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Levy, S., & Burnheim, C. (2013). Pathways for non-traditional learners in a research-intensive university. *Create & Collaborate Foundation & Bridging Educators New Zealand Inaugural Conference 2102 FABENZ*. p. 83-95.

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**CREATE &
COLLABORATE**

.....
Foundation & Bridging Educators New Zealand
Inaugural Conference **2012**

Conference Proceedings
.....

CREATE & COLLABORATE

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Foundation & Bridging Educators New Zealand
Inaugural Conference 2012

PUBLISHED BY

Ako Aotearoa –

The National Centre for Tertiary Teaching Excellence

www.akoatearoa.ac.nz

ISBN 978-1-927202-57-9 (online)

ISBN 978-1-927202-58-6 (print)

July 2013

PRINT: Vertia Print



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Foreword

The inaugural conference of the Foundation and Bridging Educators New Zealand was held at the University of Auckland, 3rd and 4th December 2012.

The conference offered a range of papers and workshops covering practice, research, and theory in Foundation and Bridging Education in New Zealand and Australia.

The conference theme Create and Collaborate invited educators and researchers to consider the benefits and challenges of working in a collaborative way within and outside the various kinds of provision in bridging and foundation education. Contributors provided examples of cross sector, industry and research collaborations and provided examples of inter-disciplinary collaborations and those that involved students and practitioners in a range of disciplines. The issues of attrition and achievement, distance learning, e-learning and technology, literacy and numeracy and discipline based methodologies were approached with a particular view to the creation of effective learning environments for the benefit of students.

Conference papers offered insights into a range of foundation and bridging educational provision and covered a range of topics within the arena. In particular, the concerns of practitioners for the success of their students and the many opportunities taken to enhance student success are celebrated within this publication.

Keynote speakers Professor Terri Seddon from Monash University in Victoria, Australia, Dr Peter Coolbear from Ako Aotearoa, Dr Joce Jesson from The University of Auckland, Professor Angus Macfarlane from the University of Canterbury and Dr Stuart Middleton from Manukau Institute of Technology provided conference delegates with opportunities to consider the educational work of foundation and bridging educators and the macro and micro challenges for teachers and learners in a time of global and economic change and uncertainty. Grant Robertson, Deputy Leader of the Opposition and Spokesperson for Tertiary Education, Skills and Training acknowledged the valuable work of educational practitioners in the arena of foundation and bridging education.

A special thank you to Ako Aotearoa as major sponsors of this inaugural conference and the production of this publication, which draws together the formal papers presented at the conference as a volume.

Lisa Maurice-Takerei
Conference Convenor, FABENZ, 2012

Early departure from a tertiary bridging program: What can the institution do?

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Theme: Research and Research Collaborations

Abstract

This study examined the early departure of students between the ages of 18 and 25 years from an on-campus tertiary bridging program at a regional university. Participants comprised 20 students who had dropped out of the program within the first four weeks of study. Data were collected by semi-structured interviews, which examined the student experience and the reasons for departure. It was concluded that participants comprised two general groups: those who have no clearly defined long-term career goal prompting their attendance at university with an associated low level of commitment to university study, and those who were committed to completing a university degree, but for whom a change in circumstances prevented them from continuing. Participants indicated that attendance in the bridging program was a generally positive experience and that there was little that could have been done to prevent their departure. It was concluded that a certain level of early departure was inevitable in the tertiary bridging program. Where intervention was attempted, it should be addressed towards the development of long-term employment and career goals for which university study was an essential prerequisite.

Introduction

This study examined the factors which influenced the attrition of students between the ages of 18 and 25 during the first four weeks of an on-campus tertiary bridging program conducted at a regional university. Enrolment records indicated that younger students demonstrated a substantially higher rate of early attrition from the program. While the factors influencing attrition from the first year of university have been extensively researched, the attrition of atypical students such as those entering tertiary bridging programs has not been examined.

Previous research (Whannell, Allen, & Lynch, 2010) examining the secondary school experiences of students in a previous cohort of the tertiary bridging program where this study was conducted established that 40 *per cent* of students between the ages of 18 and 22 had not completed secondary school while many had experienced poor academic engagement and outcomes. It was hypothesised that this background would present substantial challenges to younger students in their attempt to successfully transition into the tertiary bridging program.

Theoretical background

A number of studies have been published in relation to non-traditional tertiary students by researchers at the University of Newcastle. Cantwell, Archer and Bourke (2001) compared the performance of undergraduate students from three non-traditional entry modes to that of students who had gained tertiary access traditionally. The study made a number of conclusions, including identifying that age was “a significant predictor of academic achievement, with older students outperforming younger students” (p. 232) and that “most older females faced more physical and psychological demands in their lives outside university than younger students” (p. 232). Of particular interest was the conclusion that “socio-economic status did not emerge as a significant influence on performance” (p. 233). The academic performance of students who gained access via enabling programs was also found to be comparable to those who gained access via traditional entry.

A comparison of the undergraduate performance of older students who had gained entry to the University of Newcastle via an enabling program and younger students who gained access based on high school results has also been conducted (Archer, Cantwell, & Bourke, 1999). The study concluded that mature-age students coped “at least as well with their undergraduate studies as younger students entering via more conventional means” (p. 52). The study also identified a number of approaches to study exhibited by older students which gave them an advantage when engaging in undergraduate study. Older students were identified as having “more confidence to solve problems that arise in their lives, more confidence to plan a desired course of action, and more confidence to appraise accurately their strengths and weaknesses” (p. 50). The academic performance of students from the enabling courses was found to be influenced by how well the student adapted to different approaches to study. In particular:

it was the maladaptive, rather than the adaptive, aspects of self-regulation that predicted poor achievement: students who admitted that

they maintained a fixed approach to all their academic work even when they knew it was not a good approach did not perform as well as other students (p. 48).

The ability of mature-age students with a substantial work history to adapt to and engage with tertiary study has been questioned. While such students “developed a positive learning profile, a continued belief in the structural simplicity of knowledge appears to have a significant diminishing effect on the quality of adjustment and on the quality of learning outcomes” (Cantwell & Scevak, 2004, p. 131). The issue identified in relation to the adaptive ability of students is considered to have potential application within the tertiary bridging context, where students are entering an environment with which they are not familiar. In particular, older students who have not been in an educational situation for many years would be expected to experience significant cultural and emotional shock. In such a situation, the ability to quickly adapt to the new environment would appear to be of importance to a successful transition during the early weeks of the program. Younger tertiary bridging students who have poor previous experiences and outcomes in secondary education (Whannell, *et al.*, 2010) would be expected to experience similar cultural shock due to their attempt to engage with a culture towards which they may hold substantial negative emotions.

