Indigenous participation in VET: understanding the research

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INTRODUCTION

Indigenous educational and employment disadvantage is a much researched and discussed subject. The latest Prime Minister's Closing the Gap report (DPM&C 2017) shows that, while the gap is slowly decreasing in regard to participation in tertiary education, reducing employment disparity, particularly in remote areas, lags behind. This is despite clear evidence that higher levels of education lead to higher levels of employment. This research summary provides an overview of the extensive research undertaken on the topic over recent years. It brings together the key findings to highlight current evidence on what works, with a particular focus on vocational education and training (VET).

This summary is part of a suite of papers and interactive products that look at Indigenous participation in VET and employment, and other outcomes — from the data, research and policy perspectives. This paper provides a contextual background to Indigenous participation in VET and employment, with the aim of setting the scene for the research reports *Indigenous VET participation, completion and outcomes: change over the past decade* (Windley 2017) and *Enhancing training advantage for remote Aboriginal and Torres Strait Islander learners* (Guenther et al. 2017). The reports and other related products are available at <https://www.ncver.edu.au/>.

HIGHLIGHTS

What we know

- VET and higher education lead to higher levels of employment.
- Successful engagement is built on community ownership, genuine partnerships with communities, respect for cultural knowledge and local capabilities, integration of cultural knowledge into training, and alignment of education and training with aspirations and, in the case of remote areas, local employment opportunities.

What we don't know

- Why increasing training completion remains a challenge.
- Why increases in tertiary education levels have not led to improved employment outcomes.
- How the VET sector can adapt to better meet the needs of Indigenous communities, acknowledging and responding to their educational aspirations and local employment opportunities.

UNDERSTANDING INDIGENOUS PARTICIPATION IN TERTIARY EDUCATION

Despite facing a range of barriers, many Indigenous Australians are successfully engaging with education and achieving secondary and post-school qualifications.

The benefits of tertiary education

The economic and social benefits of increasing participation in, and completion of, formal tertiary education and training for Indigenous people is well documented. There is also a raft of research pointing to the role of education in improving labour market participation (Gray, Hunter, Lohoar & 2012; Karmel et al. 2014; Mahuteau et al. 2015). While employability and employment outcomes are often a priority, additional benefits of education and training relate to skill development and building confidence and identity, all of which can be transformational. These include:

● improving literacy and numeracy and communication skills
● local community ownership of courses; connection to aspects of culture and local knowledge
● being respected by others in the community
● developing self-confidence and a stronger sense of identity
● transitioning into higher levels of study

(Guenther et al. 2017; McRae-Williams et al. 2016; Miller 2005).

In relation to VET, Indigenous students experience both intrinsic and extrinsic benefits from participation (Biddle 2013).

Even though the overall benefits of education and training for Indigenous students are apparent, the question of whether the qualifications actually improve employability, boost employment outcomes and reduce employment disparity remains. While the gap is closing in educational attainment, it is not diminishing in regards to labour market participation (DPM&C 2017).

Participation in education

Despite facing a range of barriers, many Indigenous Australians are successfully engaging with education and achieving secondary and post-school qualifications (COAG Reform Council 2014; Biddle & Cameron, 2012; Campbell, Kelly & Harrison 2012). While it is evident that the gap is closing in regards to participation in education, there remain large disparities between Indigenous and non-Indigenous Australians in terms of education outcomes across all sectors (Mahuteau et al. 2015; Biddle 2013; Biddle & Cameron 2012; Nguyen 2010; Rothman, Frigo & Ainley 2005). This begins with lower preschool attendance and school readiness and culminating in lower levels of achievement at age 15 years and lower intentions of completing Year 12 and undertaking post-school study (Crawford & Biddle 2015; Mahuteau et al. 2015).

Gender differences also play an important role. Young Indigenous men, from preschool attendance through to school and higher education attainment, lag behind young Indigenous women, with the effects of these differences lasting well into adult life (Biddle & Meehl 2016).

These differences are attributable to:

- a greater degree of male school absenteeism
- lower aspirations than non-Indigenous male peers
- the type of school attended
- a greater likelihood of young men being in prison at the age when other young people are entering postsecondary education and training.

However, Indigenous males from remote and non-remote areas are generally more likely to be employed than females (Crawford & Biddle 2017).

Although more likely to complete Year 12 than their male counterparts, young Indigenous women are less likely to attain any type of post-school qualification, which also has significant consequences on their later employment prospects (Biddle & Meehl 2016). Traditional gender roles and caring responsibilities can be significant barriers to education and training participation for young Indigenous women (Cuervo, Barakat & Turnbull 2015), although these caring responsibilities do change over time, possibly reflected in the way in which Indigenous women go on to complete post-school qualifications later in their lives (Biddle & Meehl 2016).

VET and higher education

Indigenous students have always been more likely to participate in vocational education than in higher education, with young Indigenous students showing a preference for VET rather than university at age 15 years, which could be influenced by perceptions about their own ability and intentions (Biddle 2013). Indeed, the pathway into VET often starts quite young, with Indigenous students participating in VET in Schools at a higher rate than non-Indigenous students (Misko, Korbel & Blomberg forthcoming).

