of questionnaire responses from Indigenous Australian medical students about reasons for leaving their course	• Recommendations to minimise barriers and disincentives for Indigenous students in medicine and health sciences • Recommendations call for university health sciences faculties, Indigenous support centres, Indigenous education bodies, government and secondary schools to work more closely and take affirmative action to support students and their families. • This paper is part of the *Footprints Forward* report (Drysdale et al 2006)	#Key influencers #Pathways #School-leaver
2008	Howlett, C., M. Seini, C. Matthews, B. Dillon & V. Hauser	'Retaining Indigenous students in tertiary education: Lessons from the Griffith School of Environment', *Australian Journal of Indigenous Education*, vol. 37, pp. 18-27.	Literature review Survey of information available to students Analysis of unstructured interviews with Indigenous students in the Science, Engineering, Environment and Technology group at Griffith University	• The research identified a critical lack of information specific to Indigenous students • The mainstream orientation program focused on improving retention by encouraging students to be organised and finish assessments rather than addressing career options and social needs • The Indigenous support unit provided valuable support and information, reduced some of the barriers which included isolation, social pressures, identity issues, experience of 'positive discrimination' • Students made innovative suggestions for change in information and support strategies, community and high school engagement, and Indigenisation of curricula. • Regarding this last suggestion, more research and discussion is required.	#Awareness #Non-school-leaver #Pathways #School-leaver
2008	La Caze, M.	'*Reshaping the university: Responsibility, Indigenous Epistemes and the Logic of the Gift*: Review', *The Australian Journal of Indigenous Education*, vol. 37, pp. 181-183.	Book review	• Summary and overview of value of Kuokkanen's book (see above)	
2008	Munns, G., A. Martin & R. Craven	'To free the spirit? Motivation and engagement of Indigenous students', *The Australian Journal of Indigenous Education*, vol. 37, pp. 98-107.	Quantitative survey data from Indigenous school students Qualitative interview data with students, school principals, teachers and Aboriginal Education Assistants Analysis using MeE theoretical framework	• Argues for a more culturally sensitive pedagogy in schools to enhance student motivation and engagement with education • Focus should be on both the form and the substance of pedagogy i.e. on supporting positive class room relationships eg with teachers, and on providing an intellectually stimulating environment	#Key influencers #School-leaver
2008	Nakata, M., V. Nakata & M. Chin	'Approaches to the academic preparation and support of Australian Indigenous students for tertiary studies', *The Australian Journal of Indigenous Education*,	Critical literature review	• Indigenous students, particularly under-prepared students need to be considered both in terms of their skills "deficits" and in terms of their particular sets of Indigenous knowledge. • Many Indigenous students are motivated to improve Indigenous futures through their choice of profession and bring with them important knowledge and experience. • More empirical data is needed on academic preparation for Indigenous students to understand needs of students in negotiating	#Aspirations #School-leaver

		vol. 37 (supplement), pp. 137-145.		intersections between Indigenous knowledges discipline-based knowledges.	
2008	Sharrock, P. & H. Lockyer	'One to one and face to face: A community based higher education support strategy retaining Indigenous Australian university students', *The Australian Journal of Indigenous Education*, vol. 37, pp. 28-39.	Literature and policy review Case study using qualitative and quantitative questionnaire survey SPSS analysis and thematic analysis	• Focus was on 'reverse block visit' component of program at Curtin University i.e. a three-hour visit by staff to students in their communities • The reverse block visit not only supported student retention but linked previous and new students and allowed new students to link up with staff and the university after taking a break • May also provide a mechanism for raising personal, financial and family issues which are then more amenable to intervention by staff and students. • Trust and rapport with "field support/Lecturer" may also build confidence and self-esteem for students. • Further longitudinal study is needed.	#Key influencers #Metropolitan
2008	Whatman, S., J. McLaughlin, S. Willsteed, A. Tyhuis & S. Beetson	'Quality and efficacy of the Indigenous Tutorial Assistance Scheme (ITAS) for university students', *The Australian Journal of Indigenous Education*, vol. 37 (supplement), pp. 118-130.	Literature and policy review Focus groups (staff) Interviews Qualitative survey (students and tutors)	• Paper reports on research project to evaluate ITAS at QUT (monitoring processes of the Oodgeroo Unit, and impacts on teaching and learning) • ITAS is called a "supplementary", but is devised as, a "compensatory" tuition program to address a perceived, nation-wide deficiency in Indigenous students' educational abilities • Quantitative data collection required by DEST does not explain varying success and failure rates across institutions • More critical curriculum design is needed • Data collection needs to address not only DEST requirements but other qualitative data for use internally by institutions • Need more cultural learning sessions for tutors beyond DEST stipulations	#Metropolitan
2007	Gair, S.	'Pursuing Indigenous-inclusive curriculum in social work tertiary education: Feeling my way as a non-Indigenous educator', *The Australian Journal of Indigenous Education*, vol. 36, pp. 49-55.	Report on author's initiatives to rectify gaps in Indigenous knowledge base	• Non-Indigenous educators (and practitioners) can learn about and demonstrate respectful relationships with Indigenous peoples. • Solicited professional supervision is different from exploiting colleagues' (and students') knowledge. • Ideally, curriculum can be developed and taught in collaborative alliances with Indigenous Australians in ways that model and mirror professional relationships, friendships, empathy, and respect	#Key influencers
2007	Kuokkanen, R.	*Reshaping the university: Responsibility, Indigenous Epistemes and the Logic of the Gift*, University of British Columbia Press, Vancouver.	Literature review' Theoretical analysis Case studies of Indigenous peoples in Norway/Finland, America and Canada	• Argues for the idea of 'the gift' as paradigm and a practice of responsibility toward the "other" (contrasted with a commercial 'exchange'), and for the recognition (receiving) of Indigenous epistemes as a gift to change hegemonic forms of rationality prevailing in universities. • Recognizing Indigenous epistemes requires more than additions to curricula, but a commitment to openness to other worldviews, and particularly a restoration of Indigenous relationships with land and a capacity to receive the gifts of the land.	
2006	Kippen, S., B. Ward & L. Warren	'Enhancing Indigenous participation in higher education health courses in rural Victoria', *The Australian Journal of Indigenous Education*, vol. 35, pp. 1-10.	Literature review Interviews, focus groups, community consultation	• Barriers to participation in higher education include well-known factors such as distance, family commitments, finance plus negative past experiences, lack of role models, lack of information, limited support, culturally inappropriate learning environments and institutionalised racism. • Paper proposes a number of strategies to address these issues in Bachelor of Public Health program.	#Awareness #Key influencers
2005	Spiers, H.G.	'Indigenous Participation in health sciences education: elements of the institutional learning environment critical for course completion', paper presented to the *Australian Vocational Education and Training Research Association 8th Annual Conference: Emerging Futures – Recent, Responsive & Relevant Research*, Brisbane, 13-15 April, <http://avetra.org.au/publications/conference-archives/conference-archives-2005/conference-papers> viewed 2 July 2014.	Literature and policy review Survey of students at three Case Study sites Interviews with students	• Study surveyed health science student perceptions of elements in the institutional learning environment critical to their successful completion/ongoing progress in their course. • The system of support in tertiary institutions must be flexible, easily accessible and based on foundation stone that Indigenous identity is to be encouraged and Indigenous practices assimilated into the overall institutional practices • The level of attachment to place, its perceived value through the eyes of the student, impacts strongly on learning	
2001	Arizmendi, W.C.	'*"It's not a struggle where you are on your own": Indigenous Australian male undergraduate retention and the interdependent universe*'. Thesis submitted for the degree of Master of Education in the School of Education and Innovation, Faculty of Education and Creative Arts, Central	Literature review Participant observation Interviews	• Emphasises the significance of 'voice' for Indigenous male undergraduates • Analytical priority accorded to lived experiences of students • Proposes concept of 'interdependent universe' involving family, community, place, voice and identity to restore dignity, meaning and purpose to education and lives of Indigenous Australians • Most important is acknowledgement of Indigenous knowledges and experience in defining 'education'.	#Key influencers

		Queensland University, Rockhampton.			