The challenge for mature-age students, who are returning to study after a long absence, in changing their perceptions of themselves as learners was described in a study conducted at the Central Queensland University (Willans & Seary, 2007). The study concluded that such students are able to change their perspectives regarding their abilities as learners when “provided with opportunities to reflect critically upon themselves as learners, and deconstruct the origins of past assumptions” (p. 433).

Debenham and May (2005) identified early experiences in an enabling program as being of particular importance when they stated that “the first milestone in an enabling program for both students and lecturers is the submission and return of the first assignments [and] it can be asserted...that the first assignment is surrounded on all sides by anxiety” (p. 89). They also concluded that “initially students are threatened by ‘academic work’” (p. 89). A study conducted at the University of Southern Queensland (USQ) (Bedford, 2009) identified “factors related to personal volition, social/family support, institutional support, and the quality of the teaching-learning experience” (p. 1). Particular problems that were identified included the teaching of academic skills-related content, which were

ineffective for about 30 per cent of the study participants, while 33 *per cent* of participants had reported not feeling a sense of belonging to the university community. The study also established that the factors that most strongly influenced students to discontinue their bridging program studies “were those relating to personal circumstances that were beyond the control of the course teaching team or the University” (p. 1).

Students entering a tertiary bridging program must successfully transition into the unfamiliar educational environment encountered within a university. The role of academic and administrative staff in the transition of new tertiary students involves inducting students so that they may come “to terms with themselves as participants within Academe, and the way in which their role is perceived” (Green & Latham, 2000, p. 44). In the process of transition to university, a student’s peers may act as a challenge where “the impact of the peer group, in terms of how the new culture is read and what rituals are adopted, is often a competing force, as students seek to find their way through the next passage” (Green & Latham, 2000, p. 44). Another challenge, which is apparent in the rite of passage from one cultural situation to another for the new tertiary student, involves “the cultural baggage that we carry with us from place to place, which includes our prior experiences, belief systems but also our ways of knowing and of behaving” (Green & Latham, 2000, p. 46).

Elkins, Braxton and James (2000) in a study in the USA examined student departure in the first and second semester of college with specific reference to the separation stage of the transition process. The study concluded that “the factor of rejection of attitudes and values is important in the separation process and ultimately in the persistence/departure decision” (p. 263). However, “the factor of support had the greatest influence on the persistence/departure decision” (p. 262). Of interest in the study was that it was identified that the level of support was influenced by the level of student academic achievement at secondary school. “Perhaps the parents, friends, and family members of low-achieving students question the likelihood of these students remaining in college” (p. 263). This particular aspect is considered relevant to bridging program students as many have achieved poorly at secondary school.

The ability of an individual to cope with the transition to tertiary study has been related to the strength of the commitment to the goal of course completion. Tinto (1993) describes this relationship:

Understandably, differences in individual goals and commitments help shape individual responses to the stress of transition. Many students

will stick it out even under the most trying conditions, while others will withdraw even under minimal stress. Presumably either lofty goals or strong commitments, or both, will lead individuals to persist in very difficult circumstances (p. 46).

The literature cited indicates that the outcomes for tertiary bridging students in undergraduate study are comparable to those of students who have gained access through traditional means. However, student attrition during the transition into tertiary bridging programs, particularly for younger students, appears to be challenging institutions. Existing research at USQ (Bedford, 2009), where most students study by distance, identified that attrition during the early weeks of the program was primarily due to personal circumstances and was largely beyond the control of the institution.

This study will add to the body of academic literature by examining if this situation also applies to participants studying on-campus. The literature also presents a variety of factors which may present challenges to the younger tertiary bridging student during the transition into a tertiary bridging program. Due to the poor academic background of the participants in this study it was anticipated that challenges associated with finding a place within the traditional academic culture of a university would present strongly.

Method

Participants were students who had been enrolled in a one-semester on-campus tertiary bridging program at a regional university and who had dropped out of the program prior to week 4 of the semester. Potential interviewees were identified from the current enrolments in a compulsory course from the program who had not submitted the first assessment task for the course which was due in week 5. The participants included an equal number of males and females. Semi-structured interviews were conducted with 20 students between the age of 18 and 25, representing about 20 *per cent* of the students in the targeted age range who had dropped out of the program. The interviews were conducted by telephone in weeks 8 and 9 of the semester. Notes of each interview were made at the time and a typed record of the interview was completed immediately after the interview.

Each interview included a number of common prompts, including:

- What was your reason for enrolling in the [tertiary bridging program]?
- What were the major challenges you experienced during your involvement in the [tertiary bridging program]?

- What aspects of the program did you find enjoyable?
- Why did you stop attending the [tertiary bridging program]?

The data was analysed using interpretational analysis (Borg, Gall, & Gall, 2007) with common themes being identified.

Themes identified

A common theme identified was a general lack of commitment to undertaking university study and a lack of understanding of long-term goals. However, it was common in these circumstances for the interviewees to describe positive emotional results from attendance at university.

I came into [the program] to do a primary education course. But then I decided I wanted to do music. I did not have any passion for university, nor for doing an education course...I had no passion and I was not determined to complete the course. I was very unsure about what I wanted to do which left me feeling confused and in limbo. I am now doing a Cert III/IV in fitness. Being at university made me feel proud, like I was taking the next step. But I realised that I must love it to complete it. (JW)

For me joining [the program] was a last-minute decision. I've been a hairdresser for several years and I have two babies, one two years old and one five months. I decided I wanted a new career, which is going to be social work. So I needed [the program] to get me into university. I only went week one and it was nerve-racking. But the teachers were great and students were really friendly. I was really nervous to turn up...Being at university made me feel good, proud, it was different from work and I felt like I was bettering myself. When I was deciding to pull out, I spoke to my girlfriends who were also students in [the program] and I felt that study was difficult and not natural to me. (KW)

I came into [the program] very unsure about what I wanted to do. I was looking at a couple of different things, like Marine Science and other being Business. All my experience was just in working in jobs. I did [the program] for month in 2009 and this was my second try. Both times the teaching and students were great, but I still wasn't ready...I hopefully one day will go to university. It would mean a great deal because I promised my grandmother. (KR)

I am new to the Sunshine Coast and I decided I would like to try nursing. I never started, basically I went to Victoria for a holiday and I was going to miss the first three weeks...I was sort of in-between, but I was still coming back to the Sunshine Coast. But I may go back to Victoria. (RT)

I wanted to come into [the program] for the preparation and ranking to join psychology. I found [it] to be helpful and easy while I was there...I found the study very positive, but going into the classes was very nerve-racking. (EC)

I did not feel like a university student. I still feel like a school student because I am 17 and all my friends are school students... Going to university feels like stepping up. (TH)

Some interviewees indicated that they had assumed the identity of, and were committed to being, a university student. However, at other times in the interview they made comments which indicated that their commitment to attending university was not high.