In comparing Indigenous enrolments in VET with those in higher education, the Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People — the Behrendt Review (Department of Industry, Innovation, Science, Research and Tertiary Education 2012) — makes a number of suggestions to explain the appeal of VET to Indigenous students, among which is the accessibility of VET. The authors (Department of Industry, Innovation, Science, Research and Tertiary Education 2012) suggest that lower entry requirements make VET a more accessible study option for Indigenous students, who may not have the academic qualifications or the aspiration to undertake higher education. The study methods utilised by VET and the work-based and workplace learning approaches may also provide an attractive option for Indigenous students, as well as the ability to 'earn as you learn' during VET training, the curricular content, or the career options implied by a VET qualification. The authors also suggest that the popularity of VET study may partly relate to its geographical availability, as VET providers are more widespread than higher education institutions.

> **Indigenous students have always been more likely to participate in vocational education than in higher education.**

> **Attainment of higher levels of education plays a huge role in boosting employment outcomes for Indigenous people.**

The authors of the Behrendt Review (Department of Industry, Innovation, Science, Research and Tertiary Education 2012) are concerned that VET acts as a diversion from, rather than an entry point into, higher education, with the high numbers of young people enrolled in VET subsequently reducing the pool of young Indigenous people who could potentially transition from school into higher education. Since the publication of the Behrendt Review in 2012, the higher education sector has made great strides in attracting more Indigenous students into VET. According to Universities Australia (2017), in 2017 there are 70% more Indigenous university students than there were in 2008, and the university enrolment rate for Indigenous students is growing more quickly than that of all students (Department of the Prime Minister and Cabinet 2017). However, Indigenous students still have low participation rates in university compared with non-Indigenous students, and Universities Australia has reiterated its commitment to closing this gap with a new strategy and the introduction of targets to improve enrolment and completion rates (Universities Australia 2017).

Despite the growth in Indigenous participation in higher education, and ongoing efforts to boost enrolments, Indigenous people remain overwhelmingly more likely to engage with VET than with higher education, with around 10 times more Indigenous students in VET than higher education. In 2015, over 165 000 Indigenous students were enrolled in VET courses, compared with around 16 000 in higher education. Given these numbers, it is clear that VET plays a significant role in educating and training Indigenous people. While the aim of VET is improvement in employment outcomes, the extent to which it achieves this for Indigenous people varies according to qualification level, the chosen field of education and occupation, location, and a range of student factors (Crawford & Biddle 2017; Windley 2017).

Tertiary education and the links to the labour market

It is no surprise that the attainment of higher levels of education plays a huge role in boosting employment outcomes for Indigenous people. Research shows that, while Indigenous students are more likely to leave school early, less likely to complete Year 12 and less inclined to go to university, those who do request a tertiary admission rank are just as likely as non-Indigenous students to go to university (Biddle & Cameron 2012; Mahuteau et al. 2015). Additionally, Indigenous people with higher levels of education (diploma and higher VET qualifications, and bachelor and higher degrees) have employment rates comparable with the non-Indigenous population (Karmel et al 2014; Crawford & Biddle 2017; Department of Prime Minister and Cabinet 2017).

The story is a little more complicated for VET qualifications, particularly certificates I, II, III and IV. Indigenous females with these qualifications have lower employment rates than males; and for both genders, it appears completing Year 12, along with having a certificate-level qualification, strengthens the rate of employment. The employment prospects for males

who have completed Year 12 and hold a certificate III-level qualification are just as high as those with higher-level qualifications (Karmel et al. 2014). The likelihood of being employed after training is particularly strong for Indigenous graduates, predominantly males who have undertaken a trade apprenticeship, which is on a par with non-Indigenous trade apprentices (Windley 2017; Biddle, Brennan & Yap 2014).

The prevailing view is that, if the education attainment gap for Indigenous students can be closed in early, primary and secondary school education, then over time the gap for participation in higher levels of education will be reduced. Similarly, given the relationship between Year 12 and tertiary education attainment and employment outcomes, the employment gap will also eventually be closed. Indeed, there has been considerable policy emphasis on early childhood, primary and secondary education programs, programs (coupled with socioeconomic factors) that appear to influence the tertiary decision-making of Year 12 Indigenous students (Mahuteau et al. 2015; Biddle & Cameron 2012).

The impact of remoteness on educational and employment opportunities

While the majority of the Indigenous population lives in cities and in regional Australia, a much larger proportion of Indigenous people live in remote areas compared with non-Indigenous people. People living in remote Australia are disadvantaged in terms of their access to education and training, and this disproportionately affects Indigenous Australians, who display a stronger attachment to their traditional culture. Remoteness can pose a challenge to education and employment opportunities, as access to these can be more limited than in cities and regional areas (Guenther et al. 2017; Crawford & Biddle 2015; Biddle 2010a; Dockery 2009). Essentially, Indigenous people in urban areas have better access to the employment and training programs that are more likely to be linked to mainstream employment opportunities (Gelade & Stehlik 2004).

