

NATIONAL VOCATIONAL EDUCATION
AND TRAINING RESEARCH PROGRAM

RESEARCH REPORT

A half-open door: pathways for VET award holders into Australian universities

Louise Watson
Pauline Hagel
Jenny Chesters

THE EDUCATION INSTITUTE
UNIVERSITY OF CANBERRA



Australian Government
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Level 11, 33 King William Street, Adelaide SA 5000

PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

P +61 8 8230 8400 F +61 8 8212 3436 E ncver@ncver.edu.au W <www.ncver.edu.au>

About the research

A half-open door: pathways for VET award holders into Australian universities

Louise Watson, Pauline Hagel and Jenny Chesters, University of Canberra

Effective pathways from vocational education and training (VET) to higher education increase access both to higher qualifications and lifetime earnings for people holding VET awards. However, there is substantial variation in the proportion of students admitted to different higher education institutions on the basis of a VET award. This paper investigates the extent to which these differences are the product of factors associated with specific fields of study or the result of varying institutional policies and practices.

The authors use cluster analysis to identify three groups (clusters) of institutions with similar patterns of admission of VET award holders across most fields of education. The universities in Cluster 1 admit relatively high proportions of VET award holders in all fields of education. Cluster 2 contains universities where the rate of admission of VET award holders is more haphazard between fields of study but is close to the national average overall. The universities in Cluster 3 admit VET award holders at rates consistently below the national average for nearly every field of study. Not surprisingly, the Group of Eight Universities sits within Cluster 3, probably a consequence of their status and the high level of competition for places from school leavers.

Key messages

- University policies and practices appear to influence the rate at which institutions admit students on the basis of a VET award. While all Australian universities have policies to promote VET to higher education pathways, there are subtle differences between universities in the way these policies are implemented.
- Inconsistencies in the policies and practices of universities mean that access for VET award holders will differ and depend on the university to which they apply. Consequently, this may restrict the access of VET award holders to higher education in some regions.

The authors argue, on the basis of the wide variation in admission rates across universities, that their analysis dispels the view that some fields of study 'lend themselves' more to VET to higher education pathways than others.

Rod Camm
Managing Director, NCVET

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Executive summary

Australia has a national policy framework to promote student pathways from vocational to higher education. Under the Australian Qualifications Framework (AQF) pathways policy, institutions in both sectors are expected to have ‘clear, accessible and transparent policies and processes to provide qualifications pathways and credit arrangements for students’ (Australian Qualifications Framework Council 2011, p.66). To be eligible under the FEE-HELP student loans scheme, vocational education and training (VET) courses at the diploma level or above must have at least one approved credit transfer arrangement to a bachelor degree with a higher education provider (Australian Government 2011).

But the effectiveness of a VET to higher education pathway cannot be assured through credit transfer arrangements alone. Some of the most generous credit transfer arrangements can be so poorly conceived that they may compound the disadvantage faced by students admitted to university on the basis of a VET award (Harris, Rainey & Sumner 2005; Watson 2006). A commitment by institutions in both sectors to create viable VET to higher education pathways and to support students on these pathways at critical transition points remains a key factor in supporting the successful transition into university by VET graduates. However, in the view of Walls and Pardy (2010), the institutional arrangements put in place by providers to create and support VET to higher education pathways are highly variable: ‘the formal structuring of articulation between VET and higher education occurs on a spectrum ranging from well-organised to haphazard’ (Walls & Pardy 2010, p.25).

While the proportion of students admitted to higher education on the basis of a VET award nationally is now around 10%, there is considerable variation in the rates of admission between higher education institutions. This study aimed to investigate the extent to which these differences were the product of the discipline mix of each university (that is, factors related to the field of study) or the result of institutional policies and practices (that is, factors related to the university), while acknowledging that the latter may or may not be the product of explicit decisions by universities based on their perceived ‘competitive position’.

The first section of this report presents data on the distribution of VET award holders between universities and jurisdictions in Australia, the characteristics of VET award holders in higher education, and variations between fields of education.

In the second section of the report, the authors use cluster analysis to investigate differences between universities and fields of education. The analysis is conducted in three parts. First, clusters of institutions are identified; second, the fields of education are clustered to identify patterns of admissions within them; and, finally, each university is profiled by their institutional and broad fields of education cluster.

The third section explores the admission rates of VET award holders by field of education (FOE) and the interaction between the institutional factors and fields of education revealed in the cluster analysis, drawing on the findings of a detailed analysis of four broad fields of education (given in the support document).

The final section examines institutional policies and practices in regard to VET to higher education pathways, with the aim of understanding differences between the practices of universities in each cluster and how these may influence the admission rates of students on the basis of a VET award.

Findings

This study, which explores patterns of admission of VET award holders into 37 publicly funded Australian universities by institution and field of education, uses administrative data from the VET and higher education sectors.¹

The cluster analysis that examined differences in the proportion of VET award holders admitted to each university within the 12 broad fields of education enabled the authors to identify three groups (clusters) of institutions with similar patterns of admission of VET award holders across most fields of education.

The seven universities in Cluster 1 admit relatively high proportions of VET award holders in all fields of education, with an average rate of 19% overall. These universities enrol 24% of all undergraduate commencing students.

Cluster 2 contains 16 universities where the rate of admission of VET award holders is more haphazard between fields of study but is close to the national average overall (10%). While some universities in this cluster admit relatively high proportions of VET award holders in particular fields of education, unlike the universities in Cluster 1 the rates are not consistently high across all fields. Universities in Cluster 2 account for 38% of commencing undergraduate enrolments.

The 14 universities in Cluster 3 admit VET award holders at rates consistently below the national average for every field of study, with a few exceptions in specific fields.² Overall, the average rate of admission of VET award holders for Cluster 3 universities is 3%. Cluster 3 universities' share of the undergraduate commencing student load is 38%.

Australia's five dual-sector universities are distributed between Clusters 1 and Cluster 2, which dispels the common assumption that VET to higher education pathways are the 'business' of dual rather than single-sector universities.

The findings suggest that variations in the rate of admission of students on the basis of a VET award between fields of education are related to the policies and practices of universities, rather than to any characteristics specific to the field of education. Questioning the assumption that some fields of education 'lend themselves' more to VET to higher education pathways than others, the authors point out that the admission rates of VET award holders by Cluster 3 universities are consistently low across all fields of education, with only a few exceptions. They also note that in fields where Cluster 3 institutions are the dominant providers, the national admission rate of VET award holders is lowest, whereas in fields where Cluster 3 institutions have the lowest enrolment share, the national admission rate of VET award holders is highest.

From a review of institutional policies and practices, the authors conclude that, while all universities have policies to promote VET to higher education pathways, there are subtle differences in the way by which universities implement their pathways policies. Universities in Cluster 1, for example, have a central coordinating unit responsible for promoting the pathways policy that reports directly to a high-level central administrator such as a Deputy Vice-Chancellor. Cluster 1 institutions are also more

¹ The authors used the NCVET Student Outcomes Survey and Commonwealth data on admission rates for commencing undergraduates in the 12 broad fields of education (FOEs) identified by the Australian Bureau of Statistics (ABS) in its Australian Standard Classification of Education (ASCED) 2001.

² These exceptions include Monash University's education degree (FOE 7) where 24% of undergraduate commencements are admitted on the basis of a VET award and the University of Southern Queensland's engineering program (FOE 3) where 14% of commencing students are VET award holders – rates that are significantly higher than the national average rate for these fields.

likely to have administrative structures in place to support VET to higher education pathways at the faculty level as well as lines of reporting that hold faculties to account for their admission and progression rates of VET award holders. While some universities in Clusters 2 and 3 also reported having a central person or office responsible for pathways, VET partnerships, or articulation agreements, the management and reporting relationships in these universities were not as clearly defined as for universities in Cluster 1. Strong central leadership and accountable line management, as well as close monitoring of student admission and progression rates, appear to be key features of institutional practice in universities which are successful in admitting high numbers of VET award holders across all fields of study.

The authors suggest that the low rates of admission of VET award holders in Cluster 3 universities should be a policy concern for several reasons.

First, as VET award holders' likelihood of gaining admission to higher education appears to be influenced by the policies and practices of individual universities, access to undergraduate programs for VET award holders is not equal across the higher education system. Thus VET award holders seeking admission to higher education within a given field of study will experience different levels of access, depending on the university to which they apply. As a VET award-holder's choice of universities will be determined by where he or she lives and works, VET to higher education pathways are not available to all potential applicants on the same basis, thus constraining the access of some VET award holders to higher education.

Second, the financial burden of supporting VET award holders admitted to higher education falls more heavily on some universities than others. One-third of universities provide two-thirds of the VET to higher education pathways, with 68% of VET award holders shared amongst only 12 Australian universities. The seven universities in Cluster 1 account for less than one-quarter (23%) of all undergraduate commencing students, yet enrol almost half (46%) of all students admitted on the basis of a VET award. As the creation of strong VET to higher education pathways and the provision of additional support – both pastoral and academic – to VET award holders during their first year of study consumes scarce university resources, the universities in Cluster 1 currently bear a disproportionate share of the cost of building and delivering VET to higher education pathways in Australia.

