

Development and implementation of a sustainable, discipline-specific academic transition program for students articulating from VE to HE

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Academic Development Group, College of Business

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Strategic objectives addressed:

The project addressed the following strategic objectives as outlined in RMIT's University 2011-2015 Strategic Plan:

- transforming the student experience
- using institutional data and student feedback to renew the curriculum
- facilitating relevant pathways for students through our program offerings.

This project is aligned conceptually to the vision provided in RMIT's Red Paper, which will equip students with strategies to successfully transition from Vocational Education (VE) into Higher Education (HE) programs with critical skills and knowledge in academic and information literacy. This project aims to equip students with the appropriate skills for a rewarding learning experience and successful graduate outcomes in higher education (RMIT Red Paper, 2011-2015).

Internal order number:

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Funding scheme	LTIF contestable	X
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	RMIT Vietnam Program Development Fund	

1 Executive summary

In the College of Business (CoB), there has been a long-held belief and anecdotal evidence suggesting that VE students articulating into HE programs do not perform as well as students entering via alternate pathways. Despite this view, little investigation has been undertaken by the College of Business (CoB) to track students from VE who have enrolled in HE; collect data on performance; and for students who have failed or are identified as 'at risk' determine what are the underlying causes for poor performance. Currently, the College of Business does not have a transition program to support students successfully.

This research project aimed to analyse four years' of data (2010 – 2014), tracking students who had completed a Diploma or Advanced Diploma and articulated to HE. Depending on the results of the analysis, the project would include the design and implementation of a transition program to support VE to HE articulating students within the College of Business.

The project explored student results and identified two courses where student academic performance was significantly lower for students transitioning from VE to HE compared with non-VE students entering the HE degree program. In the previous two years (i.e., 2013-2014) these two courses had statistically significant lower pass rates for VE compared with non-VE students. The two courses (ACCT1046 Accounting for Organisations and Society and ECON1030 Business Statistics) became the focus of the project.

Focus groups with students from the target courses and interviews with key academic staff identified key learning triggers and stages for academic success in the two target courses. In consultation with the project reference group and cross sector collaboration and based on the student and academics feedback a transition program for students transitioning from VE to HE in the two common core courses ACCT1046 Accounting for Organisations and Society and ECON1030 Business Statistics was designed.

Having developed a model of transition support for VE students transitioning to HE, the project has now commenced implementation of a discipline specific pilot transition program for semester 1 2016.

2 Outcomes

To provide a sound basis to develop and then test the outcomes of the VE to HE transition program, the project team designed an action learning (AL) process that combined action taken to design and implement the resource with learning into its effectiveness. This action learning approach, as depicted below, enables cycles of change to occur as the original design is tested evaluated and refined over the life of the project.

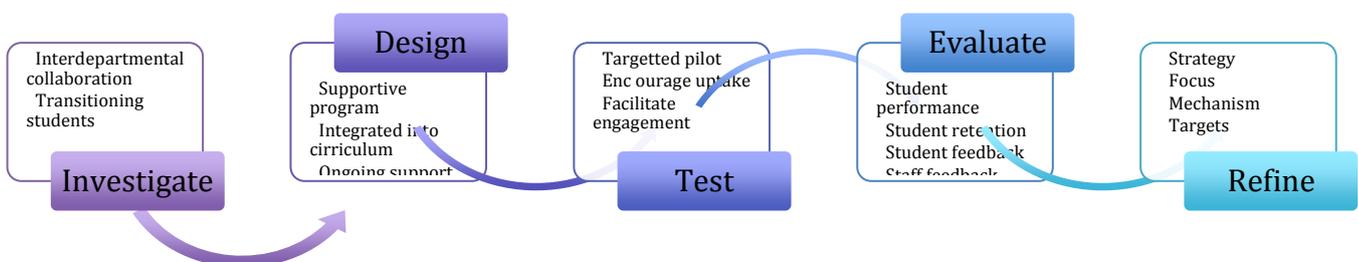


Figure 1: Action Learning Cycle for the VE to HE transition project

The project outcomes to date:

- Research to provide evidence on which to base the design of a transition program.
- Development of a model of transition support for VE students transitioning into HE studies in ACCT1046 Accounting in Organisations and Society and/or ECON1030 Business Statistics 1.

The anticipated project outcomes:

Piloting of a discipline specific transition program for students transitioning into HE studies in ACCT1046 Accounting in Organisations and Society and/or ECON1030 Business Statistics 1 in semester 1 2016.

3 Project outcomes and impacts

3.1 Background

In Australia between 2012 and 2013, students studying bachelor degrees (pass and honours) and graduate diplomas increased by 29.3%. These were the only AQF levels to have increased enrolments (NCVER, 2014). The number of students enrolled in Vocational Education qualifications declined by 4.9%.

Pathways from vocational education to higher education provide students increased opportunities to both higher AQF level programs and potentially employment opportunities (Watson, Hagel & Chesters, 2013). However, VE competency based training packages are task oriented and performance focussed whereas higher education students need to demonstrate a depth of understanding of underlying theories and practice (White, 2014). This difference raises likely transition difficulties. Watson (2008) suggests the pedagogical differences between VE and HE relating to academic literacy, assessment practices and course delivery impact the student experience in first year HE. This is supported by Abbott-Chapman (2006) who states that unclear expectations at HE, challenges around different assessment modes, study skills and a lack of self of self-confidence affect transitioning VE students. Milne et.al. (2007b) adds that personal issues, family and financial challenges and a lack of “institutional support for transitioning students” have a detrimental effect.

In the College of Business (CoB), there has been a long-held belief and anecdotal evidence suggesting that VE students articulating into HE programs do not perform as well as students entering via alternate pathways. Many VE students, particularly those in their first year of higher education, experience adjustment problems relating to academic requirements in higher education (Watson, 2008, Abbott-Chapman, 2006). Despite this view, little investigation has been undertaken by the CoB to track students from VE who have enrolled in HE; collect data on performance; and for students who have failed or are identified as ‘at risk’ determine what are the underlying causes for poor performance. Currently, the College of Business does not have a transition program to support students successfully.

This project involved the collection of data from 2010 – 2014 and the tracking of the performance of all CoB VE students who articulated into CoB HE programs. The aim was to investigate likely transition difficulties in order to develop an evidence-based transition to HE programs. This project aimed to:

- Provide quantitative data on students who pass/fail and become ‘at risk’ and discontinue their studies.
- Provide qualitative data through focus groups of continuing VE Students to identify their experiences, issues, perceptions and expectations in undergraduate study and obtain feedback regarding possible strategies to maximise their chances of success.
- Identify core courses that result in lowest pass rates.

- Determine whether any findings are isolated to VE students or whether there is a common trend in low performance across first year undergraduates.
- Provide opportunities to compare National training packages with corresponding Higher Education content and identify gaps in curriculum that may result in a learning disconnect between the two sectors.
- Develop a model for a transition program to support for VE students and implement a pilot transition program in 2016. In Australia between 2012 and 2013, students studying bachelor degrees (pass and honours) and graduate diplomas increased by 29.3%. These were the only AQF levels to have increased enrolments (NCVER, 2014). The number of students enrolled in Vocational Education qualifications declined by 4.9%.

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3.2 Project objectives

This project involved the analyses of four years' of data, tracking students who had completed an Advanced Diploma and articulated to HE. The project explored student results and identified courses with the lowest pass rates. This provided a platform to review curriculum content, and academic skills development from both the VE and HE sectors with a view to facilitating student transition from VE to HE.

The project:

- Investigated the academic performance of VE students who completed Advanced Diplomas and articulated to Higher Education between 2010-2014.
- Used RMIT data to establish the difference between VE results of CoB VE students and first year undergraduate programs.
- Conducted student focus groups who studied VE at CoB to identify their experiences, issues, perceptions and expectations in undergraduate study and obtain feedback regarding possible strategies to maximise their chances of success.
- Consultation with reference group and cross sector collaboration to develop a sustainable transition program.

3.3 Outcomes of the work

Project milestones

Stage 1:

Action

- The working group and reference group were established.
- Meetings were held regularly.
- Terms of reference were endorsed by the reference group.
- Research assistance was appointed and literature research was scoped and research commenced.
- Data was collected tracking CoB Diploma and Advanced Diploma students who articulated to CoB Higher Education 2010-2014.
- Data was analysed to compare pass/fail rates between VE and non-VE students in core Business courses to determine if there were significant differences.

Results

- A literature review was undertaken to explore current findings related to the VE to HE transition experience (See Literature Review, Appendix A).
- Analysis of 2010-2014 data was undertaken for all common core subjects in the College of Business. Academic performance of students transitioning from VE to HE and non-VE students transitioning to HE was compared. The analysis explored which course had significantly lower pass rates when comparing VE and non-VE students' (See Table 6, Appendix B).
- Data indicated two courses (i.e., ACCT1046 Accounting in Organisations and ECON1030 Business Statistics 1) where VE articulating students more consistently had lower pass rates than non-VE students compared with other core courses.
- As outlined in Table 1, the pass rates for students studying ACCT1046 Accounting in Organisations and Society were statistically significantly lower in six of the eight semesters from 2011-2014.

- As outlined in Table 1, the pass rates for students studying ECON1030 Business Statistics 1 were statistically significantly lower in seven of the eight semesters from 2011-2014. Data for 2010 was considered too small in number to be statistically valid.
- Following discussion with the research reference group, data for the most recent two years was considered to be particularly relevant as the most recent two years of student experience was most likely to reflect current course content and structure. As outlined in Table 1, for these semesters (i.e., 2013-2014) the pass rates for students studying ACCT1046 Accounting in Organisations and Society and ECON1030 Business Statistics 1 were statistically significantly lower in four semesters.

				2014		2013	
				S1 2014	S2 2014	S1 2013	S2 2013
ACCOUNTING	NON-VE	% PASS	78	70	75	65	
	VE	% PASS	58	48	64	53	
	ANALYSIS	P VALUE	3.48E-07	3.27E-06	0.0049699	3.48E-07	
B STATS	NON-VE	% PASS	81	75	70	67	
	VE	% PASS	64	58	95	52	
	ANALYSIS	P VALUE	1.24E-05	6.43E-05	0.0004175	0.003024	
				2012		2011	
				S1 2012	S2 2012	S1 2011	S2 2011
ACCOUNTING	NON-VE	% PASS	66	64	76	59	
	VE	% PASS	49	44	57	63	
	ANALYSIS	P VALUE	0.00004111	0.00363	0.023462	0.84846	
B STATS	NON-VE	% PASS	71	70	71	76	
	VE	% PASS	53	40	59	43	
	ANALYSIS	P VALUE	0.004146	2.85E-07	0.2313	0.0005099	

Table 1: Comparison of Pass/Fail rates for ACCT1046 Accounting in Organisations and Society and ECON1030 Business Statistics 1 from 2013-2014

NB: p value <0.005 is considered statically significant.

p values <0.005 values are coded green. p value> 0.005 is coded in brown

Stage 2:

Action

- Focus group questions for students who studied VE at CoB were developed and refined by the reference group. These questions aimed to gain feedback on student experiences, issues, perceptions and expectations in undergraduate studies. The questions were also geared to gather feedback regarding what possible strategies could be developed that would maximise students opportunities for success.
- Consultations with relevant academic and teaching staff were held to explore the differences in curriculum in VE Accounting and HE Accounting. There are no Diploma courses for Statistics which added to the conversation about how skilled/prepared were VE students enrolling in courses where they may not have the required Maths skills needed to succeed at HE.

- Consultation with relevant academic and teaching staff was completed to determine what, if any strategies for transitioning VE students to HE were currently in place. Feedback regarding what possible strategies could be developed that would maximise students opportunities for success was also be sought
- Consultation was undertaken with the reference group and cross sector collaborations to develop a sustainable transition program for the two identified courses.
- Data from the focus groups and interviews were analysed.

Results

- Qualitative data from student feedback groups (See Student Focus Group Responses, Appendix C) identified the challenges experienced by VE students enrolled in these two HEd common core courses. Key themes from this data are outlined below in Table 2.