A friend convinced me to do [the program]. I think I wanted to do law and justice studies, but I was not really sure. Still I moved to the Sunshine Coast just for this...I never turned up to any classes...The only thing that really stopped me was the economics... Even walking around the university I felt like a university student...I did not go to the intensive orientation because I was moving to the Sunshine Coast, but I was too nervous. (KB)

The reason I did [the program] was because my mother did it. I really wanted to become a police officer, so I was interested in law and justice studies...I only went for three weeks. Week one, I found everyone to be very friendly. The teachers were good and the library and resources were excellent. Week two, I was sick and week three, work needed me. I had missed so much of it, that I felt that I couldn't go back...I definitely saw myself as a uni student. The reason I thought uni was so important was because it made me think of the future and all the possibilities. I really hated school though. It was a lot of effort and originally, I thought [the program] would not be a big deal. But in the end it felt almost the same and more stressful, because it was my responsibility. (OB)

Originally I went to university to study psychology. But now I've decided I want music and [the program] was the only option I had to get into uni. I didn't actually start because [the university] does not have music and doing the [the program] wasn't going to help...Having a degree would be OK, but being so young I feel that I have a lot of options and time. (NA)

Conversely, six interviewees described a failure to relate to the identity of being a university student.

The reason I decided to leave was because I found this job which gave me money, fun and ability to travel...I didn't feel like a university student. I just wanted to travel and have a job. (WG)

I do not believe that I would see myself as a uni student until I was studying an undergraduate degree. (NA)

I really feel that work is really important because of the economics and therefore it does not leave me enough time to do the study. The main thing that stops me is working full-time. I really did not feel like a university student...I found the classes and class times not suitable for my schedule. (KR)

The reason I left was because I found an apprenticeship as a chef, which will allow me a direct pathway into what I want to do...I did not see myself as a university student. I prefer the practical aspects rather than the study. (JG)

I really did not feel like a university student. It was just a pathway to get a career for me. (SH)

I didn't really feel like a uni student, but I felt like it could happen one day. I found the study very positive, but going into the classes was very nerve-racking. (EC)

Five interviewees stated that circumstances had changed, which did not allow them to continue their study, but they would be returning to study at some later date or at another institution.

I was going to do a degree in Business in tourism...The decision to leave was personal, but I hope to be back at [the university] next year. (NJA)

The teachers were great, the support was phenomenal and I was treated like an adult. I will be back. (FJ)

I was only there for a couple of days, but I found the uni to be small enough to be comfortable and the teachers were good... The most important reason I had to leave was because my partner had to move to Gladstone for work. (RD)

My partner's work changed. I needed to be the economic support in the family and my children's young age meant they needed my support...As for being a university student, I sort of felt like one and I hope to start again sometime. (KW)

I lost my job, but then I got a much better job, which happened to be full-time... Yes, I definitely felt like a university student when I was in [the program] and I really want to come back. (EW)

One particular aspect which was described was that the experience of applying for and attending the bridging program, although it may have been for only a short time, was a positive one that was supported by both academic staff and family. In particular, it was common for the interviewees to identify that the decision to leave was personal and there was little that the institution could have done to change the decision once made.

When I was considering leaving I spoke to other students and my family. The support was definitely there at [the university]. There were just external reasons why. (EW)

Friendly, nice. Everyone at [the program] were very friendly and very nice... There was nothing lacking in my experience at [the university]. (NJA)

The teachers were friendly and there was a really good social side to [the program]... There is nothing that [the university] could have done. I really loved [the university] and it was really quite disappointing that I left. (JW)

My mother encouraged me to go to the [the program] and I required a ranking to get into university. I was going to do hospitality management in business. I did not think it would be so much study... The reason I left was because I found an apprenticeship as a chef, which will allow me a direct pathway into

what I want to do... There was no one at [the university] that could have helped me. (JG)

This was a self-made decision. No one could have helped me because my heart was not in it. (SH)

No, I didn't feel like a university student. I just wanted to travel and have a job... Everyone was great and no one else could really have helped. (WG)

It was my own single decision to not continue. I was not aware that anyone else could have helped me at [the university]. (TD)

Discussion

The interviewees were considered to fit into two general groups: those who have no clearly defined long-term goal prompting their attendance at university and an associated low level of commitment to university study, and those who were committed to completing a university degree, but for whom a change in circumstances prevented them from continuing. No evidence was identified to indicate that non-attendance was the result of negative experiences or staff interaction. This situation may also offer a possible explanation for the role that age plays in program attrition. Older students who have been engaged in an unsatisfactory employment situation for a substantial period of time would have the opportunity and life experience to have developed an emotional commitment to changing their circumstances through improved education. The requirement for university completion as a stepping-stone in their attempt to improve their life situation would be expected in older students. The important role of a strong goal commitment described by Tinto (1993) appears to be very relevant.

Identity theory (Stryker & Burke, 2000) offers one method by which the bridging students' commitment to university is explained by their long-term employment goals. Where a student has a clear long-term employment goal, for example as a paramedic, and is emotionally committed to that identity, attendance at, and subsequent completion of, the bridging program and undergraduate study would be seen as necessary to achieve that goal. Successful completion of university requires the development of a healthy and robust sense of commitment to a university student identity. Emotional commitment to the university student identity is thus an extension of, and dependent upon, the emotional commitment to the long-term employment identity. The resilience of a bridging program student under this theoretical view would thus be dependent upon the existence of a strong emotional commitment to a long-term employment goal. This

approach to using long-term goals and identity is also described by Simpson (2008), who suggests that “one of the most effective ways of ensuring learners’ motivation is to make certain that they are on the right course for them in terms of level, content and outcomes” (p. 162).