Finally, the low rates of admission of VET award holders in Cluster 3 universities could be exacerbating national skills shortages in occupations where these universities are the dominant providers. In the field of engineering, for example, the 14 universities in Cluster 3 account for well over half of all undergraduate commencements; yet, these institutions admit only 3.3% of students on the basis of a VET award. In contrast, the Cluster 1 universities, which enrol one-fifth of all undergraduate commencing students in engineering, admit over 17% on the basis of a VET award and universities in Cluster 2 (which account for one-quarter of all engineering undergraduate commencements) admit over 10% of engineering students on the basis of a VET award. To the extent that the creation of strong VET to higher education pathways serves to increase the output of higher education graduates, the high enrolment share of Cluster 3 universities in fields experiencing national skills shortages, such as engineering, should be of concern to governments, industry and employers.

VET award holders in Australian universities

The number of domestic students admitted to Australian universities on the basis of a VET award has increased by 75% over the past decade. In 2001, only 12 916 students were admitted to undergraduate programs on the basis of a VET award, compared with 22 676 in 2010. The number of students admitted on the basis of a VET award has increased at a higher rate than groups admitted on any other basis, as shown in table 1.

Table 1 Commencing domestic undergraduate students by basis of admission, 2001 and 2010, Australia

Basis of admission	2001		2010		2001–10
	Students	%	Students	%	Change (%)
Higher ed. course	41 785	23.0	53 532	24.2	28.1
Secondary school	83 388	45.9	99 564	44.9	19.4
VET award	12 916	7.1	22 676	10.2	75.6
Other	43 555	24.0	45 799	20.7	5.2
All students	181 644	100.0	221 571	100.0	22.0

Notes: 'Commencing students' includes students admitted to undergraduate, enabling and non-award programs. 'Other' includes mature age, professional qualification, other basis and unknown.

Source: Department of Education, Employment and Workplace relations, Higher Education Statistics Collection (published and unpublished data).

In total, over 30 000 students are admitted to Australian universities on the basis of holding a VET award, and one-quarter of them (7450 students) are from overseas. Students admitted on the basis of a VET award now comprise 10% of all commencing students at the undergraduate level (both domestic and overseas).

Students admitted to undergraduate programs on the basis of a VET award are on average slightly older than other students and are more likely to be studying part-time. Aboriginal and Torres Strait Islanders appear to be underrepresented in the group of VET award holders admitted to higher education. (See the analysis provided in the supporting document.) As characteristics such as being older and having work and family responsibilities are known to have an adverse impact on completion rates for all undergraduate students, the challenges faced by many VET award holders admitted to university could be compounded.

Distribution of VET award holders between universities

While 37 publicly funded Australian universities³ admit students on the basis of a VET award, their share of VET award holders admitted to undergraduate programs in higher education varies. For example, three institutions – Charles Sturt University, RMIT University and the University of Western Sydney – account for over 28% of total undergraduate enrolments of students admitted on the basis of a VET award.

³ This study excludes Batchelor Institute of Indigenous Tertiary Education, which admits no VET award holders.

One-third of Australian universities – 12 universities in total – provide two-thirds of the pathways for VET award holders into higher education. The 12 universities catering for VET award holders in large numbers are: Charles Sturt University; RMIT University; University of Western Sydney; Griffith University; Deakin University; Edith Cowan University; La Trobe University; Swinburne University; Victoria University; University of South Australia; University of Newcastle; and University of Tasmania.

There are some differences in the distribution of VET award holders between states and territories, in that Victorian universities have a higher share (32%) of all students admitted to higher education on the basis of a VET award, compared with the Victorian share of total enrolments (24%).

As the number of VET award holders admitted to any given university will be influenced by the size of the institution, it is more reasonable to compare institutions in terms of the proportion of the entirety of their undergraduate commencing students who are admitted on the basis of a VET award.

Rate of admission of VET award holders by university

Figure 1 illustrates the proportion of each institution's commencing undergraduate population comprised of students admitted on the basis of a VET award and the institutions that perform above and below the national rate of 10%.

It has been suggested that being a dual-sector provider offers an explanation for the different rates of admission of VET award holders between universities.⁴ While this issue is also explored later in this report, the analysis so far does not support this assumption. While two of Australia's dual-sector universities – RMIT University and Swinburne University – admit VET award holders at twice the national rate, the other three dual-sector universities – Charles Darwin University, Victoria University and the University of Ballarat – do not. The university which admits the highest proportion of VET award holders – Charles Sturt University (26%) – is not a dual-sector institution. Three single-sector institutions – University of Western Sydney, Edith Cowan University and Deakin University – admit VET award holders at similar rates to the dual-sector Victoria University (16–17%).

Overall, one-third of Australian universities provide two-thirds of the VET to higher education pathways. Some 12 institutions enrol 68% of all students admitted on the basis of a VET award, while the remaining 25 universities accommodate one-third. VET award holders are also distributed unevenly between the states, with Victorian universities accounting for a disproportionately large share of VET award holders commencing higher education courses, followed by New South Wales. By contrast, in Queensland, Western Australia and South Australia, VET award holders are underrepresented in undergraduate higher education courses. (See support document for details.)

Admission rate of VET award holders by field of education

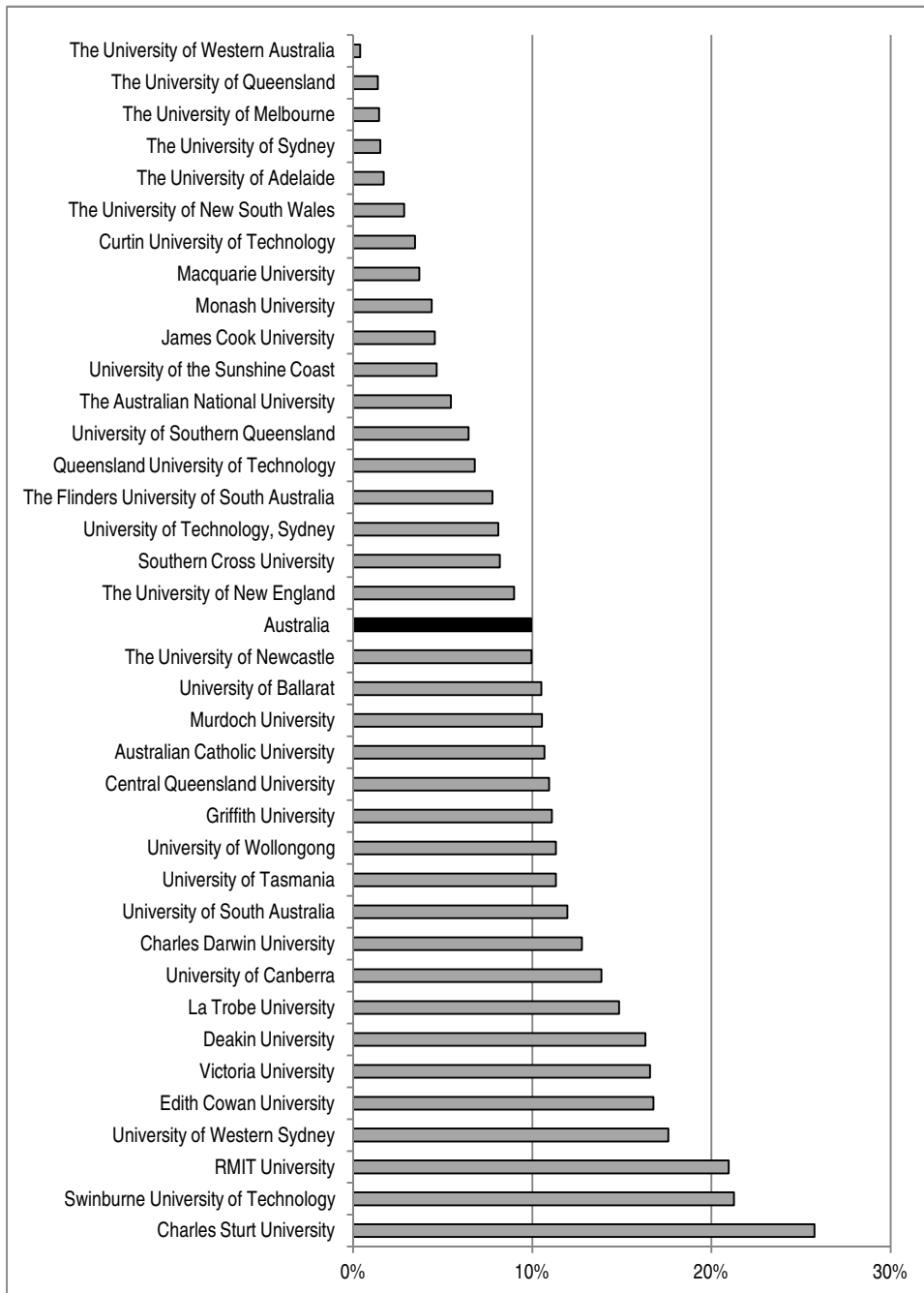
Field of education also appears to impact on the admission rate of VET award holders to university. As shown in table 2, the fields of education where VET award holders are admitted at rates above the national average rate of 10% include education (FOE 07): 14.9%; information technology (FOE 02): 14.2%; management and commerce (FOE 08): 13.0%; health (FOE 06): 11.7%; architecture and building (FOE 04): 10.2%.

However, there are considerable differences in the size of the total undergraduate student population in each field of education, as shown in table 2. Large fields such as society and culture (FOE 09) and management and commerce (FOE 08) each account for one-fifth of the entire undergraduate commencing student population (over 20% each). The field with the highest admission rate of VET

⁴ Comment by an anonymous reviewer.

award holders – education (FOE 07) – represents 11.5% of all undergraduate commencements, and information technology accounts for only 3.6% of student commencing load. Thus, the rate of admission of VET award holders in large fields has an impact on the overall admission rate of VET award holders nationally.