Social Marketing Strategy Project

Social Marketing and Widening Participation Strategies Matrix

Strategy: | **Strategy Focus:**

No. of Strategies	Strategy Title	Social Marketing	Widening Participation	Institution	Location	Platform	Brief Overview	Cohort	Awareness	Aspiration	Pathways	Place	Influencers	Summary of Success	Website	Additional Information	Contact
1	ProjectU	☐	☑	QUT	Brisbane, QLD	Website	ProjectU is based on research with LSES students and communities and pioneered the use of unbranded narrative role models to break down myths associated with tertiary study. Between 2006 and 2010, in an effort to bridge the digital divide, 200,000 DVDs were distributed nationally, and since 2006 the website has received around 36,000 unique site visits. The project u content is embedded in QUT's Explore Uni days and other WP activities which result in around 10, 000 students each year being exposed to the narratives from this project. From 2014, additional material has included a careers hub and Project Unknown (a film project following nine first year, university students) which both contribute to identity development and choice-making skills.		☑	☑	☐			200,000 DVDs distributed nationally, and since 2006 the website has received around 36,000 unique site visits.	http://www.projectu.com.au/	This site contains tailored information for high school students, including specialoised information for Indigenous, New Zealand and Pacifika students, their parents and school guidance officers. It also previously utilised a Facebook page, although this now appears to have been de-commissioned. **Paper:** *Working towards social inclusion in higher education: an integrated approach to outreach and retention* Gabrielle O'Brien, Senior Equity Officer, QUT Equity Section http://fyhe.com.au/past_papers/papers09/content/pdf/9E.pdf	
2	Bridge to Study	☐	☑	QUT & Griffith	Brisbane, QLD	Website	Bridge to Study was developed by QUT in collaboration with Griffith as part of a broader adult learner strategy and has had nearly 20,000 unique site visits from 2011-14. Visitors to this site can access a range of interventions, services and information to target the diverse needs of adult learners including: awareness of pre-tertiary pathways using narrative role models; access to free careers advice both online and in-person; and links to low-cost bridging courses.		☑	☑	☑			Has had nearly 20,000 unique site visits from 2011-14.	http://www.bridgetostudy.com.au/		
3	Small Town Culture	☐	☑	USQ	QLD	Music Campaign	*Small Town Culture* is a music label developed by Josh Arnold, an accomplished singer and song-writer, and supported by the University of Southern Queensland, to enable students from schools and communities in LSES, rural and remote regions of Australia to have their voices heard. Josh delivers workshops and helps students to write, sing and perform music about their home towns and their aspirations for the future. The work builds self-confidence in students from culturally diverse and Indigenous backgrounds, encourages school engagement and attendance and promotes pride in school and community.		☐	☑	☐			*Small Town Culture* was evaluated in 2013 and continues to be evaluated in 2014. Surveys were distributed to students, principals, teachers and community members who were involved in the workshops, production of clips and community engagement aspects of the program. The data shows an overwhelmingly positive response to the workshops and to Josh as a teacher and mentor. Almost all responders indicated that they would welcome the opportunity to continue working with *Small Town Culture* , and rated the experience as exceedingly positive for students, schools and communities. Comments from surveys indicated an increased sense of pride in the community and an exceptionally positive experience for the students, leading to a range of outcomes.	http://smalltownculture.com/index.html	**NCSEHE Report:** https://www.ncsehe.edu.au/small-town-culture-usq/ **Newspaper Articles:** 1. *"USQ music doco captures community spirit"* http://www.thechronicle.com.au/news/music-documentary-captures-barambahs-community-spi/2706501/ 2. *"Josh Arnold's small school but big deal initiative"* http://www.ruralweekly.com.au/news/small-school-big-deal/2412615/	**Developer:** Josh Arnold josharnoldmusic@gmail.com **USQ Media contact:** Rhianwen Whitney email: rhianwen.whitney@usq.edu.au, Phone: 07 4631 2977 Sarah Balderson Green email: sarah.balderson@usq.edu.au, Phone: 07 4631 1856
4	Indigenous Leaders and Role Models Campaign	☐	☐	JCU	QLD				☐	☐	☐						
5	UniReach	☐	☑	Griffith	QLD		Established in 1996, Uni-Reach has been progressively expanded to schools in the University's catchment area and now includes more high schools, extended secondary activities, primary schools and initiatives for specific student groups from years 6 through to 12. Uni-Reach provides a tiered approach to building aspirations, knowledge and the skills required for university study to partner schools. Parental / caregiver engagement is embedded in many activities. Outreach activities are: * developmentally appropriate * customised * designed to encourage aspirations and develop capacity for university study * designed to promote successful Griffith role models		☑	☑	☑			**Awards and Recognition:** *Citation for outstanding contribution to student learning, Australian Learning and Teaching Council Australian awards for university teaching (2010) *Good practice case study - selected by the National Centre for Student Equity in Higher Education (NCSEHE) in its DEEWR-funded national review of schools outreach programs (2009-2010) *Australian Universities Quality Agency commendation - Uni-Reach features on the AUQA good practice data base (2008)	https://www.griffith.edu.au/student-equity-services/outreach-activities/uni-reach	**Griffith Student Equity Outreach & Educational Partnerships: 2015 Strategy:** https://www.griffith.edu.au/__data/assets/pdf_file/0009/707778/Student-Equity-Services-2015-Strategy.pdf	**Student Equity Services contacts:** https://www.griffith.edu.au/student-equity-services/contact-us
6	ARTIE	☐	☐	Australian Government	QLD	Mentoring Program	The Former Origin Greats (FOGS) ARTIE (Achieving Results Through Indigenous Education) Academy is funded under the Australian Government to assist to 'Close the Gap' in educational outcomes between Aboriginal and Torres Strait Islander students and their non-Indigenous peers. It provides Aboriginal and Torres Strait Islander students attending Queensland State Primary and Secondary Schools within North Queensland, Central Queensland, Sunshine Coast, Caboolture, Ipswich and Logan regions, the opportunity to participate in a program that encourages and rewards improvements in school attendance, behaviour, academic achievement, effort and ultimately Year 12 attainment or its equivalent. The ARTIE Academy's fundamental vision is to inspire its participants, encourage and inform students of their progress, celebrate their successes and provide academic assistance in literacy and numeracy through the ARTIE Academy Tutoring Program.	Indigenous	☐	☑	☐				http://www.artie.net.au/about/	**Online Article:** *"ARTIE helping get Queensland students on fast track to success"* http://www.fogs.com.au/news/artie-helping-get-queensland-students-on-fast-track-to-success	Phone: (07) 3331 5062 Email: artie@fogs.com.au Address: Locked Bag 3, Milton, Queensland 4064
7	Role Models & Leaders Australia	☐	☐		WA, NT, NSW		Role Models and Leaders Australia provides leadership, sports and education programs to assist Australian youth, particularly Indigenous youth, who suffer from poverty, sickness, misfortune, or a disconnectedness from their community.	Indigenous	☐	☑	☐				http://www.rmla.com.au/		
8	What's Uni Like? (MOOC)	☐	☑	Charles Sturt University (CSU)	National	Website, Massive Open Online Course (MOOC)	Charles Sturt University (CSU) has launched a massive open online course (MOOC) to build students' pre-tertiary achievement levels and explore aspects of the transition to university. The MOOC is free-of-charge, accessible, and self-paced, and addresses the key areas of academic writing and reading, student expectations, digital literacy, and online learning skills.		☑	☐	☑				http://www.whats-uni-like.edu.au/auth/login/?returnUrl=%2F	**Online Article:** "CSU MOOC asks What's Uni Like?" https://news.csu.edu.au/latest-news/education/higher-education/csu-mooc-asks-whats-uni-like	**Project manager:** Mr Craig Billingham, on (02) 6338 6189 or cbillingham@csu.edu.au
9	Meet the Professor	☐	☑	Australian Catholic University (ACU)		Outreach Program	Meet the Professor was developed by Australian Catholic University (ACU) for Grade 5 and 6 students. These students are invited to participate in a tour of their local ACU campus, where they can meet staff and students and participate in activities related to university life. They have the opportunity to meet a professor; we ask a senior academic to be part of the day. The professor interacts with the students, talking to them about university and what it entails, its benefits and how you can access university. The students meet with ACU students who lead them in numeracy and literacy exercises, exercise science activities, health school activities, observing paramedicine activities and others.		☑	☑	☐		The Equity Pathways team have developed evaluation tools for the program. For primary grades we ask teachers and parents who have attended to fill out an evaluation questionnaire. Students are not directly questioned, more reliance is placed on adult response to the activity. However, we do ask for some student response, represented below. Of the 1,128 participating primary students in 2013 up to August, findings were: Before: * the majority showed little interest in Univeristy * very few students understoofd the requirements for attending university After: * the majority showed interest in university * 91% understood what was required to attend university			
10	ANU Regional Partnerships Program	☐	☑	Australian National University (ANU)	ACT, NSW	Outreach Program	The ANU Regional Partnerships Program commenced in 2009 as an important part of the University's engagement with its surrounding regions. The program is designed to raise awareness about university study, enhance educational outcomes for students from the partnership schools and encourage them to consider university as a post-school option. Fifteen schools in the south east region of NSW are currently included in the program. This is a region which is relatively close to Canberra but where there is sometimes a perception that university is not relevant or accessible. The ANU Regional Partnerships Program seeks to dispel this perception, primarily through using its students, many from regional areas themselves, as ANU Community Ambassadors. These students volunteer their time to provide academic assistance and mentoring to secondary students in our Partnership Schools. The ANU Community Ambassadors are recruited, trained and supported by our education team; professional staff with a range of discipline backgrounds and teaching experience.		☑	☐	☐	Regional	In 2012, the ANU Regional Partnerships program had direct contact with over 7,000 regional school students. The following was measure: * 15% increase in university offers (all University Admissions Centre (UAC) universities) indicated by UAC data from partnership schools. *24% increase of actual enrolments since the 2010 intake * 27% increase in offers to the ANU since 2010 *28% increase in enrolements since 2010	http://drss.anu.edu.au/student_equity/regional_partnerships.php	Teachers have commented on the positive impact the Community Ambassadors have on their students as role models, and how effective Ambassadors were at delivering information about admission and transition to university.	**ANU Student Equity Office:** access.inclusion@anu.edu.au

11 Enquiring Minds	☐	☐	University of Western Sydney, The University of Sydney, University of Technology, Sydney, Macquarie University, Australian National University	National	Television Series Website	Enquiring Minds is an 11-part television series developed to inspire 7-12 year olds to think about where their passions and interests could take them in the future. The series was developed by Television Sydney on behalf of the Bridges to Higher Education and was launched in March 2013.		☐	☑	☑			Broadcast to 1.4 million viewers across Greater Western Sydney. It will be broadcast to a further 4.5 million viewers across Australia through Australian Community Television Alliance affiliates in Brisbane, Melbourne, Perth and Adelaide. The launch of the series generated a high volume of local media interst and the website generated in excess of 3,000 hits in the first month. The series has been distributed to over 1,000 school across NSW to date (2013).	http://www.enquiringminds.com.au/?page_id=155	The television series is supported by a fully ineractive website which hosts each segment from the TV series online, with curriculummapped resources for schools and online games for children.	Television Sydney (TVS) Limited: **Phone:** (02) 9852 5000 **Email:** email@tvs.org.au
12 IntoUni	☐	☑	Charles Darwin University (CDU)	NT	Outreach Program	IntoUni is an outreach program for Northern Territory secondary students that will run from January 2012 through to December 2014, and is funded by the Australian Government's Higher Education Participation and Partnerships Program (HEPPP). The IntoUni project involves teams from across CDU and NT secondary schools: **Charles Darwin University:** •School of Education •Australian Centre for Indigenous Knowledge and Education (ACIKE) •Office of Learning and Teaching **NT school partners:** •Kormilda College •Centralian Senior College •Centralian Middle School The aim of the project is to encourage NT students from a low socio-economic background (with a specific focus on Indigenous and rural/remote students) to complete their secondary schooling and progress into Higher Education.	Indigenous	☐	☑	☑	Rural/Remote	Teachers	The program is currently 60 per cent complete. As at September 2013: *30 curriculum units are live with over 700 students enrolled. *An additional 600 students are enrolled in an orientation unit *Studente feedback to date has been very positive 1,400 secondary students enrolled in at least one Learnline unit in 2013. 120 teachers are receiving professional development in online learning methods and strategies.	http://cdu.edu.au/olt/projects/intouni.html	**Online Newsletter Article:** *"More NT Kids to progress to University"* *http://www.cms.nt.edu.au/Newsletters/2013/Semester-1/CMS-eNews-Issue-6-2013/More-NT-students-to-enter-Higher-education/* *41% of Northern Territory students identified as Indigenous in 2010 *47% of Indigenous students progress to year 12, compared with 79% non-Indigenous nationally More info - http://www.kormilda.nt.edu.au/into-uni	**Project Officer:** Tanya Kalinowsky **Phone:** (08) 8946 7206 **Email:** tanya.kalinowsky@cdu.edu.au
13 ECU Mates	☐	☑	Edith Cowan University	WA	Mentoring Program	ECU Mates is an innovative program co-founded by Dr Deborah Callcott and Dr Judy Esmond, that trains ECU students to become 'mates' and mentor lower secondary school students from partnership schools in low socio-economic areas. The program provides guidance, friendship and educational support to these students who are currently unlikely to undertake higher education.		☐	☑	☐			In just a few years it is now ECU's largest community engagement volunteering program. There are approximately 100 Mates and 250 students from a range of schools who meet fortnightly in small group sessions covering: *advice on school subjects *homework and study *handling peer pressure and bullying *practising mock interviews for part-time work *conducting 'safe' science experiments *learning more about university life Research results reinforce the positive feedback from students, ECU Mates, school personnel and parents. Evidence from participating schools has also demonstrated reductions in school absenteeism and behavioural issues. Further, there has been a 75% increase in students now considering university study after attending the program.	http://www.ecu.edu.au/schools/education/community-activity/ecu-mates	**Online Newsletter Article:** *"ECU Mates ready to inspire secondary school students"* http://intranet.ecu.edu.au/student/news/overview/2013/03/ecu-mates-ready-to-inspire-secondary-school-students *"ECU Mates is Back Bigger and Better"* http://www.ecu.edu.au/schools/education/news-and-events/soe/2014/05/ecu-mates-is-back-bigger-and-better	**Program Co-founders:** **Senior Lecturer** Dr Deborah Callcott Email: d.callcott@ecu.edu.au **Or** **Research Fellow** Dr Judy Esmond Email: j.esmond@ecu.edu.au
14 FedUni Regional Schools Outreach Program	☐	☑	Federation University Australia	VIC	Outreach Program	FedUni Schools Outreach currently works with 68 regional and remote and low socio economic status schools within Western Victoria and Gippsland, to raise student awareness of the value of higher education and to work with the students on having higher education an achievable option in their future plans. We encourage students to explore university study options and pathways, experience university life first hand on-campus, provide interactive sessions with current university students, and prepare students for a successful transition from school to further study. We provide students and their families with strategies to deal with barriers to study, work to build aspiration within communities to pursue higher education, and provide information to ease the transition between secondary and higher education.		☑	☑	☑	Regional/Remote		Since the beginning of the program in 2008, the RSOP has grown in leaps and bounds, so far delivering more than 32,000 contacts with students and almost 3,300 with parents. While these figures are impressive, ultimately the RSOP is a long term project with outcomes that will not be entirely clear in the short term.	https://federation.edu.au/future-students/information-for/regional-students/schools-outreach	In 2015 FedUni Schools Outreach aims to work with over 8,000 students and over 500 parents from 68 schools across regional Victoria. Schools Outreach focuses on students who are likely to experience significant barriers to higher education. Many of these students have the ability and the potential to participate in tertiary education, but may not consider it as an available option.	**Full list of campus contacts avaiable here:** https://federation.edu.au/future-students/information-for/regional-students/schools-outreach/contact-us
15 Inspire-e-mentoring	☐	☑	Flinders University	SA	Mentoring Program	Flinders University's Inspire Mentor Program has been raising the aspirations of children and young people from LSES communities for 10 years. The Inspire e-mentoring program, which commenced in 2011, now extends mentoring relationships to students in rural and regional Australia with the aim of raising aspirations and considering pathways to higher education. Inspire e-mentoring uses Saba Centra 7, an online learning platform, to provide a safe and secure environment for mentors and mentees to communicate. E-mentoring sessions are monitored and supported by DECD project staff, ensuring a safe and productive relationship for mentees and mentors		☐	☑	☑	Regional/Remote		Inspire e-mentoring was piloted in 2011, consisting of three schools and 30 students. The 2012/13 expansion has seen a: *176% increase in student participation *166% increase in school participation Feedback received from participating schools suggests over 70% of students participating in Inspire e-mentoring continue to engage in their education and are progressing toward their South Australian Certificate of Education	http://www.flinders.edu.au/careers/services/mentor/inspire/	E-Mentoring allows young people in rural and remote areas to link to a mentor. Each week at the same time, the mentor and mentee log-in to an on-line session, where they can speak to each other using headsets, and share documents, pictures and text on the computer screen. Each session is supported by a Student Support Officer, who will also be logged-in and available for any questions. Click here to watch a short video about e-mentoring.	**Inspire Mentor Team:** **Phone:** 8201 2091 **Email:** inspire@flinders.edu.au
16 Widening Tertiary Participation Program for Pasifika communities	☐	☑	Griffith	QLD	Outreach Program	This initiative encourages the higher education aspirations of students from Pacific Island backgrounds and facilitates the transition, engagement and retention of current Griffith University Pasifika students (Pasifika in this context is a generic group term used to describe Pacific Island and Maori peoples). It comprises three intertwined initiatives delivered since 2011: • Legacy-Education-Achievement-Dream (LEAD), a tiered outreach program for Years 10–12 students, delivered with four partner low socio-economic schools that have large cohorts of Pasifika students • the Pasifika Cultural Graduation, an annual showcase event for Pasifika students and the wider Pasifika community which honours cultural identity, encourages student progression and promotes success • the Griffith Pasifika Student Association, which provides various activities supporting the transition, engagement and retention of current Griffith University Pasifika students. These include participatory action learning projects to create ownership, engagement and authentic learning. The active involvement of school and community personnel of Pacific Island heritage is integral, as are Griffith University Pasifika students as positive 'role models'.	Pacifika	☑	☑	☑			An evaluation report capturing LEAD program outcomes (2011+) has been prepared, based on qualitative and quantitative data gathered from participants, parents/caregivers and facilitators. This data verifies the positive and sustained impact of this initiative, and includes school data on engagement, achievement and post-school outcomes for Pasifika students. Other outcomes include student action projects, student-led strategies in school-based programs, and the infusion of professional practice and organisational culture in partner schools and at Griffith University.	https://www.griffith.edu.au/learning-teaching/awards-grants/recognising-griffiths-excellence/office-for-learning-and-teaching-citation-recipients/widening-tertiary-participation-for-students-from-pasifika-communities	Insufficient data to accurately gauge the true impact of the TTTA issue on student aspirations to higher education has led to the development of a LEADconnected research project to collect this data.	**Program Creators:** Ms Suzanne Wilkinson (Lead) Ms Glenda Stanley Mrs Francella Timu Dr Judith Kearney Ms Martina Donaghy Adjunct Associate Professor Barrie O'Connor
17 Parents as Career Transition Supports (PACTS)	☐	☑	QUT, Brotherhood of St Laurence	QLD		The PACTS (Parents As Career Transition Support) Program has been specifically designed to help provide parents, guardians, grandparents and carers with up-to-date information about educational pathways, that enables them to support their children effectively when they're making career transition decisions within the secondary school system and beyond. The PACTS program has been successfully delivered to parents in a number of schools and community environments for the last six years. This workshop is offered to parents usually through the school. Workshops are facilitated by a Youth Connect staff member with the support of a school staff usually the Careers/VET or VCAL Coordinator. Key features of a PACTS workshop: •Interactive facilitated workshops focuses on discussion and participation •Workshops are limited to two hours duration •Maximum of 20 parents in a group •Simple, easy to understand workshop handbook which all attendees receive •Optional Information Sessions prior to workshops that explain the program •Workshops are held at school or in the community environment •Increased understanding about the school, it's people and services •Networking and forming relationships with other parents		☑	☐	☑		Parents	Between 2006 and 2009, over 200 people across Australia completed PACTS facilitator training with the Brotherhood.	http://www.bsl.org.au/services/young-people/support-for-parents/parents-as-career-transition-supports/	In 2009, the Brotherhood ceased providing PACTS training, and endorsed Youth Connect as the preferred PACTS deliverer and the sole deliverer of TACTS (Teachers as Careers and Transition Supports).	**Contact:** Mary Licciardo **Phone:** 03 8306 6300 **Email:** m.licciardo@youthconnect.com.au