Cuervo, Barakat and Turnbull (2015) point to the factors that constrain education participation in remote communities, including a 'one size fits all' policy approach to Indigenous issues and the inability of educational institutions to accommodate cultural diversity. Added to the mix are issues associated with remoteness; for example, access to transport, reliable resources and technology.

In remote communities there appears to be a mismatch between mainstream approaches to VET delivery (where theoretically training is linked to 'real jobs') and the place-based livelihoods and work opportunities available locally, some of which may not require post-school qualifications (Guenther & McRae-Williams 2014; Rea, Messner & Gipey 2008; Young, Guenther & Boyle 2007). The CRC-REP Pathways to Employment project, for example, explores alternative learning pathways that encourage different forms of economic engagement

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for people in these communities. The goal of the project is to recognise the types of work and learning that support culturally meaningful and sustainable livelihood agendas, aspirations and pathways, while acknowledging that they may not always lead to formal qualifications.

With geographic remoteness being one of the most significant factors influencing the employment of Indigenous people, we could question why remote Indigenous youth are not more inclined to relocate to urban areas to boost their job prospects, instead searching for local employment opportunities, whether formal, voluntary or working with family (Guenther & McRae-Williams 2014; Rea, Messner & Gipey 2008). Indigenous people in remote communities therefore need to access training that meets local employment needs (Jordan 2016; Rea, Messner & Gipey 2008). The research indicates that, even when Indigenous adults and youth do move to an urban area to pursue better educational or employment options, better prospects do not necessarily eventuate. The cultural and social isolation experienced from such a move can have a negative effect on employment outcomes, because it can lead to the loss of job networks and human capital relevant for mainstream labour markets (Biddle 2009, 2010b; Fordham & Schwab 2007).

Attrition and completion

While VET has a role to play in reducing employment disparity, the sector is plagued by high attrition and low completion rates for Indigenous students. In remote areas particularly, attrition in VET is high, especially at low Australian Qualifications Framework (AQF) levels certificate I and II, which are intended to be pathways into higher-level qualifications (Guenther et al. 2017). The impact of this attrition on employment outcomes is concerning, although just as concerning is the impact on education and training systems. When students do not continue with a course, change courses or re-enrol in a number of unrelated courses, funding stability, training providers, support programs and the remaining students can all be adversely affected (Guenther et al. 2017; McRae-Williams et al. 2016).

A large part of the challenge is enabling Indigenous people, particularly those from remote areas, to recognise the benefits of completing their study and ensuring those benefits are relevant and accessible to them. Completion of training is more likely in circumstances where the training links directly to existing local opportunities and tangible work activities (McRae-Williams et al. 2016).

UNDERSTANDING AND RESPONDING TO THE CHALLENGES

As discussed, many complex and interconnected challenges surround Indigenous education and employment participation and outcomes and include low educational aspirations, reduced access to education opportunities and support services, and the tension between cultural values and mainstream education (discussed in greater detail below). A number of other, interrelated, factors can also impact on engagement in education and the labour market, acting to constrain the opportunities of Indigenous students; for example, low literacy and numeracy skills, poverty, poor health and wellbeing, housing issues and domestic violence.

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Improving educational aspirations and boosting early engagement in education

Young Indigenous people face a number of challenges in the formulation of their educational aspirations. These include early schooling experiences, academic ability, the value families place on post-secondary education, low numbers of role models with tertiary attainment, and access to traditional homelands and kinship networks.

As noted previously, the disparity in education outcomes begins at an early age. Biddle and Cameron (2012) advocate focusing policy on the earlier years of schooling, particularly preschool, in order to support school-readiness and literacy and numeracy acquisition, as well as the development of aspirations to improve the long-term educational outcomes of Indigenous Australians. Some key enablers that promote early engagement in the education of Indigenous students include:

- involving parents and communities in schooling
- valuing the knowledge that students bring with them to school
- adapting pedagogy to the specific needs of student groups
- recognising and teaching Indigenous language
- supporting culturally sensitive teacher training and development
- providing appropriate information about education and employment options and career advice.

Crawford & Biddle 2017; Fredericks et al. 2015; Biddle, Brennan & Yap 2014; Osborne & Guenther 2013; Department of Industry, Innovation, Science, Research and Tertiary Education 2012; Mellor & Corrigan 2004).

While it holds true that not all Indigenous Australians — as with non-Indigenous Australians — need to undertake tertiary education, equal access and the opportunity to make informed choices to suit their needs and aspirations are vital to reducing educational disadvantage (Crawford & Biddle 2015).

In remote regions particularly, the aspirations of Indigenous people do not always coincide with mainstream ideas of educational attainment and can be more strongly focused on contributions to families and communities (Barney 2016; Osborne & Guenther 2013; Nguyen 2010). The aspirations and educational participation of Indigenous youth are lower when local

opportunities for education, training and employment (formal or informal) are lacking. Where opportunities are available locally, their educational aspirations are more closely aligned to their non-Indigenous counterparts (Mission Australia 2014). Working in partnership with communities in the development of curriculum and teaching and learning strategies is particularly important where aspirations and participation are influenced by employment prospects.