Figure 1 Proportion of total undergraduate commencements admitted on the basis of a VET award (domestic and overseas), by institution, Australia, 2010



Source: Department of Education, Employment and Workplace Relations, Higher Education Statistics Collection unpublished data (2010).

While the rates of admission of VET award holders to undergraduate programs vary by broad field of education, we cannot assume that this is due entirely to the characteristics of specific fields. It may also be the result of the policies and practices of universities that dominate undergraduate provision in some fields. This issue is explored in more detail in the final section of this report.

Table 2 VET award holders and all undergraduate commencements by broad field of education,⁵ Australia, 2010

No.	Broad field of education (FOE)	All undergraduates		VET award holders	
		Students	Share (%)	Students	% of all students
01	Natural and physical sciences	25 522	8.0	932	3.7
02	Information technology	11 457	3.6	1 622	14.2
03	Engineering and related technologies	19 786	6.2	1 469	7.4
04	Architecture and building	6 798	2.1	694	10.2
05	Agriculture, environmental and related studies	3 781	1.2	218	5.8
06	Health	40 823	12.9	4 778	11.7
07	Education	23 391	7.4	3 494	14.9
08	Management and commerce	71 650	22.9	9 288	13.0
09	Society and culture	66 411	20.9	5 514	8.3
10	Creative arts	23 854	7.5	1 995	8.4
11	Food, hospitality and personal services	0	-	0	-
12	Mixed field programs	6 229	2.0	217	3.5
-	Non-award	16 868	5.3	77	0.5
All fields of education		317 670	100.0	30 298	9.5

Notes: Due to the coding of some students in combined programs to two fields of education, the totals can be higher than the total number of students and the size of the difference varies between fields of education.

Source: Department of Education, Employment and Workplace Relations, Higher Education Statistics Collection, unpublished data (2010).

⁵ The Commonwealth higher education collection uses ASCED definitions to classify student enrolments as well as a further category called 'non-award courses'.

VET to higher education pathways by university

The admission rate of VET award holders in each field of education also varies by university. This section examines the variations between institutions and fields of education using cluster analysis. This technique was used to group together universities most similar to each other in terms of their percentage of admissions on the basis of a VET award in the ten broad fields of education. (For a discussion of this methodology, see the support document.)

The three clusters of institutions that emerged from the cluster analysis are shown in table 3. Institutions within each cluster are listed in order of the proportion of students they admit on the basis of a VET award (in parentheses).

Table 3 Institutional clusters on admission on the basis of a VET award: size and membership, 2010

Cluster 1 (n = 7, student load: 24%)	Cluster 2 (n = 16, student load: 38%)	Cluster 3 (n = 14, student load: 38%)
19%	10%	3%
Charles Sturt University (26%)	La Trobe University (15%)	Flinders University (7%)
RMIT University (21%)	University of Canberra (13%)	University of Southern Queensland (6%)
Swinburne University (20%)	Charles Darwin University (12%)	Australian National University (5%)
University of Western Sydney (17%)	University of South Australia (12%)	James Cook University (4%)
Victoria University (16%)	University of Ballarat (11%)	University of the Sunshine Coast (4%)
Edith Cowan University (16%)	University of Tasmania (11%)	Monash University (4%)
Deakin University (16%)	Griffith University (11%)	Macquarie University (3%)
	University of Wollongong (11%)	Curtin University (3%)
	Central Queensland University (11%)	University of New South Wales (3%)
	Murdoch University (10%)	University of Sydney (2%)
	Australian Catholic University (10%)	University of Adelaide (1%)
	University of Newcastle (10%)	University of Melbourne (1%)
	University of New England (9%)	University of Queensland (1%)
	Southern Cross University (8%)	University of Western Australia (0%)
	University of Technology, Sydney (8%)	
	Queensland University of Technology (7%)	

Cluster 1 contains seven universities with consistently high rates of admission of students on the basis of a VET award in most fields of education where they offer undergraduate programs. The rate of admission on the basis of a VET award for this cluster is 19% compared with 10% for the sector as a whole. This cluster contains three of the five dual-sector institutions in Australia – RMIT University, Swinburne University and Victoria University. However, the institution with the highest rate of admissions on the basis of a VET award is single sector – Charles Sturt University. Four of the seven universities in this cluster are based in Victoria, two in New South Wales and one in Western Australia. Cluster 1 institutions enrol almost 24% of all undergraduate commencing students.

Sixteen universities are grouped in Cluster 2. Universities in Cluster 2 also have relatively high rates of admission of VET award holders but these are not consistently high across all fields of education where the university has undergraduate programs. This cluster contains the remaining two dual-sector universities – Ballarat University and Charles Darwin University – but these universities do not have

the highest proportion of students admitted on the basis of a VET award within the cluster. Two single-sector institutions – La Trobe University and the University of Canberra – admit the highest proportion of VET award holders for the cluster. All states and territories are represented in this cluster. The average proportion of undergraduates admitted on the basis of a VET award in Cluster 2 is 10%, which is the same rate as for the sector as a whole (10%). As a group, Cluster 2 institutions cater for 38% of all undergraduate commencing students.

Cluster 3 comprises 14 universities with consistently low rates of admission of VET award holders in most fields of education. On average, only 3% of undergraduate commencing students are admitted to Cluster 3 universities on the basis of a VET award. All states and territories except Tasmania and the Northern Territory are represented in this group. Western Australia is somewhat overrepresented, with its two largest universities – Curtin University and the University of Western Australia – in Cluster 3. Cluster 3 institutions enrol 38% of all commencing undergraduate students.

Clusters of broad fields of education

To further understand the variation in admission rates by field of education, we performed a second cluster analysis on the ten broad fields of education in which Australian universities offer undergraduate programs, as shown in table 4.

Table 4 Clusters of broad field of education, Australia, 2010

	Broad field of education	Admissions on basis of VET award (%)
Cluster A	08 - Management and commerce (13%)	12
	10 - Creative arts (8%)	
	06 - Health (12%)	
Outliers	07 - Education (15%)	15
	02 - Information technology (14%)	
Cluster B	03 - Engineering and related technologies (7%)	8
	04 - Architecture and building (10%)	
Cluster C	05 - Agriculture, environmental and related studies (6%)	7
	09 - Society and culture (8%)	
	01 - Natural and physical sciences (4%)	

This clustering procedure grouped the ten fields of education into three clusters of FOEs and two outliers.⁶ Table 4 indicates the fields of education within each cluster and the admission rate of VET award holders for the cluster. These are labelled ‘Cluster A’, ‘Cluster B’ and ‘Cluster C’ to avoid confusion with the institutional clusters.

Cluster A contains the three broad fields of education in which undergraduate programs are offered by all universities. These three fields appear to cluster together because the admission rate of VET award holders for each of the fields of education is relatively consistent in most universities. Education (FOE 07) and information technology (FOE 02) are outliers and only join with Cluster A after several iterations. These two fields of education admit the highest percentage of VET award holders overall but most universities have a relatively high proportion of VET award holders in only one, not both, of these fields of education.

⁶ The dendrogram produced through the clustering procedure is provided in appendix A.4 of the support document.

Cluster B contains two fields of education, which have moderate to low rates of admission on the basis of a VET award. These two fields form their own cluster because there are a number of institutions that do not admit any VET award holders, despite offering programs in these fields.

Cluster C comprises three fields of education for which the average rates of admission on the basis of a VET award are all relatively low, where a substantial number of universities have no admissions on the basis of a VET award, and where those universities that report admissions tend to be either consistently high or consistently low.

Discussion

Combining the information about both the institutional and field of education clusters provides a clearer picture of the patterns of admission of VET award holders within and between clusters of universities. We now present data on the rates of admission of VET award holders by broad field of education for each of the universities in each institutional cluster. Within each institutional cluster, universities are listed in order of their rate of admission on the basis of a VET award. The shaded cells indicate that the university's rate of admission of VET award holders is above the sector average. Blank cells indicate that no enrolments are recorded against this field of education.

Table 5 Cluster 1 universities' rates of admission on the basis of a VET award by broad field of education cluster, Australia, 2010 (%)

Broad field of education (VET award-holder admission rate)	Field of education clusters										All
	Cluster A			Outliers		Cluster B		Cluster C			
	FOE08 (13%)	FOE10 (8%)	FOE06 (12%)	FOE07 (15%)	FOE02 (14%)	FOE03 (7%)	FOE04 (10%)	FOE05 (6%)	FOE09 (8%)	FOE01 (4%)	
Charles Sturt University	32	11	16	21	62			17	38	16	26
RMIT University	24	26	18	20	9	22	15	21	21	11	21
Swinburne University	28	24	54		23	11	19		15	19	20
University of Western Sydney	23	10	16	30	26	15	23		17	10	17
Victoria University	13	13	28	24	23	13			12	12	16
Edith Cowan University	28	11	20	13	33	14			15	7	16
Deakin University	17	11	18	28	17	20	28	14	11	6	16
Total Cluster 1	23	17	19	21	24	16	19	17	20	10	19

Notes: Shaded areas denote instances where the percentage admission is above the sector average. Blank cells indicate the university offered no courses in this field of education. A score of 0% may indicate that total enrolments are less than 10. Table excludes non-award and mixed field.