Focus Group	Key themes
ACCT1046 Accounting for Organisations and Society	<ul style="list-style-type: none"> • The problems are not maths issues, rather they are accounting issues. • Content starts at the big end of Accounting (i.e., large corporations) rather than beginning by linking to the student experience (e.g., own budgeting). • Need for constant revisiting of core concepts to consolidate the learning. • This revisiting needs to be done throughout the semester not just a specific times of the semester. • Limited effort in class to get students to connect with each other. • Lots of tutor to tutor variation in quality is an issue. • Needs more hands-on experience rather than constantly explaining the concepts. • Needs to be supported by teaching of study skills.
ECON1030 Business Statistics	<ul style="list-style-type: none"> • Very difficult for students coming in with limited maths background. Even students studying Further Maths in Year 12 struggled with maths concepts. • Not so challenging for the first few weeks but huge leap between weeks 3 and 4 in terms of difficulty. Lots of students drop off at this point. • The learning is progressive so once you are lost between weeks 3-4 then too hard to pick up subsequent content. • Lots of tutor to tutor variation in quality is an issue. • Too much content. • Delivered too quickly. • Understanding maths terms was a significant issue particularly for this for whom English is not their first language. • Limited effort in class to get students to connect with each other. • Lecturer/tutors engaged students in learning by: <ul style="list-style-type: none"> ○ Repeating concepts ○ Doing examples ○ Explaining assessments ○ Using lots of formulas ○ Giving exam tips.

Table 2: Themes from focus group data analysis

- Qualitative data from consultation with staff (See Interview Transcripts, Appendix C) identified key learning needs for students. This allowed the project leaders to determine a transition program that will meet these needs of students. Key themes from this data are outlined below in Table 3.

Interview	Key themes
Course Coordinators for ACCT1046 Accounting for Organisations and Society. and ECON1030 Business Statistics	<ul style="list-style-type: none"> • No understanding by Course Coordinators or teaching team of cohort profile. • No idea what background studies the students have prior to HE. This includes knowledge on previous VE studies and VE content. • Limited effort in working on academic skills and transition. Focus is on discipline specific content. • Limited capacity to orientate students. Bit of time working through Blackboard and that's about it. • Not sure if tutors are teacher trained. • Not a lot of capacity to bring tutor quality up to certain standard. • Efforts to improve engagement: <ul style="list-style-type: none"> ○ show videos ○ work through practice assessments ○ use examples (an idea for next semester). • High proportion of students do not sit the exam. Their progress through the semester is not necessarily indicative of their likelihood of sitting the exam. • Imperative that students know the basic three main things Business Central, the SLAM program, the Blackboard.

Table 3: Themes from interview transcript analysis

- Through consultation with the Study and Learning Centre, the project team have developed a transition program for VE students to better equip them with the skills required to succeed in ACCT1046 Accounting in Organisations and Society and ECON1030 Business Statistics 1. The transition program will involve four workshops across the 12 weeks of the semester (See Figure 2 below). The full program details are outlined in the Program Outline (See Table 7, Appendix C).

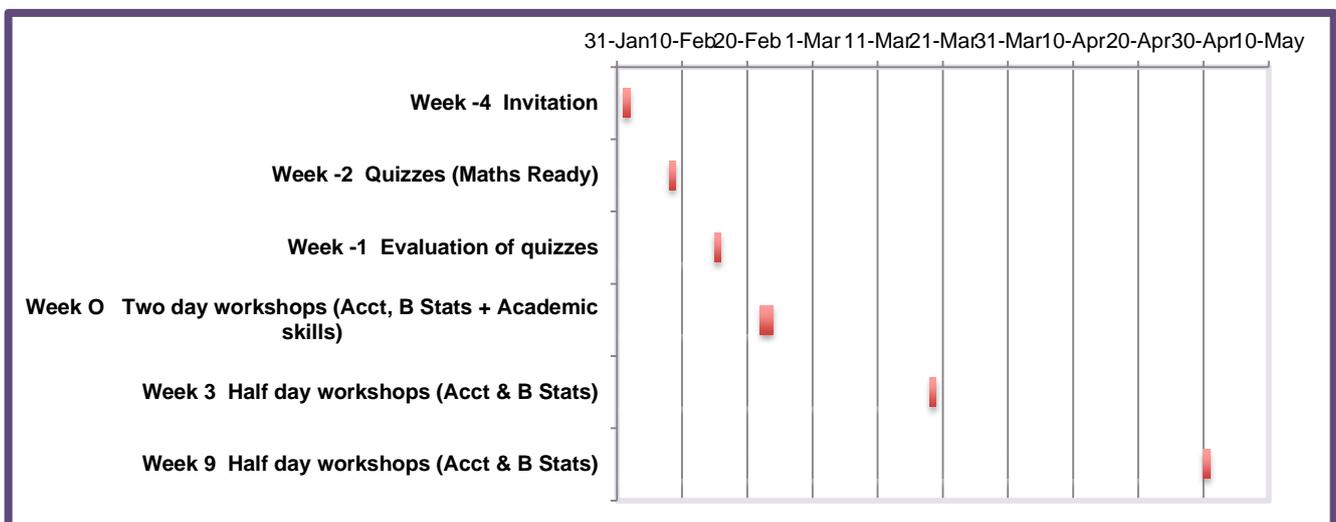


Figure 2: Transition program outline

Stage 3:

Actions

- This will see the implementation of the pilot phase of the project. The pilot will run for the duration of semester 1 2016.

Results

- To date 63 students transitioning from VE into HE ACCT1046 Accounting in Organisations Society and/or ECON1030 Business Statistics have been invited to participate in the VE to HE Transition Program (See Letters of Invitation, Appendix D).

3.4 Project outcomes

One of the success factors in the development of the transition program can be attributed to the consultative and collaborative approach taken by the LTIF team. For the first time ever, HE academic staff in Accounting and Business Statistics, came together with the Deputy Head Learning and Teaching VBE, Advanced Diploma of Accounting staff, and VBE Program manager, to discuss curriculum taught in each sector, determine the differences, identify the gaps and suggest possible topics for the transition program. This approach resulted in a product that will develop the skills of VE students to the level required to be successful in these courses at HE. All stakeholders believed that a scaffolded approach focusing transition issues across three targeted timeframes would result in a quality program, delivered in a just-in-time framework.

4 Dissemination strategies and outputs

The dissemination strategy is an engaged-focused approach that takes place during the project and at its completion, in a collaborative and consultative manner with the major stakeholders. During the life of the project dissemination activities were incorporated into the cycles of the action learning approach. This included regular discussion within the project team, with the steering committee and with the staff and students involved. As this project is currently ongoing with the implementation of its pilot phase, the plan for dissemination is ongoing.

Dissemination strategy	Action
College application	<ul style="list-style-type: none"> • At specific milestones, as outlined above, meetings, presentations and updates on the project will be issued to all key stakeholders, and other relevant parties such as Deputy Heads L&T and Course Coordinators. • A presentation to Academic Development Committee, and those in other Colleges. • Professional Development Workshop for a wide range of staff that include academics, program/course co-ordinators, student services, library.
University-wide application	<ul style="list-style-type: none"> • Write a paper with a view to present at conferences for professional bodies such as The First Year Higher Education Conference. • A written report that outlines findings, conclusions and recommendations for future implementation.

Table 4: School of Management VE to HE Transition Project Evaluation and Impact

5 Evaluation of project outcomes

Provide evaluation outcomes including evidence of the impact of the project and the value it will provide.

There are three distinct elements that will be evaluated within this project:

- the impact that undertaking the pilot program as a whole has on students' academic success
- the general impact of the initiative as a whole on transforming the first year student experience
- the overall pedagogical shift in L&T to equip students with strategies for successful transition from VE to HE.

The reference group with key stakeholders is an important part of the evaluation process. Regular meetings will identify agreed project outcomes and evaluation questions, as well as determine a process for the collection, management and analysis of data.

As stated in the methodology, qualitative research tools such as focus groups and surveys will be analysed in conjunction with quantitative, institutional data to inform project conclusions and recommendations.

Task	Evaluation Type	Purpose	Impact
Design a VE to HE transition program for VE students transitioning to study ACCT1046 Accounting for Organisations and Society and ECON1030 Business Statistics.	Formative	The transition program will provide VE students additional support to enhance their mastery of the course content as well as creating a learning community to facilitate a sense of belonging and connection to the University.	Positive feedback from reference group and key academic staff
Evaluate the effectiveness of the VE to HE transition program to assist VE to success in their studies in ACCT1046 Accounting for Organisations and Society and ECON1030 Business Statistics at the HE level.	Summative	To improved student academic performance and retention for transitioning students.	Improved academic performance as assessed by comparative analysis against non-VE students Improved retention rates as assessed by comparative analysis against non-VE students. Positive feedback from students as determined through focus groups. Positive feedback from academic staff as determined through interviews.

Table 5: School of Management VE to HE Transition Project Evaluation and Impact

Appendix A – Literature review

Development and implementation of a sustainable, discipline-specific academic transition program for students articulating from VE to HE

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Introduction

Transition from Vocational Education to Higher Education

In its review of Australian Higher Education (Bradley, Noonan, Nugent & Scales 2008), the Bradley report highlights the international consensus that access to, and the quality and performance of a nation's education system is a key to economic and social progress. A more flexible and responsive tertiary education and training sector was a key recommendation of the Review of Australian Higher Education, the 'Bradley Report' (DEEWR 2008). The need highlighted was for the promotion of greater collaboration between the sectors to facilitate pathways for students who may not have previously considered university. The connection between vocational education and higher education is an important element to achieving these national attainment and participation goals.

An effective way to improve access for people from under-represented groups in tertiary education is to streamline movement from vocation education and training to higher education (Bradley et al. 2008). Bandias et al. (2011) defines vocational education as providing students with practical, work-related skills and knowledge. Higher education is identified as post-secondary education, conducted by approved higher education institutions, that leads to undergraduate and post-graduate awards. The two sectors that constitute the post-secondary education system in Australia are referred to in this paper as vocation education and training (VE) (this can be referred to also as VET or TAFE) and higher education (HE). VE and HE are the two main tertiary education sectors in Australia and they have an interwoven relationship, with a substantial number of students transferring between the two at varying stages of their lives (Curtis, 2009). Despite an increasing realisation that 'effective transfer promotes efficiency and equity' (Curtis, 2009, p. 2), there can be little doubt that this transfer from VE to HE can be a very daunting experience. Added to this the VE to HE pathway is neither seamless nor consistently applied across the tertiary education sector (Harris et al. 2006).

When undertaking a review of the literature on widening participation in HE it becomes clear that research studies which qualitatively examine transitional experiences of students moving between the VE and HE sectors in Australia are limited (O'Shea, Lysaght & Tanner 2012). The experience of first year students in Australian universities is well documented (McInnis, James & Hartley 2000; Krause, Hartley, James & McInnis 2005; James, Krause & Jennings 2010). Less understood are the issues faced by students who enter HE with advanced standing gained through courses completed in the VE sector. In many Australian HE institutions there appears to have been an unwillingness to engage in respectful conversations about pathways for such students (Weadon & Baker 2015, p3). Resulting from this is Grubb's (2003) description of Australian VEs as having weak links to universities in comparison to other OECD countries.

The global trend toward massification of HE has changed education environment irreversibly in recent decades. The expected further expansion in student participation over the next few decades will bring unprecedented challenges to universities as they seek to respond to greater diversity and to increased demand for academic support and flexibility in entry pathways (Altbach, Reisberg, & Rumbley 2009). In Australia, the Bradley Review (Bradley, Noonan, Nugent & Scales, 2008) has recommended targets for widening participation to include more students from low socio-economic (SES) backgrounds and greater integration of pathways between post-school educational institutions. These forces, together with the continued focus on retention and progression, have renewed interest in the successful transition of students between the VE and HE sector.

Who are the articulating VE students

Transitioning students are a non-homogeneous group. They are a diverse cohort consisting of mature aged students, Indigenous students, domestic students, international students, students under the age of 25, and male and female students (Bandias, Fuller & Pfitzner 2013). Students entering HE on the basis of VE studies have diverse educational and life experiences, often resulting in different types of preparedness, which in turn may impact on the ease of transition (Milne, Holden & Keating 2015).

