

NATIONAL VOCATIONAL EDUCATION
AND TRAINING RESEARCH PROGRAM

RESEARCH REPORT

Vocational education, Indigenous students and the choice of pathways

Susan Bandias
Don Fuller
Steven Larkin

SCHOOL OF LAW AND BUSINESS
CHARLES DARWIN UNIVERSITY



Australian Government
Department of Industry, Innovation
Science, Research and Tertiary Education



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About the research

Vocational education, Indigenous students and the choice of pathways

Susan Bandias, Don Fuller and Steven Larkin, Charles Darwin University

This report looks at the pathways that Indigenous students in the Northern Territory take between vocational education and training (VET) and higher education. The study explores the perspectives of students studying at higher-level VET (certificate IV and above) and higher education qualifications. The study aims to gain an understanding of the pathways adopted by Indigenous students, as well as their motivations for study and their experiences while studying. The project adopts a mixed methods approach and draws on enrolment data from Charles Darwin University to get a perspective on Indigenous students' enrolment and completion rates. The study also used focus groups with 29 Indigenous tertiary education students from Charles Darwin University, Batchelor Institute of Indigenous Tertiary Education and two private providers.

Key messages

- For students from Charles Darwin University who had completed a higher-level VET course, the pathway from VET to university is a viable option, with around 17% of Indigenous admissions to higher education based on previous VET. However, due to the low number of graduates at the certificate IV, diploma and advanced diploma levels, this pathway is available to relatively few students.
- The students who made the transition from VET to higher education felt their VET study was relevant to their higher education study. However, some students were unprepared for the more academic environment of higher education and the emphasis on online learning.
- The majority of students were satisfied with the quality of their course, particularly the quality of teachers and tutors, and the cultural appropriateness of the course. However, some students felt there was a lack of Indigenous teachers.
- All students received some level of financial assistance. Other types of support available to the students include: assistance with books, computers, transport, food and accommodation; childcare facilities; time off work; cultural leave; and additional time to complete the course. Some students were dissatisfied with the extent of the financial assistance and available childcare facilities, as well as with the lack of culturally appropriate places to study on campus.
- Some students from remote communities who had moved to urban locations to study felt socially isolated and had difficulties communicating in English.

Despite the support that Indigenous students receive to assist them with their study, they continue to face considerable disadvantage. This suggests that lack of social support, language issues and limited access to tertiary education still act as barriers to participation and completion.

Tom Karmel
Managing Director, NCVET

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Executive summary

The objectives of recent Indigenous education policy in Australia have aimed to redress Indigenous economic and social disadvantage by increasing student retention, progression and completion rates in both compulsory and post-compulsory education. The two sectors of the tertiary education system, vocational education and training (VET) and higher education (HE), have usually been acknowledged as separate but crucial elements in Indigenous capacity-building. The vocational education sector, in particular, has had an important role in equipping Indigenous people with the vocationally oriented skills required for participation in paid employment, the mainstream economy and the labour market (Dockery & Milson 2007).

A significant number of Indigenous people in the Northern Territory participate in VET. Their means of engaging with vocational education includes, but is not restricted to, residential programs, full-time study, part-time study and the mainstream on-campus experience. Although the percentage of Indigenous enrolments in vocational education and undergraduate programs at Charles Darwin University is relatively high by comparison with the national Indigenous enrolment average, little is known of the experiences of Indigenous students in the tertiary education sector of the Northern Territory or the pathways adopted by these students in their transition from post-compulsory education to work. This research project set out to examine the experiences and educational outcomes of Indigenous students in the tertiary education sector of the Northern Territory.

The project adopted a mixed methods approach to the data collection. The quantitative data included Charles Darwin University enrolment statistics for the period 2000–09 inclusive. The qualitative data was collected via interviews and focus groups conducted with Indigenous students enrolled at Charles Darwin University, Batchelor Institute of Indigenous Tertiary Education and two private vocational education and training providers.

At Charles Darwin University the pattern of Indigenous enrolment, completion and attrition is broadly consistent with national trends. In the vocational education sector at the university, Indigenous enrolments are characterised by the proportionally low number of enrolments by comparison with non-Indigenous enrolments, a high concentration of male students, the relatively young age of the student cohort and a high concentration of students in certificate I and II courses. By comparison with the non-Indigenous cohort, student retention and completion rates were also extremely low and attrition was high.

For the students who had completed a certificate IV, the pathway from vocational education to higher education was a viable option. However, due to the low pool of graduands at the certificate IV, diploma and advanced diploma levels, this pathway was underutilised. The students who had progressed from vocational education to higher education generally felt that their previous study was relevant. However, some students felt unprepared for the more academic environment of higher education.

Vocational courses were relatively easy for students living in urban and regional areas to access. However, the lack of training facilities, resources and tutors in the more remote areas of the territory required students from these locations to temporarily relocate. The physical, social and linguistic isolation associated with relocation was, for a number of students, acute.

Introduction

The pathways Indigenous students take in their transition from post-compulsory education to paid employment are multiple and varied. The vocational education and training sector in particular has played an important role in equipping Indigenous people with the vocationally oriented skills required for their participation in paid employment, the mainstream economy and the labour market (Dockery & Milson 2007). However, research indicates that only a small proportion of Indigenous students access and complete post-compulsory education (Alford & James 2007; Bradley et al. 2008; Department of Education, Science and Training 2006; Gray, Hunter & Schwab 2000; Indigenous Higher Education Advisory Council 2008; NCVET 2009). Recent objectives of Indigenous education policy in Australia have aimed to redress Indigenous economic and social disadvantage by increasing student retention, progression and completion rates in both compulsory and post-compulsory education (Bradley et al. 2008).

Australia's tertiary education sector consists of the VET and higher education sectors. As of 2011, there were 39 universities and over 4909 registered vocational training organisations in Australia (Department of Education, Employment and Workplace Relations 2011b). Five universities were regarded as dual-sector institutions, delivering both vocational and higher education courses and programs. Of these five dual-sector institutions, only one, Charles Darwin University, is located in the Northern Territory.

Batchelor Institute of Indigenous Tertiary Education (BIITE), a provider of vocational and higher education programs for Indigenous people, is also located in the territory and is a residential institution for Indigenous students. It draws its student population from all Australian states and territories.

In 2012 there were 1759 vocational education providers registered in the Northern Territory (Department of Education, Employment and Workplace Relations 2012). These providers deliver a range of programs, ranging from certificate I to advanced diploma level, to Indigenous and non-Indigenous students in urban, regional and remote areas of the territory.

Although Batchelor Institute, Charles Darwin University and the private providers operating in the territory have significant Indigenous student cohorts, little is known of the experiences of Indigenous students in the tertiary education sector of the Northern Territory.

Consequently, the key research questions this project sought to address included:

- What are the retention, progression and attrition rates among Northern Territory Indigenous students in the VET sector?
- What are the pathways adopted by Indigenous students in the Northern Territory in the transition from post-compulsory education to work?
- What is the experience of Indigenous students who transition from the VET sector to the higher education sector in the Northern Territory?

The project adopted a mixed methods approach to the data collection. To determine the retention, progression and attrition rates among Indigenous students in the tertiary education sector of the Northern Territory, both qualitative and quantitative data were examined. The quantitative data included Charles Darwin University enrolment statistics for the period 2000–09 inclusive. The qualitative data were collected via interviews and focus groups conducted with Indigenous students

enrolled at the university, Batchelor Institute and two private VET providers – Alana Kaye Training and the Council for Aboriginal Alcohol Program Services (CAAPS). The quantitative and qualitative data also provided an insight into the pathways and experiences of Indigenous students as they moved from post-compulsory education to work.

Student profile and policy context

Despite the gains in educational outcomes achieved by Indigenous students in recent decades, only a small proportion of the total population of the Indigenous people accesses, or completes, post-compulsory education. The disparity between Indigenous and non-Indigenous student engagement in the higher education sector is particularly significant. Demographic forces, as well as current and predicted skills shortages, are creating an opportunity and a demand for an increase in the number of Indigenous students who enter the tertiary education system, return to study and complete qualifications. Higher education is, as Behrendt et al. (2012, p.vi) acknowledged, an important transformative power that underpins the prosperity of the nation and can assist Aboriginal and Torres Strait Islander communities to find solutions to seemingly intractable problems.

Policy context

The Bradley Review of Australian Higher Education (Bradley et al. 2008) acknowledged the international consensus that the reach, quality and performance of a nation's higher education system will be the key determinants of economic and social progress. An important response by the Australian Government to the 2008 Bradley Review was to set targets to increase the tertiary education participation of people from low socioeconomic status and Indigenous backgrounds. One potentially significant means of improving access for people from under-represented groups in the tertiary education system is to streamline the pathways from VET to higher education (Bradley et al. 2008, p.21).

Australia has persistent skills shortages and, as indicated by the current enrolment trajectory, a limited capacity to meet the expected composition of the future labour market (Access Economics 2008; Bradley et al. 2008; Department of Education, Employment and Workplace Relations 2011a). The lack of suitably qualified and skilled people for meeting medium and short-term needs is, according to Bradley et al. (2008), a threat to the wellbeing of the community and the country's capacity to maintain competitiveness and prosperity. As the Bradley Review (2008) acknowledged, to meet the forecast labour demand, Australia needs to increase the number of students who enter the tertiary education system, return to study and complete qualifications.