As illustrated in table 5, the universities in Cluster 1 admit VET award holders in proportions well above the sector average in each broad field of education where they have undergraduate programs, with only three exceptions: Victoria University in FOE 08; Edith Cowan University in FOE 07; and RMIT University in FOE 02.

By contrast, the rates of admission on the basis of a VET award within the universities that comprise Cluster 2 are more variable. This is indicated by the fewer number of shaded cells for Cluster 2 universities, where admissions of VET award holders are indicated as a percentage of total commencing students, as shown in table 6.

Table 6 Cluster 2 universities' rates of admission on the basis of a VET award by broad field of education cluster, Australia, 2010 (%)

Broad field of education (VET award holders admission rate)	Field of education clusters										All
	Cluster A			Outliers		Cluster B		Cluster C			
	FOE08 (13%)	FOE10 (8%)	FOE06 (12%)	FOE07 (15%)	FOE02 (14%)	FOE03 (7%)	FOE04 (10%)	FOE05 (6%)	FOE09 (8%)	FOE01 (4%)	
La Trobe University	23	11	12	19	19	0		0	12	6	15
University of Canberra	19	13	21	15	19		21	0	7	7	13
Charles Darwin University	15	0	31	12	0	18	0	0	11	0	12
University of South Australia	16	6	14	10	19	11	8	0	14	0	12
University of Ballarat	7	17	16	20	6	0			16	10	11
University of Tasmania	8	0	17	28	4	13	13	22	9	8	11
Griffith University	17	9	11	17	24	6	6	0	8	4	11
University of Wollongong	17	8	15	17	11	9		0	9	0	11
Central Queensland University	21	7	15	10	13	12	0		7	0	11
Murdoch University	8	7	18	23	11	16	15		8	10	10
Australian Catholic University	12	11	11	13			0		8		10
University of Newcastle	16	14	18	10	32	17	20	0	3	4	10
University of New England	8	9	19	17	22	0	0	0	5	7	9
Southern Cross University	7	6	10	7	18			10	12	0	8
University of Technology, Sydney	8	3	21	8	9	10	4		2	6	8
Qld University of Technology	8	4	8	7	16	7	7		5	4	7
Total Cluster 2	14	7	14	14	14	10	10	4	7	5	10

Notes: Shaded areas denote instances where the percentage admission is above the sector average. Blank cells indicate the university offered no courses in this field of education. A score of 0% may indicate that total enrolments are fewer than ten. Table excludes non-award and mixed field.

When we compare the rates of admission of VET award holders in Cluster 1 and Cluster 2 institutions by field of education through tables 5 and 6, it is clear that the provision of VET to higher education pathways in Cluster 2 universities is more haphazard than in Cluster 1. Whereas Cluster 1 institutions have consistently high rates of admission of VET award holders in all fields where they offer programs (with only three exceptions), Cluster 2 universities do not. This is not simply because Cluster 2 universities do not offer courses in those fields (which is indicated by a blank cell). It is also interesting to note that in the two dual-sector institutions in Cluster 2 – Charles Darwin University and the University of Ballarat – the patterns of admission on the basis of a VET award are as haphazard as other universities in the cluster.

Universities in Cluster 3 report consistently low rates of admission on the basis of a VET award in most of the fields in which they offer undergraduate programs. As indicated by the shaded cells in table 7, seven universities in Cluster 3 outperform the sector average in one or more broad fields of education. Of these seven universities, only two outperform the national rate in more than one field: Flinders University in FOE 08, FOE 09 and FOE 01; and the University of Southern Queensland in FOE 06 and FOE 03.

However, the other seven universities in Cluster 3 admit VET award holders at rates below the sector average in all fields of education. The seven universities with consistently below-average admission

rates of VET award holders in all fields are: James Cook University; Macquarie University; Curtin University; University of New South Wales; University of Sydney; University of Queensland; and University of Western Australia.

Table 7 Cluster 3 universities' rates of admission on the basis of a VET award by broad field of education cluster, Australia, 2010 (%)

Broad field of education (VET award holders admission rate)	Field of education clusters										All
	Cluster A			Outliers		Cluster B		Cluster C			
	FOE08 (13%)	FOE10 (8%)	FOE06 (12%)	FOE07 (15%)	FOE02 (14%)	FOE03 (7%)	FOE04 (10%)	FOE05 (6%)	FOE09 (8%)	FOE01 (4%)	
Flinders University of South Australia	15	0	7	5	0	0		0	9	5	7
University of Southern Queensland	6	1	13	12	0	14			8	4	6
Australian National University	11	0	0		0	5		0	5	5	5
James Cook University	4	6	5	15	0	0	0		7	0	4
University of the Sunshine Coast	7	6	8	8	0	0	0	0	9	0	4
Monash University	2	7	10	24	8	0	0	0	3	1	4
Macquarie University	4	8	0	8	5	0	0	0	3	3	4
Curtin University	2	2	6	8	0	2	5	0	4	4	3
University of New South Wales	1	8	0	3	0	1	10	0	3	1	3
University of Sydney	2	0	1	3	9	2	7	0	2	1	2
University of Adelaide	2	0	0	0	0	0	0	7	3	0	1
University of Melbourne	1	9	0			0	0	2	1	0	1
University of Queensland	1	2	1	4	0	0	0	3	2	1	1
University of Western Australia	0	0	0	0	0	0	5	0	0	0	0
Total Cluster 3	3	4	4	9	3	2	5	3	3	1	3

Notes: Shaded areas denote instances where the percentage admission is above the sector average. Blank cells indicate that the university offered no courses in this field of education. A score of 0% may indicate that total enrolments are fewer than ten. Table excludes non-award and mixed field.

Overall, this analysis suggests that universities within each of the Clusters 1, 2 and 3 are more similar than different in terms of their rates of admission of VET award holders by field of education. For example, in the four fields of education with the lowest national rates of admission of VET award holders (FOE 01, FOE 05, FOE 03 and FOE 09), the seven Cluster 1 universities report admission rates above the national average in all of these fields (table 5). This contrasts with the uniformly low rate of admission rates of VET award holders by Cluster 3 institutions in most fields (table 7). The influence of the three clusters on admission rates of VET award holders in specific fields is explored in more detail in the next section of this report.

VET to higher education pathways within fields of education

IT and Business are more practical degrees and VET lends itself best to these types of courses.

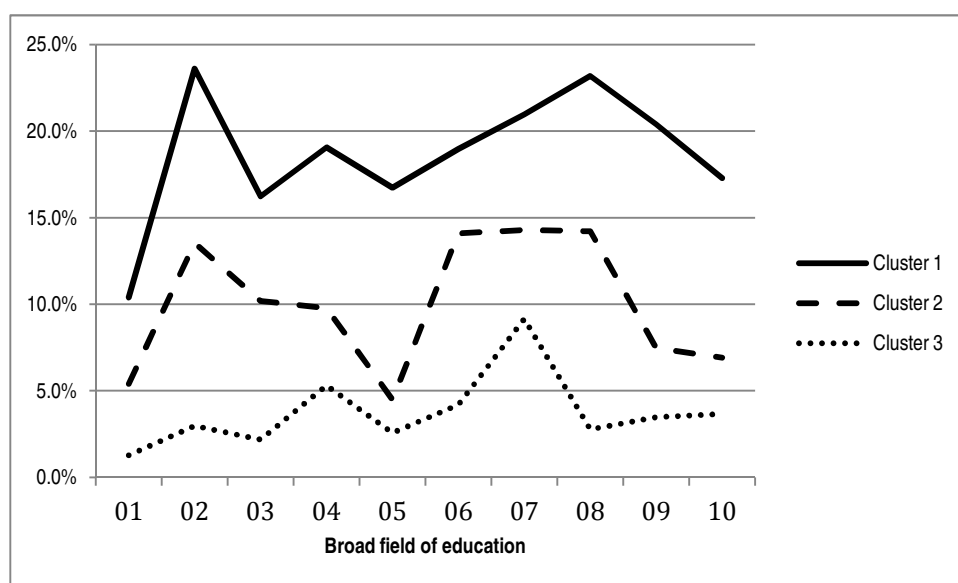
(Respondent, Cluster 1)

The variation in rates of admission of VET award holders by broad field of education could suggest that in some fields of study the traditional barriers to VET to higher education pathways have been addressed more effectively than in others. On the other hand, Australian universities fall into three distinct clusters with very different rates of admission of VET award holders, which appear to override any other factors in most fields. This is particularly the case among universities in Cluster 1 and Cluster 3, which demonstrate rates of admission of VET award holders that are either consistently high or consistently low across all fields, respectively. As the clusters of universities have differing shares of undergraduate student load in each field of education, it is possible that these differences in enrolment shares are influencing the national admission rates of VET award holders in each broad field of education. In this section we explore this issue by examining the rates of admission of VET award holders by broad field of education, using the three institutional clusters as an organising tool.

The influence of clusters on fields of education

The rates of admission to higher education on the basis of a VET award in 2010 for the three clusters of universities in each of the ten broad fields of education are illustrated in figure 2.

Figure 2 Average admissions on the basis of a VET award for each institutional cluster by broad field of education, Australia, 2010



As shown in figure 2, the pattern of admission rates of VET award holders for each field of education is similar for Clusters 1 and 2 universities. The main difference is that the rate of admission on the basis of a VET award in each field is consistently higher in Cluster 1 than in Cluster 2. For Cluster 3 universities, by contrast, not only are VET award admission rates lower than Clusters 1 and 2 on all fields of education but they are more uniformly low, with the exception of FOE07 (education). Moreover, the pattern of admission rates between fields for Cluster 3 universities is not the same as the patterns evident for Clusters 1 and 2. For example, Cluster 3 universities do not report the relatively high rates of admission of VET award holders in information technology (FOE 02) as the other two clusters.