A large-scale project at Griffith University, Queensland, which aims to improve the transition experience of students into first-year undergraduate study, uses “‘five senses of success’ and each suggests practice goals or areas for intervention” (Lizzio, 2006, p. 1). The sense of student academic culture provides the central component of the model used and requires the student to possess an “appreciation of the core values and ethical principles of the university and how these will inform their approaches to study and working relationships with fellow staff and students” (p. 2). A second component of the model is the student’s sense of purpose: “Students with a clear sense of purpose are not only more likely to find their study rewarding, but also to be more committed and persistent when the work gets challenging” (p. 2). The findings of the current study indicate that the approach used at Griffith University in relation to students entering undergraduate study may also be appropriate for students commencing a tertiary bridging program.

Conclusion

When all of the comments made by the interviewees are considered together, two conclusions are drawn. The first is that very early attrition from the bridging program was not viewed as a negative experience by the interviewees and it appears there was very little that the institution was able to do to address the issue. The findings of Bedford (2009) in relation to bridging students studying by distance have been identified in this on-campus study. This finding indicates that there is a certain level of early attrition which will be experienced in both on-campus and distance programs, irrespective of the actions of the institution to prevent it.

This presents the prevention of early attrition from tertiary bridging programs as a very challenging undertaking. When it is considered that many students who demonstrate early departure from these programs have had poor-quality experiences and outcomes in secondary school (Whannell, *et al.*, 2010), may not possess a clear long-term goal associated with their tertiary study, and often demonstrate low levels of commitment to completing tertiary study, the capacity to intervene in the short period of time available prior to departure must be considered questionable. Interventions targeted towards these areas would need to be undertaken very early in the bridging program.

The second conclusion is that early departure from tertiary bridging programs for students whose departure was not driven by changed personal circumstances is strongly associated with a lack of long-term career goals. The lack of long-term career goals manifested as low levels of commitment to tertiary study.

One possible strategy for reducing attrition in the early transition period would be the inclusion of interventions in the orientation program and initial weeks of the semester, which include career advice and counselling, learning experiences which focus on these aspects and the opportunity to engage with previous tertiary bridging students who are currently engaged in undergraduate programs in the same area of study. A stronger career orientation (Himelstein, 1992) and career counselling (Angelino, Williams, & Natvig, 2007) have previously been identified as assisting in reducing attrition from tertiary study. The quality of the support provided to students has also been identified as having the greatest influence on the persistence/departure decision (Elkins, *et al.*, 2000). This strategy is used in the Tertiary Preparation Program offered by USQ, in which commencing students are required to complete two career-management assignments as part of their assessed coursework. The first of these assignments, to be completed within the first two weeks of a commencing course, consists of vocational self-assessment and career goal setting, and is supervised and assessed by a qualified career counsellor who provides individualised feedback to the students (Bedford, 2005). Course content and targeted support of this nature were not provided within the bridging program at the institution where this study was conducted. The inclusion of such a strategy offers one implication for practice.

A failure to adopt the identity of a university student and to identify with the university culture was described by participants in the study. The consequent failure to continue with the actions associated with the role of a university student, particularly continued attendance in the bridging program, were demonstrated (Stryker & Burke, 2000). Further research is indicated to determine if the strategies based upon student culture and identity used at Griffith University (Lizzio, 2006; Lizzio & Wilson, 2010) to facilitate the transition of students into the first year of undergraduate study may also be appropriate for use in the tertiary bridging context.

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“Wow, I didn’t know that!”: The benefits of collaborative research on transition of enabling students into undergraduate Education programs.

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Abstract

In early 2012 a group of interested academics involved in both enabling and undergraduate Education programs was successful in gaining a Teaching and Learning grant to research the establishment of “effective and sustainable links” in the transition of enabling students into undergraduate teaching degrees. Education is one of the most popular destinations of enabling students, but the question of how successful they are in making this transition has not been fully explored. This paper examines the benefits and knowledge gained in sharing information about each side, pre- and post-entry, into teaching degrees and includes: reports of focus groups with enabling students who had successfully made the transition; what was gleaned from staff enrolment on each other’s Blackboard course sites; attendance by Enabling lecturers at introductory Education lectures; discussion of generic problems communicated by students to counsellors and disability officers; and developing relationships that may sustain enabling students on their journey. For the academic staff involved in the project there were also revelations – hence the title of this paper – which informed them in a more thorough and consistent way of the experiences, expectations, curriculum and teaching methods this cohort of students was exposed to.

Introduction

The role of University of Newcastle enabling programs (Open Foundation, Newstep and YAPUG) is to prepare students for successful entry into undergraduate programs. They provide an alternative entry pathway for students

who did not complete school or did not achieve their desired ATAR (Australian Tertiary Admission Rank). Enabling students must successfully navigate two major transitions to establish themselves in higher education: one during their enabling program, and another as they embark on their undergraduate studies. This collaboration examined these "double" transition issues from the perspectives of both students and staff. Its aim was to provide both an awareness of transition issues for staff and more support through the transition processes for students.

The idea of collaboration between the Enabling Programs and the Faculty of Education was first suggested by the Centre for Teaching and Learning (CTL) in 2008 as a means of communicating with colleagues across the University. Its purpose, according to the CTL newsletter, was "to highlight the widespread passion for enhancing the experience of students" (CTL, 2009, p. 2). According to Walsh (2009, p. 3), such collaboration is "rich with potential, and is often seen to offer greater possibilities than solitary working". 'Collaborative advantage' can arise when people work together (Huxham, 1996), share their knowledge and experiences and learn to connect with the larger reality (Stewart, 1996). Kanter (1994) states that collaboration is a means of "creating new value together". With this in mind and in the spirit of wanting to produce knowledge that was mutually beneficial, a preliminary workshop was arranged.

Initial collaborations

In early 2009 several representatives from CTL, Education, and Enabling Programs met to better understand "issues involved in the transition from preparatory programs to University" (CTL, 2009, p. 2). That year, 39 *per cent* of students successfully completing tertiary preparation programs moved into Education Programs. The First Year Experience Coordinator of the School of Education offered details of their First Year Experience Program and asked the very important question "What generic skills should students have when arriving in first year?" A discussion about key competencies including oral skills, academic literacies, organisational and time management skills led to a deeper discussion about the diversity found among both enabling and first-year undergraduate students. The comment was made that there is always a tension between scaffolding course offerings too tightly and providing sufficient challenges to motivate and engage students.