An example of a program aimed at raising the educational aspirations of Indigenous youth is Central Queensland University's (CQU) Community Aspirations Program (CAP-ED). During the program's development, consultations were held with six communities, all of which shared common beliefs and practices, although each was unique in their development of local knowledge and customs. Through a focus on local identity, culture and aspirations, this engagement encouraged an understanding of the strengths and needs of each community. Because Indigenous culture was embedded into the program during the development phase, the resulting CAP-ED format varied slightly for each community — depending on needs and interests. Participation in study was introduced as a feasible option, with a clear path from enrolment in an enabling course to the undergraduate level (Fredericks et al. 2015).

The community-focused, tailored approach used by Central Queensland University corresponds to the type of outreach highlighted in the Behrendt Review (Department of Industry, Innovation, Science, Research and Tertiary Education 2012), some of whose findings were flagged earlier in this paper. The many influences that could help to raise the educational aspirations of Indigenous students include:

● the provision of outreach as early as possible; greater mentoring

● pathway support and case management for Year 10—12 students

● better information for Indigenous students and their families

● better use of partnerships between institutions and governments in the delivery of outreach programs.

Stronger support strategies

One of the main reasons proposed for the non-completion of tertiary education relates to family, personal and cultural issues (Guenther et al. 2017). While teachers, trainers and education providers will never have the capacity to address family and personal barriers, which remain persistent interruptions to study and prevent completion, they do have a role in strengthening the support systems for students to ensure that assistance is available when required. As identified in the Behrendt Review (Department of Industry, Innovation, Science, Research and Tertiary Education 2012), supporting Indigenous students socially, financially and academically is vitally important for improving engagement in tertiary education. Research by Barney (2016) showed that a number of Indigenous students leave university between their

second and third years, meaning that support is required not only for the first year but also subsequent years. This could include help with fees and equipment, housing and childcare, mentoring and tutoring, connections to employment and professional organisations, and engaging with on-campus cultural and social activities.

Research indicates that reforming funding arrangements to improve support services across the entire tertiary education system could also considerably assist in the more successful engagement of Indigenous students (Appo 2013; TAFE NSW 2013; Department of Industry, Innovation, Science, Research and Tertiary Education 2012). Improvements at the institutional level include formal induction programs in the first instance, followed by ongoing social, financial and academic support across whole institutions rather than across discrete support units. The practical application of these improvements could be implemented by teaching units and faculties through the provision of mentors, tutors, role models, sustainable career planning and connections to employment (Appo 2013; TAFE NSW, 2013; Department of Industry, Innovation, Science, Research and Tertiary Education 2012).

The Higher Education Participation and Partnerships (HEPP) program, which provides funding to universities to implement strategies to attract and retain students from disadvantaged backgrounds, operates in the higher education system. The VET system, on the other hand, does not currently have a similar nationally coordinated program or pool of funds from which to draw.

The tension between cultural values and mainstream education

According to Dockery, 'a recurring theme in Indigenous affairs in Australia is a tension between the maintenance of Indigenous culture and the achievement of socioeconomic 'equity'' (2009, p.2). At a fundamental level a cultural 'gulf' exists between Indigenous and Western notions of what is valuable in terms of education and employment and how successful outcomes are perceived and measured (Jordan 2016; McRae-Williams et al. 2016; Guenther 2015; Bandias, Fuller & Holmes 2012; Fogarty & Schwab 2012; Mlcek 2011; Young, Guenther & Boyle 2007; Gelade & Stehlik 2004). In addition to this, the cultural diversity and complexity characterising Indigenous communities in Australia and a vast range of community-specific education and employment needs need to be taken into account.

The perceived economic benefits of investing in education may also influence decisions about participation (Biddle 2006; Mellor & Corrigan 2004). Most current initiatives designed to improve the engagement and participation of Indigenous people in remote areas of Australia are predicated on the notion that people invest in education and training to gain economic benefit (McRae-Williams et al. 2016; Bandias, Fuller & Holmes 2012; Biddle 2010a). The underlying principles of human capital theory assume that individual

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investment in building knowledge and skills through formal education is driven by an economic reward in the form of a return on that investment through labour market participation, income generation and economic growth (Guenther et al. 2017; McRae-Williams et al. 2016). The human capital theory approach to education and training can be particularly problematic for remote Indigenous communities, where there is limited access to education opportunities, where unique labour markets exist and where the links between education and labour market participation may be less clear.

This focus on 'learning or earning' can be at odds with the expectations, values and motivations some Indigenous people may have for participating in education, especially where motivations are strongly linked to community expectations, including their role within the community and making a contribution to their community (Barney 2016; Osborne & Guenther 2013).

This isn't to say that the cultural values of the Indigenous people and the maintenance of those values exclude the values and expectations attached to mainstream education and participation in the labour market. Indeed, Dockery (2009) finds that in non-remote areas, cultural attachment is complementary to both educational attainment and participation in VET. He argues there is evidence of education and training being pursued to enhance objectives relating to cultural maintenance, and that cultural attachment itself has an enabling effect on Indigenous people. Dockery rejects the view that there is a trade-off between maintenance of Indigenous culture and achievement in education and training, although he does note the vital role of Indigenous cultures and values in the solution to ending disadvantage and the need for economic and social institutions to accommodate the different values and preferences associated with that culture (2009).