There is also a growing concern that some sectors of the population are discouraged from participating in, or are denied access to, the economic and social opportunities which a higher education provides (Behrendt et al. 2012; Asmar, Page & Radloff 2011; Indigenous Higher Education Advisory Council 2006, 2008). Students of low socioeconomic status, Indigenous students and students from regional and remote areas are particularly at risk of being marginalised by the education system (NCVER 2004; O'Callaghan 2005).

Historically, Indigenous people have formed one of Australia's most socially and economically disadvantaged groups (Davidson & Jennett 1994; Productivity Commission 2003, 2011). The extent of Indigenous disadvantage is reflected in statistics showing low levels of life expectancy, significant health problems, high unemployment, low attainment in the formal education sector, unsatisfactory housing and infrastructure, and high levels of arrest, incarceration and deaths in custody (ABS 2006; Attorney General's Department 2011; Davidson & Jennett 1994; Productivity Commission 2003, 2011). Indigenous people have been disadvantaged in terms of their capacity to gain access to education and by their relative inability to obtain educational qualifications (Encel 2000; Gray, Hunter & Schwab

2000). For many Indigenous people living in remote regions of Australia, isolation and the inability to access mainstream service exacerbates this disadvantage (Productivity Commission 2011).

Indigenous demographic profile

Aboriginal and Torres Strait Islander people represent 2.3% of the total Australian population (ABS 2006, p.12). According to the 2006 census (ABS 2006, p.14), 38% of the Indigenous population are aged under 15 years compared with 19% of the non-Indigenous population. The median age of Indigenous people is 21 years, 16 years younger than the median age for the non-Indigenous population. The Indigenous population is also growing at twice the annual rate projected for the rest of the population (Ministerial Council on Education, Employment, Training and Youth Affairs 2008, p.4). The 2006 census (ABS 2006, p.13) also established that almost one-third of the resident Indigenous population resided in major cities (32%); 21% lived in inner-regional areas; 22% in outer-regional areas; 10% in remote areas and 16% in very remote areas.

The Indigenous proportion of the population increases with geographic remoteness. The Northern Territory, for example, is one of Australia's most remote regions and Indigenous people comprise approximately 32% of the total territory population. According to the 2006 census (ABS 2006, p.14), 'Of the states and territories, Northern Territory had the largest proportion [45%] ... of its population living in remote and very remote areas, with four-fifths [79%] ... of its Indigenous population living in these areas'. Remoteness, according to Australian Bureau of Statistics (ABS 2006) data, has a significant negative impact on the attainment of educational qualifications.

The under-representation of Indigenous people in the education system, particularly the higher education sector, has been well documented (Alford & James 2007; Bradley et al. 2008; Department of Education, Science and Training 2006; Gray, Hunter & Schwab 2000; Indigenous Higher Education Advisory Council 2008; NCVET 2009). As the Indigenous Higher Education Advisory Council (2008, p.13) has acknowledged, the underlying pattern of Indigenous educational attainment is well below that of the non-Indigenous population and extends across the school years and into tertiary participation.

This disparity is especially significant, given the very young demographic profile of the Indigenous population. As noted by the Indigenous Higher Education Advisory Council (2008, p.14), Indigenous youth represent a growing proportion of Australia's potential labour market, yet 'the picture is bleak for many Indigenous students at age 15 years'. A reported 25% of Indigenous young people cease their formal education upon leaving school (Curtis 2008, p.9).

The factors behind Indigenous under-representation in the tertiary education sector are complex and interrelated. While isolation and remoteness are major contributing factors (Behrendt et al. 2012), the high rates of poverty and associated educational disadvantages; the high attrition rates of Indigenous students, particularly in senior secondary school years; and the over-representation of Indigenous students undertaking vocational rather than academic studies in Years 11 and 12 also have a significant impact on Indigenous educational attainment (ABS 2006; Indigenous Higher Education Advisory Council 2008).

Compounding the problem is the high proportion of Indigenous students undertaking post-school vocational education studies without direct pathways to higher education. The consequence is a low proportion of Indigenous students who possess the prerequisites needed to enrol directly into higher education courses (Behrendt et al. 2012; Indigenous Higher Education Advisory Council 2008).

Measuring progress

In any discussion on student performance it is important to make the distinction between ‘progress’ and other indicators of ‘performance’. According to Gabb, Milne and Cao (2006, p.3), attrition, retention, completion and progress are frequently used as indicators of the quality of education. In broad terms, attrition, retention and completion are equal to one hundred per cent, whereas ‘progress’ refers to the proportion of subjects/units passed by students. As Gabb, Milne and Cao (2006, p.3) describe, the terms, ‘attrition’, ‘retention’, ‘completion’ and ‘progress’, have a number of dimensions:

- Attrition refers to the loss of students from something, while retention refers to the students staying within something.
- Completion refers to the conclusion of something by the students and progress refers to progress of students through something.

That ‘something’ may be a unit, a module, a subject, a year of a multi-year course, a whole course, or, in the case of attrition and retention, a sector within an institution, an institution, a sector of the tertiary education system or the tertiary education system as a whole. Each is usually reported as a rate measured over a period of time, typically one year in higher education.

In the context of vocational education and training, the evaluation of ‘performance’ utilises a range of measures such as enrolments, completion rates, pass rates and student satisfaction measures. As Dockery and Milson (2007, p.42) noted, one of the most widely used measures of vocational outcomes is gross employment rates – the proportion of graduates or module completers who are in employment at a given point of time after completion.

For Indigenous students from the remote areas of Australia, the lack of available labour market opportunities is a significant barrier to employment (Giddy, Lopez & Redman 2009; Ministerial Council on Education, Employment, Training and Youth Affairs 2008). Research indicates that, in the more remote areas, the motivation for undertaking training does not necessarily include an expectation of employment (NCVER 2004; O’Callaghan 2005). A 2004 study found that in very remote regions 27% of Indigenous students participated in training so they could help in their community (NCVER 2004). A similar study in 2005 found that the main reasons students undertook training was to improve knowledge (43%) and get a job (42%). Other reasons included to improve confidence, to help in the community or to obtain skills for community/voluntary work (O’Callaghan 2005). Although employment outcomes are greater for course completers than for non-completers, Indigenous students are less likely to persist in VET and higher education courses than non-Indigenous students (Curtis 2008; Department of Education, Employment and Workplace Relations 2008). Consequently, employment outcomes remain consistently lower for Indigenous Australians compared with other Australians (Department of Education, Employment and Workplace Relations 2008; O’Callaghan 2005, p.3).

Vocational education

The proportional representation of Indigenous students in the vocational education sector is significant, and the acquisition of skills from this sector is important for Indigenous people. VET is also more accessible than university study in non-metropolitan areas, where over a third of high-achieving Indigenous youth reside (Nguyen 2010, p.8). The importance of vocational education for Indigenous people is reflected in the fact that almost one in four of the Indigenous population aged 15–59 participated in a VET course in 2008 (Department of Education, Employment and Workplace Relations,

p.84). According to the Department of Education, Employment and Workplace Relations (2008, p.84), in 2008 the Indigenous participation rate in vocational education was 13.4% and exceeded the overall national rate by more than 2%. In 2008, Indigenous students represented 4.3% of all vocational education enrolments (Department of Education, Employment and Workplace Relations 2008).

Throughout Australia there is considerable variation in the ratio of Indigenous to non-Indigenous participation in VET. As indicated in table 1, in 2008 the ratio of Indigenous to all VET students varied from a low of 1.1% in Victoria to a high of 45% in the Northern Territory. Indigenous participation in Western Australia, Queensland and New South Wales was above the national average (Department of Education, Employment and Workplace Relations 2008, p.84). Research also indicates that Indigenous enrolments in VET courses are trending upwards (Department of Education, Employment and Workplace Relations 2008; Nguyen 2010).

Table 1 Proportion of Indigenous VET enrolments by state and territory, 2008

Location	%
Victoria	1.1
New South Wales	4.9
Queensland	5.1
Northern Territory	45.0
South Australia	
Western Australia	6.7

Nationally, there was a 27% growth in the number of Indigenous VET students between 2001 and 2008 (Department of Education, Employment and Workplace Relations 2008, p.84). Since 2001 there has been a significant increase in Indigenous enrolments in the areas of commencing apprentices and apprentices in-training. From 2001 to 2008 the total number of Indigenous apprentices in-training increased by 95% (Department of Education, Employment and Workplace Relations 2008, p.80).

Historically, the VET programs with a significant Indigenous enrolment include mixed-field programs, which provide interpersonal and job search skills (ABS 2002, p.111; NCVET 2010, p.11). As demonstrated in table 2 Indigenous students are also concentrated in management and commerce, engineering and related technologies, and society and culture programs. Indigenous VET students are more likely than non-Indigenous students to undertake courses in the areas of health, education, agriculture, environmental and related studies and creative arts (Department of Education, Employment and Workplace Relations 2008, p.87; NCVET 2010, p.11).