Enabling educators, including myself, discussed our student-centred approach to learning and assessment in which academic skills were embedded in course content. Students could study within a discipline area such as Introductory

Sociology, Philosophy, Chemistry and the Life Sciences, various levels of Mathematics, History and many more subjects where they could learn generic skills that would be of use to them as well as foundational concepts and theories that gave them a taste of subjects they might wish to study in their undergraduate degrees. The Enabling Program Coordinator reported on the relatively high success rates of students from the Enabling Programs in their first year of Education, where figures from 2006 and 2007 revealed that between 76 *per cent* and 86 *per cent* of former Open Foundation students (aged 20+) entering Education gained a GPA of 4<5 (Pass) or above, which is quite remarkable given their often disadvantaged backgrounds and alternative pathway into university as mature students. They were holding their own among the Higher School Certificate graduates and in some cases doing exceptionally well.

A group of educational psychologists from University of Newcastle (Cantwell & Grayson, 2001; Cantwell, Archer, & Bourke, 2002), had done some research on enabling students that indicated the greater likelihood of the more mature cohort exercising self-regulatory control. While there were no differences among the Open Foundation and Newstep (aged 17-20 years) cohorts in terms of self-efficacy or self-concept, there was variance in their approaches to learning. A multilevel model, MLn, was used to determine results. The authors found that more mature students were more likely to engage with learning in a deep or achieved way (Biggs, & Telfer, 1987). This research has not been replicated since the 2002 study but the findings were useful as a guiding point for further discussion of the transition of enabling students into undergraduate degrees and for consideration of age differences among the cohorts.

The key issues confronting coordinators of the first-year Education courses were: a need for moderation meetings, which were difficult to organise; the need for flexibility in delivering courses in a particular order; and that expectations be made explicit to students. There was a discussion about the problems involved in supervising and monitoring a large number of often casual staff who had varying philosophies of teaching and differing levels of commitment to the course and the students.

The most challenging aspects of the Education courses for students, based on the experience and observations of the Education Course Coordinators, were: workload being higher than expected; learning to become independent learners; meeting due dates; lack of understanding of expectations of the course; reliance on and competence in use of technology; the vast numbers and

diversity of students in the course; and impersonal learning (students reported wanting course content to be practical and relevant – which indicated a lack of understanding of the importance of theory during the early years of their degree).

The Enabling educators reported that what their students found most traumatic, based on self-reporting by students, are: not knowing at the outset whether students can cope with tertiary expectations and standards; just getting a car park on the main campus (it was highlighted that this factor alone should not be underestimated as students reported dropping out because they could not access a car park); meeting deadlines for assignments when they have family and work commitments; learning to access information when they are not experienced in IT and university systems of conveying information; time constraints when needing support services (this was particularly so for night classes when support services run on a 9am to 5pm timetable). The question of who needs to adapt, the university or students, was raised.

Outcomes of this initial collaboration were as follows. The idea of embedding skills within course content as practised in the Enabling Programs was acted upon in changes to the curriculum for the first-year undergraduate program. It was also clear that pressures on Education staff in terms of workload meant that they were often unable to provide any pastoral care to students, whereas for Enabling staff, it was seen as a priority. Developing relationships and trust with students was considered an active component of learning and was thought to have considerable impact on retention rates. Participants in this collaboration recognised many common problems and experiences such as preparing students for challenges of increased workload; making clear relevant academic expectations for engagement in their study and for assessment tasks; the need for early mastery of IT skills such as Blackboard and Turnitin; and the need for students to form study groups as well as develop capacity for independent learning. Future workshops were to examine more closely assessment and support practices, inclusive teaching and learning practices, and deeper understanding of student experiences in what was later referred to as the "double transition", into Enabling courses and then into Education courses. A desire to make both transitions less challenging was the focus of the interface.

In early 2011 an initiative was undertaken by the Counselling Service at Ourimbah campus to produce a number of tip sheets (A4-sized double-sided information sheets, which were displayed in the Counselling Service foyer and in the Enabling office corridor and thus accessible to students with an invitation

to take sheets relating to relevant topics). These have proven popular and have to be regularly replenished. They cover matters as diverse as mental health problems, communication and self-esteem, or more specific issues such as preparation for exams of oral presentations.

Another concern for which a tip sheet was considered desirable related to transition into both enabling and undergraduate programs, and a focus group consisting of past enabling students who were in their second or third year of undergraduate studies, two Enabling educators and the counsellor, was convened to ascertain what issues concerned students about these transitions. Suggestions made by past students to improve transition experiences included:

FOR OPEN FOUNDATION ENTRY

Organisation

- Orientation organisation.
- Tutorials arranged by age.
- Students should be encouraged to ask questions.

Advice for students

- Take all the advice you can get!
- Be aware there is a code of conduct for lectures and avoid disrupting other learners.
- For essays: have an awareness of actually answering the question, not just broadly reading about the topic.
- For Maths: (as in other subjects) there are no short cuts. Students must practise at home.
- Get a copy of Scevak & Cantwell (Eds.) (2007) *Stepping Stones* for lots of useful hints and tips for mature-age learners re-entering education.

FOR UNDERGRADUATE ENTRY

Organisation

- Students may take longer to complete degrees due to lack of courses offered on smaller campuses.
- More flexible timetabling would help for parents and workers.
- Need for a tip sheet with all the support services listed.

Advice for students

- Ease into your degree if possible.
- Be prepared for the huge class sizes: they can be overwhelming and heighten the "imposter syndrome".
- Workload definitely increases in undergraduate courses.
- Time management is not effectively addressed.
- Need for solid computing skills.
- There is less support in undergraduate courses and feedback on assignments is minimal.
- Nothing is easy in undergraduate courses.
- Overall, be prepared for the hectic pace of undergraduate studies.

This feedback was useful as it gave some indication of issues that were stressful to students who had completed the course and provided advice on what they thought could be done by both the University and the students themselves to make their transitions more manageable.

The Double Transition project 2012

With these prior collaborations between staff and between staff and students to use as a base, the new project aimed to provide an even deeper understanding of problems that might affect transition into both programs and was designed specifically in terms of a collaborative and dialogical approach to understanding student transitions based on two phases of research.

Research Phase 1: This involved regular meetings with team members and relevant Enabling, School of Education, Learning Development and support staff to understand current structures of teaching and learning and to explore the challenges students face from the point of view of students and staff. The project aimed at developing qualitative and quantitative research methods (meetings, focus groups and data analysis).