18 My Big Tomorrow	☐	☑	Univeristy of Newcastle	NSW	Website	My Big Tomorrow aims to inspire young people to think more broadly about their future careers. It is also designed to give them the understanding of the skills they will need in order to succeed in their chosen career. After hundreds of hours of consultation with educators and students we have developed downloadable literacy and numeracy tasks based on the Stage 5 curriculum. Paired with real-world testimonies and information from industry professionals, My Big Tomorrow will allow young people to explore, discover and learn. My Big Tomorrow was developed by the Centre of Excellence for Equity in Higher Education at the University of Newcastle and funded by the Commonwealth's Higher Education Participation and Partnership Program (HEPPP). The Centre of Excellence for Equity in Higher Education is a multi-disciplinary and practice-orientated research hub.		☑	☑	☐		Teachers Parents		http://www.mybigtomorrow.com.au/	The website contains separate portals for educators and parents.	Centre of Excellence for Equity in Higher Education **Phone:** +61 2 4921 6817 **Email**: ceehe@newcastle.edu.au
19 Make your Mark: Your life and further education	☐	☑	Universities Admissions Centre (NSW & ACT)	NSW, ACT	Website	Make Your Mark is one key tool in efforts to widen participation in further education. It provides information and introduces useful resources to people considering higher education, with the aim of raising their awareness of, and building aspirations towards tertiary study – whether that's through university, vocational education and training or attending a private college. Make Your Mark was developed in collaboration with the five Bridges project universities and the Universities Admissions Centre, in consultation with tertiary education providers, the New South Wales and Australian Capital Territory departments of education and training, and other organisational partners and stakeholders. Consultation during development also included a wide range of potential user groups and education agencies.		☑	☑	☐				http://www.makeyourmark.edu.au/		**Universities Admisstion Centre (NSW & ACT):** **Phone:** (02) 9752 0200 **Website:** www.uac.edu.au
20 Uni4You	☐	☑	University of Newcastle	NSW	Outreach Program	The Uni4You project is designed to address educational disadvantage by engaging adults (aged over 20) in a suite of activities that foster engagement and encourage enrolment in the University's Open Foundation program. The project team are working in the following communities: Raymond Terrace and Karuah, Cessnock and the North Lakes (Central Coast) areas of New South Wales. Uni4You offers a program of activities to students to prepare for Open Foundation study. Activities include; Information Sessions Career Counselling and Preparing for Study Sessions ALL ACTIVITIES ARE FREE AND FREE CHILD CARE IS ALSO AVAILABLE	Adult Learners	☑	☑	☑			Uni4You has been offered in the communities of Raymond Terrace/Karuah from mid-2013. Seventeen individuals from this community enrolled in Open Foundation in 2014 as a result of information sessions and home visits conducte by the project coordinator. This represented a 58 per cent enrolment increase in the community from 2013. Nine of the 17 students participated in a mid-year evaluation, which confirmed students continued studying because of Uni4You support. Program coordinators, weekly tuition sessions with child care provisions, and information and skills preparation sessions were acknowledged as valuable by most students.	http://www.newcastle.edu.au/research-and-innovation/centre/fac/programs/uni4you	Potential students can study Open Foundation courses online or on campus. Uni4You provides adults with assistance in making decisions regarding studying at university. This project brings together The University of Newcastle's Family Action Centre (FAC), Equity and Diversity Unit, and the English Language and Foundation Studies (ELFS) Centre. We are also in partnership with The Smith Family who funded the initial pilot through the Communities for Children program. Our staff are available to discuss the Uni4You program with students individually.	**Team Leader:** Vicki James **Phone:** +61 2 4921 6992
21 Making the Connection	☐	☑	USQ	QLD, VIC, WA	IT Access	Making the connection: Improving Access to Higher Education for Low Socio-Economic Status Students with ICT Limitations is a federally funded project granted under the Higher Education Participation and Partnership Program (HEPPP) which aims to remove barriers to study for students from lower social-economic backgrounds throughout Australia. The project aims to: •Develop a model for provision of higher education programs for low socio-economic status background students without reliable internet access. •Create pathways for Indigenous and non-Indigenous incarcerated students to participate in higher education. •Reduce recidivism of incarcerated students by increasing their employability through the development of digital literacies. •Create programs to transition incarcerated students from higher education into the workplace upon release from custody. •Develop USQ Offline StudyDesk (Stand Alone Moodle) as a Learning Management System to enable the provision of digital learning without internet access. The project is funded to the value of $4,390,330 and runs from September 2013 to August 2016.	Incarcerated students	☐	☑	☑			• At March 2015, successfully delivered the technology and selected courses into two education laboratories. • Confirmed delivery to an additional three sites for Semester 2 (July 2015). • Progressed with several jurisdictions, the option of rolling out the technology and courses to several new locations and States. • Created a knowledge-sharing community via the Making the Connection Update newsletter. • Particpated in and presented at numerous industry and sector events. •Farley, Helen (2015) The role of education in a recidivism reduction strategy. In: Prisons 2015 Conference: Sharing Insights on Whole of Life Cycle Management of Correctional Facilities, 17-18 Mar 2015, Melbourne, Australia.	https://www.usq.edu.au/research/research-at-usq/institutes-centres/adfi/making-the-connection		**Program Contact:** Stephen Seymour **Phone:** (+61) 0457 007 504 **Email:** Stephen.Seymour@usq.edu.au
22 My Tertiary Education Day (MyTED)	☐	☑		QLD	eBook	Children and young people cannot aspire to attend tertiary education if they are not aware of the opportunities available to them. The purpose of the project is to encourage primary school aged children and their parents from lower socio-economic status backgrounds to consider higher education opportunities through the development of an interactive eBook. The eBook focuses on literacies, particularly digital literacies. The literacy component will support students in their language development (written, oral, spatial and digital). The project is a multi-strategic outreach initiative targeting primary schools on the Sunshine Coast, the Wide-Bay-Burnett area and Regional Queensland through university wide and TAFE collaboration with key stakeholders, which includes an on-campus university experience day.		☑	☑	☐	Regional	Parents		http://myted.edu.au/	Projected is divded into three key phases (see website for project phase breakdown).	**Project Team:** Dr Ruth Greenaway — Advisory Consultant **Email:** rgreenaw@usc.edu.au Dr Uwe Terton — Advisory Consultant **Email:** Uterton@usc.edu.au Sandie Elsom — Project Officer **Email:** selsom@usc.edu.au Samantha Davoren — Literacy Coordinator
23 MyScience	☐	☑	ACU		Website Mentor program	MyScience is a primary school science and technology program. MyScience provides support through the establishment of a sustainable model of collaboration between schools, industry/business and university sectors. It stimulates interest and enhances capacities of primary science teachers and students in conducting authentic scientific investigations.		☐	☑	☐		Teachers	In 2008 the B/HERT National Award for 'Best Education & Training Collaboration'. Team members were: • Australian Catholic University, • BASF, • IBM, • NSW Department of Education & Training: Western & Northern Regions, • Science Foundation for Physics at USYD, • University of Western Sydney.	http://www.myscience.com.au/	Drawing on and generating extensive reseach, the critical elements comprising MyScience are: * collaborative professional learning for primary teachers * promoting and supporting scientific investigation amongst students *mentoring of students by practice teachers of ACY and neighbouring high school students *using science as a context for teaching learning of literacy and numeracy ACU Website information: http://www.acu.edu.au/about_acu/faculties,_institutes_and_centres/education_and_arts/about_the_faculty/news/myscience,_promoting_science_learning_through_participation	**Co-Developer:** Dr Anne Forbes **Email:** anne.forbes@acu.edu.au
24 On the Job	☐	☑	ACU		Website	On the job is an engaging, interactive online program that introduces students to a broad range of careers and their potential linkages to university. The program contains job profiles, games, activities, links, relevant resources and videos. It is highly recommended that On the Job be integrated into Years 5-8 school curriculum.		☐	☑	☐				http://webapps.acu.edu.au/ontheijob/index.htm		**ACU Website for contact details:** http://www.acu.edu.au/about_acu/our_university/mission_and_profile/equity_pathways/staff
25 Careers Web Quest	☐	☑	ACU		Website	Careeers Web Quest in an online interactive educational program that employs a problem-based learning approach. It is a team based activity requiring higher order thinking skills. It introduces students to a broad range of career otpions and to their links to higher education courses. It is recommended that Careers Web Quest be integrated into Years 10-12 school curriculum.		☐	☑	☑				http://apps.acu.edu.au/careerswq/index.htm		**ACU Website for contact details:** http://www.acu.edu.au/about_acu/our_university/mission_and_profile/equity_pathways/staff