According to Curtis (2009), two cohorts of students undertake the transition from VE to HE in Australia. The first cohort consists of students who complete their VE qualifications and move into the HE sector. Approximately 10% of VE commencing students are amongst this group (Curtis 2009). These students are typically young, male and studying full-time (Harris, Rainey & Sumner 2006). Those in the second cohort are described by Curtis (2009, p. 4) as, 'later life transfers'. The students in this group are older and likely to be returning to formal study some time after completing their initial qualification. According to Harris et al. (2006), over 50% of all articulating students are female and are younger than 30 years of age.

The majority of students who articulate into HE choose to move into the same or a similar field of study to their VE studies (Harris et al. 2006). Their pathways are more often 'swirling' rather than linear being variously described as 'stepping stones', 'zigzags' and 'crooked paths' (Harris, et al 2006 p.10). The often-expected sequential models then do not reflect the disrupted pathways that learners actually take during their studies and this is particularly the case for women.

Factors affecting VE transition into the tertiary sector

The transformation from an elite towards a mass higher education system has resulted in an increase in the diversity of students within HE institutions (AEI 2010; Trotter & Roberts 2006). A number of comprehensive literature reviews have already been published which identify many factors that contribute to students success or attrition from university study programs. There is a large body of research on the factors that affect performance and attrition rates in higher education. This research determined that the factors affecting retention and academic performance are varied and include institutional type (Wilson 2009), motivations for attending college (Allen 1999), living arrangements (Beekhoven de Jong & van Hout 2004), financial aid (Cooke, Barkham, Audin, Bradley & Davey 2004; Glynn, Sauer & Miller 2003; Sandier 2000; Wetzel, O'Toole & Peterson 1999), fulfillment of expectations for university (Glynn et al 2003), self-efficacy (Chemer, Hu & Garcia 2001; Lane & Lane 2001), attitudes (Glynn et al. 2003), and maladaptive coping strategies (DeBerard et al. 2004). In addition, previous research results show that interactions of those factors with students' characteristics, e.g. demographics and university preparedness, play an important role on their success in university.

The available evidence suggests that for HE students (including those transitioning from VE), their decisions to discontinue their studies are multi-causal and not because of a single event or problem (McInnis, Hartley et al. 2000), and that barriers to course completion involve a mix of structural and individual factors. Even so-called 'individual' factors however - such as personal misfortune and career aspirations - are influenced to a small or large extent by the interplay of various structural forces and their combined impact on people's lives.

The research also suggests that there is no simple relationship between integration variables and retention. While many surveys of students show that external factors (convenience, changing course, financial situation) are often given as the most important reason for withdrawal, other recent literature focuses on the factors pertinent to retention that are internal to universities and are within immediate institutional control and action (Beekhoven de Jong & van Hout 2004), financial aid (Cooke, Barkham, Audin, Bradley & Davey 2004; Glynn, Sauer & Miller 2003; Sandier 2000; Wetzel, O'Toole & Peterson 1999), fulfillment of expectations for university (Glynn et al 2003), self-efficacy (Chemer, Hu & Garcia 2001; Lane & Lane 201), attitudes (Glynn et al. 2003), and maladaptive coping strategies (DeBerard et al. 2004). (Adams et al. 2010; James et al. 2010; Tinto & Pusser Pusser 2006; Wilson & Lizzio 2008). Performance and withdrawal are the result of a complex combination of student characteristics, external pressures and institution-related factors. Student's decisions to leave are often the result of a build-up of factors as evidenced in the data below (See Table 1).

Table 1: Top Ten Influences for Discontinuation – Hobsons Retention Project Report (Adams et al, 2010, p.5).

Reasons for student withdrawal in rank order.	% Large influence	Rank
I needed a break from study	24.3	1
Difficult to balance study and work commitments	23.7	2
I changed my career goals	21.6	3
I found something I'd like to do better	19.3	4
I found a better path to my career goal	15.5	5
The course program wasn't what I expected	15.1	6
I felt stressed and anxious about my study	14.0	7
Course would not help me achieve my career goals	13.3	8
I didn't like the way the course was taught	12.9	9
The subjects weren't as interesting as I expected	12.6	10

The broadening of the student base through VE to HE articulation draws into HE institutions, students who might previously have been prevented from participating and are likely to need additional support. While VE students face all the same common challenges outlined above, the following discussion summarises the key transition factors identified that are specific to VE students and are those affecting the likelihood of success for students transitioning from VE to HE. It is worth noting that the research literature pertaining specifically to obstacles faced by students undergoing this VE to HE transition is relatively scant, particularly within the body of research literature that is peer-reviewed and published in academic journals. Also that studies that are available are single institution studies usually focusing in specific discipline areas.

Research suggests that at least some of the issues faced by students in transition rest on 'the contrast between the competency-based orientation of VE and the theoretical orientation of the university' (Heirdsfield, Walker & Walsh 2005, p.423). Associated issues involve the perceptions of university staff and limited teaching and learning resources designed to support students' needs (Heirdsfield et al. 2005). These issues are in addition to those typically faced by the broader first year student population and may well lead to increased feelings of isolation and uncertainty in terms of the culture of the university for those students from the VE sector (McInnis et al. 2000). However, this transition process cannot be defined in a universal sense. There is a need to understand the specific requirements of particular student subgroups given that 'the student experience varies greatly according to students' backgrounds' (James et al. 2010, p.8).

Barriers to successful transition start at the process of application to attend a HE institution. Spencer (2005) identified eight barriers to successful articulation between VE and HE, which included: articulation as part of the design, not an afterthought; access to clear, consistent,

accurate promotional material; easier and fairer processes of articulation and recognition of prior learning (RPL); university staff understanding VE and vice versa, common language, and student assistance to gather evidence and negotiate for RPL.

Other studies focus on barriers that need to be navigated once the student has engaged in the HE experience. Such studies include Dickson (2000, cited in Watson 2006) where six 'recurring variables' were identified (listed below) that impact on VE graduates' transition experiences at HE:

1. The theoretical knowledge expected at university in contrast to the applied and vocational knowledge required at VE;
2. Differences in teaching and learning styles at VE and university;
3. Higher academic standards and uncertainties of the level of expectations;
4. Repetition of VE content;
5. Issues related to staff-student interactions and relationships;
6. Time management difficulties in combining study and other demands such as paid work and family responsibilities.

A Working Party established by Charles Sturt University and VET to explore the VE to HE transition experience identified differences in skills, dispositions and knowledge as issues in transition from the VE to HE (Brennan-Kemmis et al. 2010). This input are summarised below. These and additional issues are depicted in Figure 1.

1. Transition to theoretical and critical thinking - the transition to be made from a competency based system of teaching and assessing with its focus on the achievement of skills to an environment where the pedagogical focus is on the development of higher order analytical and reflective thinking. This difference is clearly represented in the descriptors that accompany the qualification levels in the AQF.
2. Academic Literacy - the literacy demands placed on a student in their first year of HE study is significant for VE students. These include the development of skills such as referencing, essay writing, note taking, critical reading, the comprehension of the technical prose and the range of functional literacy skills.
3. Academic Expectations - the design of university learning material are frequently quite different from those common in the VE sector. The HE materials are designed with a greater focus on student autonomy and self regulation and this unfamiliarity often poses problems for students making this transition.
4. On-line learning and Information Literacy - the ability to participate in On Line Learning and skills in information locating, gathering, interpreting, and usage are often assumed yet VE students may not have been exposed to these experiences.
5. Reading - In HE there is a greater focus on reading than in VE both in volume and complexity of the reading tasks.
6. Language - The language and lexicon of VE and HE are very different.
7. Culture - The cultures that surround VE and HE have very different traditions and practical expressions. These differences imply that a transition in terms of 'identity' in needed.
8. Expectations - Student expectations and the broader set of expectations from VE and HE are quite different and are often implicitly embedded in subjects and courses. The process of making these differences explicit is left to the student making the transition.
9. University infrastructure and organisational complexity – university systems and supports that may operate quite differently to those that characterise VE sector providers.

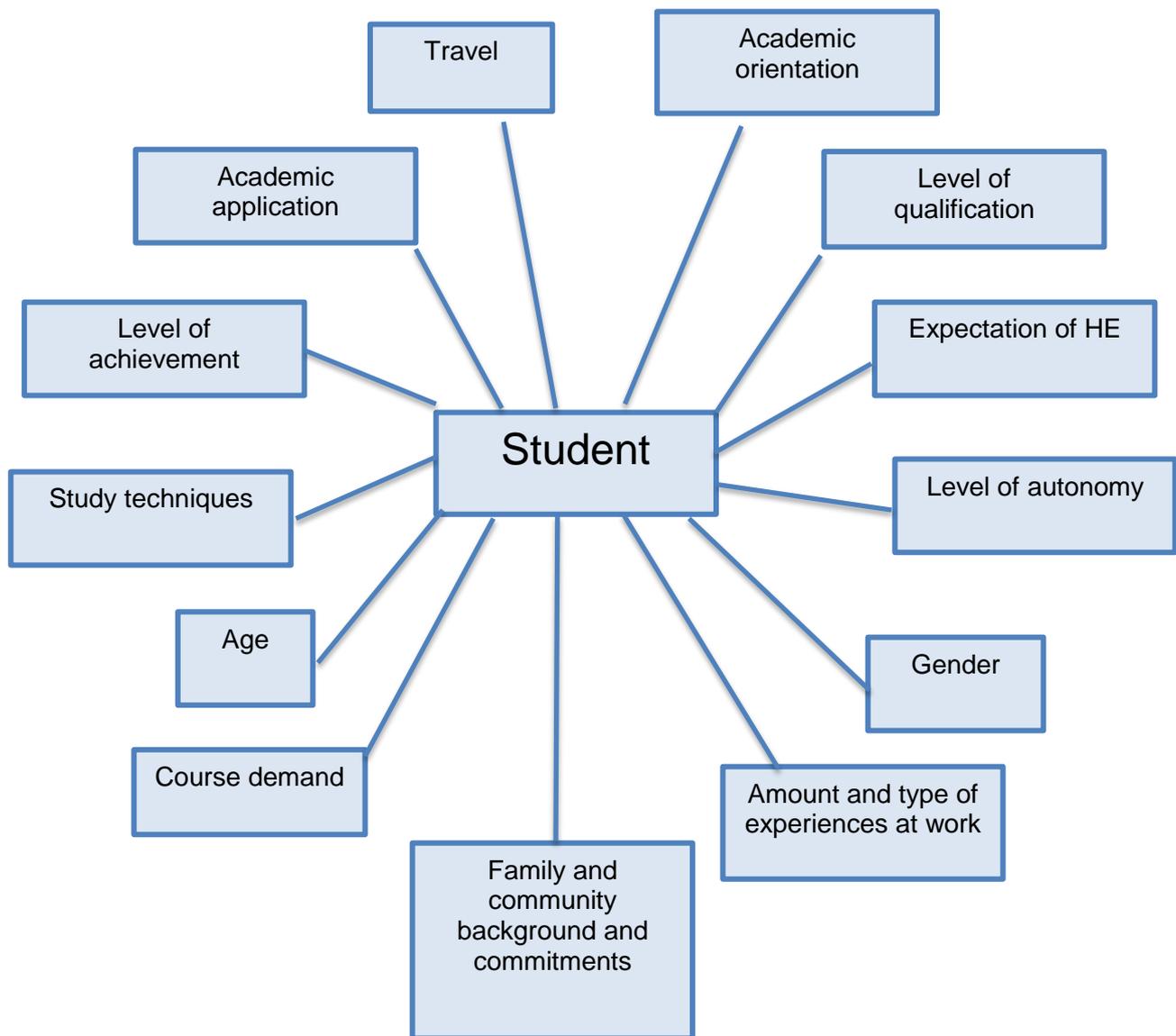


Figure 1: The 'gaps' between VE and HE (Brennan-Kemmis et al. 2010)

The findings by Ambrose, Bonne, Chanock, Cunnington, Jardine and Muller (2013) at Latrobe University confirmed a number of challenges identified in the Dickson study. Students spoke about the new emphasis on theory and higher standards of academic writing, and the need to work more independently, both in terms of managing their time and tasks, and finding their own resources. The learning environment was described as 'not only being different, but daunting, especially the LMS' (p.127). Data from the Ambrose study showed that this challenge was exacerbated by students' own reluctance to seek help in case they looked as if they 'aren't managing'. They also found that for some older students, there was the added discomfort of feeling out of place among the younger students.