Blackboard sites

In 2012 Enabling and Education lecturers involved in the current Double Transition study were enrolled in each other's Blackboard sites. This was a particularly useful sharing of information as it allowed project members to access Course Outlines, interactive discussions and course material. They could examine pace of delivery, content and direction of lecture material, specific details of assessment tasks and due dates. In addition, for enabling students who were interested in pursuing a degree in Education, it allowed them access through the Discussion Board site to the First Year Course Coordinator who could answer questions about their future degree path or respond to comments by students.

Lecture attendance

On both campuses, Enabling educators went along to the first lecture in the undergraduate Education program. This provided a first-hand experience of the feel of a mass lecture and the pitch at which the lecture was being delivered. This was important because in communicating this experience to our students we needed to experience it for ourselves and be reminded of how it felt to take the position of a student.

Counselling input

One of the collaborative meetings organised for the Double Transition project was with several members of the Counselling service. This was particularly insightful as we discussed why students had made the decision to drop out of university and hence, why transitions had not worked for them. As students had entered the University with hopes and dreams of a better future, it was important as lecturers to know if they left courses because of some failing on our part. The emphasis in many retention studies is on what staff can do better. However, the unpublished findings of a Counselling Service study indicated that decisions to leave courses had little to do with the way lecturing staff delivered their offerings. Upon our analysis of reasons for leaving courses provided by students attending counselling, they fell broadly into matters relating to the structure or content of courses, to external factors outside the University's control such as work or accommodation issues or personal relationships, or to self-doubt. Many of the criteria were overlapping.

Courses

- Needed part-time or distance offerings instead of full-time.
- Needed more "suitable", relevant or practical subject offerings.
- Didn't like the course, was uninterested, found it boring.
- University changed the timetable, which made it unworkable.
- Deferral option was not well explained.
- Needed to remove piercings to study dentistry.
- Lack of adequate choice of subjects at local campus.

External factors

- Problems with accessing accommodation.
- Employer not flexible, could not do placements due to work commitments.
- Needed work for basic survival, financial constraints, loans/mortgage to pay.
- Falling asleep in class.
- Offered a better paying job, got professional sports contract.
- Travel to university prohibitive.

Personal relationships or commitments

- History of domestic violence in family.
- Demands of children means university had to wait.
- Family carer for mother with dementia.
- No family support.
- Fell pregnant.
- Problems with personal relationships.

Self

- Didn't talk to the Counsellor.
- Wasn't clear about what they wanted to do.
- Lacked confidence.
- Needed to be better prepared.
- Reported that they needed more realistic expectations about their commitment.
- Anxiety problems.
- Health problems.
- Life circumstances.
- Need to learn to balance priorities.

These explanations gave some indication of where staff might be able to intervene in transition experiences and where it is outside their capacity to do so. Matters relating to flexibility of courses are something university administrations may be able to address. At the University of Newcastle it was decided to embed counselling services within our Enabling programs in order to better support our students. This may go some way toward assisting them with issues that impact on their studies. Counsellors are now invited into many classes to talk briefly about their services and so students become familiar with them. What bears further analysis is the extent to which students blame themselves or their personal circumstances for their failure to continue in courses.

Research Phase 2: This involved focus groups, the discussions from which are currently being transcribed. The University of Newcastle PEPPR (Potential Enabling Program Participant Research) Register was used to contact student participants who had completed an Enabling course and who were now in an undergraduate degree. Fifteen former Open Foundation students from both campuses volunteered to participate. They were asked about their first impressions and transitions into both their Enabling program and their undergraduate degree; about things lecturers did to help them succeed; whether they accessed support services; and what advice they might give to the University and to other students about what students need to do and know when entering these courses.

University staff from the Enabling programs, Learning Support, YAPUG (flexible tertiary preparation program for Aboriginal and Torres Strait Islanders), and Counselling, and lecturers from the School of Education were also invited to participate in focus groups. Twenty staff took up the invitation. They were asked about how they would characterise their students and whether they had observed differences in cohorts. They were also asked about transitional challenges and to provide examples about what students reported back to them about their transitions and whether they had any other suggestions that might assist staff or students at this time.

Outcomes

Preliminary response to data as it was collected indicates that for staff involved, development of an understanding of each other's areas, roles and student experience through a variety of methods – including regular meetings, participant observation (within lectures and Blackboard) and focus groups – will assist in establishment of a set of principles based on cross-communication to

help staff in supporting students through the double transition. For example, a "wow" moment occurred when it was suggested that Indigenous students make a triple transition into tertiary studies, which included meeting cultural expectations.

With the YAPUG students they're not there just for themselves. They've got this massive expectation of family and community. And when they apply, you'll often get a family member ringing up, introducing themselves as well as the student and even during the semester Nan might ring up and say, 'I know my grandson is not going to class, can you please give him a kick in the butt and tell him to get to class?', and you can't share any information about the student because it's confidential, but you just sort of, like, play along with it kind of thing, because you don't want Nan to come and kick you in the butt. They will do it (laughs). But we try to prepare them not so much for undergrad study, but [for] undergrad life, because often they're the first person in their family to access higher education.


Establishing sustainable links between Enabling Programs and the School of Education through dialogue and resource-sharing is an ongoing project. As the Double Transition collaboration continues, it is becoming more and more obvious that educating is a joint enterprise. The rich data which remains to be analysed from this project will highlight further areas that may not be obvious in everyday teaching practice.

Early collaborations produced some useful hypotheses from which to base the current project on: that students feel insecure and uncertain about their own capability upon entering Enabling programs, but they also may feel vulnerable and overwhelmed upon entering undergraduate degrees. Sharing information among staff not only adds substance to the student experience but is valuable in achieving a common goal of producing pedagogy and reminding lecturers of the struggles facing our students. According to Grossman and McDonald (2008), research on teacher education, as distinct from teaching itself, is still a relatively young field. The complexity of teaching as practice and the preparation of teachers are vital to quality education. Kanter (1994) claims that there is an art of alliances. Her review of business alliances can be substituted by the notion that it is educational alliances that are "living systems, evolving progressively in their possibilities" (p. 97). This has been demonstrated in the preliminary findings of the current Double Transition project. This collaboration

is, as Hutchens (1998, p.3) has described, a “win-win practice”. It allows an understanding of both Enabling and Teacher Education, which can only prove beneficial for students.