26 Mix + Match	☐	☑	TAFE Western Sydney Institute	Website	In today's busy world, it is difficult to fit your life around your study, so why not fit your study around your life? By choosing mix+match, you are in control of the way you want to study each unit within your qualification. This allows you to get the most out of your studies and the flexibility to continue in your other commitments. The courses available through mix+match are nationally recognised TAFE qualifications offered in a flexible style.		☐	☐	☑			https://mixandmatch.wsi.tafensw.edu.au/	Contains additional support services websites and further TAFE to Univeristy pathway and career options.	**TAFE WSI General contact:** **Phone:** (02) 9208 9999 (interstate callers)
27 Models of Achievement	☑	☑		Website Documentary Series	Models of Achievement is a series of inspiring stories from determined Australians pursuing a career through higher education. It is a ten part documentary series exploring the success and aspirations of 20 people and their professional journeys through their University study experience. The series premièred on Television Sydney (TVS) Digital 44, 7.30 pm, on Tuesday, 11 June 2013. Aimed at students aged 14 years old and up, it shows the pathways to higher education taken by people from disadvantaged backgrounds who have been successful in diverse life goals. The first broadcast of each episode will be accompanied by a web forum, so students can interact with the subjects of the series.		☑	☑	☑		Bridges to Higher Education works closely with over 30 established organisations and service providers and more than 100 primary and high schools.	http://www.modelsofachievement.com.au/		**Bridges to Higher Education:** **Email:** bridges@uws.edu.au
28 Bridges to Higher Education	☐	☑	University of Western Sydney, The University of Sydney, University of Technology, Sydney, Macquarie University, Australian National University		This website provides information about the Bridges to Higher Education partnership, its partners and an engagement framework toolkit for widening participation practitioners. Bridges to Higher Education is an ongoing initiative, funded by the Commonwealth Government's Higher Education Participation and Partnerships Program (HEPPP) from 2012 to 2015, to improve the participation rates of students from communities under-represented in higher education. The Bridges to Higher Education project brought together the collective resources and experience of the widening participation, equity and social inclusion programs at the University of Western Sydney, the University of Sydney, the University of Technology, Sydney, Macquarie University, and the Australian Catholic University. The partnership extended to include NSW DEC, TAFE NSW, the Universities Admissions Centre (NSW & ACU) Pty Ltd, local government organisations, education offices, Indigenous organisations and other community, philanthropic and social enterprise organisations. Bridges works with primary and secondary schools, TAFE and community partners in Greater Western Sydney to engage young people who previously might not have considered higher education as an option. More than 1.8 million people live in the region which has traditionally been under-represented in higher education participation rates.		☐	☐	☐			http://www.bridges.nsw.edu.au/	**Includes the Indigenous models of achievement website resource:** http://www.makeyourmark.edu.au/parents-schools/resources/resources-teachers/	**Bridges to Higher Education Contacts:** Gayl Purchase, Senior Manager **Phone:** 02 9678 7813 Catherine Hilberding, Projects Coordinator **Phone:** 02 9678 7039 Pauline Larsen, Projects Officer **Phone:** 02 9678 7814 **General email:** bridges@uws.edu.au
29 Parents As Career Transition Support (PACTS)	☐	☑		Workshop	The PACTS (Parents As Career Transition Support) Program has been specifically designed to help provide parents, guardians, grandparents and carers with up-to-date information about educational pathways, that enables them to support their children effectively when they're making career transition decisions within the secondary school system and beyond. The PACTS program has been successfully delivered to parents in a number of schools and community environments for the last six years. This workshop is offered to parents usually through the school. Workshops are facilitated by a Youth Connect staff member with the support of a school staff usually the Careers/VET or VCAL Coordinator.		☑	☐	☑	Parents	Career development supporting young Australians – A literature review: http://www.youthconnect.com.au/wp-content/uploads/2012/04/PolvereLim_Career_development_supporting_young_people_lit_review_2015.pdf	http://www.youthconnect.com.au/career-transition-programs/pacts/	**Key features of a PACTS workshop:** •Interactive facilitated workshops focuses on discussion and participation •Workshops are limited to two hours duration •Maximum of 20 parents in a group •Simple, easy to understand workshop handbook which all attendees receive •Optional Information Sessions prior to workshops that explain the program •Workshops are held at school or in the community environment •Increased understanding about the school, it's people and services •Networking and forming relationships with other parents	**Program Contact:** Mary Licciardo **Phone:** 03 8306 6300 **Email:** m.licciardo@youthconnect.com.au
30 Pasifika Achievement To Higher Education (PATHE)	☐	☑	University of Western Sydney	Sydney	Outreach Program, Support	PATHE is the acronym for Pasifika Achievement To Higher Education. PATHE strives to develop aspirations towards further education & training in Pacific communities. PATHE promotes options for Pasifika people to develop and gain new skills and new knowledge, leading to greater opportunities across life. Established in 2012,and facilitated by the Office of Widening Participation and the School of Social Sciences and Psychology, PATHE operates across three key components: student support, outreach activities and innovative projects.	Pacifika	☐	☑	☑			http://www.uws.edu.au/pathe/pathe	PATHE Vocational Videos is one part of PATHE's innovative projects that seeks to further engage community and provide accessible resources. Specific vocational areas utilised in the videos were profiled from feedback on future aspirations given by over 700 Pacific young people. Packaged as a series of 18 vocational videos, this resource highlights interest areas and personal journeys of Pacific people perusing careers in various vocations. These short films complement the current PATHE outreach activities and can be used as an additional resource across the wider community. PATHE Vocational Videos are accompanied by this study guide to further assist in creating ongoing and meaningful conversations with Pacific people; to build aspirations towards further education and training through developing and achieving vocational and career goals.	**Manager:** Dr Jioji Ravulo **Email:** j.ravulo@uws.edu.au **PATHE Coordinator:** Bernadette Stephens **Email:** bernadette.stephens@uws.edu.au **PATHE@RUPA Coordinator:** Ms Moera Sakimi **Email:** m.sakimi@uws.edu.au
31 Pacifika Australia	☐	☑	Australian National University (ANU)	ACT, NSW	Outreach Program, Support	Pasifika Australia is an access and equity outreach program at ANU supported by the University's Student Equity office and the ANU College of Asia and the Pacific . Pasifika Australia was initiated in 2008 by staff and students in the Pacific studies program. Since then the program has grown significantly and consists of a wider community of ANU students and staff who are passionate about equity, and educational and identity issues facing Pasifika communities in Australia. The program uses Pasifika as an umbrella term that refers to all peoples from the Pacific region including Papua New Guinea in Melanesia, the Marshall Islands in Micronesia and Aotearoa/New Zealand in Polynesia. **Pasifika Australia aims to:** •encourage students of Pasifika heritage in ACT and NSW to aspire to higher education through Pacific based lectures and cultural workshops •raise awareness about Pacific cultures and issues locally and nationally •enhance educational outcomes for Pasifika communities •pursue research questions related to the educational status of Pasifika communities in Australia.	Pacifika	☑	☑	☐		In 2009 Pasifika Australia received the Outstanding Community Award from the NSW Council for Pacific Communities. In 2011 the program won a Vice Chancellor's Staff Excellence Award for Community Outreach.	http://pasifika.anu.edu.au/navigating-pacific-studies	**Online Content:** The Navigating Pacific Studies Online course is available to both ANU and non-ANU students who are interested in the debates about theory and practice that shape how we conceptualise and think about the Pacific region and its peoples. In collaboration with the National Rugby League an abridged version of the course was delivered to interested NRL staff and players as an introduction to Pacific Studies and to build and develop Pacific cultural competencies. Given the high numbers of NRL Pasifika players this course is an important element of the NRL's Pasefika Cultural Engagement Programs that educate and develop young men and the industry on the importance of understanding, engaging and developing Pacific cultures within rugby league.	**Acting Director, ANU Student Equity:** Tania Willis **Email:** Tania.willis@anu.edu.au **Chair, Pasifika Australia Steering Committee:** Professor Andrew Walker **Email:** Andrew.walker@anu.edu.au **Pasifika Australia Convenor:** Dr Roannie Ng Shiu **Email:** roannie.ng@anu.edu.au
32 Career Quiz App	☐	☐	Department of Employment	National	Mobile Application	The Department of Employment has recently launched a Career Quiz app. This fun, interactive app has been designed to help job seekers better understand their work preferences and learn more about the kinds of jobs they might enjoy or be good at. The app is based on the popular Career Quiz currently on the Job Outlook website. Job seekers complete a series of simple questions about the types of work they most like doing. Their responses are used to create a profile which has links to detailed information about a range of occupations that suit their work preferences. The Career Quiz app can be downloaded free from the iTunes app store and Google Play by searching for 'Career Quiz Australia'.		☐	☐	☐			http://studyassist.gov.au/sites/studyassist/mytertiarystudyoptions/pages/career-quiz-app	Released: Mar 23, 2015 https://itunes.apple.com/us/app/career-quiz/id976475019?ls=1&mt=8	

33 MyFuture Matters	☐	☑	NSW Education and Communities	NSW	Website	This website is for students, their parents, carers, teachers and leaders in schools where the challenges faced by low socio-economic status (SES) communities are experienced on a daily basis. The resources and research available on this website will support low SES school communities to close the gap in the learning outcomes for their students as they work towards achieving each student's full potential.	☑	☑	☑	Parents, Carers, Teachers, School Leaders		http://www.lowsesschools.nsw.edu.au/lowsesresources/Home.aspx	Video resources and links to wider Uni information available from the "Room" resource - http://www.lowsesschools.nsw.edu.au/Portals/0/room/test.html	
34 Parents and Families	☐	☑	Griffith	QLD	Website, videos	We have collected some stories from equity background students at Griffith University about the role their parents or mentors played in supporting them to get into, and through, their university study. Some of these students are parents themselves and explain why they have returned to study and how it has impacted their families.	☐	☑	☐	Parents, Carers, Families		https://www.griffith.edu.au/student-equity-services/outreach-activities/parents-and-families	Uses Youtube and Storify to display content	Roman Albert **Email:** r.albert@griffith.edu.au
35 Campus Quest	☐	☑	Curtin	WA	Online game	Campus Quest is a fun online game that will arm participants with plenty of information about life at university. As participants solve the game quests they need to balance their time, money, assignments and social life to have fun, get good marks and make some friends along the way. Campus Quest gives participants an overview of what's expected of them at university, and the support services and social facilities available. It's designed to help increase participants' confidence in their ability to tackle higher education, and is especially useful for people living in regional areas who can't visit a real campus. The game is browser-based and anyone with an internet connection can play at www.campusquest.com.au. The Campus Quest smartphone app will be available in 2015.	☑	☑	☐		Curtin University wins the Library Board Award for Excellence for Curtin AHEAD in School Game-based learning activities	The game can be accessed here: https://www.campusquest.com.au/ You can also find more information and promotional material here: http://eesj.curtin.edu.au/ahead/campus_quest.cfm	http://www.slwa.wa.gov.au/whats_on/media_releases/library_awards_night	Vicki Ward Curtin AHEAD Program Manager Phone: +61 8 9266 2836 Mobile: +61 432 052 804 Email: vicki.ward@curtin.edu.au Andrea Duncan AHEAD Community Program Coordinator Phone: +61 8 9266 2184 Mobile: +61 401 103 057 Email: andrea.duncan@curtin.edu.au
36 Learning Potential App	☐	☐	Department of Education and Training	Australia	Mobile App	Packed with tips and ideas for you to get involved in your child's learning, the Learning Potential app helps you to make the most of the time you spend with your child. Researchers around the world agree that when parents are involved in their child's learning it really can have a positive impact. That's why this free Australian Government app provides inspiring ways you can be more involved from the highchair to high school. See how learning activities can fit into your routine, like when you're getting dinner ready or driving to school. Personalise the app for your family's needs. Type in your child's or children's name and age and receive articles and videos that are relevant to their age group. With Learning Potential you can: • set the app for regular hints, tips and reminders. • save articles to your favourites so you can read them later. • personalise the app to suit you. Your personal data will not be collected. This free app has been developed by the Department of Education and Training in consultation with Australian Curriculum, Assessment and Reporting Authority.	☐	☐	☐	Parents		http://learningpotential.gov.au/		If you have any questions or feedback about the Learning Potential app, the Government's policies on parent engagement or the tips and resources you've seen, please contact us. Department of Education and Training's enquiry phone line 1300 363 079 Email: parentengagement@education.gov.au Facebook For all media enquires you can email the Department's media team at media@education.gov.au or call the media line on (02) 6240 7300.
37 Career Development Resources	☐	☑	Curtin	WA	Website, posters	Curtin AHEAD has developed a range of career development resources for teachers and educators to use with their students.	☑	☐	☐	Teachers, Parents		http://eesj.curtin.edu.au/ahead/career-development-resources.cfm		Vicki Ward Curtin AHEAD Program Manager Phone: +61 8 9266 2836 Mobile: +61 432 052 804 Email: vicki.ward@curtin.edu.au Andrea Duncan AHEAD Community Program Coordinator Phone: +61 8 9266 2184 Mobile: +61 401 103 057 Email: andrea.duncan@curtin.edu.au
38 Stellar	☐	☑	Southern Cross University	NSW, QLD, VIC	Website, Outreach	Stellar is an initiative funded by the Commonwealth Government's Higher Education Participation and Partnerships Program (HEPPP) to improve the participation rates of students from communities under-represented in higher education. Stellar, developed by the Clarence Valley Industry and Education Forum (CVIEF), works through a whole of community approach to support students to reach their goals. Stellar provides information and support to students, families, carers, school staff and community groups necessary for young people to aspire to university. Stellar Goal •To improve university participation rates of students living in the Clarence Valley. Stellar Objectives •Increase knowledge and understanding of higher education and career options •Build confidence and motivation towards higher education •Improve academic readiness for higher education •Partner with teachers, families and community to assist students to reach their potential for higher education.	☐	☐	☐	Teachers, Parents	Annual Report 2013 http://stellar.edu.au/wp-content/uploads/sites/11/2014/01/2013-Annual-Report-Stellar-Program.pdf	http://stellar.edu.au/	2014 Newsletter http://stellar.edu.au/wp-content/uploads/sites/11/2014/05/1-Stellar-newletter-for-schools-April-2014.pdf	Program Coordinator Troy Irwin troy.irwin@scu.edu.au Program Officer Suze Boyd suze.boyd@scu.edu.au
39 My Future Finder	☐	☐	Univeristy of New England			As part of a student's career development planning at school, they may be invited to take part in a free online personality and career matching assessment with their career advisor. The University of New England's My Future Finder is a free resource that is designed to help match a student's personal style to career options that suit their natural abilities and talents, as well as university courses that may set them on the path to achieving their career goals. While My Future Finder is in no way definitive or prescriptive, it is a very useful guide and we do encourage career advisors, parents and care-givers to use the report to start a conversation about their student's future beyond school. Parent or care-giver want only the very best for your son or daughter. Career advisors want to encourage and guide their students. Career planning is one area where guidance can help student's make the wisest choices. The My Future Finder online career assessment helps parents, career advisors and teachers start a meaningful conversation to guide students on a career path that matches their personality style and natural talents. Most of all it's a great ice-breaker and gets everyone talking. Designed primarily for year 10-12 students (but also great fun for the whole family), the My Future Finder report features: •A personality style analysis, including their natural gifts and talents •Ideal jobs that match their personality style (a list of over 50 career options) •Live links to the Australian Government's My Future website to research each job listed •Insights into their work-related strengths and ideal work environment •The qualities they would bring to the job and how they make a difference h h d d h h	☐	☐	☐	Parents		http://www.une.edu.au/info-for/for-high-schools/my-future-finder	Parents' Resources Each child has a unique personality profile that can be identified using four personality styles; Driver, Promoter, Supporter and Analyser. Their profile indicates how your child will deal with most situations and the Parent Guide will help you to understand your child and improve your relationship with them. Understanding their styles will help you recognise how to motivate, communicate, improve their learning ability, minimize any conflict and enhance your overall relationship with them. Parents: How you can get invovled 1. When prompted by your secondary school provide your child with your email address and encourage them to use it. If your child includes your email address as well as theirs when they complete My Future Finder you will also receive a copy of their report, special resources to explain everything and a link so you can do it too if you like. 2. Follow the link in the My Future Finder parent email and complete My Future Finder yourself. Share this link with other members of your family. 3. Get together, share your reports, start a conversation, compare personality styles, talk about the future and have some FUN!	