The demographic profile of Indigenous vocational education students is, however, significantly different from that of non-Indigenous students. According to the Department of Education, Employment and Workplace Relations (2008, p.80), Indigenous students tend to be younger than non-Indigenous students; they are much more likely to be living in remote locations; they have much lower levels of schooling upon commencement of vocational education and, because of the low levels of educational attainment, are concentrated in Australian Qualifications Framework (AQF) certificate I and II courses. In 2008, 41.9% of Indigenous VET students were enrolled in certificate I and II courses, compared with 23.5% of non-Indigenous students. Approximately 30.5% of Indigenous students were enrolled in certificate III, certificate IV and diploma courses, compared with 51.3% of non-Indigenous students (Department of Education, Employment and Workplace Relations 2008, p.208).

Table 2 Distribution of Indigenous and non-Indigenous VET course enrolments by major field of education, 2008

Major field of education	% Indigenous 2008	% Non-Indigenous 2008
Natural and physical sciences	0.1	0.4
Information technology	0.9	2.0
Engineering and related technologies	11.7	17.3
Architecture and building	5.2	7.3
Agriculture, environmental and related studies	8.7	3.8
Health	5.5	4.6
Education	3.2	2.6
Management and commerce	15.3	21.1
Society and culture	10.9	10.6
Creative arts	5.3	2.4
Food, hospitality and personal services	7.9	11.0
Mixed field programs	19.2	10.8
Subject only – no field of education	6.1	6.0

Nationally, there are more Indigenous males enrolled in VET than females. In 2008, Indigenous males constituted 53.5% of the Indigenous VET enrolments, with females at 46.5% (Department of Education, Employment and Workplace Relations 2008, p.79). The Indigenous gender balance is broadly consistent with VET enrolments for all students. In 2010, 52.4% of all VET enrolments were male and 47.4% were female (NCVER 2010, p.9).

For the majority of Indigenous students, their vocational education experience has been positive (Department of Education, Employment and Workplace Relations 2008; O'Callaghan 2005). In 2008, a reported 91% of Indigenous vocational education graduates indicated they had 'achieved their main reason for study' (Department of Education, Employment and Workplace Relations 2008, p.80). However, despite the increase in enrolments and the apparent importance and attractiveness of vocational education, the retention and completion and re-enrolment rates of Indigenous students are consistently below those of their non-Indigenous counterparts (Department of Education, Employment and Workplace Relations 2008, p.92). As O'Callaghan (2005, p.5) noted, the issue is not one of participation in VET but of retention, completion and (re-) enrolment in the higher-level, industry-relevant courses most likely to lead to employment and economic outcomes. Standard labour market indicators, such as employment status and earnings are, according to Dockery and Milson (2007, p.33), 'accepted [and] appropriate outcome measures for Indigenous people who participate in mainstream programs'.

The pathways from education to work

The pathways from post-compulsory schooling to work are varied. For many students the traditional school-to-work transition involves either vocational education and training or higher education. However, since the 1980s, collaboration between the higher education and VET sectors has been growing and, in recent years, the intersectoral movement of students between vocational education and higher education has increased (Harris, Raine & Sumner 2005; Moodie 2010). As Harris, Raine and Sumner (2005, p.10) noted, student 'traffic' between VET and other sectors has grown, 'with students from VET going on to university as well as being admitted to university on the basis of their VET studies'. For many students the transition from VET to higher education has become a viable and attractive means of obtaining additional qualifications and skills. As Harris, Raine and Sumner (2005)

argued, in a society committed to lifelong learning, and with an economy requiring a knowledgeable, skilled, flexible and adaptable labour force, it is essential that there are clear and easy pathways between the VET and higher education sectors.

The connection between VET and higher education has been identified as an important element to achieving national attainment and participation goals and is driving the evaluation of dual-sector universities (Bradley et al. 2008; University of Ballarat & Swinburne University of Technology 2010).

Due to low Year 12 completion rates, the potential pool of Indigenous students with the appropriate qualifications for entering higher education through the mainstream pathway is relatively small (Indigenous Higher Education Advisory Council 2008, p.15; Ministerial Council on Education, Employment, Training and Youth Affairs 2008, p.12). Consequently, the pathway from VET to higher education has the capacity to increase Indigenous engagement with the tertiary education sector, particularly higher education. However, a review of the literature has revealed that there is limited research on Indigenous students who transition from VET to higher education. Therefore, little is known of the experiences of Indigenous students who follow this pathway.

One study that investigated a cohort of transitioning Indigenous students was conducted at the University of South Australia in 1997 (Ramsey et al. 1997). The study found that, of the 223 commencing Indigenous students, eight had gained admission on the basis of prior vocational study. The majority of the students received no credit transfer and were reported to have the lowest 'success' rate of all student cohorts. Given the lack of additional research and the fact that this study is over 12 years old, there is a clear need for research on the VET to higher education pathways undertaken by Indigenous students.

It should be noted that the tertiary education pathways Indigenous students take are often different from the norm. While it is acknowledged that alternative entry and pathways are critical elements for assisting Indigenous access to higher education, a significant number of Indigenous students are precluded from gaining higher education admission via articulation, due to the level of their vocational qualification (Department of Education, Employment and Workplace Relations 2008; Department of Education, Science and Training 2006). Most commencing higher education Indigenous students enter university via an alternative route. According to the Department of Education, Science and Training (2006, p.93), 32% of higher education commencing Indigenous students had no formal qualifications and 66% gained admission via special entry arrangements in 2004.

Indigenous participation in higher education

While it is widely acknowledged that Indigenous students are significantly under-represented in the Australian higher education system (Department of Education, Employment and Workplace Relations 2008; Indigenous Higher Education Advisory Council 2006, 2008; O'Callaghan 2005), it is also acknowledged that higher education Indigenous students have high attrition rates, low retention and completion rates and a high failure rate (Department of Education, Employment and Workplace Relations 2008; Indigenous Higher Education Advisory Council 2008). The attrition rate of Indigenous students is particularly significant. Up to 35% of Indigenous students do not progress beyond their first year of higher education study (Indigenous Higher Education Advisory Council 2006).

While statistics indicate that the number of Indigenous higher education commencing students is increasing, participation in higher education is approximately less than half the rate, if parity with non-Indigenous people existed (Department of Education, Employment and Workplace Relations 2008; Indigenous Higher Education Advisory Council 2008). In 2008, Indigenous people comprised only 1.29%

of the commencing domestic higher education student population and there are, according to the Department of Education, Employment and Workplace Relations (2008, p.116), 'indications of a long term widening of the gap between Indigenous and Non-Indigenous participation'.

Historically, a high proportion of higher education Indigenous students enrol in humanities courses (ABS 2002, p.113). In 2008, approximately one-third of all higher education Indigenous enrolments were in courses broadly defined as 'society and culture' (Department of Education, Employment and Workplace Relations 2008, p.117; Indigenous Higher Education Advisory Council 2008, p.11). In 2008, health, education and society and culture courses accounted for approximately 70% all higher education Indigenous enrolments. By comparison, these courses accounted for approximately 54% of all non-Indigenous enrolments. In recent years management and commerce courses have also begun to attract more Indigenous students. However, the most significant increase in enrolment has been in health-related programs (Department of Education, Employment and Workplace Relations 2008, p.118). This may be a reflection of the growing importance Indigenous people place on health issues.

Nationally, more Indigenous women enrol in higher education courses than Indigenous men. In 2008, 67.1% of commencing higher education Indigenous enrolments were female and 32.9% were male (Department of Education, Employment and Workplace Relations 2008, p.223). This is broadly consistent with the gender balance for all commencing higher education students. However, between the period 2001 and 2008, Indigenous female enrolments have been trending upwards and have increased by 10.1%. For the same period, Indigenous male enrolments decreased by 5.2% (Department of Education, Employment and Workplace Relations 2008, p.223).

The gap between Indigenous and non-Indigenous higher education participation is most significant in the area of postgraduate study. As the Indigenous Higher Education Advisory Council (2008, p.4) acknowledged, 'the disparity in enrolment, participation and especially completion rates of Indigenous postgraduate students is dramatic'. In 2006, Indigenous students constituted only 0.3% of doctorate and 0.6% of master's by research completions. To achieve parity of participation, the number of Indigenous doctoral students needs to more than triple and completions need to increase by more than 600% (Indigenous Higher Education Advisory Council 2008, p.4).

According to the Department of Education, Employment and Workplace Relations (2008, p.130), there is a continuing demand for Indigenous higher education graduates. However, the employment outcomes for Indigenous graduates have, for the past six years, remained consistently lower than those of their non-Indigenous counterparts. In addition, the average starting salary for Indigenous graduates is significantly less. According to the Department of Education, Employment and Workplace Relations (2008, p.130), in 2008 the average Indigenous graduate commencement salary was \$4000 less than that of a non-Indigenous graduate.

Summary

The Bradley Review of Australian Higher Education acknowledged that Australia has persistent skills shortages and a restricted capacity to respond to the changing structure of the future labour market. Increasing the tertiary education participation rate of people from low socioeconomic status and Indigenous backgrounds is regarded as necessary for the future social and economic prosperity of the nation. A potentially important means of improving access for people from under-represented groups in tertiary education is to streamline the pathways from VET to higher education.

Indigenous people form one of Australia's most socially and economically disadvantaged groups. The extent of disadvantage is evident across a range of indicators, including access to education and

employment outcomes. For many Indigenous people living in the remote regions of Australia, isolation and an inability to access mainstream services exacerbate this disadvantage.