Narrow understandings of formal education attainment and participation in a mainstream labour market may not always align with the values and aspirations of some Indigenous communities, and the education system, formal or otherwise, needs to adapt to become relevant to these communities.

Culturally appropriate education and training curriculum

Strong cultural identity, such as the recognition of homelands or traditional country, identification with a clan, tribal or language group, and the importance of attending cultural events, facilitates increased participation and engagement in education and training (Dockery 2013). Interweaving 'country' into everyday life lies at the social and economic core of remote communities, including the consideration of language and social identity (Fogarty & Schwab 2012). The way in which culture influences Indigenous approaches to engaging in education and employment needs to be recognised when devising culturally appropriate education and training (Guenther et al. 2017; Barney 2016; McRae-Williams et al. 2016; Cuervo, Barakat & Turnbull 2015; Nguyen 2010; Dockery 2009; Kral 2009; Gelade & Stehlik 2004).

Cuervo, Barakat and Turnbull (2015) identify culturally responsive approaches to improving Indigenous engagement in education in remote communities. These include the incorporation of the concept of cultural differences in schools, community consultation and culturally relevant curricula.

Guenther (2015) highlights that the key issues associated with education for Indigenous Australians living in remote areas revolve around four themes:

- the main purposes of remote education
- success in remote education
- the multiple teaching responses required to achieve success
- how the education system can respond to address these priorities.

Overall, the critical issues for consideration are the need for learners to maintain a connection to language, land and culture, as well as a strong cultural identity, while ensuring that pathways lead to employment and economic participation. The factors that promote successful participation in education include:

- engaging and empowering parents and community
- ensuring student attendance
- developing literacy and numeracy skills
- ensuring the health and wellbeing of students in the educational environment
- using multilingual learning strategies in partnership with local language Indigenous educators
- emphasising the importance of the provision of secondary education.

Fogarty, Schwab and Lovell (2015), in their evaluation of the Learning on Country Program, found the program's emphasis on partnerships between Indigenous land and sea rangers, schools, scientists and Indigenous land owners 'on country' led to successful outcomes, such as improving students' literacy and numeracy skills, science skills, work skills and local knowledge, within a culturally meaningful learning environment.

When there is a strong link between individual and community aspirations, the benefits of education and training become more visible and higher levels of engagement occur. In this context remote education systems are likely to be more successful when they respond directly to local Indigenous community expectations and include alternative measures of success (Barney 2016; Osborne & Guenther 2013). These alternative measures of success are vital to reversing mainstream policy perspectives from a position of 'remote disadvantage' to that of 'remote capacity', a theme emphasised throughout the literature.

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Indigenous VET students themselves consider that a genuine engagement with the curriculum, support from faculty members and 'real-world' opportunities to practise skills are important factors for enabling their successful participation in and completion of tertiary studies (TAFE NSW 2013). Yet it is worth noting that findings in a report by the Western Australian Office of the Auditor General (2012) suggest that training providers may struggle to address some of the more complex problems Indigenous students face, and attempting to do this requires them to go beyond their normal training role.

The strategies developed for VET providers and trainers should consider:

- raising awareness of Indigenous languages and culture amongst staff and the broader institutional community
- Indigenous community involvement in the planning of education and training
- individual career development and targeted skill development that recognises cultural factors
- student-focused strategies such as mentoring, welfare support and intensive case management.

(Helme & Lamb 2011).

Community ownership and buy-in

Greater social and cultural meaning occurs for students and community leaders through ownership of and involvement in localised training programs that take into account cultural identity and community aspirations (Guenther et al. 2017; Dockery 2009). This further highlights the advantage of embedding training in localised practice and knowledge and recognising that this can include more flexible approaches to modes of learning than those that are classroom-based.

The importance of community-owned local solutions for local employment prospects cannot be overstated. While these can include partnerships between Indigenous communities, universities, VET providers and employers in cities and regional centres — that is, contexts that enable access to a mainstream labour market — the context of the remote community also needs to be considered to enable the identification of local opportunities relevant to those communities (Jordan 2016; McRae-Williams et al. 2016). Indigenous land and sea management, by means of strategically linking a development and employment activity to remote education programs, provides a good example of these points. Local 'learning through country' solutions have resulted from Indigenous land and sea management (Fogarty & Schwab 2012), and the many benefits flowing from collaboration with communities displayed by Indigenous land and sea management point to such an approach as a starting point for the development of education and training pathways and localised employment options (McRae-Williams et al. 2016; Fredericks et al. 2015; Hunt 2013; Rea, Messner & Gipey 2008).

Creating a VET system to meet the needs of Indigenous learners

It is often claimed that government targets and initiatives for 'closing the gap' in education and employment disparity will not achieve the desired outcomes without genuine and sustained engagement with Indigenous communities in the formation and implementation of policies and programs. Such engagement would need to occur from the earliest stages of defining issues, to developing and delivering education and training and in the evaluation of programs. Successful engagement is built on:

- community ownership
- trusting relationships and partnerships with communities
- respect for cultural knowledge and capacity
- the utilisation of local capabilities and aspirations
- culturally aligned policies and practices
- effective governance
- appropriate targets and funding.