The patterns in figure 2 appear to support the assumption that some fields of education ‘lend themselves’ more to VET to higher education pathways than others, at least in relation to the universities in Clusters 1 and 2, where the pattern of admission rates is broadly similar. However, any characteristics of the fields of education that ‘lend themselves’ to VET to higher education pathways appear to have little influence on the rates of admission of VET award holders by the institutions in Cluster 3, which have consistently low admission rates of VET award holders in most fields.

The low rates of admission of VET award holders in Cluster 3 includes fields such as information technology (FOE 02), health (FOE 06) and management and commerce (FOE 08), which admit VET award holders at rates above the national average (table 2). Of these three fields, management and commerce (FOE 08) has very large undergraduate intake, representing 23% of all undergraduate commencing student load. As all Australian universities offer undergraduate programs in management and commerce, it is useful to examine the patterns of admission of VET award holders by institutional cluster within this field, taking into account universities’ enrolment share.

In table 8, we present the top ten providers in the field of management and commerce (FOE 08), which together account for over 51% of all enrolments, and the rate at which each university admits students to this field on the basis of a VET award.

Table 8 VET award holders and all undergraduate commencements, by top ten providers of undergraduate programs in management and commerce (FOE 08), Australia, 2010

Institution (cluster)	All undergraduate commencements		VET award holders	
	Students	% total	Students	% all U/G
RMIT University (1)	6 674	9	1 595	24
Monash University (3)	4 576	6	90	2
Curtin University (3)	4 325	6	88	2
Griffith University (2)	3 998	6	681	17
Macquarie University (3)	3 644	5	140	4
University of Western Sydney (1)	3 298	5	772	23
La Trobe University (2)	2 698	4	617	23
Deakin University (1)	2 660	4	464	17
University of South Australia (2)	2 525	4	409	16
Queensland University of Technology (2)	2 443	3	196	8
<i>Sub-total</i>	<i>36 841</i>	<i>51</i>	<i>5 052</i>	<i>14</i>
Australia	71 650	100	9 288	13

Notes: Due to the coding of some students in combined programs to two fields of education, the totals can be higher than the total number of students and the size of the difference varies between fields of education.

Source: Department of Education, Employment and Workplace Relations, Higher Education Statistics Collection, unpublished data (2010).

As shown in table 8, institutions from all three clusters are represented in the top ten providers of undergraduate programs in management and commerce (FOE 08). However, the admission rates of VET award holders between the largest providers are polarised. Several large providers, such as RMIT University, Griffith University, University of Western Sydney and La Trobe University, admit VET award holders at rates of between 17 and 24%. In contrast, the second, third and fifth largest providers – Monash University, Curtin University and Macquarie University – admit VET award holders at rates of 2–4%. Thus the relatively high national admission rate of VET award holders (13.0%) in the field of management and commerce (FOE 08) reflects the average of a few large providers from each cluster with vastly different admission rates of VET award holders, ranging from two to 24%.

Table 9 Enrolment share and admission rates of VET award holders by institutional clusters in management and commerce (FOE 08), Australia, 2010

University cluster	All undergraduates		VET award holders	
	Students	Share (%)	Students	% of all students
Cluster 1	28 053	28	4 824	23
Cluster 2	26 968	37	3 778	14
Cluster 3	25 905	35	728	3
Total	71 650	100	9 288	13

Notes: Due to the coding of some students in combined programs to two fields of education, the totals can be higher than the total number of students.

Source: Department of Education, Employment and Workplace Relations, Higher Education Statistics Collection, unpublished data (2010).

As shown in table 9, total student load in management and commerce programs is spread quite evenly between the three clusters, with Clusters 2 and 3 each enrolling around one-third of total undergraduate commencing students, and Cluster 1 universities enrolling 28%. However Cluster 1 universities in this field are overrepresented in terms of their enrolment share (with 28% of management and commerce students compared with 24% of all students) and Cluster 3 universities are underrepresented (with 35% of management and commerce students compared with 38% of all students). The overrepresentation of Cluster 1 universities is therefore influencing the national rate and making it higher than it would be if universities from Cluster 3 were overrepresented in terms of their enrolment share.

From these data, we can infer that, if Cluster 1 and 2 universities ceased to offer undergraduate programs in this field, the proportion of VET award holders admitted to management and commerce programs nationally would be only 3%. Such an event would mean that the field of management and commerce would move from reporting the second highest rate of admission of VET award holders (13%) in Australia, to having the lowest rate of all fields.

Influence of discipline mix at the sub-field level

Another possible explanation for observed variation in admission rate of VET award holders between clusters might be the differences in the discipline mix of undergraduate programs. If the universities in Cluster 3 are offering distinctly different courses in terms of subjects and specialisations than other universities, this may be the reason for the low admission rates of VET award holders in Cluster 3 universities. We can explore this by examining universities' enrolment shares and rates of admission of VET award holders in narrow and detailed sub-fields within the broad fields of education.

Under the Australian Standard Classification of Education, each of the ten broad fields of education contains two further levels of disaggregation: narrow and detailed sub-fields. For example, the broad field of management and commerce (FOE 08) comprises the sub-fields of: accounting (0801); sales and

marketing (0803); tourism (0807); banking, finance and related fields (0811); and other management and commerce (0899). To explore the extent to which the differences in universities' specialised course offerings by sub-fields might influence the overall rate of admission of VET award holders by a university or cluster, we analysed admissions data at this level. The detailed analysis of sub-fields within four broad fields of education is provided in the support document. Our examination of the influence of course mix on admission rates of VET award holders reinforces the role of institution and cluster rather than the characteristics of fields or sub-fields on rates of admission of VET award holders into higher education.⁷

For example, within the broad field of engineering and related technologies (FOE 03), in the sub-field of electrical and electronic engineering (FOE 0305) VET award holders are admitted at almost twice the rate of the broad field (13.7% compared with 7.4%). As shown in table 10, universities from Clusters 1, 2 and 3 are all represented in the top ten providers of electrical and electronic engineering and these ten universities enrol well over three-quarters of all commencing students.

Table 10 VET award holders and all undergraduate commencements, by top ten providers of undergraduate programs in electrical and electronic engineering and technology (FOE 0305), Australia, 2010

Institution (cluster)	All undergraduate commencements		VET award holders	
	Students	% total	Students	% all U/G
RMIT University (1)	406	16.4	144	35.5
Swinburne University (1)	305	12.3	58	19.0
University of New South Wales (3)	275	11.1	<10	n.a
Curtin University (3)	236	9.5	<10	n.a
University of South Australia (2)	152	6.1	13	8.6
University of Adelaide (3)	145	5.9	0	0.0
University of Wollongong (2)	145	5.9	13	9.0
University of Newcastle (2)	142	5.7	40	28.2
University of Queensland (3)	133	5.4	<10	n.a
University of Sydney (3)	98	4.0	<10	n.a
<i>Sub-total</i>	<i>2 037</i>	<i>82.4</i>	<i>268</i>	<i>13.2</i>
Australia	2 472	100.0	338	13.7

Notes: Due to the coding of some students in combined programs to two fields of education, the totals can be higher than the total number of students and the size of the difference varies between fields of education.

Source: Department of Education, Employment and Workplace Relations, Higher Education Statistics Collection, unpublished data (2010).

As indicated in table 10, half of the ten major providers of electrical and electronic engineering courses (all Cluster 3 institutions) admit no students on the basis of a VET award. Among the four biggest providers of courses in this sub-field, two Cluster 1 institutions – RMIT University and Swinburne University – admit students on the basis of a VET award at well above the national rate (35% and 19% respectively), whereas the next two largest providers – the University of New South Wales and Curtin University (both Cluster 3) – admit none.

As in the broad field of management and commerce (FOE 08), the relatively high admission rates of VET award holders in electrical and electronic engineering (FOE 0305) are associated with a relatively high enrolment share held by universities in Clusters 1 and 2 compared with Cluster 3. In both cases,

⁷ Two exceptions to this pattern, civil engineering (FOE 0309) and teacher education: early childhood (FOE 070101), are discussed in the support document.