While Indigenous people are under-represented in the tertiary education sector, their proportional representation in the VET sector is significant. For Indigenous people, the acquisition of skills and participation in training are regarded as important. However, despite an increase in enrolments and the apparent importance and attractiveness of VET, the retention, completion and re-enrolment rates of Indigenous students are consistently below those of their non-Indigenous counterparts. Indigenous students are also highly concentrated in lower-level certificate courses.

For many Indigenous students the level of their vocational qualifications precludes admission into higher education on the basis of their VET attainment. Low enrolment rates, high attrition rates, low retention and completion rates and high failure rates compound their under-representation in the higher education sector. The gap between Indigenous and non-Indigenous higher education participation is most significant in the area of postgraduate study. In addition, for both VET and higher education, Indigenous students' employment outcomes are significantly lower than those of non-Indigenous students.

Although there is a relatively high proportion of Indigenous people in the Northern Territory, little is known of their experiences in the tertiary education sector. A review of the literature has also revealed that there is limited research on the comparative experience of Indigenous students who transition from VET to higher education as opposed to the students who transition directly into the workforce. Consequently, research into the pathways Northern Territory Indigenous students take in their transition from post-compulsory education to work is timely and can be expected to provide important insights into the area of Indigenous educational experience.

Methodology

Consistent with contemporary social and educational research, this project employed a mixed method approach to the research (Creswell & Tashakkori 2008; Greene 2008). Broadly speaking, a mixed analysis involves using quantitative and quantitative data analysis techniques in the same study to arrive at a synthesis that contains ideas from qualitative and quantitative research (Onwuegbuzie & Combs 2011). According to Salehi and Golafshani (2010), a quantitative methodology includes numerical values and measurement, which helps researchers to describe and determine human social patterns using deductive logic; a qualitative method deals with interpretation and exploration, which guides researchers to understand and explain events and occurrences.

Triangulation

In the context of this research, methodological triangulation was achieved by combining input from qualitative data obtained from focus groups and interviews with the quantitative data from Charles Darwin University's VET and higher education enrolment statistics. The quantitative data were obtained from enrolment information for the period 2000–09 inclusive. Excel was used to analyse the qualitative data. To preserve confidentiality, all students were de-identified in the statistical data and only aggregate results were utilised in the data analysis.

The qualitative data were obtained through interviews and focus groups with past and present Northern Territory Indigenous VET and higher education students. The interview schedule was pre-tested prior to the interviews being conducted. Based on the feedback received during the interview pre-test, minor changes were made to the schedule. Twenty-nine interviews and two focus groups were conducted (see support document for interview and focus group questions). The interviewees and focus group participants had completed a minimum of one VET competency at either Charles Darwin University; Batchelor Institute; the Council for Aboriginal Alcohol Program Services; or with the private training provider, Alana Kaye Training. The participants were chosen at random from enrolment data supplied by the respective institutions. As indicated in table 3, ten interviewees were students at Charles Darwin University, nine were students at Batchelor Institute and ten interviewees were sourced from private VET providers. The interview contained a mixture of closed and open-ended questions. Excel was used to analyse the interview data.

Table 3 Source of interview participants

Provider	CDU	BIITE	Alana Kaye	CAAPS	Total	%
No. of interviewees	10	9	5	5	29	100

Notes: CDU = Charles Darwin University; BIITE = Batchelor Institute; CAAPS = Council for Aboriginal Alcohol Program Services.

The focus groups were conducted at the university and at Batchelor Institute. Ten students attended the focus group at Batchelor Institute and six participated in the focus group at Charles Darwin University. The interviewees and focus group participants were representative of and proportional to the local enrolment patterns.

Ethics

Ethics approval to conduct the research was obtained from both Charles Darwin University and Batchelor Institute. The interviews and focus groups were conducted by an Indigenous Elder who had significant experience in qualitative data collection. The Elder was known to a number of the participants and was a well-respected member of the Indigenous community. Students provided written consent to participate in the interviews and focus groups. They participated on the basis of anonymity and were free to withdraw from the project at any time.

Limitations of study

This project has a number of limitations worth noting as they provide an indication of potential areas for further research.

The enrolment data utilised in the research included the years 2000–09. Comprehensive enrolment data for the period 2010 and 2011 were not available during the data collection phase of the project. Additional research that includes current enrolment data would provide a more comprehensive analysis of Indigenous enrolment trends at Charles Darwin University.

There are a significant number of VET providers in the NT. While this study has attempted to capture the experiences of Indigenous students enrolled in programs offered by the two major providers and two private providers, additional research in this area is warranted. A number of large infrastructure projects are currently being undertaken in the NT with a significant focus on Indigenous training. In the past 12 months VET providers have successfully tendered for these projects, which typically provide on-the-job training and training at certificate IV level. Consequently, additional research with a focus on the experience of Indigenous students engaged in these programs, which have a specific employment outcome, would complement the research undertaken in this project.

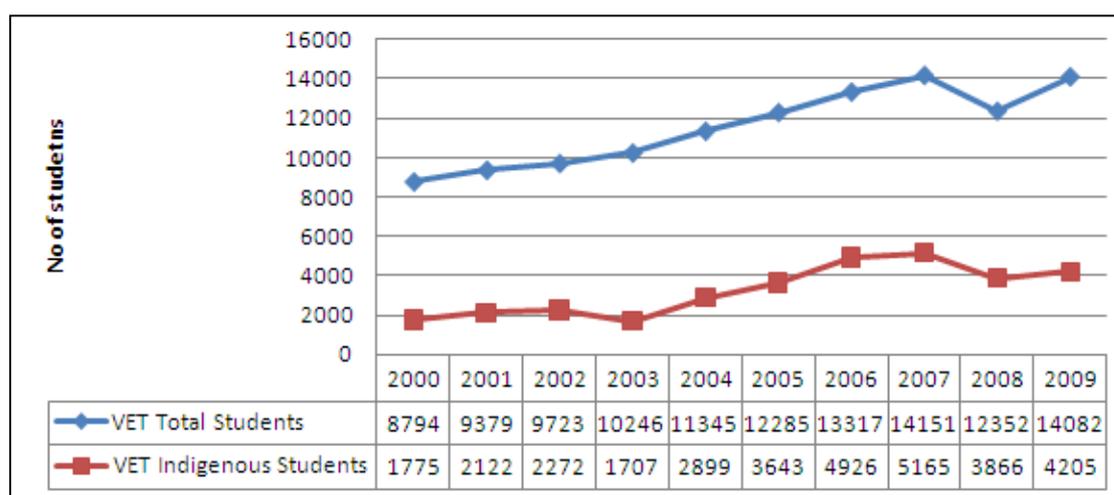
Quantitative data analysis

The following data analysis of Indigenous student engagement with the VET and higher education sectors of Charles Darwin University is based on enrolment data for the period 2000–09 inclusive. The focus of this analysis was primarily on the VET sector. However, Indigenous progression from VET to higher education and Indigenous representation in the higher education sector are also examined. The years 2005–09 represented a period of high Indigenous enrolment in the VET and higher education sectors of Charles Darwin University. Consequently, this period was examined in detail with regard to preferred course enrolment, retention and completion rates.

Indigenous participation in vocational education and training

As indicated in figure 1, in the period 2000–09 the Indigenous and non-Indigenous VET enrolment cohorts followed a similar trajectory. While there has been growth in both enrolment cohorts over time, this growth has not been consistent. The peak enrolment activity for both cohorts occurred in 2006–07. This peak was followed by a significant decline in enrolment in 2008. The years 2005–09 represented a period of relatively high Indigenous engagement in the VET sector of Charles Darwin University.

Figure 1 Indigenous and non-Indigenous VET student enrolments (actual student numbers), 2000–09



In the decade commencing in the year 2000, Indigenous students represented an average of 27.3% of the total VET enrolment. The Indigenous enrolment ratio ranged from a low 17.7% in 2003 to a high 37% in 2006. The percentage increase in Indigenous student enrolments from 2000 to 2009 was approximately 176%.

Enrolment by age

An analysis of university enrolment data indicates that there has been an increase in Indigenous student enrolments in all age categories since 2000. While students under the age of 29 dominated in terms of actual student numbers, the cohort with the highest number of enrolments was under 20 years of age.

As indicated in table 4, Indigenous VET enrolments in the under-20 age group have, with the exception of 2003, been consistently higher than any other age cohort. Across the decade this cohort constituted approximately 41% of total VET enrolments. This was followed by 28.2% in the 20 to 29-years age group,

25.6% in the 30 to 39-years age cohort and 20.9% in the cohort aged 40–49. The cohort with the least number of Indigenous enrolments was the 50-plus age group, with only 14% of enrolments. Indigenous students in all age groups constituted fewer than 50% of the total VET enrolments.

Table 4 Indigenous VET enrolments as a percentage of total VET enrolments, 2000–09

Age	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
<20 yrs	39	43	45	3	40	44	47	41	38	39	41.1
20–29 yrs	21	23	23	21	29	30	36	38	32	29	28.2
30–39 yrs	15	18	19	18	21	27	38	38	31	30	25.5
40–49 yrs	13	13	15	14	15	20	31	32	29	27	20.9
>49 yrs	9	8	9	10	11	13	22	22	18	18	14.0

The age-enrolment pattern of Indigenous students is in marked contrast to the non-Indigenous enrolments. Nationally, the majority of non-Indigenous students enrolled in VET are over 25 years of age (NCVER 2010, p.9).