(McRae-Williams et al. 2016; Fredericks et al. 2015; Cuervo, Barakat & Turnbull 2015; Guenther & McRae-Williams 2014; Hunt 2013; Young, Guenther & Boyle 2007).

This ultimately means taking a more inclusive approach to the expectations, values and motivations of Indigenous communities, particularly in remote areas, where the education and employment needs may not always align with mainstream expectations (McRae-Williams et al. 2016; Fogarty & Schwab 2012; Miller 2005; Gelade & Stehlik 2004).

Two critical questions remain unanswered: whether the current VET system is compatible with the values and aspirations of Indigenous communities (Dockery 2009); and how the system can adapt to provide training that is culturally relevant to unique communities and their local employment opportunities.

Successful engagement is built on community ownership; trusting relationships and partnerships with communities; respect for cultural knowledge and capacity; the utilisation of local capabilities and aspirations; culturally aligned policies and practices.

REFERENCES

Appo, A 2013, 'Indigenous employment: quality, not quantity', *SVA Quarterly*, no.3, viewed 7 February 2017, <http://www.socialventures.com.au/sva-quarterly/indigenous-employment-quality-not-quantity/>.

Bandias, S, Fuller, D & Holmes, S 2012, 'Aboriginal economic and human development in the Northern Territory of Australia: to work or not to work: a clash of non-Indigenous beliefs', *Economic Papers: A Journal of Applied Economics and Policy*, vol.31, no.1, pp.50—62.

Barney, K 2016, 'Listening to and learning from the experiences of Aboriginal and Torres Strait Islander students to facilitate success', *Student Success: A Journal Exploring the Experiences of Students in Tertiary Education*, vol.7, no.1, pp.1—11, viewed 7 February 2017, <https://studentsuccessjournal.org/article/view/317>.

Biddle, N 2006, 'Does it pay for Indigenous youth to go to school?: variation in the predicted economic benefits of high school', *Australian Journal of Labour Economics*, vol.9, no.2, pp.173—99, viewed 7 February 2017, <http://business.curtin.edu.au/wp-content/uploads/sites/5/2016/05/AJLE-v9n2-Biddle.pdf>.

——2009, *The geography and demography of Indigenous migration: insights for policy and planning*, Working paper (Australian National University, Centre for Aboriginal Economic Policy Research) 58/2009, CAEPR, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/WP/2009WP58.php>.

——2010a, *A human capital approach to the educational marginalisation of Indigenous Australians*, CAEPR working paper no.67/2010, Australian National University, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/sites/default/files/Publications/WP/CAEPRWP67_0.pdf>.

——2010b, 'Indigenous migration and the labour market: a cautionary tale', *Australian Journal of Labour Economics*, vol.13, no.3, pp.313—330, viewed 7 February 2017, <http://business.curtin.edu.au/wp-content/uploads/sites/5/2016/05/AJLE-v13n3-Biddle.pdf>.

——2013, 'Indigenous education intentions: evidence from the 2006 LSAY', in T Griffin (ed.) *21st National Vocational Education and Training Research Conference 'No Frills': refereed papers*, NCVER, Adelaide, pp.9—16, viewed 7 February 2017, <http://www.ncver.edu.au/publications/2595.html>.

Biddle, N, Brennan, C & Yap, M 2014, *Effectiveness of traineeships and apprenticeships for the Aboriginal and Torres Strait Islander population*, resource sheet no.31, Australian Institute of Health and Welfare, Closing the Gap Clearinghouse, Canberra, viewed 7 February 2017, <http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Our_publications/2014/ctg-rs31.pdf>.

Biddle, N & Cameron, T 2012, *Potential factors influencing Indigenous education participation and achievement*, NCVER, Adelaide, viewed 7 February 2017, <http://www.ncver.edu.au/publications/2560.html>.

Biddle, N & Meehl, A 2016, *The gendered nature of Indigenous education participation and attainment*, CAEPR working paper no.106/2016, Australian National University, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/WP/2016WP106.php>.

Campbell, P, Kelly, P & Harrison, L 2012, *The problem of Aboriginal marginalisation: education, labour markets and social and emotional well-being*, Alfred Deakin Research Institute working paper no.31, Alfred Deakin Research Institute, Deakin University, Geelong, viewed 7 February 2017, <http://www.deakin.edu.au/research-services/forms/v/3280/wps-31w.pdf>.

COAG (Council of Australian Governments) Reform Council 2014, *Indigenous reform 2012—13: five years of performance*, COAG Reform Council, Sydney.

Crawford, H & Biddle, N 2015, *Education part 3: tertiary education*, CAEPR Indigenous Population Project, 2011 Census papers no.17/2015, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/census-papers/2015CP17.php>.

——2017, *Vocational education participation and attainment among Aboriginal and Torres Strait Islander Australians: trends 2002—15 and employment outcomes*, CAEPR working paper no. 114/2017, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra, viewed 21 March 2017, <http://caepr.anu.edu.au/Publications/WP/2017WP114.php>.