40 Student Box	☐	☐	Curtin	WA	Website	Studentbox is an online community for year 10 to 12 high school students in Western Australian (WA). It is powered by Curtin University and managed by me (Ben), the Studentbox Community Coordinator. The aim of Studentbox is to help you get through high school and into the university and course that you want. Why have we made Studentbox? We've listened to loads of year 11 and 12 students and found out that you guys are stressed out. Stressed out from high school, studying and learning how to study to exams, choosing what uni you want to go to and loads more. As a result we've made Studentbox to provide the support you need to help you get through high school and into the uni. Studentbox features and content Studentbox has loads of useful tools and study resources to help make high school easier such as: ■Forums ■TISC ATAR calculator guide ■Past WACE exams ■Cheat sheets ■Revision resources ■Study tips ■Exam tips and lots more. Overall, our aim is to help you guys through high school to get into the university and course that you want.	☑	☑	☑			http://www.studentbox.com.au/	admin@studentbox.com.au +61 8 9266 1000
41 UNSW Social	☐	☐	UNSW	NSW	App	UNSW Social is a newly developed module for the official UNSW smartphone app, Uni-Verse. UNSW Social lets you: ■Chat face-to-face with students who are just minutes away from you ■Meet others with mutual interests, hobbies and skills ■Find colleagues to help with assignments and projects ■Build a stronger network of friends ■Enhance your networks and career prospects	☐	☐	☐			https://student.unsw.edu.au/universe	User information pack - https://student.unsw.edu.au/sites/all/files/uploads/group33/UNSW%20Social_user_info.pdf
42 Thinking about Uni	☐	☐	UCAS (UK)	UK	Website	With a huge range of courses available, it's important to research what's right for you. We'll show you all the options – including the alternatives to uni – to help you see the best way forward. Then, if you'd like to apply for a course, we'll show you how.	☐	☐	☑			https://www.ucas.com/ucas/undergraduate/getting-started/thinking-about-uni	Profiles across, Facebook, LinkedIn, Twitter, Instagram, Google+, YouTube, Pintrest and contains videos, blogs and webchat
48 SNAP	☐	☐	RMIT			RMIT's Schools Network Access Program (SNAP) commenced in 2001 as an innovative partnership with a small number of schools in the north of Melbourne, focused on enhancing tertiary access and participation for students from communities that have been under-represented in university enrolments. The SNAP partnership has grown to include over 150 secondary schools throughout metropolitan Melbourne and regional Victoria. View the complete list of SNAP partnership schools.	☐	☐	☐		In 2015, 1,745 students received an RMIT offer through the SNAP priority access scheme. SNAP students are represented across 88% of RMIT programs. SNAP-enrolled student outcomes demonstrate that: pre-entry exploration of disciplines and industry contributes to student success equity scholarships support the retention and achievement of students from disadvantaged backgrounds the SNAP priority access commitment increases opportunity for students from SNAP partner schools SNAP students consistently demonstrate the same patterns of achievement as their non-SNAP peers, with equivalent rates of retention and successful subject /course completion.	http://www.rmit.edu.au/about/our-strategy/values/living-our-values/social-inclusion/equity-and-social-inclusion-programs/	
49 I Belong	☐	☐	RMIT			I Belong is a program of on-campus experiences for selected SNAP secondary school students designed to increase aspiration for tertiary education. I Belong offers an innovative approach to discipline exploration through applied workshops, presentations from industry experts and peer-delivered modules.	☐	☐	☐		In 2014, over 3,500 students participated in I Belong programs on RMIT campuses. Programs range from multidisciplinary Tertiary Experience Days to five-day intensive, discipline-specific experiences. I Belong programs are distinctly different across the middle years (Years 9–10) and senior years of schooling (Years 11–12), and align with the student lifecycle and key academic and developmental transition points. I Belong guides students from campus familiarisation and awareness of disciplines, courses, careers and industries, to university access and support programs, through to transition to tertiary study.	http://www.rmit.edu.au/about/our-strategy/values/living-our-values/social-inclusion/equity-and-social-inclusion-programs/	
50 First in the Family	☐	☑	Uni of Wollongong, University of Newcastle, Open Universities Australia		Website	This website is designed for current and intending university students who are the first in their immediate family to go to university, as well as for their families and for all those who work within the higher education sector. The resources created especially for this website are based upon our research with students who were the first in their family to enrol in a university. Our project team are dedicated to supporting individuals as they move into the university environment, click here to view our research presentations at the first in family forum.	☑	☑	☑	Parents and family	Project Report http://firstinfamily.com.au/docs/Final%20OLT%20Final%20report%20310315.pdf	http://firstinfamily.com.au/index.php	We interviewed and surveyed two main groups: current first-in-family students and their families. The students ranged in age from teenagers to people in their sixties. They were studying in a range of different ways - online, on-campus, distance, full-time and part-time - and were at different stages of their university journey, including some who were in an Enabling program and just about to commence a university degree. As well as the students, we also wanted to include the 'voices' of family members, most of whom play such significant roles in the student's academic journey. So we also interviewed and surveyed a range of family members including parents, siblings, children, partners, grandparents and aunts/uncles. Their reflections focus on what it is like to witness a family member move into university and the impact this transition has on both the students and others close to them.
							☐	☐	☐				

Appendix 8: Examples of Concepts and Theories noted in Literature

Potentially useful theory	Some strong elements and may be adaptable	Not a strong match for our project
Self-determination theory and Expectancy value theory 1.Jung, J. Y. (2013a). Adolescent decision-making processes regarding university entry: A model incorporating cultural orientation, motivation and occupational variables. *Tertiary Education and Management* 19(2): 97-111. DOI:10.1080/13583883.2012.747107 ***Keywords:*** university; decision-making; culture; motivation; adolescence 2.Jung, J. Y. (2013b). Amotivation and indecision in the decision-making processes associated with university entry. *Research in Higher Education* 54(1): 115-136. DOI:10.1007/s11162-012-9267-2 ***Keywords:*** amotivation; indecision; university entry, decision-making processes ***Summary:*** Self-determination theory offers three types of motivation which lead to action, depending on the underlying attitudes or goals: *intrinsic*, or self-satisfying experiences; *extrinsic*, or activities which achieve another outcome not related to the activity itself, such as praise; or *amotivation*, which is a lack of motivation to act (Ryan and Deci, 2000, cited in Jung, 2013b, p. 117). Expectancy-value theory relates to the expectancy of success when completing an activity, and the value the participant places on that activity (Wigfield and Eccles, 2000, cited by Jung, 2013b). Similarly to self-determination theory, this is broken down into underlying attitudes: *attainment value*, or success; *intrinsic value*, or self-satisfaction of the experience; *utility value*, or usefulness; and the *costs* in terms of time, emotional investment and so on (Wigfield and Eccles, 2000, cited by Jung, 2013b, p. 117). **SEM Levels:** Individual, Educational Institution 3. Jang, H. (2008). Supporting students' motivation, engagement, and learning during an uninteresting activity. *Journal of Educational Psychology* 100(4): 798-811. DOI: 10.1037/a0012841 **Keywords:** Structural Equation Models, Undergraduate Students, Learner Engagement, Student Motivation, Student Attitudes, Student Behavior, Predictor Variables, Self Concept, Learning Activities, Learning Motivation, Motivation Techniques, Teaching Methods **Summary:** This study specifically considered how the interest regulation aspect of self-determination theory could be used in a teaching intervention to increase student engagement. The three models developed and tested were all a good fit for the data, but the one based on self-determination theory was considered to offer the best explanation of the measured effect, and hence the best predictor of student response. **SEM Levels:** Individual, Educational Institution, Intervention Rothes, A., Lemos, M. S., and Gonçalves T. (2014). Motives and beliefs of learners enrolled in adult education. *Procedia - Social and Behavioral Sciences* 112: 939–948. doi:10.1016/j.sbspro.2014.01.1252 **Keywords:** Mature Age Students, Student Motivation, Student Attitudes, Student Behavior, Predictor Variables **Summary:** Examined mature aged students motivations to enrol in higher education courses, using self-determination theory (intrinsic and extrinsic motivation, and autonomous and controlled motivation) to inform their study method. Findings were consistent with other literature about the motivations of mature aged students, and their model successfully predicted relationships between variables. **SEM Levels:** Individual, Educational Institution	***Achievement goal theory (or Goals orientation theory)*** Vedder-Weiss, D. and Fortus, D. (2013). School, teacher, peers, and parents' goals emphases and adolescents' motivation to learn science in and out of school. *Journal Of Research In Science Teaching* 50: 952–988. doi:10.1002/tea.21103 **Keywords:** motivation; continuing motivation; informal science learning adolescents; goals; school culture ***Summary***: Achievement goal theory distinguishes between mastery goals (the goals of developing competence) and performance goals (the goals of demonstrating competence). This study employed this theory to better understand why adolescents' motivation to learn science declines with age in many schools yet not in others. Findings show that perceptions of the goals that significant adults (e.g. parents and teachers) emphasize were better predictors of students' motivation, in and out of school. ***Conceptual Definitions:*** Achievement goal theory identifies two main goal orientations (Mastery & Performance). Mastery refers to developing new skills, improving understanding and level of competence, or achieving a sense of mastery. Performance goals are concerned with others' perceptions of their competence and ability relative to others. While performance goals are about making a positive impression, performance-avoidance goals are about avoiding negative impressions. **Domain Limitations:** In this study the authors examined four environmental factors which may be perceived by students as emphasizing achievement goals and as such may influence their goals orientation and engagement. These factors are: the school, the science teacher, parents, and peers (p.955). **Relationships between variables:** To understand the relative impact of environmental factors on students' goals orientation, the following influences of schools, teachers, peers, and parents' perceived goals emphases were examined. Hence, the way students perceive the goals emphases of the educational environment affects their personal goals orientation (p.954). **Specific Predictions:** Based on achievement goals theory the authors' hypothesized that students' perceptions of their school, teachers, peers, and parents' goals emphases will predict their goals orientation which in turn will predict their classroom as well as extra-curricular engagement. **SEM Levels:** individual, family, community (peers), educational institution	***Possible selves theory (combining elements of Adult learning theory and Career development theory)*** 1.Plimmer, G. and Schmidt, A. (2007). Possible selves and career transition: It's who you want to be, not what you want to do. *New Directions for Adult and Continuing Education* 114: 61–74. doi:10.1002/ace.257 **Keywords:** Career Development, Career Change, Adult Education, Self Concept, Self Actualization, Sequential Approach, Transformative Learning, Performance Factors ***Summary***: This chapter provides background theory and practical steps for a possible selves approach to career development in adult education settings. It also identifies methods to foster development, enhance motivation, and manage setbacks. 2.Plimmer, G. (2012). Adult career counseling using possible selves—A quasi-experimental field study in naturalistic settings. *Journal of Career Assessment* 20(1): 53-70. **Keywords:** assessment, counseling, possible selves, career, anxiety, program design, ecological validity ***Summary***: Applying a control group research design, this study found that the possible selves process was particularly effective for raising participants' level of comfort with career direction and in engaging clients where career and personal issues intertwined. **Conceptual Definitions:** *Possible Selves* theory, enables understanding of how adults manage transition and move towards their ideal selves. Possible selves are instrumental in personal and career change because they can liberate people from feeling trapped or restricted in their options (Plimmer & Schmidt, 2007, p. 64). It serve as a bridge between self-concept and motivation (Ruvolo and Markus, 1992) (Plimmer & Schmidt, 2007, p. 65) toward development of new possible selves, which can be provisionally "created, tested, discarded and revised" to determine their fit (Ibarra, 1999, p. 765) (Plimmer & Schmidt, 2007, p.65). **Domain Limitations:** Individuals without schema for positive possible selves are vulnerable to setbacks as negative possible selves are more easily aroused (Cross and Markus, 1994), and they lack the capacity to process information and develop effective plans (Plimmer & Schmidt, 2007, p.68). **Relationships between variables:** Possible selves operates via five mechanisms: (1) A personalized, intensely individual includes efficacy, values, and personalized meanings; (2) highly vivid images of success (or failure) are personally motivating; (3) laden with emotions such as happiness or insecurity, can be energizing or demotivating; (4) Having a clear possible selves schema, to help a person become that self; and (5) Having a balance of hopes and fears appears to be effectively motivating change. **Specific Predictions:** By recognizing unique personal meanings, the possible selves approach can have an impact on cognition, affect, and expectancies. **SEM Levels:** Individual
Theory of planned behaviour Gatfield, T. & Chen (2006). Measuring student choice criteria using the theory of planned behaviour: The case of Taiwan, Australia, UK, and USA. *Journal of Marketing for Higher Education 16(*1): 77-95. DOI:10.1300/J050v16n01_04 ***Keywords***: cognitive development; transformational learning	***Circumspection and compromise theory*** 1. Armstrong, P. I., and Crombie, G. (2000). Compromises in adolescents' occupational aspirations and expectations from grades 8 to 10. *Journal of Vocational Behavior* 56: 82–98. doi:10.1006/jvbe.1999.1709 ***Keywords*:** career aspirations, career expectations, career maturity, career indecision, career decision-making, self-efficacy, career barriers	***Critical theory*** Kim, J-H., and Taylor, K. A. (2008). Rethinking alternative education to break the cycle of educational inequality and inequity. *The Journal of Educational Research* 101(4): 207-219. DOI:10.3200/JOER.101.4.207-219 **Keywords**: alternative education, cycle of educational inequality, disenfranchised students ***Summary:***