O'Shea, Lysaght and Tanner (2013) confirmed findings by Cameron (2004) that studying in VE is 'like high school' when describing the VE class structure, timetable and teaching style. O'Shea et al. determined that the recognition of the skills and knowledge that the students bring with them from the vocational sector is another consideration for higher education providers, particularly how best to incorporate this within the teaching and learning environment. The participants in O'Shea's study at the University of Wollongong 'did not necessarily perceive themselves as lacking knowledge rather the knowledge they had gained somehow differed to what was expected in the university environment' (p.11).

Interestingly findings from a study by Catterall, Davis and Fang (2014) show that, while students could articulate difficulties with managing the workload, they had much greater difficulty identifying differences in learning orientation. This often left some 'feeling alienated and dejected' (p.252). The change from competency-based learning to learning that requires more critical orientation and reasoned student voice is a significant shift for students. They argue that some students struggle to reposition themselves as critical learners, particularly in the absence of direct instruction. The students in their study also encountered a range of difficulties with the new learning expectations with many students finding the amount of reading to be 'overwhelming and being dismayed at the relatively low face-to-face contact with university staff' (p.252). Students also had an expectation that the high results attained during their VE study would ensure a seamless path into university and were 'shocked' when their same study methods resulted in relatively poor marks. In some cases the 'differences between prior and current learning orientation impacted negatively on confidence and engagement, particularly in the short term' (p.252).

Another interesting finding was that by Lehmann (2009) who determined that some working-class students and their parents may continue to value applied, vocational knowledge above abstract knowledge, contributing to ongoing feelings of dislocation for VE students moving into the HE sector. Some students in their study struggled to see the relevance of subject matter that was not directly related to their future profession and were uncertain about the value of theory 'as opposed' to practice.

In exploring transitioning students at Victoria University from the teachers' perspective, Milne et al. (2015) identified that many of the challenges teachers anticipate their students facing at entry to higher education were similar to those anticipated by the students themselves. VE teachers identified adapting to a different teaching and learning environment as a major challenge for articulating students, especially given the lower levels of academic and social support they see higher education as offering students. The key issues identified in the Milne study were:

- **Course content, workload, learning skills and assessment methods** where many VE teachers saw challenges for students in adjusting to higher workloads with shorter timeframes for completion, the greater volume of reading expected, the greater emphasis on self-directed learning and general concerns about mastery of specifically 'academic' skills.
- **Relationships between higher education and VE** with teachers' commenting on the need for good relations between teaching staff of VE and HE. This was highly variable in Milne's study with some teachers having good knowledge but for others it was from non-existent to adversarial.
- **VE teachers' knowledge of articulating students' performance in higher education** with very few VE teachers reporting having ready access to comprehensive information on the performance of their ex students. They describe this as limiting the capacity to refine and further develop the VE experience to facilitate transition.

In the study by Weadon and Baker (2015) researchers identified what they describe as 'Transitional shock'. In summarising student attitudes towards the transition from VE to Higher Education, one coordinator discussed the experience that she has had with the students and described the student's transition to higher education as a 'scary jump', 'a shock to their system' and 'challenging' for the students (Weadon & Baker 2015, p.7). However, the coordinators interviewed for this study unanimously agreed that the consistent educational environment had provided VE students with the security they needed to manage the significant academic challenges that HE posed.

The Weadon study (2015) also identified 'The TAFE effect'. It would appear that certain aspects of the VE teaching environment enhance the prospect of a successful transition into higher education scholarship. They identified the following:

- Smaller VE class sizes allow 'academic intimacy, accessibility and engagement'. Believing that support impacts success for this particular cohort type, scaffolding, guidance and nurturing were seen as a vital role in the teaching staff appointed: '[we] need to give psychological and academic support to allow academia to flourish'.

- The beneficial effects of both security and sense of community provided by a familiar and nurturing environment emerged as a significant theme. Coordinators commented on the desire of students to stay within the 'safety' of the environment they had become familiar with whilst undertaking their VE qualifications.
- Teaching staff selection appears to be a crucial factor in the 'TAFE effect' according to the participants of this study. An ability to build rapport and provide academic and psychological nurturing to students is seen as desirable attributes amongst VE staff. One respondent indicated that the usual subservient relationship between academic and students within a university context contrasted sharply with the 'learning partner' role of educators within this program (Weadon & Baker 2015).

What do VE students expect in HE?

In their study at Latrobe University, Ambrose et al. (2013) surveyed 1350 students 76 responded across all four campuses. In their study when VE students were asked how they expected university to be different from VE, students responded with a range of answers, sorted into themes in Table 2 below; however, the number (at right) who expected these differences was small in every case.

Table 2: Expectations of university study.

Expected differences from VE	Number of respondents who expected this difference
Greater independence	13
Heavier workload esp. reading & writing	7
Harder work / higher standards	10
Different skills/ learning style	2
More theory focused	5
Different types of assessments	1
Different marking system	1
Less supportive / less contact with lecturers	6
Greater resources	5

When asked what differences they encountered once embarked upon their course, 21 (or 28%) found university more challenging than they expected, while 7 found it less so. In addition to the differences respondents had expected, the surveys and focus groups identified a range of technical and procedural challenges including time management/organizational skills; administrative arrangements; managing web-based components of subjects; amount and depth of reading; group work (specifically, feeling out of place in groups of younger students); online lectures; research; and referencing (Ambrose et al. 2013).

A large proportion of students in the Milne study stated that the major difference between VE and higher education courses would be larger workloads and more challenging course content in degree courses. In terms of the content of courses at VE and in higher education, many students contrasted the practical/technical focus of VE courses with the theoretical content of degree courses, expecting to do less 'hands on work' and more reading and theory based work. Similarly, many students were aware that different assessment methods, like exams and essays, are used in higher education. Students characterised VE as generally a more 'relaxed' learning experience by contrast. 'Worryingly though, around 10% of the students we spoke to had no idea of what to expect should they be accepted into a degree course' (Milne et al. 2015, p.9).

Another key theme in students' responses from the Milne study related to the challenges of a shift to more independent learning in higher education. Many students commented on perceptions that both collaborative group work with peers, and teachers input into their work, would be lesser in

higher education. Students discussed the differences in teaching and learning formats across the two sectors, contrasting VE experiences of small classes with the same friends and teacher, over years perhaps, with large lecture groups and tutorials and a changing group of teachers and peers. A great many participants discussed being 'spoon fed' information at VE and not expecting this to continue in higher education. They also foresaw having far less opportunity to ask questions and interact with lecturers than had been the case at VE. Students further described VE as 'more like 'high school', 'with teachers following up on students' progress, attendance and the like, but again assumed this would not occur in higher education' (Milne et al. 2015, p.9). However, students were aware that they were likely to have less teacher and peer support after articulation.

Strategies for change – easing the transition between VE and HE

Overall, the study by Ambrose et al. (2013) identified that attention to transition was needed not just at orientation but at various stages in the pathway. In their view the following key steps are critical to successful transition:

1. The university should contact prospective students while they are still at VE, with information that helps them make decisions about applications to study.
2. Pathways and credits should be clearly explained, and information on courses offered.
3. Students suggested 'have a go' days or 'mock Uni' sessions to gain a brief experience of university.
4. During orientation week, transitioning students should be identified and invited to activities tailored to their specific situation.
5. At orientation there should be discipline-specific introductions to academic cultures of learning, as well as technical training in the use of the web for study.
6. For students entering at second year, there should be some revision of skills that lecturers in second year subjects will assume their students have (such as how to use assignment guides, how to find and use the LMS, and how to find and reference readings).

The Milne study identified that for successful transition into HE there was a need for more consistency in the environment between VE and HE. Points of variance that needed to be addressed included smaller class sizes and the nurturing culture of VE institutions allow an academic intimacy and accessibility to staff not usually found within higher education. This was supported by the attributes and pedagogy of the staff employed to deliver the applied degree courses within the VE institution who were able to provide both psychological and academic support to allow academic endeavour to flourish in these student cohorts (Milne 2015). Milne argues that these issues create an inconsistency that need to be addressed to facilitate successful transition from VE to HE.

Brennan-Kemis et al. (2010) outline strategies to address the 'gap' between VE and HE courses. Their strategies are clustered into the following groups:

- Content gaps.
- Pedagogical gaps in Competency Based Training.
- Generic skills gaps.
- Learners' study habits gaps.

Their strategies can be summarised as:

1. Targeted mentoring
2. Production of a Website focusing explicitly on the experiences of past students Connect new with old students
3. Compulsory residential school.
4. New study link subject VET to HE.

5. Linking past learning with new learning through explicit strategies.
6. Institutional support.
7. First year curriculum and assessment.
8. Cultural support.
9. Identity Change and Reformation Infrastructure support.
10. Contact 'hubs' for students Pilot session.
11. Mapping courses and training packages.
12. Explicit Literacy teaching with a particular focus on the subject specific Literacy demanded by the various discipline.

Institutionally:

- Personal Development for staff in HE and VE.
- Greater contact between VET and providers and CSU (Brennan-Kemis et al. 2010, p.34-35).

Delivery mode and the program type clearly appear to play a significant role in the academic engagement of these non-traditional groups embarking on higher education. A traditional degree, further encouraged by the ethos of the Australian Qualifications Framework (2013), builds academic skills progressively over a structured three year program. With the application of credits for prior learning, VE Advanced Diploma graduates find themselves thrown in to the third year of a Level 7 qualification without the benefit of higher education academic skills.

At the University of Western Sydney a number of strategies are currently being piloted. These include preparation sessions (held in the year or session prior to entry), a direct mail out advising of university services (including the availability of free bridging and preparation programs) and a website aimed at providing information specifically to VE students. These resources also aim to provide information on a range of other areas that were identified as areas of concern to significant numbers of students. For example, assessment tasks, academic writing and academic conventions were found to be difficult at first by between 20 and 30% of students surveyed and an ongoing source of difficulty for another 15% of students (Catterall et al. 2014). In their data a repeated theme was the need for information prior to the orientation week and the start of semester. The high number of students who reported that the amount of work, study and preparation was more than expected signals a considerable source of stress for students who might not have had the opportunity to allocate adequate time to their studies.

The recommendation by Heirdsfield, Walker and Walsh (2005) to alleviate some of the transition issues faced by students as a result of the contrast between the competency-based curriculum of VE and the theoretical focus of the university is to offer a variety of teaching modes within a program (online, self-directed and face-to-face) to better meet the needs of students who exhibit non-homogenous learning preferences.

Wheelehan and Ovens (2005) argue that universities need to continue re-examining the structuring of first year curriculum so that students are able to: (a) understand the 'hidden curriculum' associated with studying in their field, and (b) access the resources and learning support required by them to truly engage and succeed at university. Wheelehan and Ovens (2005) also recommended the delivery of the current Certificate IV in Tertiary Preparation which is now offered by most Queensland VE institutes to prepare students for higher level studies in VE or university.

Catterall et al (2014) consider that their view on the place of transition support is one that is increasingly shared in the UK (David, 2010) and also in Australia. In describing their preparation program for international, postgraduate students, Jones, Farrell and Goldsmith (2009) warn that transition programs should not be regarded as mere gap fillers. The strategies currently being developed by the research team in response to student concerns are similarly aimed not to plug gaps in a deficit sense, but, rather, at facilitating the effective flow of information to participants coming from a different educational environment. There is no doubt that timely information about their course, their patterns of study and the workload would make the transition to university study less stressful.

Current experience with VE to HE transition programs

Research by Jackson, Dwyer, Paez, Blacker and Byrnes (2010) found that:

'The majority of HE respondents cited a diverse array of programs that they are using to address transition issues, including bridging programs, counselling, one on one support, workshops targeted at transitioning students, or help being available only if sought by students. However 30% of HE respondents indicated that they had no transition programs or strategies. Some were monitoring the impact of these programs on student attrition rates, and 50% of respondents said they believed the strategies had improved their attrition rates. 50% of respondents believed they were doing enough to assist students with transition, whilst 30% did not, and 20% did not know (p.6).