Cuervo, H, Barakat, N & Turnbull, M 2015, *Youth, belonging and transitions: identifying opportunities and barriers for Indigenous young people in remote communities*, research report no.44, Youth Research Centre, Melbourne, viewed 7 February 2017, <http://education.unimelb.edu.au/__data/assets/pdf_file/0006/1429359/2015_RR_44_final_May_2015_web.pdf>.

Department of Industry, Innovation, Science, Research and Tertiary Education 2012, *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People: final report*, the Behrendt review, DIISRTE, Canberra.

Department of the Prime Minister and Cabinet 2017, *Closing the Gap: Prime Minister's report 2017*, Closing the Gap, Australian Government, Canberra, viewed 14 Feb 2017, <http://closingthegap.dpmc.gov.au/>.

Dockery, M, 2009, *Cultural dimensions of Indigenous participation in education and training*, NCVER monograph series 02/2009, NCVER, Adelaide, viewed 7 February 2017, <http://www.ncver.edu.au/publications/2174.html>.

Fogarty, W & Schwab, R 2012, *Indigenous education: experiential learning and learning through country*, CAEPR working paper no.80/2012, Australian National University, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/sites/default/files/Publications/WP/WP%2080%20Fogarty%20Schwab.pdf>.

Fogarty, W, Schwab, R & Lovell, J 2015, *Learning on Country Program: progress evaluation report*, Department of the Prime Minister and Cabinet, Canberra, viewed 8 February 2017, <https://www.dpmc.gov.au/sites/default/files/publications/LoCP%20progress%20evaluation%20report%20-%20Final%20for%20public%20release%20-%2015%20October%202015.pdf>.

Fordham, A & Schwab, R 2007, *Education, training and Indigenous futures: CAEPR policy research: 1990—2007*, Ministerial Council on Education, Employment, Training and Youth Affairs, Carlton South, viewed 7 February 2017, <http://caepr.anu.edu.au/sites/default/files/project_page/2010/06/education%20futures.pdf>.

Fredericks, B, Lamey, T, Mikecz, M & Santamaria, F 2015, 'Enabling people to "see what they can be": the Community Aspirations Program (CAP-ED)', *Learning Communities: International Journal of Learning in Social Contexts*, no.17, pp.54—63, Canberra, viewed 8 February 2017, <http://doi.org/10.18793/LCJ2015.17.05>.

Gelade, S & Stehlik, T 2004, *Exploring locality: the impact of context on Indigenous vocational education and training aspirations and outcomes*, NCVER, Adelaide, viewed 7 February 2017, <http://www.ncver.edu.au/publications/1477.html>.

Gray, M, Hunter, B & Howlett, M 2013, *Indigenous employment: a story of continuing growth*, CAEPR topical issue no.2/2013, Australian National University, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/topical/2013TI2.php>.

Gray, M, Hunter, B & Lohoar, S 2012, *Increasing Indigenous employment rates*, issues paper no.3, Closing the Gap Clearinghouse, Canberra, viewed 15 March 2017, <http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Publications/2012/ctg-ip03.pdf>.

Guenther, J 2015, *Overview of remote education systems qualitative results*, Cooperative Research Centre for Remote Economic Participation working paper CW025, Ninti One Limited, Alice Springs, viewed 7 February 2017, <http://www.crc-rep.com.au/resource/CW025_RemoteEducationSystemsQualitativeResults.pdf>.

Guenther, J & McRae-Williams, E 2014, 'Does education and training for remote Aboriginal and Torres Strait Islanders lead to "real" jobs?: evidence from the 2011 Census', AVETRA Secretariat, Sydney, paper presented at the 17th Australian Vocational Education and Training Research Association Conference, viewed 7 February 2017, <http://avetra.org.au/wp-content/uploads/2014/05/Abstract-72.pdf>.

Guenther, J, Bat, M, Stephens, A, Skewes, J, Boughton, B, Williamson, F, Dwyer, A, Wooltorton, S & Marshall, M 2017, *Enhancing training advantage for remote Aboriginal and Torres Strait Islander learners*, NCVER, Adelaide.

Helme, S & Lamb, S 2011, *Closing the school completion gap for Indigenous students*, resource sheet no.6, Closing the Gap Clearinghouse, Canberra, viewed 7 February 2017, <http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Publications/2011/ctgc-rs06.pdf>.

Hunt, J 2013, *Engaging with Indigenous Australia: exploring the conditions for effective relationships with Aboriginal and Torres Strait Islander communities*, Australian Institute of Family Studies, Canberra, viewed 8 February 2017, <https://www2.aifs.gov.au/cfca/knowledgecircle/discussions/community/engaging-indigenous-australia-exploring-conditions>.

Hunter, B & Gray, M 2016, *The ins and outs of the labour market: employment and labour force transitions for Indigenous and non-Indigenous Australians*, CAEPR working paper no.104/2016, Australian National University, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/WP/2016WP104.php>.

Jordan, K (ed.) 2016, *Better than welfare?: work and livelihoods for Indigenous Australians after CDEP*, Research monograph no.36, Australian National University, Centre for Aboriginal Economic Policy Research, ANU Press, Acton, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/mono/2016RM36.php>.