Summary:
Using Fishbein's and Ajzen's multi-attribute Theory of Planned Behaviour model, this research explores the differences in behavioural motivations of international students choosing an overseas university in which to study. Three research questions are explored and the outcome demonstrates the usefulness and the insights that can be gained from the application of the model of Theory of Planned Behaviour in a higher education marketing context.

Conceptual Definitions:
To understand consumer attitudes and attitudinal links between intention and behaviour Ajzen and Fishbein's (1975) Theory of Planned Behaviour (TPB) is applied. To aid understanding, and to enhance prediction, attitudes can be factored into three major determining groups. These
comprise *Attitudes towards Behaviour (AB)*, *Subjective Norms (SN)* and *Perceived Behavioural Control (PBC)*.

Domain Limitations:
The literature suggests that due to Chinese family Confucian principles, living costs and distance would be considered a stronger predictor than AB and SN in the countries of Australia, USA and UK. Analysis revealed that PBC was not the most important predictor of Taiwanese students' intention to study in Australia, UK and USA.

Relationships between variables:
AB refers to an attitude towards a particular behaviour and is represented by a positive or negative belief. Subjective Norm (SN) refers to the perceived social pressure associated with performing certain behaviours; what "important others" think is important (e.g.parents, close friends, doctors and religious
Organisations) . ASN is a function of beliefs that "important others" who approve or disapprove of certain behaviours. PBC is linked with perception of the ease of performing the behaviour.

Specific Predictions:
The basic parameter of TPB is that to understand individuals' choice behaviour it is essential to examine intention. For example, if they hold positive attitudes towards the behaviour and believe that important others would approve of the behaviour, then they are more likely to form an intention to perform such behaviour.

SEM Levels:
Individual; Family; Society

Summary:
This study reported that adolescents who showed aspiration– expectation discrepancies in gender traditionality or SES, in either Grade 8 or Grade 9, changed their aspirations in the following year in the direction of their prior expectations. While there is support for compromise theory, questions are raised about the role of expectation changes in the compromise process.

2. Flouri, E., Tsivrikos, D., Akhtar, R., and Midouhas, E. (2015). Neighbourhood, school and family determinants of children's aspirations in primary school. *Journal of Vocational Behavior* 87: 71–79.
http://dx.doi.org/10.1016/j.jvb.2014.12.006

Keywords: Aspirations; Children; Family socio-economic status; Neighbourhoods; Schools

Summary:
This study investigated the early contextual (neighbourhood, school and family) determinants of occupational aspirations in primary school children. The structural equation model tested the role of family/neighbourhood socio-economic status (SES) and child ethnicity via associations with parental involvement, household chaos, school-level achievement and child cognitive ability. The only significant determinants of aspirations at age 7 years were family SES and ethnicity, and only in boys. Family SES was a particularly powerful determinant of the aspirations of white compared to non-white boys

Conceptual Definitions:
Gottfredson (1981, 1996) Two processes are involved with the development of occupational aspirations: circumscription and compromise. Circumscription incorporates limits placed on occupational aspirations to acceptable alternatives. Compromise involves developmental change toward for more realistic occupational choices within acceptable limits.
Hence, aspirations evolve with age from the fantastical to the concrete, and so, as children grow into adolescents, they revise their aspirations based on their views of their own abilities and interests, as well as on societal and parental expectations (Flouri et al., 2015, p.72).

Domain Limitations:
Before changes in aspirations can be attributed to the process of anticipatory compromises, the person must believe that their prior aspirations are unrealistic or unaccessible (Gottfredson, 1996) (Armstrong & Crombie, 2000, p.85). The model did not predict gender differences in this study.

Relationships between variables:
An individual with more masculine expectations than aspirations would be expected to change aspirations towards more masculine occupations, whereas an individual with more feminine expectations would be expected to change aspirations to more feminine occupations. Similar predictions can be made about prestige changes, having either expectation for lower in SES or higher in SES than their aspirations. (Armstrong & Crombie, 2000, p.85). Gender, cognitive ability, parents, SES, ethnicity, school and neighbourhood all influence aspirations and educational achievement.

Specific Predictions:
Adolescents who report the same occupation for both their aspirations and expectations would not be expected to compromise their aspirations, as their aspirations are perceived as being viable expectations. In comparison, adolescents who report different occupations for their aspirations and expectations may compromise their aspirations in the direction of their expectations.

SEM Levels: *Individual, Socioeconomic; Family/School; Community*

This study focuses on the efficacy of alternative schools given the growing numbers of disenfranchised students. The authors highlights that this correlation may be caused by social, economic, and political issues that bring about pervasive social injustice, which reinforces the cycle of educational inequality. Using critical theory as a theoretical framework, the authors found that the school provided a caring environment for students and gained their trust. However, the school did not offer a meaningful and equitable alternative education that benefited the students.

Conceptual Definitions:
One concern central to critical theory is who benefits from education. The authors explored whether the school program was beneficial to students to the extent that it provided a level playing field while breaking the cycle of educational inequality. *Beneficial* stems from the perspective of critical theorists that schools in general work to benefit the elite upper class to preserve their existing social privilege, interests, and knowledge at the expense of less powerful groups. Consideration of a school program is beneficial to students when it provides content, processes, rigor, and concepts that they need to develop and realize their future career goals.

Domain Limitations:
The concept of critical theory refers to the nature of selfconscious critique and to the need to develop a discourse of social transformation and emancipation that does not cling dogmatically to its own doctrinal assumptions. It points to a body of thought that is, in my view, invaluable for educational theorists; it also exemplifies a body of work that both demonstrates and simultaneously calls for the necessity of ongoing critique, one in which the claims of any theory must be confronted with the distinction between the world it examines and portrays, and the world as it actually exists. (27–28; capital letters in original, Girou, 2003)

Relationships between variables:
C*ritical theory* (Giroux, 2001) was used as our theoretical framework because it provides valuable insights for studying the relationship between theory and society. Critical theory refers to a school of thought and a process of critique regarding notions of money, consumption, distribution, and production, all of which are promoted by relationships of domination and subordination. Giroux (2001) stated that critical theory stresses the importance of critical thinking by providing an argument that it is an indispensable feature of the struggle for self-emancipation and social change. Besides supplying an argument against the suppression of subjectivity, consciousness, and culture in history, critical theory also provides an examination of the contradictions of society rather than social harmony.

Specific Predictions:
Critical theory is central to addressing the research question because it helps researchers and educators understand what is happening in the alternative school versus what should be happening and questions who benefits from current educational practice. Thus, the focus of this analysis is what is occurring in the alternative school versus what should be occurring to eliminate social control and social reproduction, thereby promoting social justice.

SEM Levels: individual, educational institution

Transformational Learning theory

Benson, C., Palin, G. R., Cooney, T. M., Farrell, K. (2010). *Agents of Change: Using Transformative Learning Theory to Enhance Social Entrepreneurship Education*. 57th ICSB World Conference and joint 25th Annual SEAANZ Conference, 10-12 June 2012 Wellington New Zealand.
http://seaanz.org/sites/seaanz/documents/2012SEAANZConference/Benson_430.pdf

Keywords: Transformative learning; social entrepreneurship; entrepreneurship pedagogy; social enterprise; disorienting dilemma; USA, Ireland

Summary:
An overview of how educators can use transformational learning theory in practice, as demonstrated with a class of university students in the field of social entrepreneurship.

Conceptual Definitions:
There is a common recognition that the fully developed learner moves through a series of developmental forms to arrive at the highest potential for understanding—the

9. Realist social theory (RST)

Kahn, P. (2009) Contexts for teaching and the exercise of agency in early-career academics: perspectives from realist social theory. *International Journal for Academic Development, 14*(3), 197-207, DOI: 10.1080/13601440903106510
http://dx.doi.org/10.1080/13601440903106510

Keywords: early-career academics; critical realism; realist social theory; initial professional development; agency; social structure

Summary:
This study investigated the interplay between context and agency for three early-career academics. In light of Archer's RST (framed by critical realism) analysis revealed that there is interplay between structure and agency, with the influence of contextual factors mediated by their concerns and reflexive deliberations.

Conceptual Definitions:
Archer (2000) argues that social theory typically downplays how agents use their own personal powers to conceive and pursue courses of action within social and

Cultural reproduction theory

1.Goldthorpe, J.H. (2007). 'Cultural capital': Some critical observations. *Sociologica* 2: 1-23. doi:10.2383/24755

Summary:
This paper is a critique of Bourdieu's notion of "Cultural capital", a key concept in the theory of social reproduction, which is empirically unsustainable. Goldthorpe distinguishes between two modes of using this theory: Bourdieu "domesticated" and Bourdieu "wild". Goldthorpe argues: "Researchers using the concept in the former context often fail to appreciate its radical nature and, in turn, the full extent to which their findings undermine Bourdieu's theory of social reproduction; while those who would wish to understand the concept in the latter context have difficulty in showing its continuing fitness for research purposes, given the failure of the larger theory in which it is embedded."