In Jackson's study focused on efforts within the VE provider to facilitate student preparedness for HE. The results of the study showed that around half of VE providers offered some type program aimed at facilitating the transition from VE to HE. These programs included specific bridging programs, scaffolded study skills and/or learning support officers,). However, generally these support mechanisms needed to be self-accessed by students and were not integrated into the HE program. The transition to HE was described by one participant as 'probably one of the weakest areas' (Jackson, et al. 2010, p. 7). Very few of those providers with transition programs believed they were working well, with only 18% believing the program was successful and less than one third (27%) believed they were doing enough to assist with student transition to HE. While respondents identified that there was a shift toward providing more explicit transition programs, they were conceived to be 'fragmentary, ad hoc and limited in scope' (Jackson et al, 2010, p. 7).

The support for transition that students received in VE at Latrobe University varied too, with 25 students saying they had had none; 17 reporting information about applying or transferring to university; and nine receiving 'advice and encouragement' from a VE teacher or counselor, which included, for just three students, advice on how to study at university. As Table 3 shows, when they arrived at university, they used a range of types of support for transition to university study (Ambrose et al, 2013).

Table 3: Students' use of support for transition to university study.

Support by the institution for transition to university study (Q. 9*)	Number of respondents who used each type (Q. 11)	Number of respondents who rated each type 'most helpful' (Q. 10)
Transition programs	2	1
Orientation activities	32	11
Materials in print/online	32	6
Modules/tutorials/ consultations to develop skills	18	2
Peer mentors	10	2
Student services	16	2
Administrative help	3	1
Library staff	1	1
ALLU workshops/ individual consultations	6	6
Transition programs	2	1

Conclusion

The need for addressing issues of transition has received significant national attention lately. For example, the NCVET has proposed an extension of current effective arrangements between some VE providers and universities to assist in meeting the Bradley Review (2008) objective of widening participation through 'a continuum of tertiary skills provision' (Curtis, 2009, p. 7). Improvement in transition between VE and university would not only be of benefit in terms of meeting goals of equity, but also in increasing the efficiency of the education system.

There is extensive research, both Australian and international, which supports the Australian Government's push for an overhaul within the tertiary education sector. The challenge set by the Bradley Review (2008) points to the need for considerable reform in numerous areas and for greater understanding of the influences behind drop-out rates in the quest to achieve the 2020 goal of greater representation within HE by under-represented groups. The vocational focus of HE has increased in recent years and vocational education has responded to the demands of industry for higher level skills by refocusing on middle level and advanced training (Richardson & Teese 2008). However, according to the Review of Australian Higher Education (Bradley et al., 2008), diversity in tertiary education provision remains necessary to ensure that the full range of learner, industry and social needs can be met. What is required, is improved connections across tertiary education and training to meet economic and social needs which are dynamic and not readily defined by sectoral boundaries.

There are multiple pathways in the tertiary education sector within Australia. For an increasing number of students the pathway also includes the transition from the vocational education sector into higher education. For articulating students, the pathway is complex, involves multiple stakeholders and is overlaid with policy and institutional barriers. The pathway is rarely perceived as uncomplicated. Rather, there is substantial evidence of rigidities, inflexibilities and obstacles (Bradley et al. 2008). The current system is complex and difficult for students to navigate, for both younger people who have not made a successful transition into the workforce as well as older people who wish to upgrade their skills. The current regulatory arrangements are also complex for providers, especially where they are operating across sectors and state and territory boundaries.

This literature review has identified numerous barriers and challenges faced by these groups. Many of these barriers and challenges lie within the control of institutions and teaching staff (particularly in relation to: course content, organisation and delivery; teaching quality; and the timely provision of advice to students about their study and career options) and provide enormous opportunities for the development of strategies, policies and further research aimed at addressing these issues and increasing understanding of student needs, as well as the influences which most contribute to students realising their educational aspirations.

The findings from this study can contribute to our understanding of the experiences of students as they make the transition from the VE sector to HE and allow us to identify strategies that will facilitate the transition process. The first semester can be a period of stress for many students, with a significant number pointing to difficulties in managing the online environment, achieving study, work and social/family balance, in understanding academic conventions and developing an appropriate writing style. Practical implications that have been identified by this study include the need for information related to expectations, workload and conventions of university study, as well as advanced notice of bridging and mentoring programs and key course readings to be provided to students prior to entry.

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Appendix B – Stage 1

			2014		2013		2012		2011	
			S1 2014	S2 2014	S1 2013	S2 2013	S1 2012	S2 2012	S1 2011	S2 2011
ACCOUNTING	NON-VE	% PASS	78	70	75	65	66	64	76	59
	VE	% PASS	58	48	64	53	49	44	57	63
	ANALYSIS	P VALUE	3.48E-07	3.27E-06	0.0049699	3.48E-07	0.000041115	0.00363	0.023462	0.84846
ITM	NON-VE	% PASS	85	82	89	83	84	86	No data	No data
	VE	% PASS	78	81	94	93	79	59	No data	No data
	ANALYSIS	P VALUE	0.0490	0.8039	0.03410	0.05791	0.1934	6.237E-05	No data	No data
B STATS	NON-VE	% PASS	81	75	70	67	71	70	71	76
	VE	% PASS	64	58	95	52	53	40	59	43
	ANALYSIS	P VALUE	1.24E-05	6.43E-05	0.0004175	0.003024	0.004146	2.85E-07	0.2313	0.0005099
B COMP	NON-VE	% PASS	87	83	81	78	78	82	75	78
	VE	% PASS	74	58	50	73	71	92	67	75
	ANALYSIS	P VALUE	0.1816	0.001	0.000002123	0.6651	0.4075	0.3905	0.546	0.9054
MACRO	NON-VE	% PASS	85	77	89	90	69	91	78	75
	VE	% PASS	66	67	90	89	35	81	50	50
	ANALYSIS	P VALUE	4.40E-08	1.07E-02	0.9183	0.1321	2.31E-10	0.018	0.0007	0.1162
LAW	NON-VE	% PASS	92	89	88	85	54	62	64	68
	VE	% PASS	90	78	100	74	44	44	57	67
	ANALYSIS	P VALUE	0.1937	0.0108	0.5957	0.011	0.3376	0.0706	0.1495	0.9502
MARKETING	NON-VE	% PASS	82	85	83	75	76	67	78	71
	VE	% PASS	74	78	86	80	50	35	64	78
	ANALYSIS	P VALUE	0.0831	0.1585	0.6469	0.5665	0.0013	0.0032	0.3253	0.4427
PRICES & MARKETS	NON-VE	% PASS	93	93	71	74	75	75	79	71
	VE	% PASS	90	87	66	63	54	77	68	42
	ANALYSIS	P VALUE	0.3204	0.0557	0.9183	0.1322	2.31E-10	0.0181	0.0001	0.0070

Table 6: Pass/Fail rates for common core courses (2010-2014) Note: p value <0.005 is considered statistically significant. p values <0.005 values are coded green. p value > 0.005 is coded in brown

Appendix C – Stage 2

Focus Group Questions

1. Background and experience

- What was your last year of study in Maths of any kind?
- How confident are you about your Maths skills?
- How confident are you with your literacy skills?
- When you reflect back on your experiences with Accounting/Business Stats, how would you summarise this experience?
- Did you think you were going to pass Accounting/Business Stats?
- Was the outcome what you expected?
- If you didn't pass and thought you would, what were your main challenges?
- Did you understand what was expected of you? What did you think you needed to do to achieve good results?

2. Content and delivery

- Did you understand the course content?
- What did your lecturer/tutor do to engage you with your learning?
- What did your lecturer/tutor do to engage you with each other?
- Did you understand what the assessment tasks were asking you to do?
- Did you get sufficient feedback from your tutor in relation to assessment tasks?
- Did you get the level of support from the university that you needed to succeed in Accounting/ Business Stats?
- Did you attend lectures and tutorials (a) all the time; (b) sometimes; (c) not often?

3. Orientation

- Do you think you were properly prepared for studying in HEd Accounting/ Business Stats? If not, what was missing that would have enabled you to achieve success? If yes, what assisted you to be prepared?
- Were you given enough information about the course – Accounting/Business Stats, prior to taking it?
- VE focus group only.... Was there something that could have been covered in class that would have better prepared you for HED?
- Is there anything else the University could have done to support your success with your studies?

ACCT1046 Accounting for Organisations and Society – Focus Group Responses

The following information has been summarised from the Transcript of focus groups responses.

1. Background and experience

What was your last year of study in Maths of any kind?

Year 12

How confident are you about your Maths skills?

Confident – did very well in Year 12 both Further and Methods. “I’m good at maths”

How confident are you with your literacy skills?

Confident – does well in report and other literacy heavy assessments

When you reflect back on your experiences with Accounting, how would you summarise this experience?

“Pretty good at it but some friends didn't do very well. What I find about Accounting is you need to constantly reinforce you learning. I learned this from Yr 11 and 12 were it wasn't reinforced so learning wasn't consolidated. With Accounting you forget if you're not constantly using it”.

The tutorials were not long enough. Most assessments were in tute tests so there was not enough time.

Others didn't understand the basics like “what is an asset, what is a balance sheet, where a liability goes”.

For those that struggle with this “it isn't a maths issue, it is an accounting issue. Different to B Stats – it is maths but accounting is not so much maths – you have a calculator so you just punch in the numbers”. “It is more about problem-solving”.

Friends who have come through VCE but never done accounting. Done a bit of maths (Further) but not great at it.

2. Content and delivery

What did your lecturer/tutor do to engage you with your learning?

Had a great tutor. Personable. Got on really well. Put things into real world based on his experience.

What did your lecturer/tutor do to engage you with each other?

Nothing really. Got enough by working through the core courses. Some in group work.

Did you understand what the assessment tasks were asking you to do?

Mainly yes. They'd drop a few words (clues) they could be used as a guide. Not allowed to go and ask tutor questions about the assessments. Other courses the tutors would make sure you were on track but not in Accounting.

Did you get sufficient feedback from your tutor in relation to assessment tasks?

Some courses yes but not others. Not much in Accounting. A lot of variation from tutor to tutor.

Did you get the level of support from the university that you needed to succeed in Accounting?

Variable (as above). Effort to follow up problematic grades have not resulted in any response so not always.

3. Orientation

Were you given enough information about the course – Accounting, prior to taking it?

Accounting yes – Bus Stats not so much.

Needs all lectures posted early in the semester so you can work ahead. Helps with time management.

Is there anything else the University could have done to support your success with your studies?

If we were doing a transition program:

- Most of the exams are based on income statement and balance sheet so drill this
- Need for weekly reinforcement – maybe run a weekly extra tute to reinforce the basics
- Need opportunity to ask the little questions
- Accounting needs a 2 hour tute
- Needs more hands on – rather than just constantly explaining things, use examples and get the students to work on these
- Make the content relevant to where the students are at in their head (e.g., look at it in the student's personal life rather than divide into big company finances), Needs transition from small company (e.g., Jim's moving to large companies (e.g., banks)
- Up to week 6 it is covering concepts and then into applied examples after week 6
- The subject didn't really escalate in difficulty – it was quite gradual so support needs to be across the semester rather than front ended
- Doing a short introductory course prior to coming into Accounting is good but needs to be two phased (at the start to give them a rough idea of what to expect and then during the semester)
- Other skills needed include 'how to study'

ECON1030 Business Statistics - Focus Group Responses

1. Background and experience

What was your last year of study in Maths of any kind?

Year 12 (all students)

How confident are you about your Maths skills?

Pretty confident for those that studied Further Maths.

Very confident for those that studied Maths Methods as well as Further Maths.

How confident are you with your literacy skills?

Confident (most participants had English as a first language - one was ESL but very strong English language skills).

Participants were asked how important literacy is and their responses indicated that it is a minor issue. However, the conflicting terms used between Further Maths and Maths Methods left students coming in with Further Maths only confused and even applying things incorrectly due to their interpretation of the language.