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Reducing the attrition of tertiary bridging students studying by distance: A practice report

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Theme: Cross-sector and industry collaborations

Abstract

This paper describes an initiative commenced in Semester 1 2012 in a small rural town in Queensland, Australia, to address the high level of attrition experienced by tertiary bridging students studying by distance in regional areas. It was hypothesised that the attrition was caused by a lack of social and academic integration into the program. The initiative involved the conducting of face-to-face teaching and a study group on a weekly basis at a partner institution. The collaboration between the university, the local partner institution and representatives of local government and community organisations involved in identifying potential students and supporting those students once enrolled is described. The major findings of the initiative to date relate to the high incidence of a change in the circumstances of students, which challenged continued attendance in the bridging program, the difficulties of distance students in relation to the administrative requirements of the university, and the challenges associated with the completion of a high volume of assessment in the early transition weeks of the semester. The primary relevance the initiative has for providers of distance tertiary bridging programs relates to the lack of support that distance students have when experiencing these challenges.

Introduction

The University of Southern Queensland (USQ) has provided a tertiary bridging program entitled the Tertiary Preparation Program (TPP) for over 20 years as an alternative pathway for individuals who are not academically qualified to attend university. The program is offered both on-campus and by distance. High attrition rates have been described in the literature for online courses (Patterson & McFadden, 2009; Youn, 2001), while attrition from tertiary bridging programs has been reported as high as 50 *per cent*, even for face-to-face delivery

(Cooper, Ellis, & Sawyer, 2000). Students studying the TPP by distance at USQ are confronted with the challenges associated with both of these contexts and have traditionally demonstrated attrition rates of up to *75 per cent*, with *30 per cent* of students failing to submit any form of assessment.

This paper will describe an initiative, commenced in Semester 1 2012, which has addressed this issue by the introduction of a blended learning experience for students in the small rural town of Stanthorpe, located some 1.5 hours drive from the primary point of delivery of the program. The aim of the initiative was to improve the engagement of students studying at a distance by increasing the face-to-face support and academic assistance available, which will, in turn, reduce program attrition.

The Tertiary Preparation Program at USQ

USQ has offered the TPP for over 20 years and has a wealth of experience in the delivery of tertiary bridging programs. Study in the TPP may be completed either on-campus or by distance. The minimum requirement of students enrolling in the TPP is the completion of two compulsory courses, the first being a generic study management course, which includes academic writing and communication and skills such as goal setting and study skills, while the second is a mathematics course. A number of levels are available for the mathematics course to cater to the varying levels of mathematics preparedness of students and the different pre-requisite requirements of the undergraduate programs students wish to access. A number of other courses, such as physics, are also available, which students may elect to complete to improve their level of preparedness for university study.

The TPP is conducted in both distance and on-campus modes in Semesters 1 and 2 and by distance only in Semester 3 of each academic year, with each semester being conducted over 15 weeks, which includes a two-week mid-semester recess. Each course is assessed by the completion of a number of assignments, completed during the semester and submitted either by electronic upload or by the mailing of a hard copy, with the final assessment task being an examination completed under supervision.

At USQ over *70 per cent* of all students study using the distance mode of delivery and the institution is recognised as being a leader in this field within the tertiary education sector. However, the TPP has experienced an ongoing challenge with attrition rates for students studying via the online mode, with as few as *25 per cent* of students completing the program.

Online study

While online learning has been demonstrated to be as effective as on-campus study (Russell, 2001), a range of challenges associated with online study and higher attrition rates have been described (see for example Carr, 2000; Patterson & McFadden, 2009; Tyler-Smith, 2006). Muilenburg and Berg (2005) identified the lack of social interaction as the most important barrier in online learning. Factors of lesser importance were administrative/instructor issues, time and support for studies, and learner motivation. Of particular interest in the study was that “respondents rated a lack of technical skills and academic skills as very low obstacles to learning online” (p. 35). The lack of association between dropout in online study and academic variables was also identified by Patterson and McFadden (2009).

Tyler-Smith (2006) in research examining mature-age students undertaking eLearning for the first time argued that “first time eLearners often experience cognitive overload...in the early stages of an online course” (p. 1). This issue was also identified as one possible explanation for attrition during the initial weeks of the course.

Yorke (2004) in a review of literature relating to online study identified that the student experience was the primary factor which influenced the quality of outcomes obtained. In particular he stated that “the development in students of a sense of belonging is particularly challenging in open and distance learning, but matters such as considerate tutoring and supportive formative assessment are widely accepted as components of good pedagogic practice” (p. 30).

Educational transition

The incidence of students withdrawing from tertiary study within a very short time of commencement has previously been identified by other researchers, with attrition being highest within the first six weeks of the semester (Blanc, DeBuhr, & Martin, 1983) and “prior to the first grading period...In some cases, departure of this sort is temporary rather than permanent. Some persons need time to regain their confidence and stability” (Tinto, 1993, p. 46). The increased incidence of attrition during the transition period into university has been identified in more recent studies in both England (Trotter & Roberts, 2006) and Australia (McMillan, 2005; Wylie, 2004). Tinto describes the act of separating from the past as a stressful process and, for some, the pain “may be so severe that they constrain persistence in college” (Tinto, 1988, p. 443). Students transitioning into a tertiary bridging program, many of whom have experienced negative experiences and outcomes in secondary school (R. Whannell, Allen,

& Lynch, 2010), would be expected to be particularly vulnerable during this period.

The role of academic and administrative staff in the transition of new students involves inducting students so that they may come “to terms with themselves as participants within Academe, and the way in which their role is perceived” (Green & Latham, 2000, p. 44). In the process of transition to university, a student’s peers may act as a challenge where “the impact of the peer group in terms of how the new culture is read and what rituals are adopted, is often a competing force, as students seek to find their way through the next passage” (Green & Latham, 2000, p. 44). Another challenge, which is apparent in the rite of passage from one cultural situation to another for the new student, involves “the cultural baggage that we carry with us from place to place, which includes our prior experiences, belief systems but also our ways of knowing and of behaving” (Green & Latham, 2000, p. 46).

Elkins, Braxton and James (2000), in a U.S. study, examined student departure in the first and second semester of college with specific reference to the separation stage of the transition process. The study concluded that “the factor of rejection of attitudes and values is important in the separation process and ultimately in the persistence/departure decision” (p. 263). However, “the factor of support had the greatest influence on the persistence/departure decision” (p. 262). Of interest in the study was that it was identified that the level of support was influenced by the level of student academic achievement at secondary school. “Perhaps the parents, friends, and family members of low-achieving students question the likelihood of these students remaining in college” (p. 263).