2.van de Werfhorst, H. G.(2010). Cultural capital: Strengths, weaknesses and two advancements. *British Journal of Sociology of Education* 31: 2, 157-169. DOI:10.1080/01425690903539065

capacity to engage in transformative learning.There is also recognition that does not occur in all or even most adults. Capacity for transformative learning is one thing and helping others to realize this potential is role of adult education.

Domain Limitations:
Transformative learning is an adult form of rationality delineating generic processes involved in profound adult learning. However, there is need for adult educators to elaborate on the crucially important roles and relationships of affective, intuitive, and imaginative dimensions of the process.

Relationships between variables:
Although cognitive development is indeed foundational for transformative learning, the 'preconditions' of education, socioeconomic class, gender, including ideology, politics, religion, power, economics, and culture are also important.

Specific Predictions:
Mezirow (1997) states that we do not make transformative changes in the way we learn as long as the new material fits comfortably in our existing frames of reference.
Mezirow (1997) emphasizes that transformative learning is rooted in the way human beings communicate, and does not link it exclusively with significant life events of the learner. Through this combination of reflection and discourse, the student was able to make shifts in his/her world view which produced a more inclusive world-view.

SEM: individual, education institution, intervention

cultural contexts. A realist approach to social theory enables understanding of individuals' pursuits against the constraints and enablers deriving from the social and cultural context. These pertain to self-worth, physical well-being and performative achievement which may then lead to successful practices.

Domain Limitations:
It will be valuable to carry out research on how the context for teaching and the exercise of agency may differ between departmental settings and a programme of professional development for early-career academics. There may be different patterns of reflexive deliberation in operation for early-career academics and for those running such a programme, with one focused more on performativity in relation to teaching responsibilities and the other taking in critical perspectives on wider issues characteristic of meta-reflexives. .

Relationships between variables:
The author highlights that the effects of structural and cultural factors are mediated to the agency of the individual by a process that entails three main stages: (1) Structural and cultural properties objectively shape the situations; (2) Agents' own configuration of concerns, as subjectively defined in relation to the three orders of natural reality – nature, practice and society. (3)Courses of action are produced through the reflexive deliberations of agents who subjectively determine their practical projects in relation to their objective circumstances. (Archer, 2003, p. 135).

Specific Predictions:
RST posits a progressive specification of concrete courses of action, as concerns lead to projects and thus practices. This trajectory is driven though inner conversation or reflexive deliberation on oneself and one's concerns in relation to society (Archer, 2007, p. 3), helping to explain why individuals act one way rather than otherwise within a given context.

SEM Levels:
Individual; Socio-Economic; Institutional

***Keywords*:** Bourdieu, cultural capital, social reproduction.

Summary:
This is a critique of Goldthorpe (2007), but also an additional critique of Bourdieu's theory of cultural capital.

Conceptual Definitions:
This domesticated version of Bourdieu's theory has not been very successful in operationalizing the 'institutionalized state' and the 'embodied state' of cultural capital (Bourdieu 1986). The institutionalized state is manifested in things such as formal diplomas, but if cultural capital is equated with parents' schooling levels, then tests of cultural reproduction theory against other theories that explain social origin effects are impossible. The embodied state is perhaps most crucial in Bourdieu's work, but it is difficult, if not impossible, to operationalize a person's habitus (Sullivan 2002). Some 'domesticated' Bourdieuians have operationalized habitus by looking at schooling ambitions (Dumais 2002).

Domain Limitations:
Cultural reproduction theory has recently come under attack (Goldthorpe 1996,
2007). According to Goldthorpe, cultural and norm-based theories – among which is cultural reproduction theory – are not compatible with known facts on trends in educational. One central element of cultural theories of educational inequality is that children of lower social origins develop a culture that is incompatible with the schooling culture.

Relationships between variables:
The resources that people are endowed with come in multiple dimensions, and although this insight cannot be attributed to Bourdieu but to earlier scholars, it is certainly to the credit of Bourdieu that he has offered an *integral* view on the multidimensionality of resources in three domains of life: social stratification, lifestyles and politics. However, there are two weaknesses in this integration of domains where multidimensional stratification occurs. These relate to the unfortunate focus on uni-dimensional schooling outcomes where social origin is multidimensional, and on the unfortunate mixture of cultural and political outcomes that Bourdieu sees amalgamated in the cultural elite.

Specific Predictions:
The author proposed advancements that relate to theory, analysis and empirical research. In this endeavour, the author builds upon the strength of Bourdieu's approach by applying a multidimensional social space to different domains of life. Extending the analysis of stratification by incorporating multiple dimensions of destinations may lead to different conclusions as to the role of education in the intergenerational mobility process.

SEM Levels: educational institution, socioeconomic

Critical race theory

1.Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education* 8(1): 69-91. DOI:10.1080/1361332052000341006

2.Solórzano, D. G., and Yosso, T. J. (2002). Critical race methodology: Counter-storytelling as an analytical framework for education research. *Qualitative Inquiry* 8(1): 23-44.

Keywords: Race, Minority Groups, Critical Theory, Justice, Cultural Background, Social Capital, Community Characteristics

Summary: Critical race theory was developed in order to speak truth to power in the American legal system, and has been adapted since then to analyse and respond to systems of entrenched racism through a critical lens – it is in fact an offshoot of critical theory. It has become an intersectional model, which can be applied to the educational context at all levels, but particularly so at structural levels.

SEM Level: Individual, policy

3.Sonn, C. C., and Quayle, A. F. (2013). Developing praxis: Mobilising critical race theory in community cultural development. *Journal of Community & Applied Social Psychology* 23:435–448. doi:10.1002/casp.2145

Key words: critical race theory; community cultural development; receptive social environments; whiteness; racism

Summary:
This article explores projects from a community psychology orientation, which is committed to developing opportunities for inclusion and also exposing the workings of power in everyday settings. While many positive outcomes have resulted with communities, there have also been significant barriers to transformative practice. To discuss efforts aimed at understanding

Relative risk aversion theory and Maximally maintained inequality theory

Chesters, J., and Watson, L. (2013). Understanding the persistence of inequality in higher education: Evidence from Australia. *Journal of Education Policy* 28(2): 198-215. DOI:10.1080/02680939.2012.694481

Keywords: social class; Mobility; Relative risk aversion theory

Summary:
The theory of Relative Risk Aversion (RRA) suggests that educational decision making is motivated by the individual's desire to avoid downward social class mobility and, furthermore, that this desire is stronger than the desire to pursue upward mobility. A Dynamic Decision Process (DDP) model allowed for class-specific cultural values regarding education to be tested. The analysis of Danish Youth Longitudinal Study found strong evidence that RRA affects educational decisions over and above traditional socioeconomic factors.

Conceptual Definitions:
The RRA theory assumes that
people view education as an investment good and not as a consumption good. In other words, in the RRA theory education is treated as an instrument which individuals with different class backgrounds use to minimize the risk of downward mobility. Consequently, in the RRA theory social classes differ only with respect to their average cognitive ability and economic resources but not with respect to their intrinsic cultural "tastes" for education.

Domain Limitations:
Several critics argue that the RRA theory disregards an important source of cultural variation in the weight individuals with different class backgrounds assign to education.

Relationships between variables:
The RRA theory proposes three behavioural assumptions that explain why family background affects educational outcomes. The first assumption is that individuals' educational choices are driven by a fundamental desire

Rational action theory

Kettley, N. C., and Whitehead, J. M. (2012). Remapping the "landscape of choice": Patterns of social class convergence in the psycho-social factors shaping the higher education choice process. *Educational Review 64*(4): 493-510, DOI:10.1080/00131911.2011.631167.

Keywords: social class; secondary school; transition

Abstract:
This paper provides a critique of recent Bourdieusian research into the higher education (HE) choice process. Specifically, Ball et al. (2002) maintain that class-related differences in students' psycho-social dispositions in Years 12 and 13, the "landscape of choice", shape their intentions or "decisions" to participate in HE and their selection of high or lower status universities. However, drawing on a national survey of Year 12 students we find that paternal occupation is a poor predictor of intended participation in HE. Furthermore, those psycho-social factors shaping students' aspirations to participate in HE and their selection of university type exhibit substantial class convergence. We argue that the research of Ball et al. (2002) analyses data from an atypical sample and deploys a dichotomous narrative of class. These practices exaggerate class-related differences in the HE choice process, at this level of education, and tend to confirm the Bourdieusian thesis.

Conceptual Definitions: The preferred explanation for persistent class inequalities in HE for some researchers is rational action theory (RAT) (Goldthorpe 1996). This rejects the Bourdieusian notions of cultural capital and reproduction as an explanation for inequality. RAT proposes that working class students face different opportunities and constraints when pursuing goals resulting in divergent evaluations of the costs and benefits of education. It is the unchanging "relativities" of the costs and benefits of education, prevailing between classes over time, which explains persistent inequality (Goldthorpe 1996, 492).