Indigenous enrolment by gender

Enrolment data indicate that significantly more Indigenous male students enrolled in VET programs at Charles Darwin University than Indigenous female students. Indigenous male enrolments constituted approximately 59.4% of all Indigenous enrolments, while female enrolments were in the vicinity of 40.6%.

According to Larkin (2011, p.6), VET Indigenous gender enrolment patterns at Charles Darwin University are significantly different from those of their non-Indigenous counterparts. In the period 2000–09 non-Indigenous male and female enrolments were near parity. Non-Indigenous males constituted approximately 52% of all non-Indigenous student enrolments and non-Indigenous females represented 48%.

Between 2000 and 2009 Indigenous female students accounted for 24.4% of total female VET enrolments and Indigenous males constituted 27.6% of all male VET enrolments.

Multiple course enrolments

Between 2000 and 2009, there was a disparity between the number of actual Indigenous students engaged in VET at Charles Darwin University and the number of Indigenous students enrolled by course. Indigenous course enrolments exceeded the actual student numbers in 2001 and in subsequent years. This disparity indicates that a proportion of Indigenous VET students enrolled in more than one VET course in a given year.

With the exception of 2000, multiple course enrolments have been a consistent feature of Indigenous VET engagement at Charles Darwin University. Between 2005 and 2009 the average number of Indigenous students involved in multiple course enrolments was 1100, or 25.5% of the total Indigenous student body. The majority of the multiple course enrolments were at the certificate I level. According to Larkin (2011, p.8), for the same period, 18.6% of non-Indigenous students were enrolled in multiple VET courses.

Course enrolment numbers

Between 2000 and 2009, Indigenous students were enrolled predominantly in certificate I and II courses. Certificate I course enrolments have, over time, undergone periods of considerable growth and decline. Indigenous enrolments in certificate I peaked in 2006 with 3357 enrolments and then experienced a decline in 2007 and 2008.

In 2008 and 2009, certificate II enrolments exceeded certificate I enrolments. This, however, may be a result of students progressing on to certificate II after completing a lower-level course. Diploma enrolments were consistently very low, and across the decade advanced diploma enrolments were virtually non-existent for Indigenous students.

The pattern of Indigenous enrolment in certificate-level courses was in marked contrast to that of non-Indigenous enrolments. As demonstrated in table 5, Indigenous course enrolments were skewed towards certificate I level courses, while non-Indigenous course enrolments were more significant at the certificate III, IV, diploma and advanced diploma levels. Between 2000 and 2009, Indigenous enrolments constituted on average fewer than 1% of total enrolments at the advanced diploma level, 7% of enrolments in diploma courses, 9.5% of enrolments in certificate IV courses, 14.7% of enrolments in certificate III, and 30.9% and 61.5% of enrolments in certificate II and certificate I courses respectively.

Indigenous enrolments in certificate I courses have consistently been high and have ranged from 54% to 68% of total enrolments. By comparison, non-Indigenous enrolments at the advanced diploma level have constituted, on average, more than 99.4% of the total enrolments.

Table 5 Indigenous VET course enrolments as a percentage of total course enrolments, 2000–09

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Certificate I	61	63	64	54	58	61	68	63	60	63	61.5
Certificate II	19	21	25	23	32	32	33	42	43	39	30.9
Certificate III	13	10	10	11	13	16	20	20	17	17	14.7
Certificate IV	8	10	8	9	8	10	12	8	11	11	9.5
Diploma		4	6	9	6	13	7	9	7	8	7.1
Advanced diploma	1	1	0	2	2	0	0	0	0	0	0.6

Course completion rates

This report acknowledges that there are a number of statistical issues to be taken into account with respect to an analysis of Indigenous and non-Indigenous course completion rates. These issues include:

- Students may not complete their course in one year.
- Courses at different levels take varying lengths of time to complete: some courses may be of more than one year's duration.
- Students studying part-time will take longer to complete a course.

When comparing Indigenous and non-Indigenous course completion rates, the issues are similar for both student cohorts and are somewhat negated.

Low course completion rates and a high attrition rate were the hallmark of Indigenous engagement in the VET sector in the period 2000–09. The highest percentage of course completions occurred at the certificate I and II levels. In the period 2000–09, certificate I had a 52% course completion rate and

certificate II a 25% completion rate. The completion rates in both certificate I and II fluctuated considerably and ranged from a high 74% to a low 12%.

Across the decade certificate III, IV and diploma students had very low completion rates. No Indigenous students completed an advanced diploma. Over the decade the total Indigenous course completion averaged 16.8%.

According to research conducted at Charles Darwin University, non-Indigenous students experience just over twice the success rate of Indigenous students, as measured by course completions (Larkin 2011, p.20).

Field of study enrolment, completion and success rates, 2005–09

Between 2005 and 2009, Indigenous students constituted approximately 34% of all course enrolments in the VET sector of Charles Darwin University. The total enrolment over this period was 5892 students. Of these students, approximately 10%, or 576 students, were recorded as having completed their course. For the same period Indigenous students accounted for 42% of all certificate I course completions, 22% of certificate II completions and 25% of certificate III, IV, diploma and advanced diploma completions.

As demonstrated in table 6, the fields of study with the highest number of enrolments were, by order of magnitude: agriculture, environmental and related studies; mixed field programs; management and commerce; engineering and related technologies; and education. Approximately 70% of all Indigenous enrolments were in these fields of study.

The fields of study with the highest number of course completions included: agriculture, environmental and related studies; food hospitality and personal services; management and commerce; and engineering and related technologies. These fields of study accounted for approximately 78% of all Indigenous course completions. The courses with the greatest success rates were in the areas of food hospitality and personal services; management and commerce; and information technology.

Courses in the areas of agriculture, environmental and related studies had the highest number of course enrolments and the highest number of course completions, but overall a relatively low indicative success rate of 12%.

The fields of study with a high attrition rate include mixed field programs; health; architecture and building; and education. The mixed field programs, which include preparatory courses, while being the second most popular field of study in terms of Indigenous student enrolment, had an indicative success rate of just 1%.

Table 6 Indigenous students' indicative success rate for each VET field of study, 2005–09

Field of study	Average no. of Indigenous course enrolments	Average no. of Indigenous course completions	Indicative success (%)
Natural and physical sciences	1	0.4	33*
Food, hospitality and personal services	428	128	30
Management and commerce	821	120	15
Information technology	77	10	13
Agriculture, environmental and related studies	1168	139	12
Engineering and related technologies	702	61	9
Creative arts	482	41	8
Society and culture	393	32	8
Education	613	26	4
Architecture and building	152	5	3
Health	145	2	2
Mixed field programs	907	12	1
Total	5892	576	10

Note: * There was only one student enrolled in natural and physical sciences; hence, the high indicative success rate.

Indigenous participation in higher education

Table 7 indicates the proportion of Indigenous students enrolled in higher education courses at Charles Darwin University for the period 2000–09 inclusive. The data include Indigenous student enrolments across all undergraduate and postgraduate courses; enabling courses; non-award courses; higher education diplomas; advanced diplomas; and associate degrees. Indigenous enrolments represented an average of 4.8% of the total higher education population at Charles Darwin University during this period.

Table 7 Indigenous and non-Indigenous higher education enrolments (actual student numbers) and as a percentage of total enrolments, 2000–09

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average
Indigenous enrolments	255	258	265	267	274	294	269	300	287	331	280
Non-Indigenous enrolments	5268	5577	5789	5757	5447	5363	5468	6074	6499	7011	5825
Indigenous enrolment as a % of total enrolment	4.84	4.63	4.58	4.64	5.03	5.48	4.92	4.94	4.42	4.47	4.82

According to university enrolment data, approximately 86.6% of higher education Indigenous students enrolled in an undergraduate program and 13.4% enrolled in postgraduate programs. Enrolment numbers in both programs were relatively stable over time.

Basis of admission

There are six 'basis of admission' (BOA) categories for entry into higher education at Charles Darwin University. The categories include: tertiary enabling programs and Indigenous pre-admission programs; VET study; mature-age entry; secondary education; previous higher education study; and

other entry, which includes employment experience, Institutional assessment, special entry and open learning courses.

The higher education basis of admission data in relation to Indigenous students were only available for the years 2005–09. The available data are summarised in table 8. According to enrolment data, Indigenous students utilised a variety of pathways to obtain admission into undergraduate and postgraduate courses. On average, approximately 21.6% of students gained admission each year on the basis of their secondary education results, 15% gained admission on the basis of their VET studies and 30.6% on the basis of their previous higher education studies. Alternative entry pathways accounted for approximately 33.2% higher education admissions each year.