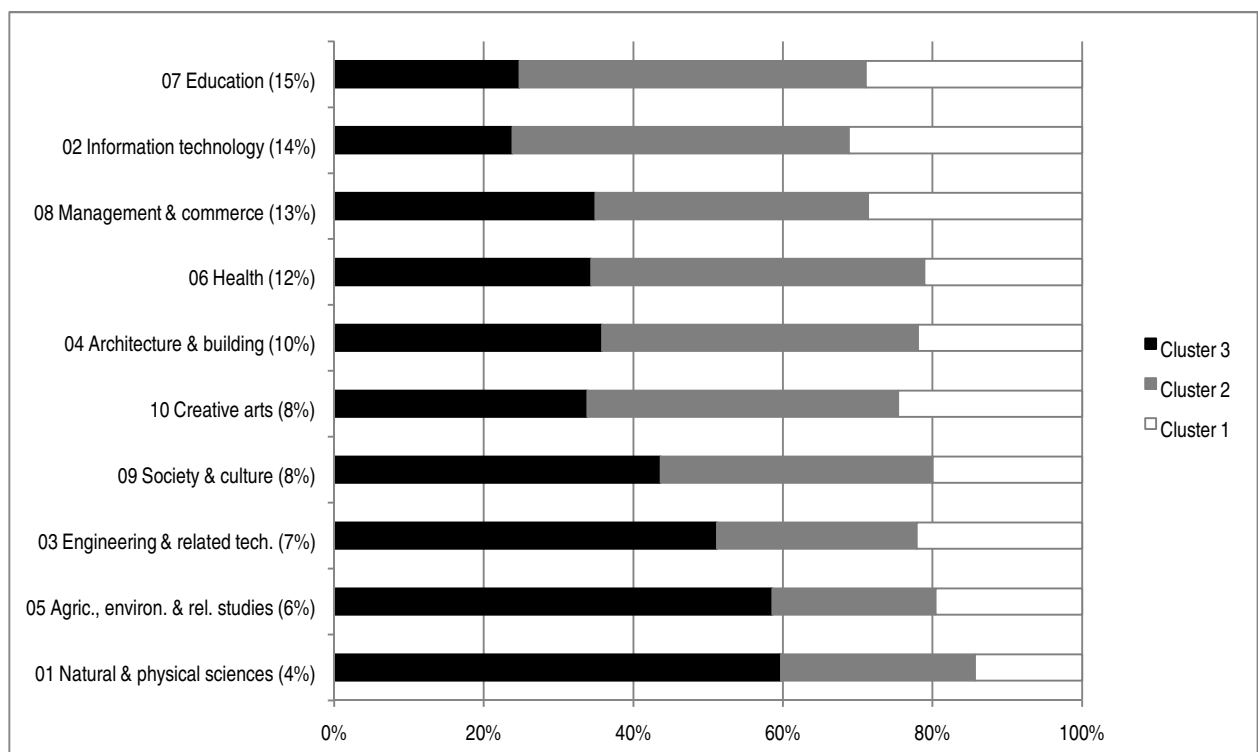
the enrolment share held by Cluster 1 and Cluster 3 providers appears to influence the national admission rate of VET award holders within the field.

The influence of Cluster 3 universities

The analysis of sub-fields in the support document suggests that the enrolment share held by Cluster 3 universities influences the admission rates of VET award holders in most broad fields and sub-fields of education. In a field or sub-field where one or more Cluster 1 universities are major providers, the admission rate of VET award holders in that field is likely to be above average. However, if Cluster 3 institutions are overrepresented in terms of their enrolment share, the overall admission rates of VET award holders in that field or sub-field are likely to be depressed.

To illustrate, we display each cluster’s share of the undergraduate commencing student load by broad field of education. Figure 3 indicates the share of the total undergraduate commencing student load held by each of the three clusters of institutions in each broad field of education. The broad fields of education are ranked in order of the rate at which VET award holders are admitted in each field (indicated in parentheses on the vertical axis).

Figure 3 Institutional clusters’ share of undergraduate commencing students by broad field of education, and rate of admission of students on the basis of a VET award, Australia, 2010



As shown in figure 3, the fields of education where Cluster 3 universities have the largest enrolment share are those where the admission rates of VET award holders are lowest. In the fields of agriculture, environmental and related studies (FOE 05) and the natural and physical sciences (FOE 01), where only 4–6% of commencing undergraduates are admitted on the basis of a VET award, Cluster 3 universities account for 60% of the undergraduate commencing student load. In engineering and related technologies (FOE 03), Cluster 3 universities are also overrepresented, enrolling 51% of the total undergraduate student load, compared with their share of 38% across all fields. This field

has the third lowest rate of admission of students on the basis of a VET award – 7.4% – and Australia is experiencing a national shortage of graduates in this field.

By contrast, in the fields of education (FOE 07) and information technology (FOE 02), which admit VET award holders at rates of 14–15%, Cluster 3 universities are underrepresented, with only 25% of the total undergraduate student load enrolled. Hence the admission rates of VET award holders are highest in these two fields.

Discussion

It is beyond the scope of this study to examine the relationship between admission rates of VET award holders and Australian Tertiary Admission Rank (ATAR) cut-off scores or the first preferences of school leavers. However, we question the assumption that undergraduate programs which attract school leavers with high ATARs should not be expected to admit students on the basis of a VET award. All publicly funded universities operate within a national policy framework that endorses the provision of VET to higher education pathways. There is currently no policy that suggests a publicly funded university should be relieved of its responsibility to develop VET to higher education pathways due to its perceived ‘competitive position’.

The apparent influence of institutional policies and practices on the admission rates of VET award holders in Australian universities in all fields of study has implications for both VET award holders and employers.

Within any field of education, VET award holders seeking admission to undergraduate programs will have different levels of access to university. This means that their chances of being admitted to a university in any given field will depend on the type of university to which they apply. For example, VET graduates seeking admission to higher education in the field of engineering (FOE 03) are on average four times more likely to gain entry to a university in Cluster 2 than a university in Cluster 3, and eight times more likely to be offered a place in a university in Cluster 1 compared with Cluster 3. In the field of management and commerce (FOE 08), VET award holders are three times more likely to be admitted to Cluster 2 institutions and six times more likely to be admitted to a university in Cluster 1, compared with a university in Cluster 3. As the institution to which they apply is likely to be determined by the state or region in which they live and work, VET award holders will face different levels of access to VET to higher education pathways.

Employers may be concerned about the disproportionately high enrolment share of Cluster 3 institutions in fields in which Australia is experiencing a national skills shortage. In key fields such as engineering, for example, the policies and practices of Cluster 3 universities may be constraining Australia’s capacity to increase the output of graduates through the creation of pathways for VET award holders into higher education degrees.

Overall, this analysis suggests that institutional policies and practices, rather than any characteristics of the field of study, are a key influence on the admission rates of VET award holders to Australian universities. The consistently high rate of admission of VET award holders in all fields of education by Cluster 1 universities supports this conclusion. Among Cluster 2 and Cluster 3 institutions, the more haphazard admission rates of VET award holders between fields suggests that the drivers for VET to higher education pathways within these universities may reside at the faculty level rather than the university level. The institutional policies and practices of universities are therefore the focus of the final section below.

Institutional policies and practices for VET to higher education pathways

There are substantial barriers to creating a ‘seamless’ transition from vocational to higher education (Wheelahan 2000), and institutional policies and practices play an important role in addressing these obstacles (Caterell & Davis 2012; Cram & Watson 2008; PhillipsKPA 2006a; Watson 2008). This section discusses the policies and practices that universities employ to attract and support VET award holders on VET to higher education pathways. In undertaking this analysis, we aimed to understand the variations in universities’ policies and practices that differ in terms of the proportion of students admitted on the basis of a VET award. The three institutional clusters are used as an organising framework to analyse data collected from institutions by survey and interview.⁸

Influence of government funding initiatives

For several universities in Clusters 1 and 2, expanding VET admissions is clearly consistent with their established missions, which emphasise lifelong learning, inclusiveness and student diversity. However, for other universities it seems that their interest in VET admissions and partnerships has been sparked by recent federal government’s policies, such as the availability of funding through the government’s Higher Education Participation and Partnership Program participation (HEPPP).

We have little TAFE. We are not dual sector ... we haven’t been in a position where we need to seek students. But we are starting to look at what is possible ... arrangements for pathways for indigenous and low SES students ... there is a change here. It’s motivated by funding. We are reacting to initiatives at the Government level. (Respondent, Cluster 3)

Institutional practices to support VET to higher education pathways

The 2009 *AQF national policy and guidelines on credit arrangements* identified operational guidelines for credit policies and procedures. These guidelines have incorporated the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) good practice principles relating to credit transfer, articulation and information provision previously used by universities to guide their development of practices for VET to higher education pathways. Many universities mentioned that they were currently examining the ways by which they could meet the expectations of the AQF credit transfer policy, with one university describing itself as ‘AQF-compliant’.

Central leadership and line management

Having dedicated central pathway officers or their equivalent signals the strength of an institution’s commitment to VET pathways to its faculties, potential students and TAFE (technical and further education) partners. A central position or office also provides a focal point for faculties that require support and resources to develop their own initiatives. Central pathways staff can also help to ensure that coherent and cost-effective processes and systems are developed at a whole-of-institution level.

⁸ Details of the methodology and a full discussion of the findings are provided in the support document.

All respondents from the Cluster 1 group of universities reported a high level of central leadership in regard to VET to higher education pathways through the provision of a dedicated pathway officer/articulation coordinator (or equivalent title) situated in a central division, often supported by pathway or credit for prior learning officers in each faculty. For example, one Cluster 1 institution reported having:

a senior position, the Dean of Studies, whose portfolio includes oversight of TAFE cooperation and agreements; sub-Deans in each Faculty for TAFE pathways; dedicated officers in the Division of Marketing. The Dean of Studies office includes a team of staff who manage [the University's] agreements with TAFE Institutes. (Respondent, Cluster 1)

The commitment of Cluster 1 universities to VET to higher education pathways and to forging the relationships that deliver them is evident in the number of central staff that these universities reported were involved in pathways and the lines of reporting associated with these positions. For responding universities in Cluster 1, central/dedicated pathway officers reported directly to positions such as the Deputy Vice-Chancellor (Academic); Deputy Vice-Chancellor (International and Regional Partnerships) and Head of Marketing.