Domain Limitations:
The results of this research revealed that the Location of

racism, the methodology included engaging with critical race theory and whiteness studies within the context of Indigenous and non-Indigenous partnerships for change. ***SEM Levels***: individual, institutional, community, political 4.Knaus, C. B. (2009). Shut up and listen: Applied critical race theory in the classroom. *Race Ethnicity and Education* 12(2): 133-154. DOI:10.1080/13613320902995426 ***Keywords****:* Critical Race Theory; racism in education; student voice; urban education; multicultural education ***Summary****:* This paper demonstrates that applying critical race theory to the classroom dramatically shifts the nature and scope of schooling for students of color in urban schools. Applied CRT centres on the development of voice and expression, and de-centers the high-stakes pressures that limit student engagement. Thus fostering critical voice in students provides educators the tools to create engaging classrooms, and acknowledges the intense emotional experiences that students bring (from home contexts) to the classroom. ***Conceptual Definitions*:** CRT in education is defined as a theoretical and analytical framework that challenges the ways race and racism impact educational structures, practices, and discourses. CRT is conceived as a social justice project that works toward the liberatory potential of schooling (Freire, 1970, 1973). This acknowledges the contradictory nature of education, wherein schools most often oppress and marginalize while they maintain the potential to emancipate and empower. ***Domain Limitations*:** For the field of education five tenets of CRT inform theory, research, pedagogy, curriculum and policy: (1) the intercentricity of race and racism; (2) the challenge to dominant ideology; (3) the commitment to social justice; (4) the centrality of experiential knowledge; and (5) the utilization of interdisciplinary approaches. ***Relationships between variables:*** CRT addresses the social construct of race by examining the ideology of racism. CRT finds that racism is often well disguised in the rhetoric of shared 'normative' values and 'neutral' social scientific principles and practices (Matsuda *et al.*, 1993). CRT is the lens that can 'see' that Communities of Color nurture cultural wealth through at least 6 forms of capital such as aspirational, navigational, social, linguistic, familial, and resistant capital. **Specific Predictions:** Counter-stories can serve at least four functions: (a) build community for those at the margins of society; (b) challenge the perceived wisdom of those at society's center;(c) open a new windows into the reality; (d) construct another world that is richer than either the story or the reality alone. **SEM Levels:** policy, institution, individual	to avoid downward social mobility by reaching *at least* the same social class position as that of their parents. The second assumption is that individuals are forward looking and use education as a means of avoiding downward mobility. As a consequence, individuals with different social class backgrounds have different optimal stopping points or thresholds where the costs of continuing education (real costs, earnings foregone, and the risk of failure) outweigh the utility of further education. The second assumption, that individuals are forward looking, distinguishes the RRA theory from most conventional theories of educational inequality (e.g., Bourdieu, 1977; McLanahan & Sandefur, 1994). Moreover, the first assumption, that individuals seek to minimize the risk of downward mobility, distinguishes the RRA theory from other rational choice theories (e.g., Becker, 2003; Hillmert & Jacob, 2003; Jæger, 2007; Morgan, 2002, 2005). According to the RRA theory individuals gain a utility "bonus" from reaching the same social class position as their parents. This utility "bonus" combined with potentially rising marginal costs of further education means that individuals have little incentive to obtain more education than what is required to avoid downward mobility. For example, working class children need less education to get into the working class than service class children need to get into the service class. Because of this utility bonus from reaching one's background class, and because the costs of pursuing further education might increase faster than the utility of reaching a higher social class position, the RRA theory may explain why some classes have little incentive to pursue higher education and why class inequalities in educational attainment persist ***Specific Predictions:*** Breen and Yaish (2006) frame the RRA theory as a test of the existence of a minimum acceptable threshold level of education that children recognize as required to get into the same social class position as that of their parents. Furthermore, they identify this threshold level by calculating the actual probabilities of reaching certain social class destinations given educational choices, as derived from a secondary data source (see alsoWilson,Wolfe,&Haveman, 2005). Their empirical analysis supports the RRA theory in that the threshold levels of education children should recognize as required to gain access to their parents' social class influence their educational decisions. ***SEM Levels***: Individual; socioeconomic	Choice (LOC) does not align with those of Ball et al. (2002), because we find convergence in the psycho-social factors influencing the HE choice process irrespective of class. Our findings also provide little support for pragmatic rational accounts of the HE choice process. Nor do they entirely align with RAT since we do not find "a lack of convergence in class-specific evaluations in educational decision-making" at this level of schooling (Goldthorpe 1996, 495). We argue, therefore, for the development of a new frontier in LOC research. ***Relationships between variables:*** Class-related, psycho-social variance has been used to explain students' decision-making processes, specifically the choice of high or lower status universities, which results in the stratification of HE (Reay et al. 2001; Ball et al. 2002). Our analysis of those psycho-social factors shaping students' decision-making by social class, however, provides little support for this position. ***Specific Predictions:*** Pragmatic rationality does not provide a superior explanation of choice, as argued by Ball et al. (2002, 55), because Goldthorpe (1996, 485) never advocated a "perfect" model of rationality. In RAT no assumptions are made about the clarity of goals, optimal means to achieve them or perfect knowledge. Nevertheless, "no amount of theoretical debate can resolve what is essentially an empirical question" (White 2007, 2). Nor can the alignment of the findings of LOC research, at a given educational level, with results pertaining to class-related differences in HE enrolments substantiate its reliability and validity. ***SEM Levels***: Individual; socioeconomic
	Social Cognitive Theory Boxer, P., Goldstein, S. E., DeLorenzo, T., Savoy, S., Mercado, I.. (2011). Educational aspiration–expectation discrepancies: Relation to socioeconomic and academic risk-related factors. *Journal of Adolescence 34*, 609–617. http://dx.doi.org/10.1016/j.adolescence.2010.10.002 **Keywords:** cultural capital; field of study; politics; education; social mobility ***Abstract***: This study examines whether disconnection between educational aspirations and expectations is associated with socioeconomic status, academic performance, academic risk related behaviors and related psychosocial factors in an ethnically and economically diverse sample of early adolescents from a public middle school (N ¼ 761). Results suggest that students who aspire to achieve more than they expect to achieve also are likely to have more economically disadvantaged backgrounds and poorer academic performance. These students also show a variety of academic and social risks. Specifically, students whose aspirations exceeded their expectations reported lower levels of school bonding, higher levels of test/performance anxiety, and elevated behavioral/emotional difficulties. Results are discussed in terms of social-cognitive theory as well as applications for promoting student social and academic success. ***Conceptual Definitions:*** One of the more increasingly robust propositions in developmental research is that, generally speaking, cognitive beliefs become reliable and valid predictors of related behaviors beyond the early to middle childhood period (Davis-Kean et al., 2008). Thus, for example, with	***Theory of subjectively expected utility*** Becker, R. & Hecken, A.E. (2009b). Higher education or vocational training? An empirical test of the rational action model of educational choices suggested by Breen and Goldthorpe and Esser. Acta Sociologica, 52(1): 25–45. DOI: 10.1177/0001699308100632 ***Keywords***: class structure; higher education; primary effects; rational choice; secondary effects; social inequality of education; vocational training ***Summary:*** The aim of this article is to reveal crucial factors affecting the access to higher education claimed in rational action theories in Germany. Data on the educational choices of high school graduates in Saxony support the basic assumptions of the rational choice model. First, working-class children are likely to be diverted from higher education by their self-evaluated school achievement. In contrast to expected economic returns from education, theoretically expected class-specific motives of status maintenance are crucial factors in regard to class-specific educational decisions. Besides class differences of expectations regarding intergenerational upward mobility or educational success at university, it is subjective estimation of educational costs that is pivotal in the decision against higher education in favour of alternative vocational education – depending on the actual allocation of financial capital between social classes. While these rational choice theories explain class-related inequality, they do not explain the gender inequality in higher education marginally favouring women ***Conceptual Definitions***:

	increasing age, youth who believe it is acceptable or relatively easy to behave aggressively are more likely to engage in aggression and youth who believe they are competent in mathematics are more likely to perform well in mathematics. Such observations are consistent with the well-elaborated social-cognitive (Bandura, 1986; Huesmann, 1998) and expectancy-value (Eccles, 1984; Eccles [Parsons] et al., 1983; Wigfield & Eccles, 1992) frameworks for understanding the relations of cognitive structures (including beliefs, attitudes, and values) to actual behaviors. ***Domain Limitations:*** These findings, taken together with previous work on related topics, indicate that it is less than ideal for students to desire high levels of educational attainment while at the same time believing that the desired level of educational attainment is out of their reach. In the majority of cases, it would not be advantageous to lower aspirations, so that aspirations are reduced to be more consistent with expectations. Lower aspirations are associated with lower levels of achievement, and may have longer term impacts on educational and vocational attainment through the influence the self-fulfilling prophecy (i.e., the ultimate fulfillment of a false belief; Smith et al., 1999) and lower levels of self-efficacy (Bandura et al., 2001). Rather, the goal should typically be to increase expectations – and by extension, academic self-efficacy – to align them with higher aspirations. **SEMS Levels:** Individual; Socio-economic/Political	Incorporating rational action theory (RAT) of Breen and Goldthorpe (1997) and the theory of subjectively expected utility (SEU, Esser, 1999). These theories seek explanations for the inequalities in educational opportunities in the individual's educational choices at several branching points in the educational system. ***Domain Limitations***: The initial economic distribution among high school graduates leads to socially selective educational decisions and, consequently, to inequality of educational opportunity in higher education. While these rational choice theories explain class-related inequality, they do not explain the gender inequality in higher education marginally favouring women. ***Relationships between variables:*** These theoretical models have not yet been tested exhaustively with regard to access to higher education in general and university training in particular. This analysis was to test the models proposed by Breen and Goldthorpe (1997) and Esser (1999) against data on individual decisions for or against higher education and vocational training: Do the RAT or SEU theories actually explain the relationship between social class and higher education access and the emergence of social stratification in higher education? ***Specific Predictions:*** Given the alternatives to continuing education after the vocational training *VT* or higher education *HE*. The consequences of the respective decision constitute the returns of the chosen education, namely income and/or social status, the benefits *B*. The direct and indirect costs –*C* arising for higher education and the imminent status demotion –*Sd* due to decisions, which do not guarantee the initial class position, are additional components that affect the individual's estimation of education alternatives. ***SEM Levels***: Individual
	Social-Cognitive Career Theory Ali, S. R., McWhirter, E. H., and Chronister, K. M. (2005). Self-efficacy and vocational outcome expectations for adolescents of lower Socioeconomic status: A pilot study. *Journal of Career Assessment* 13(1): 40–58 ***Keywords***: Social Cognitive Career Theory; College student performance; College student retention; Self-efficacy; Cognitive ability ***Summary:*** This study tested Social Cognitive Career Theory's (SCCT) academic performance model using both college GPA and retention as performance criteria. Results suggested that SCCT does an adequate to excellent job of modelling academic performance and persistence, but that model fit was better when general cognitive ability versus high school GPA was used to operationalize the ability/past performance variable. ***Conceptual Definitions:*** According to SCCT, SES is considered to be one of the personal variables, which are a set of individual factors including sex, race, and SES. SCCT outlines the ways in which personal factors such as SES interact with contextual factors (e.g., social support) to influence the development of career interests, the selecion of career goals, and career behaviours. Personal and contextual variables do not determine an individual's career interests and goal activities but set the stage for the experiences that influence the career development process. For example, an adolescent from a lower SES background is more likely to have poorer quality schooling, fewer career role models, and less financial support for postsecondary options than higher SES adolescents. ***Domain Limitations***: The results of the current study generally provided strong support for SCCT's model of academic performance and persistence with one exception—there was a near zero path from goals to college GPA in the models of academic performance. It did not appear that goals contributed to the grade point averages that students attained in college. Rather, the effect of self-efficacy on academic performance appeared to be more direct. ***Relationships between variables:*** According to SCCT, students who do well in, and graduate from, college do so, in part, because they have developed through their prior educational and social learning experiences the component academic (e.g., study, test-taking, writing) skills required for college success. They also do well in college because they have developed, via past performance accomplishments, cognitive aptitudes, and other sources of feedback (e.g., social encouragement, modelling), strong and robust academic self-efficacy beliefs and outcome expectations that lead them to approach rather than avoid challenging academic tasks, and persist in their academic careers. ***Specific Predictions:***	

	Social Cognitive Career Theory (SCCT) was developed by Lent, Brown, and Hackett (1994) to explain and predict the processes by which vocational and academic interests are developed; academic choices are made, and attained. Studies have supported SCCT's major hypotheses of interest development and choice making—that the relations of self-efficacy and outcome expectations to choices are both direct and partially mediated by interests, and interests have a direct relation to choices (Sheu et al., 2006). ***SEM Levels***: individual, family, peer, educational institution, socioeconomic	
	Socialisation theory and Cognitive theory van de Werfhorst, H. G.(2010). Cultural capital: Strengths, weaknesses and two advancements. *British Journal of Sociology of Education* 31: 2, 157-169. DOI:10.1080/01425690903539065 ***Keywords***: cultural capital; field of study; politics; education; social mobility ***Summary:***: In this paper Bourdieu's work on cultural capital is discussed.First, there is an anomaly between the work on social mobility and on lifestyles. Multiple dimensions of social origin (cultural and economic capital) are related to uni-dimensional outcomes (e.g. schooling levels), whereas it would be more appropriate to study multidimensional schooling outcomes too. Secondly, although Bourdieu sees a close resemblance in the type of resources affecting lifestyle preferences and political orientations, I argue that these outcomes are affected by two different types of resources: cultural and communicative resources. ***Conceptual Definitions***: Cognitive theory, argues that education broadens the students' horizon by giving them the ability to look at social issues from diverse points of view (Hyman and Wright 1979). Socialisation theory is less concerned with the cognitive formation in schools, but rather sees values and attitudes as being socialized upon individuals, In a very broad sense. both share the view that education alters individuals in a very general way, where many kinds of democratic and tolerant attitudes are developed. A third view, however, stresses that education affects attitudes in a much more limited way.Through processes of 'ideological refinement' education affects attitudes as a legitimation of the advantaged position that the highly educated will take in society (Phelan et al. 1995). Although similar to the socialization perspective with respect to the socializing function of schooling, the ideological refinement model stresses that education only affects attitudes and values to the extent that they legitimize the position of the well-educated in society. ***Domain Limitations***: Understanding change in educational inequality requires a focus primarily on secondary, rather than primary effects. Changes in secondary effects can not easily be understood from cultural factors, yet the primary effects comprise around two-thirds of the total effect of social origin (Erikson et al. 2005; Jackson et al. 2007). Primary effects may result from a combination of genetic, cultural and biological factors, and in understanding the influence of cultural factors cultural reproduction theory may help (Van de Werfhorst and Hofstede 2007). ***Relationships between variables***: Thinking in greater detail why education affects social outcomes, it becomes evident that Bourdieu's distinction in two primary types of capital needs to be revised. We need to acknowledge that other types of resources are relevant for the formation of tolerance than are relevant for certain artistic and cultural preferences. In my view there are not two but four types of resources that are horizontally differentially acquired in education. In addition to cultural and economic resources, also communicative and technical resources should be distinguished. ***Specific Predictions:*** If we look at the empirical evidence there is clearly something to say for the claim that education socializes particular values. Even though part of attitude formation may result from cognitive development, the hypothesis cannot be rejected that less rationalized fields of study lead to higher tolerance, a higher propensity to voting for a leftwing political party, or preferring strong governments. Yet, given that at least part of the education effect is manifested through socialization, it is the question whether this socialization occurs to justify inequalities that persist in society – inequalities among which the highly educated stand on the advantaged side of the line – or whether there is really something 'altruistic' in the views developed in education. It seems that the latter is more likely, given that education affects a much wider set of types of attitudes, behaviours and commitments than would be expected on the basis of legitimation of inequalities.	

	SEM Levels: Individual; Socio-Economic/Political	
	Goal Theory Leondari, A., and Gonida, E. (2007). Predicting academic self-handicapping in different age groups: The role of personal achievement goals and social goals. *British Journal of Educational Psychology* 77: 595–611. doi:10.1348/000709906X128396 **Keywords:** : self-handicapping, academic achievement ***Summary*** This research program examined academic self-handicapping in students using goal theory, focusing on goal orientations (task, performance-approach, performance-avoidance), social goals, future consequences and achievement in mathematics. As predicted, self-handicapping was more strongly related to the avoidance component than to the approach component of performance goals. **SEM Levels:** individual, school, family	