Table 8 Indigenous higher education bases of admission, 2005–09 (%)

BOA	2005	2006	2007	2008	2009	Average
TEP	3.3	1.0	1.0	2.4	4.2	2.3
VET	25.2	8.5	16.1	7.2	17.7	15.0
Mature-age	15.1	12.7	6.4	15.6	11.0	12.1
Secondary education	24.3	24.4	22.5	21.6	15.2	21.6
Previous higher education course	17.6	28.7	34.4	45.7	25.4	30.6
Other	14.2	24.4	19.3	10.8	25.4	18.8

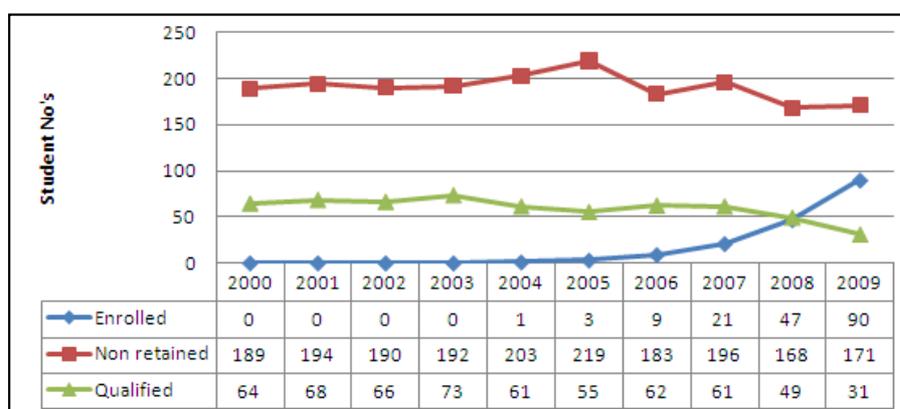
Note: TEP = tertiary enabling programs.

Indigenous participation and outcomes in undergraduate programs

In the period 2005–09, there were a total of 471 Indigenous undergraduate student enrolments, spread across 73 courses. The most popular courses for Indigenous students were in the areas of nursing and education, followed by law, business and behavioural science.

The pattern of outcomes for Indigenous students enrolled in higher education undergraduate programs between 2000 and 2009 is demonstrated in figure 2. It must be noted when interpreting this data that students enrol at different times during the academic year and are represented in each year’s data category without differentiation. Consequently, the data contained in figure 2 represent both past and continuing students.

Figure 2 Indigenous undergraduate outcomes and participation (actual student numbers), 2000–09



The ‘enrolled’ category represents retained enrolments; the ‘non-retained’ category includes students who have dropped out of the course; were classified as ‘intermit’ students; or were regarded as ‘inactive’ students. According to Larkin (2011, p.44) the descriptor ‘inactive’ is a strong indicator

of withdrawal from studies. The 'qualified' category also includes students who chose an alternative exit point in their course.

As indicated in figure 2, Indigenous engagement in higher education undergraduate programs is characterised by a low graduation rate and a high rate of non-completions. Approximately 25% of undergraduate enrolments in the period 2000–09 completed their course (Larkin 2011, p.42). The remaining 75% either dropped out or were 'inactive'. Research also indicated that the majority of undergraduate course withdrawals occurred during the first year of study (Larkin 2011, p.67).

Indigenous participation and outcomes in postgraduate programs

The Charles Darwin University postgraduate courses with an Indigenous intake include graduate certificate, graduate diploma, master's and doctoral programs. The enrolment data indicate that very modest numbers of Indigenous students undertake postgraduate studies. In the period 2005–09 an annual average of 37 Indigenous students were enrolled in postgraduate studies. Of these 37 students, on average 46.4% graduated, 44.6% dropped out and 6.7% were still enrolled. The drop-out pattern, given the relatively small numbers analysed, indicates a trend of Indigenous students withdrawing from their courses in their second year of study.

Summary of quantitative data

In the decade 2000–09 Indigenous students represented 27.3% of the total VET enrolments at Charles Darwin University. Approximately 60% of the Indigenous enrolments were male and 40% were female. Indigenous females represented 24.4% of the total female enrolment and Indigenous males 27.6% of the total male enrolment. This gender pattern of enrolment has been persistent over time.

Indigenous students under the age of 29 dominated in terms of actual student numbers. However, the cohort with the highest number of enrolments was under 20 years of age. The cohort with the least number of enrolments was the 50-plus age group, with only 6.9% of enrolments.

Indigenous enrolments were skewed towards certificate I and II level courses. Enrolment numbers dropped dramatically at the diploma and advanced diploma level. Multiple course enrolments had also been a constant feature of Indigenous student VET engagement at Charles Darwin University. Between 2005 and 2009, approximately 25.5% of the Indigenous student body were enrolled in more than one course in a given year.

Low course completion rates and high attrition rates also characterised Indigenous engagement in the VET sector. Although the highest course completion rate occurred at the certificate I and II levels, these courses had attrition rates of 48% and 76% respectively. At the certificate IV and diploma levels the attrition rate exceeded 90%.

The field of study with the highest number of Indigenous student enrolments was agriculture, environmental and related studies. The courses with the greatest success rate were in the areas of food and hospitality, while the courses with the highest attrition rates were the mixed field programs.

In the period 2000–09 an average of 280 Indigenous students enrolled in higher education programs at Charles Darwin University each year. On average, Indigenous students represented 4.8% of the total higher education student population. Of these students, 86.6% were enrolled in an undergraduate degree and 13.4% were enrolled in postgraduate studies.

Indigenous students utilised a variety of pathways to obtain admission into higher education. The most frequent basis of admission was previous higher education study, followed by alternative pathways (including 'mature-age', 'tertiary enabling program' and 'other'), secondary education results, and vocational education studies.

The most popular higher education courses for Indigenous students were in the areas of nursing and education, followed by law, business and behavioural studies. Indigenous engagement with higher education programs was characterised by a low graduation rate and a high rate of non-completions. In the period 2000–09 approximately 25% of undergraduate students and 46% of postgraduate students completed their course. The majority of undergraduate course withdrawals occurred during the first year of study.

Qualitative data analysis

The qualitative data were collected from 29 interviews and two focus groups. Ten of the interviewees were students at Charles Darwin University, nine were students at Batchelor and the remaining ten were undertaking study with a private provider. Where possible the interviews and focus groups occurred on site at the respective institutions. Three interviews were conducted over the phone.

The ten participants in the focus group conducted at Batchelor had relocated to undertake their studies. They were studying certificates I, II and III in foundation English and, for the majority of the students, English was not the main language spoken at home. These students were all studying part-time.

The employment status of the interviewees varied. Approximately 5% were engaged in full-time employment; 10% were employed part-time and 31% were either looking for work or undertaking volunteer activities.

The six students who participated in the focus group at Charles Darwin University were studying courses that ranged from certificate II in VET to undergraduate higher education degree programs. All higher education students had progressed through a VET pathway and had previously undertaken a number of VET courses at certificate I, II, III and IV levels. The university cohort was fluent in English. The majority of these students were studying full-time.

A full description of the demographics of the interview participants, including gender, age, residential location, dependants, English language competence, mode of study, employment status, qualification undertaken and previous study is contained in the appendix.

Motivation, quality of the course and support received

The following section examines the interviewees' motivation to study and their financial support, as well as any additional assistance they received. The students' perceived satisfaction and dissatisfaction with their educational experience are also discussed in this section.

Motivation to study

Although the employment status of the interviewees varied, work-related requirements were the most commonly cited reason for undertaking VET study. In order of frequency of response and relative importance, the main motivation to study included:

- I wanted extra skills for my job/to help me in my job.
- It was a requirement of my job.
- To get a job.
- Knowledge acquisition, self-esteem, self-confidence and self-efficacy.

Study assistance

All interviewees had received some form of financial assistance while studying. Some students received financial assistance from more than one source. Approximately 41% received financial assistance from their employer; 38% received Abstudy; 21% received financial support from their

family; 17% received government support;¹ 10% were in receipt of Austudy/Youth Allowance; and 7% had financial support from their community. Only the students studying at Batchelor College received financial assistance from their community. Batchelor College students also received more financial support from their families than the other three cohorts. Eighty per cent of the students undertaking study with a private provider received financial assistance from their employer.

A range of additional assistance was provided to the students. The additional support included tutorial assistance, transport, accommodation, books, computer assistance, help from Indigenous support workers, time off work, cultural leave, additional time to complete the course, assistance from family and community, and assistance with child/family care. However, the type of assistance varied between institutions and individuals.

Students studying at Charles Darwin University mainly received tutorial support; time off work; and help with child/family care. Students studying with the Council for Aboriginal Alcohol Program Services mainly received support in terms of time off work; additional time to complete the course; and cultural leave. Alana Kaye students received time off work; help with transport; and additional time to complete the course.

The students studying at Batchelor College received the most additional support. As these students had to relocate to undertake their studies, they received assistance in the form of transport, food and accommodation. They also received tutorial assistance on site at Batchelor as well as assistance with books and computers; help from Indigenous support workers; cultural leave; additional time to complete the course; assistance from family and community; and assistance with child/family care. Interview comments indicated that students would have liked to have received more financial assistance; assistance with English; more computer training; and tutorial support in their community.

Quality of the course

Overwhelmingly, the students were satisfied with the quality of their course. The area where all students expressed the most satisfaction was in the quality of the teachers and tutors. The other areas of satisfaction included the cultural appropriateness of the course and the opportunity to interact with other Indigenous students. The flexibility of the course, teachers or institute and allowing time off for family/community business were also highly regarded by the interviewees.

The areas with which some students expressed dissatisfaction included the lack of Indigenous teachers; the level of financial support received; the lack of childcare facilities; the length of the course; and the distance travelled to undertake the course. The students from the remote areas also expressed anxiety about having to move away from their community and family to study and the lack of tutors in remote areas. Their comments included, 'We [would] like tutor support at Groot Eylandt'; 'We[d] like support in Elcho Island'; and 'We would like tutorial assistance back home'.