For the participants language was not an issue but they were aware of other students who really struggled with terms like *greater than* and *less than*. So for some students language can be a problem. One example provided indicated an assessment had a very high failure rate because students didn't understand these terms. One participant indicated that this is mostly an international student experience.

None of them had experience of a lecturer or tutor focusing on explaining the terms.

When you reflect back on your experiences with Business Stats, how would you summarise this experience?

Good to frustrating.

Did you think you were going to pass Business Stats?

Yes (those that PASSED) – because we thought we had a strong maths background.

Yes but knew it could be hard because “had heard from other students that it was just like Maths Methods and I only did Further Maths.

This led to a discussion on maths background:

And the symbols and things you learn in Further Maths are different from in Maths Methods and B Stats uses the Maths Methods way (e.g., the symbol for the mean is different). Further Maths is a basic maths and I wouldn't even consider doing Methods because it's much harder”. Further Maths is nothing like Methods. General patterns suggests that students are ok until they hit *probability* and struggle from there (about week 4). “The variables are different between Further and Methods”.

“Another difference is in Further and Methods we got to use the graphics calculator but not in Stats. In Stats we have to show all the working out”.

“I heard from my friends that the difference between passing or failing was if you did Methods”.

“They didn't know how to do probability so they struggled in the second test. And it all got hard from there”.

“At the start Stats was like Further with the quartiles and stuff. But it changed at week 3 and I had no idea what I was doing”.

“Maybe if I didn't do Further it would be easy 'cos I wouldn't have the problem with how I used the terms wrong”.

This led to a discussion on assessments:

For the student who failed first time, she had a “bad group” (with two group assignments) and so did really poorly in the group assignment. When she repeated it was all individual.

Another student who also did B Stats when it was group based discussed how his group members didn't have good maths background so they all struggled in the assignments so he basically did the whole thing himself. He also got his friends through when they were in other groups.

Another student had a good group and found the group assignment helped with learning.

Was the outcome what you expected?

Yes (for all but one).

One participant failed 1st time. Expected to pass at commencement but recognised about half way through that she wasn't coping so stopped working on Bus Stats (at week 7) and focused on other subjects.

If you didn't pass and thought you would, what were your main challenges?

For the student who didn't pass, - She was ok in the first few weeks but by about week 4 started working on concepts not done in her Yr 12 Further Maths. Got lost in the content and did not cope. Lack of maths in certain areas (from *probability* onwards, *formulas* etc. all too hard).

Other issues are identified in subsequent questions

Did you understand what was expected of you? What did you think you needed to do to achieve good results?

Yes (for some). Thought we did but didn't really know what we didn't know (others). Thought we needed to go to lectures and tutorials and to do the exercises and assessments that were given to us.

2. Content and delivery

Did you understand the course content?

Question was previously answered so not asked again.

What did your lecturer/tutor do to engage you with your learning?

- Repeated concepts
- Did examples.
- Explained assessments
- Used lots of formulas
- Gave us exam tips

What did your lecturer/tutor do to engage you with each other?

Nothing in particular

Did you understand what the assessment tasks were asking you to do?

Yes. These were explained well, with the exams, practices provided.

Did you get sufficient feedback from your tutor in relation to assessment tasks?

"We never really got any feedback on the assignment. They just gave it back to us at the end of the class".

"They need to give more feedback on the assignment especially task 1".

Did you get the level of support from the university that you needed to succeed in Business Stats?

One participant went to SLAMs. Good experience generally although there was recognition that once you are falling behind you need to go every week to try to keep up. Quality of SLAMs mentors varied "even one SLAM I wondered how they got a distinction".

Mixed discussion on teaching staff. One semester good lecturer another lecturer not very good. Tutors also varied in quality.

Did you attend lectures and tutorials (a) all the time; (b) sometimes; (c) not often?

Went to lectures and tutorials apart from the participant who disconnected from her studies in Bus Stats to focus on other subjects.

This led to a discussion on course quality:

There was discussion here about the course structure. The tutors were seen to be rushing the content because there was only 1 hour tutorial, But "my lecturer went through the slides really quickly so we ended the lecture early all the time – like an hour early". So it was all too fast in the lecture and in the tutorial.

The student who failed indicated that she couldn't understand the lecturer at all first time but the lecturer when she repeated was really good. ..."but the tutor was better the first time than the second time".

Common theme was that it was all too fast.

International students would not ask tutors questions.

"Some times the tutors would give you clues to head you in a direction like in the exam preparation. They'd say, if it is worded like this then you use this formula". " Yes this could be a problem if you don't have good language skills because they need to get the idea of what the tutor is trying to tell them".

3. Orientation

Do you think you were properly prepared for studying in HEd Business Stats? If not, what was missing that would have enabled you to achieve success? If yes, what assisted you to be prepared?

As indicated above, those who did Maths Methods were well prepared and indicated that B Stats is redoing Maths Methods work.

Those who did Further Maths thought they were underprepared and that Further Maths could actually pose more challenges than offer good background.

Were you given enough information about the course –Business Stats, prior to taking it?

Yes

Is there anything else the University could have done to support your success with your studies?

The answer to this was addressed by asking what worked. Ideas offered were:

- Provide an introductory maths based more on Methods.
- Use a graphics calculator based course
- Explain why we are doing what we are doing (e.g., value in doing the working)
- More tutorial time
- Slow the lecture
- Have good lecturers (the slides are ok) (good personality and break it down)
- Have good tutors
- Make it more engaging
- SLAMs are good
- Use good examples in the tutorials
- Use prepared examples not do it but writing it out as you explain it
- Lecture recording to be able to go back over the lecture (not all students new about the recordings at the time of studying Stats.
- With the MCQ – some of the questions flowed on from each other so if you got the first one wrong then the next three are wrong... change it. With short answer you can get consequential marks but not with MCQ
- MCQ to test theory
- Short answer for problem solving
- Different textbook – some students thought Berrenson was difficult
- More understanding of the student's experience and be more positive (e.g., "they would tell us that the pass rate for a test was really bad and it was like they are saying this but not getting how much we were struggling"). The approach from the teaching team gave a sense of frustration which wasn't helpful
- It's all in the textbook so if you didn't read it you wouldn't know how to do anything
- Use practice assessments that reflect the real assessment (e.g., practice exam with the same questions but different numbers)
- Start with a strong base on theory then problem solving
- Work on using tables particularly the degrees of freedom table

- Keep with RMIT recommendations on subject choices for the common core subjects that students do B Comp and B Stats in the same semester so that you have the computer skills for the B Stat assignment
- Having the teaching team offer consultation times to answer questions instead of just referring students to SLAMs

Interview Questions

Proposal of questions for staff in VE Diploma of Accounting, Advanced Diploma of Accounting and Higher Ed Accounting for Organisations and Society and Business Statistics 1.

VE Dip/Adv Diploma of Accounting

1. How is the Diploma/Advanced Diploma of Accounting pedagogically structured in VE?
2. How is the course designed to enhance student engagement?
3. Do you prepare students for transition into HEd?
4. If so, what do you do to prepare them for HEd?
5. What could the University do to better prepare students for transition into HEd
6. Do you have or staff in the Accounting program area have any communication with course coordinators from HEd Accounting and Business Stats.

Higher Ed - Accounting in Organisations and Society & Business Statistics 1.

1. What information do you gather to help you know your cohort of students?
2. What information do you gather to help your tutors know their student cohort?
3. What is the design/framework that underpins the content to enhance student engagement?
4. How do you engage with your students?
5. What do you do to assist your students to engage with each other?
6. What are your performance expectations of your students (unadjusted results)
7. How do you identify students at risk or potentially at risk of failing?
8. How do you support your students once you have identified that they are not coping with this course?
9. Do you think your students are underprepared for this course? In what ways are they underprepared?
10. What additional support can be provided to prepare them for success in this course?
11. Do you expect your tutors to monitor their students' academic performances?

Interview Responses

The information below is a summary from the transcript of interviews held with staff.

- Q2 So the first question is what information do you gather to help you know your cohort of students?
- A1 The only information is a class list, which indicates what program they're involved in. I have no further information on students unless they email me or speak with me after the lectures.
- Q1 So how many tutors do you have?
- A1 I have about ten or 12 tutors, and about 40 some tutorials.

- Q1 Do your tutors get a class list, and does that class list identify domestic, international, mature age, VE articulating etc ? Do you have a list that tells you what pathway they're coming from?
- A1 I don't know. Well I certainly haven't provided that do the tutors.
- A1 This is my first semester as course coordinator
- Q1 What about you Mary-Ann?
- A2 No, I don't know actually the background of the students. One thing that actually you have to do keep in mind, is that the number of the students very, very high, 1,400 in Melbourne Singapore has got 800 there, I also look after Vietnam, so the number is very high. I think it's really hard to micromanage things. The college should understand that the course coordinator has no time or resources to do more. My job is to provide good quality materials, focus on the content, and the accounting knowledge.
- Q1 What do you do to help your tutors have that information? So how do your tutors, or do your tutors ever really get to know who their students are and what their challenges are?
- A2 The first thing is I've got access to is IExplore. I check the students some time during the semester, and at the end of the semester. But I don't check 100% of the students...no time to Micromanage. I check on the students who come and see me, or DLU students, I definitely check their progress, everything through IExplore, and I found it very, very useful because it clearly shows how many times the students failed and it just helps me. Sometimes I allocate one tutor to pick up on these students, but it's not systematic, so it's something that came to my attention.
- Q1 It's not something you proactively do, it's a response to something?
- A2 Yes...something extra but if it's to be systematic, I won't be able to do that. I don't think at the moment I've got the resources to do that. Most of the tutors are sessional so they do not do any extra stuff as there are no resources allocated to this. So they just get paid to go to the class, We've got 15 tutors. five or six new staff who haven't got any form of teaching experience . That's the reality.
- Q1 So you're in the same situation Trevor?
- A1 Yeah.
- A1 For Stats, some of my sessional staff will respond to e-mails much more readily than others. At least getting a few e-mails as coordinator, I'll get occasional students will say "Can I talk to my tutor about these?" So I obviously know about my tutor communicating to a certain degree, whether or not they're going through and identifying specific students who are running into issues. I suppose I've had that communication with my tutors myself, to know whether or not they're going through and identifying issues.
- Q1 We've got VE staff who don't see that it's their responsibility to do more than what they're required to do, which is teach the VE courses syllabus and make sure their students do the best they can do. We've got Higher Ed staff, who have very large classes, who have a large sessional component, who again don't have the resources to be able to do more than what they currently do. So who is responsible for the transition for these students? Where do you see that responsibility as sitting?
- Q1 The majority of students now a using it as a pathway to HE and somewhere the University has missed a group of students who are coming through, year after year after year, and they'll get a credit or a distinction or a high distinction average in their Advanced Diploma. They come into HE and are hitting a wall and are going fail, fail, at risk, at risk and they leave. So talk to me about what you think is how it could be?
- A2 This is not just specifically about VE students, but any other first-year accounting students. I don't know who's going to train them in the transition from high school to university, because sometimes we get some lots of questions which is really down to the basic information that they should have.