Karmel, T, Misko, J, Blomberg, D, Bednarz, A & Atkinson, G 2014, *Improving labour market outcomes through education and training*, Closing the Gap Clearinghouse issues paper no.9, Australian Institute of Health and Welfare, Canberra, viewed 7 February 2017, <https://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Our_publications/2014/ctgc-ip9.pdf>.

Kral, I 2009, *The literacy question in remote Indigenous Australia*, CAEPR topical issue no.6/2009, Australian National University, Centre for Aboriginal Economic Policy Research, Canberra, viewed 7 February 2017, <http://caepr.anu.edu.au/Publications/topical/2009TI6.php>.

Mahuteau, S, Karmel, T, Mavromaras, K & Zhu, R 2015, *Educational outcomes of young Indigenous Australians*, National Centre for Student Equity in Higher Education, Curtin University, Bentley, viewed 7 February 2017, <https://www.ncsehe.edu.au/educational-outcomes-of-young-indigenous-australians/>.

McRae-Williams, E, Guenther, J, Jacobsen, D & Lovell, J 2016, 'What are the enablers of economic participation in remote and very remote Australia, and how can we identify them?', *Learning Communities: International Journal of Learning in Social Contexts*, no.19, pp.6—25, viewed 7 February 2017, <http://dx.doi.org/10.18793/LCJ2016.19.02>.

Mellor, S & Corrigan, M 2004, *The case for change: a review of contemporary research on Indigenous education outcomes*, Australian education review no.45, Australian Council for Educational Research, Camberwell, viewed 7 February 2017, <http://research.acer.edu.au/cgi/viewcontent.cgi?article=1006&context=aer>.

Miller, C 2005, *Aspects of training that meet Indigenous Australians' aspirations: a systematic review of research*, NCVER, Adelaide, viewed 7 February 2017, <http://www.ncver.edu.au/publications/1625.html>.

Misko, J, Korbel, P & Blomberg, D. forthcoming, *VET in Schools students: characteristics and post-school employment and training experiences*, NCVER, Adelaide.

Mission Australia 2014, *Indigenous aspirations: employment and educational opportunities for Aboriginal and Torres Strait Islander youth*, Mission Australia, Sydney, viewed 7 February 2017, <https://www.missionaustralia.com.au/publications/annual-reports/doc_download/274-indigenous-aspirations-report>.

Mlcek, S 2011, 'Competing knowledges in lifelong education', *International Journal of Lifelong Education*, vol.30, no.6, pp.815—29.

Nguyen, N 2010, *Early post-school outcomes of Indigenous youth: the role of literacy and numeracy*, LSAY briefing paper no.22, NCVER, Adelaide, viewed 7 February 2017, <http://www.lsay.edu.au/publications/2308.html>.

Osborne, S & Guenther, J 2013, 'Red dirt thinking on aspiration and success', *Australian Journal of Indigenous Education*, vol.42, no.2, pp.88—99.

Rea, N, Messner, J & Gipey, C 2008, *The character of Aboriginal training pathways: a local perspective*, DKCRC report no.34, Desert Knowledge CRC, Alice Springs, viewed 7 February 2017, <http://www.desertknowledgecrc.com.au/resource/DKCRC-Report-34-Character-Aboriginal-Training-Pathways.pdf>.

Rothman, S, Frigo, T & Ainley, J 2005, *Education and labour market outcomes for Indigenous young people*, LSAY briefing paper no.10, Australian Council for Educational Research, Camberwell, viewed 7 February 2017, <http://www.lsay.edu.au/publications/1901.html>.

Steering Committee for the Review of Government Service Provision 2016, *Overcoming Indigenous disadvantage key indicators 2016: overview*, Productivity Commission, Canberra, viewed 8 February 2017, <http://www.pc.gov.au/research/ongoing/overcoming-indigenous-disadvantage/2016/report-documents/oid-2016-overcoming-indigenous-disadvantage-key-indicators-2016-overview.pdf>.

TAFE NSW 2013, *Not just a dream: Aboriginal student pathways to higher level qualifications in TAFE NSW*, TAFE NSW, Sydney, viewed 7 February 2017, <http://www.skillsboard.nsw.gov.au/sites/default/files/notjustadreamaboriginalpathways.pdf>.

Universities Australia, 2017, *Universities Australia Indigenous Strategy 2017—2020*, Canberra.

Western Australian Office of the Auditor General 2012, *Supporting Aboriginal students in training*, Western Australian Auditor General's report no.4, May, Office of the Auditor General, Perth, viewed 7 February 2017, <https://audit.wa.gov.au/reports-and-publications/reports/supporting-aboriginal-students-in-training-42012/>.

Windley, G 2017, *Indigenous VET participation, completion and outcomes: changes over the past decade*, NCVER, Adelaide.

Young, M, Guenther, J & Boyle, A 2007, *Growing the desert: educational pathways for remote Indigenous people*, NCVER, Adelaide, viewed 7 February 2017, <http://www.ncver.edu.au/publications/1911.html>.