Among Cluster 2 and Cluster 3 institutions, a smaller percentage (38% and 21%) also reported having a central person or office responsible for pathways, VET partnerships or articulation arrangements. However, the line management and reporting relationships were not as clearly defined.

Systems for monitoring student progression and achievement

The majority of universities in all clusters reported that they had systems for monitoring the performance and progression of students and were able to identify those who were admitted on the basis of VET studies. Respondents with access to such data reported that the performance of students admitted on the basis of VET is largely comparable with school leavers.

However, several institutions in Cluster 3 reported that they implemented little or no monitoring:

There has been no central monitoring. (Respondent, Cluster 2)

No. We are just moving into it now. We simply don't know enough about attrition and retention. (Respondent, Cluster 3)

There is no formal monitoring of these students. To date, they have not been identified as a cohort at risk and there have been no recurring indicators at the Academic Progress Committee. (Respondent, Cluster 3)

Resource constraints were identified by several institutions as limiting the development of more effective monitoring systems for VET pathways. However, for others, their systems were conceived as 'work in progress', with improvements being driven not only by the growth in VET admissions and articulation arrangements but also by the need to demonstrate their institution's contribution to the government's broader participation and performance goals for the sector.

Several respondents were very articulate about the limitations of their existing systems in terms of effectively monitoring student pathways and evaluating the impact of particular credit transfer and articulation arrangements. These institutions were clearly interested in investigating the cost-effectiveness of different approaches and therefore needed a more sophisticated dataset than one which simply flags students admitted on the basis of a VET award. A key issue identified by many respondents was the difficulty in obtaining more specific details about the VET award holder's prior learning and, in particular, the name of the feeder institution. Several complained about the way

their state admissions bodies record the VET institution of enrolment, which does not provide adequate details of the applicant's VET provider.

The university is currently working on a program that will provide more in-depth data that will assist with monitoring of different student cohorts and track the impacts of credit transfer, transition support etc. (Respondent, Cluster 1)

The VET basis of admission does not easily allow for identification of different VET providers i.e. TAFE therefore it is necessary for us to undertake lower level analysis and data recording to specifically highlight TAFE statistics. (Respondent, Cluster 2)

One respondent highlighted the need for a unique student identifier to track students moving between the VET and higher education sectors. This respondent pointed out that a unique student code would not only enable universities to better monitor students and evaluate the effectiveness of different VET to higher education pathways, it would also assist in developing reverse pathways to improve student outcomes.

This will also enable us to track students moving from university to TAFE and to identify which TAFE courses they undertake. We can use this information to offer relevant VET units as elective subjects within our degrees to assist students achieve vocational skills more quickly. (Respondent, Cluster 3)

The ability of universities to monitor the outcomes of VET to higher education pathways is critical to the improvement and extension of pathways – in both directions. Further, without a sophisticated capability to monitor outcomes, institutions can find it difficult to persuade its internal stakeholders that pathways should be developed, or that it is worthwhile admitting VET award students. As one respondent commented:

We generate reports annually on the progress of those admitted on the basis of VET qualifications. These reports measure performance (grade point average), grade distributions, progress and attrition rates for those admitted on the basis of VET studies compared to those admitted through other criteria.

Given that overall performance by those admitted on the basis of VET is comparable to those admitted with an ATAR of 70+, this evidence has been useful in generating cultural change within Faculties to be more supportive of students entering through this pathway. (Respondent, Cluster 3)

Admissions policies and practices

The Cluster 1 institutions who responded to the survey all have specific policies about VET admissions. For example, one university responded that it had:

quantitative growth targets in relation to growing first round (state admissions body) offers for TAFE pathway students; increasing enrolments from identified low SES regions via TAFE partners; growing domestic and international students coming via TAFE partners. (Respondent, Cluster 1)

Similarly, several Cluster 2 universities had some policies relating to VET admissions and most had partnerships with VET institutions, particularly in their local region:

Given our location in [region] we engage with VET providers to design pathways for cert. IV and diploma students for all (our) campuses. (Respondent, Cluster 2)

One Cluster 1 institution reported guaranteed entry (with no credit granted) into many undergraduate programs on the basis of applicants having completed a certificate IV at any TAFE institute, private

provider or college. Another institution in this category reported guaranteed entry for diploma and advanced diploma TAFE graduates who had completed their TAFE qualification within the last ten years. In both these cases, the VET qualifications did not have to be relevant to the field of education in which the students seek admission.

Most other institutions offered more limited guaranteed entry provisions to VET graduates with certificate IV, diploma or advanced diploma qualifications *from any of their partnership institutions*. Several also indicated that students needed to meet the prerequisites for entry for any particular course.

Credit transfer policies and practices

The AQF Council (2009, p.13) suggests general credit values for AQF qualifications, which universities can use to guide their determination of how much credit to grant. For example, it suggests a minimum credit value of 50% for an advanced diploma linked to a three-year bachelor (in the same education fields). However, universities can choose credit levels greater or less than the recommended level, with most presenting their policies in the following terms:

[The university] has a formal articulation agreement with TAFE [state]. If you completed an Australian Qualifications Framework (AQF) Diploma or Advanced Diploma within the last five years, and are enrolled in a [university] program in the same or a directly relevant discipline area, you may be eligible to receive credit towards your program.

(Internal university document, Cluster 3)

Many universities, more typically those in Cluster 3, have a suite of even tighter conditions: neither admission nor credit is guaranteed; there is an expectation that the VET qualification was completed in a more recent timeframe; and students must be enrolled in the same or a relevant discipline area. The universities with more restrictive admissions policies typically have entry ranks or Australian Tertiary Admission Rank scores, which they calculate for AQF certificate III through to AQF diplomas, and many require the VET award holder to have received a graded assessment for some or all of their VET studies. The justification for restrictive credit transfer policies is usually provided in terms of the expectations of the field of study and/or not wanting to 'set [VET] students up to fail'.

Many bachelor level courses at [university] require a very specialised disciplinary focus from year one, e.g. Science, Engineering, Design. This makes it difficult to match content from a VET award with the [university] award and thus give credit recognition.

(Respondent, Cluster 2)

Staff are very concerned about not disadvantaging students and setting them up to fail, so they need to be sure that if students are exempted from a subject at [university] because of their VET qualification, they have acquired the knowledge in their VET studies to progress satisfactorily.

(Respondent, Cluster 2)

Such justifications for restrictive credit transfer policies in terms of the expectations of the field of study and/or not wanting to 'set (VET) students up to fail' suggest that some universities still have little or no understanding of the ways in which VET to higher education pathways can address such issues. Articulated programs and dual awards, for example, were mentioned by respondents from Clusters 1 and 2 in very positive terms. Dual awards (or dual offers) are arrangements whereby students receive an offer that provides a place in both of the partnership institutions' programs, and upon successful completion of the VET award, the student is guaranteed direct entry into the university's undergraduate program. These types of arrangements can only be developed in the context of strong partnerships between universities and VET providers. Universities in Clusters 1 and 2 were more likely to refer to such partnerships in operational terms than respondents from universities in Cluster 3.

In the absence of structured VET to higher education pathways, the default position for universities is to invite VET award holders to apply for admission to a university on the basis of their completed VET qualification (certificate IV and above) and to apply for credit points. This process requires some understanding of the applicant's previous studies and can involve a resource-intensive mapping of VET subjects to university courses. For the applicant, the granting of credit is not guaranteed and is determined on a case-by-case basis.

The way in which credit is granted can help or hinder a VET award holder's transition to higher education (PhillipsKPA 2006b). There was evidence of an appreciation of these issues in one response to the survey:

Academic staff in faculties report that because of the 'competencies' emphasis in VET, students coming from VET may not have the more generic skills and abilities focused upon in the first year of a [university] program, e.g. academic literacies, critical thinking, essay-writing, reflective practice. If students are given credit recognition for first year subjects when articulating from VET they can miss this generic skills focus at [university].
(Respondent, Cluster 2)

Other responses revealed a more highly developed understanding of these issues and indicated the university's approach to addressing them:

The majority of [university's] articulation arrangements include a combination of first year core and unspecified free choice electives. As a result VET students entering [university] will be enrolled in some first year classes combined with second year classes in their first year of study at university. Therefore [university's] VET students, to some extent, are helped to settle into life at university with the same support as all other first year students from First Year Advisors, who direct students to all kinds of support services and assist with the development of strategies to solve academic problems.
(Respondent, Cluster 2)

Accessibility of information for VET award holders

The AQF Council (2009) guidelines state that universities should promote their current credit arrangements to potential students and other stakeholders in a way that facilitates accessibility, transparency, comprehensiveness and currency. While information provision can take several forms and be delivered through different forums, PhillipsKPA (2006b, p.iv) identified eight key features of an effective institutional website:

- readily accessible from the webpage specifically for prospective students, which in turn is accessible from the institution home page
- attractive and user-friendly to students
- free of jargon, with clear definitions and consistent use of terminology
- clear about the nature of the credit that will be granted for various courses based on a range of VET qualifications
- searchable using either a VET course or higher education course or discipline as a starting point
- links to application forms and details of application and admission procedures
- specific about a single contact point for further information and assistance
- current, with an explicit mechanism to maintain the website.

From a scan of institutional websites, we note that most universities comply with the criteria above in making credit information available through their websites and providing information to students

about application and appeals processes. However, universities in Cluster 1 tend to have websites that include more advanced features such as a searchable ‘credit precedent’ database, online application forms, online inquiry forms and links to specific support and information for potential students seeking admission on the basis of vocational education and training. Further, reference to TAFE students⁹ is easily found on the home page of the university’s website and further information in one or two links from the home page. The structure of the Charles Sturt University website is outlined in the support document as an example of an accessible website.