- Q2 It's general HE information in accounting and statistics?
- A2 Exactly, I'm an accounting person and I have to answer questions even about business Central, Sometimes I realise, some students, don't know the blackboard, because I'm saying I started sending an e-mail saying "See the blackboard" because I post some stuff on the blackboard and I realise after two weeks, some students, they don't know what the blackboard is and I just went "Okay".
- Q1 We get that in SLAMs, so we say to the students in SLAMs "In the first four weeks in your sessions, when you meet your new students, ask them if they know about blackboard"
- A2 I realise that I have to start in my first lecture, to show the blackboard, when they can actually load into the blackboard. So that's basically it's because I'm just introducing the blackboard to the first-year students, but I do this, but there are lots of other stuff that actually I think that there should be another way, or introduction to the students who actually start there higher degree actually.
- Q2 Perhaps it belongs to the college...people like us...to develop the transition programs for the Business students.
- Q1 Yes... and involve us in the design
- Q2 Before, you were referring to the micromanagement of knowing your cohort and the huge student numbers, Would it help you if you had general information about the cohort student profile? Like percentage of people who have come in from VCE? The percentages of "Are they people from international students? Are they people working in industry?" Would that help you, or are you aware of that type of information? Would it help you to have general information, or do you think you know your cohorts?
- A1 I would say yes and no. I would say yes having some information about the distribution of students might be helpful. But how would we then target each group? When we know what they are lacking how do we fix that? I Will we end up targeting the international students? I mean we know that international students need additional secondary support, or maybe the VCE students might need additional basic maths support, but sometimes I get the sense from some of my students, that at least for stats, they're coming in very afraid of math altogether. It might just be a case where a larger cohort of the students coming from VCE, are coming in with this fear of maths and maybe we just need a transition course altogether, separate from business stats environment, where you can maybe help them adjust into doing math and something a bit more conceptual, say something as important as algebra.
- Q1 How do you engage your students with your content? How do you know that they're engaged with your content?
- A2 Are you talking about like general students?
- Q2 Yes, in general.
- A2 Alright. So this semester to engage more students I show, 5 to 10 minutes videos in each class and then get students ideas about that topic. Accounting is sometimes too technical, so just I show some videos which is related to the real-life.
- Q1 Are they funny videos or serious videos?
- A2 it depends on the topic. Sometimes it would be serious, sometimes it's related to a bankruptcy of the one company, it's from the news. But if I can't find anything, I share funny videos for five minutes, as a break. Sometimes I post them on the blackboard, so if it's relevant to the topic, it's food for thought. If it's like a funny thing, it's the break time, something like that.
- Q1 Do either of you have any idea what the content is that's taught in the Advanced Diploma of Accounting, or in anything that is a maths related course in VE? Do you have any concept of what's taught in that area?
- A2 No.

- Q1 So how do you engage your students?
- A1 I would say some of the ways that I've been trying to engage students is by recording some videos, regarding practice assessments and having some additional videos to answer solutions, this so far has been off-line. Some of the plans for next semester for engagement is trying to do some attractive examples on building datasets and breaking through some of the statistical theories, and applying it in past data. I thought I could get engagement through the group project. One of my lecturers had e-mailed me and indicated that they were unhappy with the group project, because they were having students come in to consultation hours now, and getting e-mails regarding content! My response was "This might actually indicate that the students are engaging enough with material"
- Q1 They're paid for consultation hours aren't they?
- A1 Yeah.
- Q1 And they didn't want them to come?
- A1 No.
- Q1 Are sessionals paid for consultation hours?
- A1 I'm not sure. I think they were required to have two hours per week of consultations.
- A1 at least one of my staff has complained about student contacts and my response was "They should be getting questions from the students, and if they're not getting questions, then we're probably not doing a great job"
- Q1 How did that go down?
- A1 It seemed to be okay. I mean the results are least from the project I think were good. I think our fail grades reflect those who sat the final exam, I think our fail rate is down. It's just that we have a high rate of students who don't sit the exam.
- Q2 What are the percentages?
- A1 We had ten per cent of students not sit the exam this semester.
- Q1 Do you know why?
- A1 I don't know, I'm not sure. I think that it's been similar rate. But one of the things I can't quite determine is that all the students who didn't sit the exam, have been doing the in semester assessments up until week 12 and weren't on a path to automatically fail, so it was guesswork, it wasn't all that clear why the students were not sitting.
- Q1 That would be good one for my interventions in the student success and retention program. Actually talk to those students who passed all that until now, why they did not sit the exam? And I wonder how much that would have to do with the multiple choice only, I wonder. It's really hard to fathom why they wouldn't if they're passing, but they wouldn't have known they'd passed the group project at week 12.
- A1 No, but I mean they would have had some localised--they would have had three marked quizzes and one unmarked quiz to get some idea of how they were doing, plus the possibility of the maths quiz. So they would have had several weeks of assessments and have some idea and I'd also provided solutions to the group project beforehand, so they'd gauge, see where they're at, have a base line.
- Q1 So do you have a lot of engagement with your students? Or is it self-selection, that the student will engage with you and you will engage back? Do you have a strategy to engage yourself with your students?
- A1 in Singapore, so I had limited engagement with those students. As coordinator here, all of my engagement has been from the students contacting me if they have questions. However I would send off an e-mail to all students probably once a week, regarding their assessments and what their expectations were.
- Q1 And what about you MaryAnn?

- A2 Blackboard actually. I engage with as many students as I can. I go to the class, I talk to them and always stay back a bit at the lecture, to make sure if they have any questions, I make myself available, "I'm here if you have any questions, you're welcome to see me after the lecture" and then with other students, because I'm a course coordinator, so it's through the blackboard, so I hope that the other tutors get engaged with their own classes, but it's a big course, sometimes the tutor is not answering that e-mails and the students go back to me again.
- Q2 Do you have any meetings during the semester, with your sessionals? I'll put the question to both, just out of curiosity.
- A2 Yeah, I'm in contact with them mainly by email Melbourne and Singapore and send them long e-mails every week or every second week with everything they need. This is more practical, because some of them they live far away and it's really hard to get them all together at the same time.
- Q2 But the connection is there throughout the semester with support. And is that the same with you?
- A1 Yeah. I mean with the sessionals who are doing tutoring hours, I'd say most communication is by e-mail and when they are working as they sit just outside my office. we don't have an official meetings with my sessionals, who are also lecturing for me, I also have other full time staff who lecture for me as well, but the sessional staff, I will usually see, they work out in my office, so it's easy enough just to see them when I'm coming in and out.
- A1 I'd say my goal was to have a failure rate below 20 per cent. I'd be worried more about my course design if more students were failing than that.
- A2 My hope was to decrease the failure rates. I see that the failure rate has decreased, so because I'm just doing my best to give more information to students, with lots of support, even through the SLAMs and lots of information.
- Q1 You're both fabulous with SLAMs, really and truly great.
- A2 Thank you. It helps a lot actually, it is a big help actually the SLAM program because I want to make the most of it, because I'm just telling the students, "Whoever has just got any problem, like not a problem, like is that they really need extra support, they should go and see the SLAM program" I just advertise the SLAM pretty much actually, through the blackboard, in the class.
- A2 I think that all the students who actually did the first year accounting, should be able to prepare a basic accounting statement. They need to understand that this is basic knowledge, and without it they will not be able to pass. So some parts, that is more important for us, I try to focus more on those parts, make the students understand. Or I just tell them "Go through this plan", especially with those important parts, I just like to send questions to SLAM program, it's very comprehensive, complicated, but I just want them to understand "You have to know these bits, that's the basic that you have to pass" but if they pass if they study more, they get the higher, so that's my approach to make them understand this is the basic, if you want to pass, you should know this and then if they study more, they get the higher.
- Q1 You know you've both had the maths quiz coming through your courses, , but did you at any stage, after the maths quiz, go in and find the students who struggled in the accountant quiz, struggled in the stats quiz, go into which is the lowest level and then put a asterisk next to their names, and then maybe advised the tutors that "You've got some kid's in your classes that seriously have no skills to do this subject and we're just letting you know they're in your class and they might need additional support, and I've got some concerns about how the process of the maths quiz happens, because I think the information comes back to us far too late, but it's inside your blackboards" and so did you go in and have a look at those results and then go "Oh, I've got 20 per cent of my students who really are going to struggle with this subject. What am I going to do about them?"
- A1 I suppose I should answer no.

- Q1 That's fine.
- A1 probably more of a time restraint, or learning the ropes.
- Q1 Absolutely. But MaryAnn would say possibly no because she doesn't have the time and either.
- A2 Yeah, that's true.
- Q1 MaryAnn, what have you done? Maths Quiz?
- A2 Yeah. Actually it worked well. I think that this semester we used it, but I didn't have a look at the results to be honest.
- Q1 To flag the students who were in the lowest band?
- A2 I think that even if I flagged them out, so I don't have any resource to assist them. is to be honest. Even if I tell their tutors, I don't know, I don't think that they've got time, it's not in their responsibility to provide more, unless we have more resources to whatever, the college or something from outside, or we are required to provide further support for the students. So far, I just referred the students to the SLAM program, saying that you just identify--they have got identify them self. Sometimes I'm thinking because it's the University higher education, they have to understand if they are in risk and I'm just telling them, "If you are, you think that you've got any problem, you need extra support personally, like you have to go and see a SLAM mentor"
- Q1 We've had about, I don't know what it was this semester, but I think we had about 67 students turn up for SLAM support, as a result of the maths ready quiz, or the accounting ready quiz and the study and learning centre got nobody. So even though we promoted in SLAMs, we've got remedial maths, go to the study and learning, they had maths teachers available to give you the basics in statistics, so you can understand your next lecture.
- A1 We had that in the week one slides, we have it on blackboard in two locations.
- Q1 Fantastic. So it's there.
- A1 But of course I suppose the students aren't--and I guess another thing I'm not really--I think Lisa Kerner was telling me that very few students have been taking advantage of your tutor service that was available for this semester as well. And just looking, we had 74 students taking the maths ready quiz for stats this semester.
- Q2 How many?
- A1 74 out of a think there are currently 870 enrolled.
- Q1 So it's less than ten per cent.
- A2 The same here, I wanted to flag that out also, not many students, the person who'd just answered or attended that quiz also. But it's like it's extra support.
- A2 And the other thing, just before I forget it's like and I realised with experience, they always advertise all this extra support with the SLAM, to My Tutors and everything, and then the students, I get lots of the students one or two days before the exam, they want extra support, you know, I'm sitting there and actually tutoring them, you've got workshop
*0:43:08
- Q1 We've run those exam workshops for you.
- A2 You got consultation time one week before the exam, and they still one or two days before the exam and they call in like urgent, urgent, emergency and I was like surprised. I don't know how to answer those questions, sorry those students just saying that they had consultation, they had workshops, you've had everything.
- Q2 At the start, in the first session for example, when you introduce the course, do you also highlight that students need a study progressively, and the course is designed the way it is so their learning is progressive and that last minute, two days before the exam time gig, does not work. Do you highlight...?

- Q1 I think everybody highlights it.
- A2 Every lecture, on the blackboard.
- A2 Exactly.
- Q1 But we now come to SLAMs. SLAMs has become an institution, they do now come to , because of people like you going "If you've got a problem, go to SLAMs. If they can't solve it, come back to me, but go to SLAMs"
- A2 Exactly, I'm always saying it.
- Q1 So that's now become a cultural part of our institution, and our numbers are reflecting that. Okay I'm conscious of the time.
- Q2 Me too. So I think seven and eight we've done the questions, how do we identify students at risk, or potentially at risk of failing?
- Q1 So you know how you said with your program assessment committees and you've identified the students who are at first stage at risk, and at second stage at risk, are you both involved in that process at all?
- A2 No.
- A1 No.
- Q1 Then we can't go on that question. Once you have students in your schools have been identified as first stage at risk, so they failed two or more subjects last semester, or they failed maths or stats or accounting once before, twice before and now they've failed again. Do you get a list of those students?
- A2 No.
- A1 I haven't seen it.
- A2 Actually, I'm going to be interested to see the list, but I'm not...
- Q1 In your class Trevor, how are they unprepared for your course? What is it that's missing for them?
- A1 I think sometimes I think they're missing I suppose looking at math at the central level, just looking at it from just of their symbols, and taking say let's say word problems and the formula, sort of identifying the key parts in this question and applying it to a formula correctly and just solving it. So somewhere along the lines, I think probably the solving and putting things into a calculator is usually okay for some students. But I think sometimes identifying what problem they should be answering I think is probably the larger question, and I think maybe that just comes with practice, but then that idea of getting students to practice questions enough, to start identifying what problems we're asking them to solve.
- Q2 So I'm sure you provide them some sort of plan, system or method, on how to approach a problem and what they need to look at.
- A1 Yes.
- Q2 But then once they get to do it, it's difficult until they have enough practice in it.
- A1 Yeah. So I think what it comes down to the earlier question, like support differences and preparation and training in Singapore and Melbourne, that when I've taught in Singapore, the students don't like speaking in class, but they'll have done the problems before the tutorial. So they'll have done it and they'll come and talk to me individually after class and ask me to follow the questions. But the students here seem to, I've noticed as a tutor and my other tutors have spoken to me about similar issues with the students here don't particularly work on the problems ahead of time, and are waiting for the tutor sort of thing. Or you have to show them examples and I think--and so it's really only until the end of semester, when they're really starting to work on problems themselves, when they start realising that they just need more exposure and I think they just run out of time before an exam.