Outcomes of participating in VET

For the majority of students, their participation in VET was a positive experience. The outcomes varied between students, but included increased employment and career prospects; increased self-confidence and self-esteem; and opportunities to contribute to their family and community.

¹ Some students chose to receive a 'pension' rather than Abstudy as they would have forfeited other benefits and entitlements if on Abstudy. However, these students, once they were in receipt of a 'pension' were subject to income management as applied under the federal government's Intervention Program.

As indicated previously, 69% of the interviewees were in some form of paid employment. A further 14% were actively seeking work. The following anecdotal comments indicate that participating in VET had improved some students' career prospects and employment aspirations:

Employer impressed by the study done. Given more opportunity to attack a variety of job options.

Gained an increase in wage by having a certificate.

Has helped with work because of increased confidence.

Given [me] lots of skills and job tasks such as time management and dealing with people.

The study was helpful in getting me looking for a job.

[I] was able to fill in log-books, accident reports etc.

[Obtained] computer skills.

Good for CV. Has helped to improve [my] CV and job applications. Good to have a qualification.

Many students also indicated that participation in VET had enabled them to assist their family and community. Comments indicate that the skills, knowledge and confidence acquired in their study had enabled some students to communicate with others more effectively and to contribute to their family and community:

Now closer to my teenage son [I] can help with homework.

[I have] gained respect of wife, family and community.

[Assisted with] with filling out forms, speaking to get things done like family matters.

Helped me with community meetings [as an interpreter] when Power and Water come.

Feel confident to help people in my community [I] can be the educated voice to speak to others and help by being a representative.

For many students the positive outcomes were more personal. As the following comments indicate, improved self-confidence and self-esteem; improved English competence; and self-satisfaction were among the personal benefits students achieved through participating in VET:

[Increased] self-discipline and knowledge of the areas of study and life in general.

Expanded vocabulary.

More confident.

Feeling more knowledgeable and satisfied with opportunities.

Inspiring me to study more and look at the bigger picture.

It has given me the drive to keep going both personally and professionally.

Better now at reading and writing. Having the certificate I have achieved something – personal satisfaction.

[Study] gave self-confidence and self-esteem.

Make me more confident – easier to read newspapers and books.

VET to higher education pathway

A small percentage of the interviewees (approximately 17%) had utilised their VET studies to gain entry into higher education. Approximately 80% of these students indicated that they had received credit towards their higher education degree. The remaining 20% were 'not sure' if they had received

any credit. All of these participants were in the first year of an undergraduate program. Some students felt that their VET studies had prepared them for higher education and they had enjoyed the opportunities presented. Others struggled with the workload, had difficulty finding a work–life balance and found the emphasis on online learning in higher education problematic. Financial difficulties were also cited as a constraint.

Charles Darwin University focus group

The Charles Darwin University focus group cohort was motivated to undertake vocational education for a number of reasons. Some students saw vocational education as a stepping stone to higher education; others wanted to gain the skills and qualifications to be a ‘voice’ in the community; and some students wanted a career pathway. As one student commented:

[I] had [a] lame job with minimum wage – moved from job to job – did not earn enough. I wanted to get a good paying job. Can’t get ahead in life without a degree. VET is the first step in education. It’s pointless in life earning the minimum wage.

Although the Charles Darwin University students were highly motivated to complete their studies, they faced a number of challenges. As the following comment indicates, financial difficulties and a perceived lack of scholarships were common problems identified by the students:

[We] need more scholarships – particularly in first year. These scholarships are needed in first year not in third [year of a degree]. I struggle financially. Not having any money I dropped out for 6 months – got a job but came back to study. I need to live, pay rent and buy food. I got a credit card to make ends meet but got into debt with the card. [My] parents had to pay off the debt. [We] need accommodation scholarship in first year.

The cost and the availability of childcare was also another major issue students experienced:

A lack of childcare places at CDU – I have to go into Darwin each day for childcare – it’s the only placement available ... JET² cuts off without warning – and I am faced with a \$6000 childcare bill ... The cost of childcare, fees [is prohibitive] ... The JET program does help but only for two years.

Students also expressed concerns about the lack of a culturally appropriate and culturally safe space on campus. Their comments included, ‘We need to have culturally safe space and a sense of security ... a communal room – other students have taken over the room’. Students also commented on the campus accommodation:

Accommodation on campus is too noisy – too many parties. It is easier [financially] to live at CDU as living with others such as friends and family drains money but CDU is too noisy.

While the students had encountered a number of challenges in their study, they also commented on the opportunities and positive outcomes they had experienced. Employment opportunities, increased self-confidence and increased English language competence were some of the reported outcomes. Students also commented favourably on the tutorial support they had received. As one student said, ‘Three quarters of the [Indigenous] students would not have got over the line without tutor assistance’.

² JET: Jobs, Education and Training (JET) Child Care Fee Assistance provides extra help with the cost of approved childcare for eligible parents undertaking activities such as job search, work, study, training, or undertaking rehabilitation to enter, or re-enter, the workforce as part of an Employment Pathway Plan or Participation Plan.

Batchelor College focus group

The Batchelor College focus group cohort had very different experiences from the Charles Darwin University cohort. Their reported motivation to study included to gain competence in written and spoken English; to gain work-related skills; to understand the world beyond their community; and to communicate more effectively with the non-Indigenous community. The students' anecdotal comments indicate the range of reasons they were undertaking a VET program:

Come to learn more skills in writing and maths so as I can get a job in my community.

Need an education to help me in my job.

Need to communicate with white community.

To understand the world.

Have never been to school ... teachers help explain things.

The residential program in which the students were participating had a number of perceived advantages and disadvantages. The Batchelor environment was generally regarded as conducive to study. Students regarded the campus and student accommodation as a culturally 'safe' place. A number of students indicated that the campus environment was also comparatively 'quiet'. The lack of distractions on campus was also perceived as an advantage. As one student commented, 'My neighbourhood is very noisy so this environment is very quiet'.

Students expressed satisfaction with a range of matters associated with their residential course. They commented favourably on the food, the lecturers, the library and the opportunity to work with other students. The aspects of the program the students expressed dissatisfaction with included having to spend time away from the family and the community and having to forfeit pay to attend the course. As indicated by the following comments, the comparative isolation from their family and community was a concern for a number of students: 'When we come here a long time we worry about family'; 'Missing children'; 'Missing home ... don't like being away from my family'.

Some students also felt linguistically isolated. The majority of students spoke a language other than English at home. However, on campus English and Creole were the only common languages of students, tutors and lecturers. Communicating in English or Creole 24 hours a day was difficult for some students. As one student commented, '[It is] ... hard having to speak in English or Creole all the time with other students – no one here speaks language'.

The aspects of the course the students would like to see improved included tutorial support in their community; a designated place in their community to study; additional resources such as books and computers in their community; more countrymen and women in the course; and the opportunity to communicate in language with other students.

Summary of qualitative data

The qualitative data sourced from the interviewees and the focus group participants indicated that students were motivated to enrol in VET courses for a number of reasons. The most commonly cited motives for undertaking VET studies were employment-related. Students also wanted to contribute to the Indigenous community and perceived that a qualification and enhanced written and spoken English would enable them to be a 'voice' for Indigenous people. Increased confidence, self-esteem and self-efficacy were also factors that motivated students to enrol in VET courses. Enhanced

employment and career opportunities and increased self-confidence were also commonly reported positive outcomes of the study undertaken.

The majority of students had been enrolled in previous VET courses. Some students had utilised the pathway from VET to gain entry into higher education. The majority of these students reported receiving credit for the studies undertaken in VET. The students generally felt that their VET courses were relevant and had prepared them for higher education studies. However, the students' anecdotal comments also indicated that the academic focus, the increased workload and the emphasis on online learning in higher education did provide a challenge for some.

All of the interviewees and focus group participants received some form of financial assistance to undertake their studies. The majority of students received financial assistance from more than one source. Students studying at Batchelor received more financial support from their family and community than all other students. Eighty per cent of the students studying with a private provider received financial assistance from their employer.

Interview and focus group comments from Charles Darwin University students indicated that financial constraints were an inhibiting factor in their efforts to continue studying. These students also reported a lack of available scholarships to assist financially with the cost incurred in undertaking study. The lack of childcare places on campus at Charles Darwin University was also an issue for a number of students.

All students also received some form of additional support. This support included tutorial assistance; transport; accommodation; books; computer assistance; time off work; and cultural leave. However, the type of assistance received varied between institutions and individuals. The students studying at Batchelor College had to relocate to undertake their studies. Consequently, these students received additional support in the form of food, accommodation and transport.

A culturally 'safe' environment to undertake study was also perceived as important. The students generally regarded the environment at Batchelor College as 'quiet' and conducive to study. The environment at Charles Darwin University, particularly the on-campus accommodation, was reported as 'noisy' and distracting.³

The majority of students were very satisfied with the quality of their course. Students expressed a high level of satisfaction with their lecturers and tutors, the cultural appropriateness of the course and the opportunity to interact with other Indigenous students. However, a number of Batchelor students felt both linguistically and socially isolated. The separation from family and community was quite acute for a number of students. Anecdotal comments indicated that the students from very remote communities also experienced a lack of study space, resources and tutors in their home community.