In contrast to the clear and accessible style of the Charles Sturt University website, some universities use the term ‘mature-aged’ as an entry point for all non-school leavers. This assumes that students seeking admission on the basis of a VET award will understand the definition of ‘mature-aged’ and see themselves in this category, which is unlikely.

Targeted support

A recent project at Charles Sturt University and the University of Western Sydney, funded by the Australian Learning and Teaching Council (ALTC), found that articulating VET students can experience considerable stress when finding heavier-than-expected study loads in higher education, having to balance study and work demands, learning academic conventions and negotiating new administrative processes and online learning systems (Catterall & Davis 2012). This project identified four areas of support required for these students: academic literacy; numeracy; familiarisation with the learning environment of higher education; and general pastoral care (Catterall & Davis 2012).

Universities need to address these issues through institutional policies and practices that focus on how the VET to higher education pathway is constructed, as well as provide extensive academic and pastoral support for VET award holders, particularly during their first year of study. Universities that take responsibility for addressing these issues may be more successful in supporting VET award holders through to the completion of a degree.¹⁰

All respondents from Cluster 1 universities identified well-developed systems of support for students, with an emphasis on structured pathways and specific transition programs for all VET award holders as well as articulating students.

By contrast, respondents from universities in Clusters 2 and 3 were less likely to be able to identify institutional policies or practices designed specifically to support students admitted on the basis of a VET award. Typical responses from these universities emphasised that VET graduates had access to the support services available to all students:

[University] does not have any specific strategies to support students who have undertaken VET studies. All student cohorts have access to a wide range of support and engagement initiatives however, and these are widely promoted. [University] has no specific learning support for a VET graduate, aside from the usual services provided to all students through Campus Wellbeing, The First Year Experience, Study Skills and Student Mentors. (Respondent, Cluster 3)

Customised courses

Where VET award holders are enrolled in sufficient numbers in particular fields of education, they may be able to progress through their higher education studies within a customised course for VET

⁹ Illustrating the university’s understanding that VET graduates are more likely to identify themselves in these terms.

¹⁰ The authors note that without access to Commonwealth-held data on higher education student completions, it is impossible to establish what types of support policies and programs are most successful.

award holders only, either for the whole course or for just the first year of study. In such models, all forms of support, such as academic literacy, numeracy, familiarisation with the learning environment of higher education, and general pastoral care, can be provided as part of the curriculum. Thus by customising a course to meet the specific needs of VET award holders, the need for the university's central administration to provide students with access to support is greatly reduced.

The development of such customised courses may explain the relatively high admission rates of VET award holders in a few specific fields by universities in Clusters 2 and 3. Several survey respondents referred to discipline-specific support programs offered in faculties or for particular courses to which a substantial number of VET students are admitted, for example:

Some faculties have specific transition programs for VET students, for example, nursing provides preparation classes delivered by the Library's Learning Support Advisors. (Respondent, Cluster 3)

Specific programs such as the Associate Degree in the Faculty of Science is designed to address the needs of articulating students. (Respondent, Cluster 3)

Early intervention for students 'at risk'

Survey responses indicated that universities appreciated the challenges of admitting an increasingly diverse undergraduate student body. In addition to traditional school leavers are those who may be international students, or Indigenous Australians, mature-aged, or from low socioeconomic status, rural or remote backgrounds and VET graduates. Many universities are recognising the diversity of their student population by offering an increasing array of support services, some of which may assist VET award holders who are struggling to make a successful transition:

There are no specific programs targeted to support VET students; however, the University has a system that flags students who are struggling with their academic work. [The university] also offers students free bridging courses at the beginning of each semester and online diagnostic tools so that students can test their level of competency in key areas such as English and maths. Academic support is available to all students through the Centre for Teaching and Learning and a range of additional support services and programs can be accessed. (Respondent, Cluster 2)

Discussion

Our examination of universities' policies and practices reveals that universities that admit high proportions of students on the basis of a VET award across most fields of education (that is, Cluster 1) demonstrate a strong institutional commitment to pathways. This institutional commitment is manifested in policies and practices that influence VET to higher education pathways at all levels of the university. Through strong central leadership and line management, as well as close monitoring of student admission and progression, these universities ensure that the appropriate policies and practices are implemented both to attract VET award holders and to support them in their studies. Many of the universities in Cluster 1 also have a highly accessible website, which leads VET award holders through a set of transparent procedures for the purposes of gaining admission and applying for credit. Cluster 1 institutions are also more likely to have consistent approaches to awarding credit for prior studies and which apply across the university. They are also more likely to appreciate the complexity of providing effective forms of support for students admitted on the basis of a VET award.

The institutions that demonstrate lower and less consistent rates of admission of VET award holders (that is, Cluster 2) appear less able to translate a central policy commitment into action at the faculty and student level. While these institutions have similar policies and practices to Cluster 1

universities, there is less evidence of the strong central leadership and line management in regard to the pathways policies observed in responses from institutions in Cluster 1.

Institutions with consistently low rates of VET award holder admission (that is, Cluster 3) also espouse a central commitment to supporting pathways from VET to higher education, although often with reference to the need to meet government policy expectations regarding increasing diversity in student populations. These institutions' policies and practices emphasise the criteria that a VET award holder needs to meet for successful entry to the institution, and their processes for granting credit for previous studies are more likely to be conducted on a case-by-case basis.

The majority of universities in all clusters reported that they had systems for monitoring the performance and progression of students and were able to identify those admitted on the basis of VET studies. Respondents with access to outcomes data reported that the performance of students admitted on the basis of a VET award is largely comparable with school leavers. Only a few institutions in Cluster 3 said that they performed little or no monitoring of the progress of VET award holders. Universities in all sectors mentioned the limitations of their monitoring systems, particularly in terms of providing more specific details about the VET award holder's prior learning and the name of the feeder institution.

Summary

Although Australia has a national policy framework to promote student pathways from vocational to higher education, there are substantial differences between universities in the proportion of undergraduate commencing students they admit on the basis of a VET award. While the proportion of students admitted on the basis of a VET award nationally is now around 10%, some universities admit VET award holders at well over twice this rate, whereas others admit negligible numbers. Twelve universities enrol 68% of all students admitted to undergraduate programs on the basis of a VET award. In other words, one-third of Australian universities provide two-thirds of the VET to higher education pathways.

This report concludes that these differences are due primarily to the policies and practices of universities rather than to the characteristics of VET award holders or differences between fields of study.

The number of students admitted to Australian universities on the basis of a VET award has increased by 75% over the past decade to around 10% of total admissions today. In 2010, some 30 000 students were admitted to higher education programs on the basis of a VET award, of whom one-quarter were overseas students. Students admitted to Australian universities on the basis of their VET qualification are broadly similar to students admitted according to other criteria, except that they are slightly older and more likely to be studying part-time. These characteristics may serve to compound the challenges that VET award holders often face in making a successful transition to higher education. Universities thus need to provide customised support services for VET award holders, particularly during their first year of undergraduate study.

The analysis of university admission rates of VET award holders by field of education indicates that Australian universities fall into three distinct clusters: seven universities admit VET award holders at consistently high rates in all fields, with an average rate of 18.7% (Cluster 1); the 16 universities in Cluster 2 have more haphazard rates of admission between fields, with an overall rate of 10%; and the 14 universities in Cluster 3 admit VET award holders at rates consistently below the national average for almost every field of study, with an overall rate of 3.2%.

While all Australian universities have policies to promote VET to higher education pathways, there are subtle differences in the way in which pathways policies are implemented. Strong central leadership and accountable line management as well as close monitoring of student admission and progression rates are common institutional practice in the universities that admit high proportions of VET award holders in all fields. While these features are clearly defined in the policies and practices of universities in Cluster 1, they are less evident in the policies and practices of institutions in Clusters 2 and 3.

Policy issues for government, industry and employers arising from this study include:

- Inequalities will exist in access to higher education for VET award holders.
- The financial burden of supporting VET award holders during their first year of study falls more heavily on some universities than others.
- Australia's capacity to alleviate national skills shortages through strengthening VET to higher education pathways will be compromised in fields where Cluster 3 universities are overrepresented.

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Support document details

Additional information relating to this research is available in *A half-open door: support document*. It can be accessed from NCVER's website <<http://www.ncver.edu.au/publications/2659.html>> and contains the following:

- Introduction
- Data sources and limitations
- VET award-holders in Australian universities
- Differences between states and territories
- Distribution of VET award holders between universities
- Rate of admission of VET award holders by university
- Student characteristics
- Qualifications pathways from vocational to higher education
- Admission of VET award holders by field of education
- VET–HE pathways by university
- Clusters of broad fields of education (FOEs)
- Clusters of FOEs
- Discussion
- Secondary school admissions
- VET–HE pathways by field of education
- Institutional policies and practices for VET–HE pathways
- Method
- Pathway policies and targets
- Institutional practices to support VET–HE pathways
- Support for VET pathway students
- Monitoring student progression and achievement
- References

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National Centre for Vocational Education Research Ltd
Level 11, 33 King William Street, Adelaide, South Australia
PO Box 8288, Station Arcade, SA 5000 Australia
Telephone +61 8 8230 8400 Facsimile +61 8 8212 3436
Website www.ncver.edu.au Email ncver@ncver.edu.au