- Q2 The spoon feeding idea is really interesting, because that happens in secondary, that happens quite a lot.
- A1 Yeah, *0:50:12.
- Q1 One of the things we talk to the students in the evening one, for the early intervention one, where we look at learning behaviour and the students are talking to them about how much time they put in to their studies. Most of the students, and we talked to up to 6,000 students in this semester, most of the students will do between zero and two hours a week in total on any additional learning that they need to do, and they're actually quite shocked when we say to them "No, it's about six hours per course per week, because it's continual" and we send them an attachment which breaks down what do they do in six hours and how do they break that down and they break it down clearly, doing tutorial questions and research for projects and reports and preparation for exams and it's an ongoing weekly thing and they often send e-mail is back saying "We had no idea" I would think that part of the transition program that we're trying to put together, will actually give students some of the information and skills to prepare them for six hours a week. But they have no idea, they think they can go on work for 20, 30 or 40 hours a week in a job, and they think coming to lectures and tutorials is studying for the exams, is studying, they don't realise that this is coming to a lecture and tutorials.
- Q2 Even though we tell them.
- Q1 You've got to tell them and there's another whole layer of learning that occurs, so I think that's certainly part of the transition program that we can put together. I think we've probably covered these questions, those last two questions.
- Q2 Yep, we have.
- Q1 Just one last one therefore I want to ask you is the next step for us is to actually design a transition project, so Denise and I will sit down and plot out the sorts of things that we think we should cover over a five-day period. The VE staff said it should happen about a week before higher ed starts. We know a large number of those students aren't even in the country and they're not there, but we've got to start somewhere, and if we have this really early enough, we can advise all enrolled students that we're running this specifically for them, and it would be great if they made themselves available to be in the country and to be prepared to do this program. In order for us to actually devise a program, at some point in the next couple of weeks, if you're still here are not overseas somewhere, it would be really good if we could just, well first of all if we did get you together with the VE staff that do accounting and advanced diploma, and just brainstorm what a transition--because you're working in your bubble, or they're working in their bubble, if we could put the two bubbles together, just for a short meeting to identify what they identify and what you identify, as it would be good if we could do. Denise and I going to do all the work, I'm getting it ready, but then at some stage we may say to you "What content should we cover for you?" the maths quiz are a really good content identifier, but if there was something else that we needed to do, like balance sheets and income statements, what do we need in terms, because I'm not content specific, are you able to then give us some stuff that can be used, or would we go to Brendan, clearly he's the maths person and he would give us the stuff to teach those students how to do that?
- A2 Actually teaching those stuff, it's a big part of our course, like teaching them to prepare balance sheet and income statement and I think it's just like we've got lectures, we've got tute and we've got the SLAM program for the wide support during the semester. I don't think there is extra support for balance sheet and income statement required.
- Q1 So you don't need any of that?
- A2 No, because the whole course is about like teaching those stuff. But just quickly, I think that the basic, like I've identified three main things that I think it's really important for the students to know. First of all admin, the basic admin things about the business central, the SLAM program, the blackboard, will like whatever related to some of them, it's not in mind at the moment, but you're just surprised why they don't know the basic stuff and what's the

other things about the culture of the higher education. It's very important, as you mentioned, so they have to know that it's different, it's not the spoon feeding anymore. So I tried actually tell the students at first year, saying that this causes we've got many students, so you have to, if you are at risk, you have to identify yourself, if you need some support, you have say a SLAM mentor. So it's like a culture that they have to evaluate themselves at the time and if they've got any problem, they had to talk to someone, get some support and the other things, like admin call it a culture and as you mentioned, like a study, like all the time.

Q1 How to do it, the learning, actually learn to learn.

A2 Yeah. So if they need consul, just like you said, it's very personal stuff, some students are really fast in learning, so they had to study an hour and they understand the topic, and I'm telling them. So for some of the students really easy, they get it so fast. So if you can't, you think that it's complicated, you have to put more time. So I think it's more like a culture and just tell them the consequence as well. So I had one comment from the students saying that "Please, scare the students at the start"

Q1 Scare the students?

A2 Yeah, one of the students in the comments, that comment saying "Please, scare students at the start", because probably they don't know... It's the person *0:56:21. They want to be scared at the start.

Q1 So throw stuff, just go "Bang, this is how it's going to be"?

A2 Yeah. That's what they did, I said "If you study, it's going to be easy, but if you don't study, you fail. So if you don't put it in there for the last minute" and that's what I'm saying. So I've never had anyone I can actually say who studied all the way through and failed.

Q1 That's a good thing to know.

Q2 And that's a really good thing to tell them as well.

A2 I can guarantee whoever fail, and I tell to the students, maybe we've got lots of students who don't study, but I can guarantee whoever studied passed. So I think it's like because when I see the exam paper, they show very, very good evidence that they know nothing, so basically they haven't done any...

Q1 They haven't studied, okay.

Q2 I mean time management would be another critical thing.

Q1 Yeah, we've got a nice module.

Q2 They've got every intention to study and they just never get around to it.

Q1 I've got a great module already developed to go through that time.

A2 And one more thing, sorry I add. Because I get the feedback from the students, with everything related to you guys also, I had a few students who send me an e-mail after the exam. They said that exam was fair, but it's their prob--the person saying that it's my problem, so it's fair, like you prepared, they knew that's the important parts, and they said that "Sorry, we didn't manage the time properly, we didn't study properly" and some of them they say that because they've got other courses to manage, they're focused on other courses and they can neglect one course.

Q2 The one that they are finding toughest, maybe they neglect.

Q1 *0:58:10<overtalk>

A2 Exactly. So maybe business accounting is the toughest.

A1 They seem to be happier to "I'll just get a pass stats" Yeah, and I suppose we had this brainstorming session and yesterday for *0:58:26 we had this internal five year strategic planning process going on right now and I think the biggest comment I guess among our cohort was just this idea of math preparation, that students here are coming in afraid of

maths and I suppose if we can help defuse some of this fear of math, that it might make our job as correlating the stats, or through other *0:58:57 course like accounting, a little easier. That way we can probably spend a little more time on focusing our content, not write that they'll actually use for the careers and not just *0:59:11 will help them be less afraid of math. But then if you're not actually teaching them math, just not being afraid of math. At some point, I guess that someone could not exact the skills they need for employability either, or for their other quantitative courses in their programs.

- Q1 Thank you both, we are very grateful for your time, what you've given us, it's been very insightful.
- Q2 It's been wonderful, thank you.
- A2 Yeah, you're just doing a great job actually, I don't think we can do much without your help.
- Q2 Without talking to you like this and knowing what actually goes on and what your restrictions are, what your challenges are, we wouldn't be able to do it.
- A2 Yeah. It's a great job, because I'm always believing in the system. I think it's because one person can't really make a big difference, but as a team, together.
- Q2 Thank you so much.
- A1 Part of it is just discovering the network of who does what.

Orientation Week – HE 22nd February

Monday 22nd Feb	Activity	Responsibility
9.30 – 9.45	Welcome Introduction of team Introduce Aims and Objectives re Maths	Lila Denise Brendan
9.45 – 10.45	Maths Basics Numeracy Skills: <ul style="list-style-type: none"> • Order of operations (BIMDAS) • estimation techniques • application of common sense calculations • use of technology (Calculator, spreadsheets, websiter) • percentage and ratio • rounding off 	Brendan and Team
10.45 – 11.00	Break	
11.00 – 12.30	Maths Basics <ul style="list-style-type: none"> • Numeracy skills as above + • basics introduction to Algebraic skills - this may include aspects of algebraic operations; algebraic substitution; removing brackets; basic factorization 	Brendan and Team
12.30 – 1.30	Lunch	
1.30 – 2.45	Academic Skills Development <ul style="list-style-type: none"> • Time management • Student learning responsibilities – what are they • Understanding learning environment - lectures and tutorials; • knowing where to find RMIT support resources to enhance learning 	Lila, Denise and Jacinta.

Tuesday 23rd Feb	Bus Statistics Students - Activity	Responsibility
9.30 – 9.45	Basic Stats introduction – common core	Brendan and Team
9.45 – 10.45	B Stats Basics: <ul style="list-style-type: none"> • Algebraic Fractions - Simplification; Addition and Subtraction; Multiplication and Division 	Brendan and Team
10.45 – 11.00	Break	
11.00 – 12.30	Continuation of morning session + <ul style="list-style-type: none"> • Measure of Central Tendency – mode median, mean • Measure of spread – Range, IQR, standard deviation • Introduction to Probability 	Brendan and team
12.30 – 1.30	Lunch	
	Accounting Students – Activity	
1.30 – 1.45	Accounting Introduction for the common core	Brendan and team
1.45 – 2.45	Accounting Basics – bringing Accounting into everyday life Equations and transposition: <ul style="list-style-type: none"> • linear equations and graphs • Accounting – practical budgets 	Brendan and team
2.45 – 3.00	Break	
3.00 – 4.30	Continuation of Accounting – practical budgets	Brendan and team

Week 3 – Saturday 20th March Accounting, Business Statistics and Academic Literacy

Saturday 20th March	Accounting + Business Stats	Responsibility
9.30 – 10.45	Topic: <ul style="list-style-type: none"> • Probability • Developing a small business plan 	Brendan and team
10.45 – 11.00	Break	
11.00 – 12.00	Academic Literacy <ul style="list-style-type: none"> • research and referencing 	Lila and Library?
12.00 – 1.00	<ul style="list-style-type: none"> • working in groups 	Jacinta
Finish		

Week 8 Saturday 30th April Accounting, Business Statistics and Academic Literacy

Saturday 30th April	Activity	Responsibility
9.30 – 11.00	Statistics <ul style="list-style-type: none"> • Normal distribution • Developing a business plan in large organisations 	Brendan and team
11.00 - 11.15	Break	
11.15 – 1.00	<ul style="list-style-type: none"> • critical thinking/problem solving 	Lila, Denise, Jacinta
Finish		

Table 7: Draft Program for VE Transitioning to HE in Accounting for Organisations and Society and Business Statistics 1.

Appendix D – Stage 3

Dear Student,

Welcome to ACCT1046 Accounting for Organisations and Society and ECON1030 Business Statistics. We hope that you find this semester stimulating, challenging and successful. As part of our commitment in supporting you we are offering a number of workshops to help you develop sufficient Maths skills to support you in Accounting and Statistics.

Are you able to solve the problems below?

Given the formula $I = \frac{PRT}{100}$, find I when $P = \$3000$, $R = 10\%$ and $t = \frac{2}{12}$

A 12 **B** 600 **C** 300 **D** 50 **E** None of the above

And

The demand for a product is believed to be related to its price (P) and the amount of marketing (M) through the equation $D = 100 - 0.1P + 0.4M$

If 400 units of marketing are invested in the product at what price will 200 units be demanded?

- (a) $P = 240$
- (b) $P = 60$
- (c) $P = 220$
- (d) $P = 600$
- (e) $P = 360$

If you find these maths questions difficult then you are likely to struggle in Accounting and Statistics.

Solution!!!

Register for our two-day workshop. We know it will make a difference.

The workshop will be conducted during Orientation Week on Monday 22nd Feb 9.30 – 3.30, and Tuesday 23rd Feb 9.30 – 3.30.

Even if you can answer the question above, you are still welcome to attend the workshop as they provide useful preparation for a range of your courses.

To attend, Book online at https://docs.google.com/a/rmit.edu.au/forms/d/1jqQsqPeux7OY-YRTf9lsmpr5l8w0BNP_a3zsmJs1kw0/viewform?usp=send_form

What do I bring?

Bring a calculator, pen and paper.

Where do I go?

Monday 22nd Feb. Building 80, Level 9, Room 12

Tuesday 23rd Feb. Building 80, Level 3, Room 18

If you have any questions about the workshops, please email Lila.kemlo@rmit.edu.au or call me on 9925 1465.