³ At the time of the interviews and the focus group conducted with CDU students, the Australian School of Indigenous Knowledge which is located on CDU campus was in the process of moving into a new building. Consequently, the school had relocated to a temporary shared teaching space. In the time since the focus group was conducted, a new on-site residence for Indigenous students has opened at CDU.

Conclusion

The pathways Indigenous students take from post-compulsory education to paid employment are multiple and varied. These pathways are not necessarily linear or sequential. As evidenced in this report, Indigenous people perceive the acquisition of employment-related skills as a means to enhance their employment and career prospects and an opportunity to engage with further education and the broader community. Consequently, the VET sector has an important role in equipping Indigenous students with the knowledge and skills required to participate in paid employment and the mainstream economy. For Indigenous people, participation in VET can provide a pathway to employment, a career, re-employment or higher education.

As indicated in this report, a significant number of Indigenous people in the Northern Territory participate in VET. The means of engaging with vocational education includes, but is not restricted to, residential programs, full-time study, part-time study and the mainstream on-campus experience. Although the percentage of Indigenous enrolments in vocational education at Charles Darwin University is relatively high by comparison with the national average, the pattern of Indigenous enrolment, completion and attrition is broadly consistent with national rates.

In the vocational education sector at Charles Darwin University, Indigenous enrolments were characterised by the proportionally low number of enrolments by comparison with non-Indigenous enrolments, a high concentration of male students, the relatively young age of the student cohort, a high concentration of students in certificate I and II courses and a small number of graduands at the certificate IV and diploma levels. By comparison with the non-Indigenous cohort, student retention and completion rates were also extremely low and attrition was high.

As evidenced in this report, Indigenous students are more likely to enrol in higher-level VET courses after gaining employment. Perceived enhanced career prospects, employer support and work-related requirements were the main inducements to engaging in certificate IV and diploma courses. Despite the high rate of non-course completions, the interviewees' experience of the VET sector was generally positive. All interviewees perceived their VET study had provided them with an increased range of opportunities. Improved employment prospects, greater career opportunities and increased work-related responsibilities were commonly cited positive outcomes of the interviewees' VET experience. Students also reported increased confidence, increased proficiency in written and spoken English, increased educational opportunity and an improved capacity to assist family, friends and the community.

Students living in urban and regional areas had relatively easy access to VET. However, the lack of training facilities, resources and tutors in the more remote areas of the territory required students from these locations to temporarily relocate to Batchelor in order to undertake education. Although students regarded the campus at Batchelor as a 'culturally safe' environment, they commented on the physical, social and linguistic isolation they experienced as a result of having to relocate. The educational disadvantage associated with 'remoteness' was reflected in the comparatively low level of courses the students were undertaking, the nature of their courses, their proficiency in spoken and written English and their comparatively high unemployment rate.

For the students who had completed a certificate IV, the pathway from vocational to higher education was a viable option. However, due to the low pool of graduands at the certificate IV, diploma and advanced diploma levels, this pathway was underutilised. The students who had progressed from

vocational education to higher education at Charles Darwin University generally felt that their previous study was relevant. However, some students felt unprepared for the more academic environment of higher education. A number of students indicated they required more computer assistance; assistance with Learnline, the online learning platform; and information on available financial support. Financial constraints, a lack of available on-campus childcare and a perceived lack of 'culturally safe' study space and accommodation were identified as significant issues for a number of students. These issues may be contributing to the high Indigenous attrition rate that occurs in the first year of undergraduate and second year of postgraduate studies.

In the period 2000–09 Indigenous students represented fewer than 5% of the higher education cohort at Charles Darwin University. However, the gap between Indigenous and non-Indigenous higher education participation was most significant in the area of postgraduate study, where Indigenous students represented fewer than 0.7% of the total postgraduate enrolments.

Indigenous students utilised a variety of pathways to obtain admission into higher education at Charles Darwin University. The most frequent basis of admission was previous higher education study, followed by alternative pathways (including 'mature-age', 'tertiary enabling program' and 'other'), secondary education results and vocational education studies. The higher education courses with relatively high Indigenous enrolments were in the areas of nursing and education, followed by law, business, and behavioural studies. Indigenous interest and potential employment prospects in the areas of nursing and education are high and, as a consequence, courses in these areas attract student enrolments.

Indigenous engagement with higher education programs was characterised by a high attrition rate, a high rate of non-completions and a low graduation rate. In the period 2000–09 approximately 25% of undergraduate and 46% of postgraduate students completed their courses. In terms of actual student numbers this equates to fewer than 80 higher education graduands per year.

Increasing Indigenous retention, completion and progression rates in both the VET and higher education sectors is crucial to closing the gap between Indigenous and non-Indigenous education and employment outcomes. It is particularly important to increase the pool of potential graduands at the certificate IV and diploma levels as these qualifications not only provide greater career opportunities but also a pathway to higher education. Additional financial support, increased access to advice and information, employer support and targeted academic assistance may also help to stem the high attrition rates that occur in both the VET and higher education sectors. Indigenous higher education students in particular require targeted assistance in their first year of study.

Due to the relatively small number of Indigenous students participating in undergraduate and postgraduate programs, their visibility in these programs is low. The volume of students who transition from VET to higher education is minimal and there is limited research on the role of dual-sector universities in increasing Indigenous access to education and improved employment outcomes. Although dual-sector institutions such as Charles Darwin University and Batchelor College are well placed to extend the pathway from VET to higher education, this pathway is constrained by physical, cultural, financial and intuitional barriers that will require innovative solutions to overcome. As Bradley et al. (2008) acknowledged, education can transform the lives of individuals and, through them, their communities. However, it will take a significant effort on the part of all stakeholders to enable Indigenous students to realise their personal and professional aspirations.

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Appendix 1

Demographic information

This section provides information on the demographics of the interview participants. It includes a description of the gender balance of the interviewees, the age range, residential location, number of dependants, their English language competence, the mode of study undertaken, the qualification undertaken and their previous educational history, as well as their employment status.

Of the 29 interviewees 31% were male and 69% were female. Approximately 24% of the interviewees were under 25 years of age; 24% were in the 25 to 34-year age range; 28% were in the 35 to 44 age-group; and 24% were over 44 years of age.

Approximately 48% of interviewees resided in an urban location; 21% lived in the rural area; and 31% were from a remote or very remote location. All of the students from the remote region had relocated to undertake their studies. The students who relocated were undertaking their studies by block release at Batchelor College. Approximately 88% of these students relocated as there was no training provision close to their usual place of residence.

The majority of interviewees had a number of dependants. The dependants ranged from one, to more than five. Approximately 21% had one dependant; 10% had two dependants, 14% had three dependants; 7% had four dependants; and 10% had more than five dependants. The remainder – 38% – had no dependants. The students studying at Batchelor College had the most dependants.

The interviewees' competence with English varied. For 76% of the interviewees, English was the main language spoken at home. The remainder spoke either an Aboriginal or Torres Strait Islander language. Approximately 80% indicated they were fluent in English; 3% indicated they spoke 'reasonable' English; and 17% had 'trouble' with English. The interviewees from Charles Darwin University and the private providers all indicated they spoke English fluently. Approximately 66% of the interviewees from Batchelor College either spoke 'reasonable' English or had 'trouble' with English.

The majority of the students – 69% – were studying, or had studied part-time. The remainder – 31% – had undertaken full-time study. Approximately 70% of the Charles Darwin University interviewees and 40% of the Alana Kaye interviewees had undertaken full-time studies. All of the students at Batchelor College and the Council for Aboriginal Alcohol Program Services had undertaken part-time studies.

The employment status of the interviewees varied. Approximately 59% were engaged in full-time employment; 10% were employed part-time; and 31% were either looking for work or undertaking volunteer activities. The Batchelor College cohort had proportionally the least number of students engaged in paid employment. Eighty per cent of the students studying with a private provider and 30% of students studying at Charles Darwin University were employed full-time.⁴ Approximately 48% of interviewees acknowledged that family commitments also occupied significant amount of their available time.

The qualifications the students were undertaking ranged from certificate I to certificate IV. Approximately 55% were undertaking courses at the certificate I, II or III levels. Approximately 45% were undertaking a course at the certificate IV level. A significant number of these students were undertaking, or had undertaken, the Certificate IV in Training and Assessment (approximately 54%).

⁴ See section on limitations of study.

Students undertaking this qualification included all of the interviewees from Alana Kaye Training, two of the interviewees from the Council for Aboriginal Alcohol Program Services and two interviewees at Charles Darwin University.

The majority of students from remote or rural locations were undertaking studies at the certificate I, II and III levels. The majority of urban students were undertaking a certificate IV course.

Approximately 80% of the interviewees had undertaken previous study. Almost 35% of the previous study was at the certificate I or II level; 41% was at the certificate III or IV level and 10% was at the diploma or advanced diploma level. Two interviewees had previously undertaken studies in higher education.

Of the students who had undertaken prior study, approximately 57% indicated they had 'completed all' of their previous studies and 43% had completed 'some but not all' of their studies. The reasons cited for early course withdrawal included:

- Did not complete some courses because school discontinued the course.

- Lost interest.

- Did not complete because did not have enough time.

- Had to go back to work.

- Confused about course requirements.

Support document details

Additional information relating to this research is available in *Vocational education, Indigenous students and the choice of pathways: support document*. It can be accessed from NCVET's website <www.ncver.edu.au/publications/2603.html> and gives details of interview and focus group questions.

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