The initiative

The literature reviewed in relation to students engaged in online study and in the transition into a tertiary bridging program indicated an important role for the quality of the student experience, particularly in relation to the quality of the support that the student experienced. It was hypothesised that one possible reason for the high level of attrition in students commencing the TPP via an online mode of delivery was the lack of support from and engagement with academic staff involved in the delivery of courses and with fellow students.

The primary objectives of the initiative were:

- to increase the level of personal interaction between students and staff at the institution;
- to provide regular face-to-face teaching of course content;

- to provide prompt and personal feedback in relation to assessment; and
- to ensure that the administrative processes of the university were managed in a supportive and timely manner.

The site chosen to host the initiative was Stanthorpe, located in the Granite Belt in southern Queensland, about 1.5 hours drive from the primary USQ campus. Stanthorpe has a population of about 3,000 people and is also the site of the Queensland College of Wine Tourism (QCWT), where USQ was currently delivering courses related to wine and tourism. A dedicated staff member was allocated to operate from the QCWT initially for three days per week, which was increased to four days per week in August 2012.

Following an initial trial period in Semester 1 2012, where the advertising and program delivery aspects were tested, the initiative was delivered in Semester 2 2012. The principal components of the initiative in order of delivery were as described below.

Marketing

About one month prior to the start of the semester, advertisements were placed in the local newspapers which serviced Stanthorpe and surrounding areas. A3-sized flyers were also placed in many of the local businesses. The USQ staff member also networked with a variety of people from local government, community organisations and businesses who were considered to provide a potential source of students. One open day was also advertised and conducted in Stanthorpe at the QCWT and at the Warwick library, located 35 minutes drive from Stanthorpe.

The result of the short marketing program was that 21 students were enrolled in the program through the QCWT for study in Semester 2. The students ranged in age from 18 to 58, with seven males and 14 females.

Orientation

Appropriate orientation programs have been demonstrated to aid students in their social and academic integration (Krause, Hartley, James, & Mcinnis, 2005) and it was considered that students should be given the opportunity to engage in such a program. This opportunity was provided with a one-day orientation program at the QCWT conducted in the week prior to commencement of the semester. The orientation program included a presentation from the director of the centre and a free social activity during the morning-tea period. Eleven students attended the orientation session.

Course delivery and support

A number of aspects were considered to be necessary in supporting the students with the academic components of their courses. Previous research (P. Whannell, Whannell, & Allen, 2012) has identified that tertiary bridging students have substantial issues engaging with assessment, particularly examinations. The courses provided in the TPP have a substantial assessment requirement with assessment being due in the first week of the semester. The requirement for assessment to be due so early in the semester indicated that the skills associated with the completion of assessment should be delivered at the earliest opportunity.

To facilitate the delivery of course content and to assist students to prepare for the assessment tasks, one full day, Wednesday, was allocated. Time was allocated to allow for content delivery, assessment preparation and for individual work on learning tasks and assessment.

The requirement for students to engage with and support each other was also included by the allocation of time each Tuesday afternoon for a group study session at QCWT. While the staff member acted to facilitate the session, the primary goal was to have students act and support each other independently.

While students were able to obtain support outside of these times through the online learning management system (Moodle), Facebook was also utilised. A Facebook site was created and maintained which allowed students to make entries and remain in contact with other students and the staff member. This open form of communication was considered to have substantial benefit for all users as many of the issues which were raised on the site by a single student were subsequently endorsed by other students at the next face-to-face session.

Challenges to study

A number of common themes were identified in relation to the factors which challenged students in their attempts to study. The first challenges that occurred were administrative issues relating to students enrolment and their receiving of the study materials. The majority of students had not received their study materials prior to the commencement of the semester. Those who had received the study materials in CD format found them difficult to use and manage, and subsequently requested hard-copy versions which did not arrive for a number of weeks. Students are able to request hard-copy versions of the materials if, following enrolment, they complete the appropriate request form declaring that internet access is not available. In this case, the hard-copy books are usually not available for a number of weeks. Considering that assessment was due in

week 1 of the academic management course and week 2 for the mathematics course, this presented a substantial stressor for many students as they were unable to adequately prepare for and engage with the tasks.

A substantial administrative issue was also encountered in week 6 of the semester, where the enrolments of four actively engaged students were cancelled by Student Administration. Enquiries by the USQ staff member established that the students had not returned a required confirmation of enrolment form, which resulted in their withdrawal. Action was subsequently taken by the staff member, with the willing support of Student Administration, which resulted in their re-instatement in the course. Considering that this has occurred independently for four students, which represents 19 *per cent* of the attending students, this issue presents as a real challenge for the institution in respect of managing the administrative requirements of atypical students such as those in the TPP.

The ability of the students to act on their own initiative and remedy the type of administrative situations described is considered questionable and presents the role of the local academic as being important in supporting students in this regard. Administrative issues as a stressor for students studying online has previously been described (Mullenburg & Berge, 2005).

A number of students also experienced changes in personal circumstances which acted to reduce, or even prevent, their continued engagement with the program. This situation was considered to apply to seven students. The extent of this problem has been previously described (Bedford, 2009; R. Whannell, 2012). Examples of the changes were partners moving to another regional location, loss of employment and change in work commitments. While it was the case that all of these students dropped out of the program, the USQ staff member was able to support their departures and provide the best opportunity for a return to study at a later time.

A major challenge experienced by all students was the timing and quantity of assessment in both compulsory courses. The academic management course required assessment to be completed and submitted in week 1 of the semester, while the mathematics course required the first task to be submitted in week 2. Students appeared very underprepared to meet this challenge and substantial support was provided to facilitate the meeting of these assessment requirements. The compulsory academic management course required the submission of some form of assessment in most weeks of the semester. Due to this, much of the time of the face-to-face session on the Wednesday of

each week was allocated to supporting the students in the requirements of the assessment tasks. Little opportunity existed to engage in learning activities outside of the immediate scope of the assessment. While it could be argued that the assessment involved was not of a high academic standard, students, particularly those with poor computer skills, were still substantially challenged by the experience.

The challenge of assessment in relation to the development of academic identity in tertiary bridging students has been previously described (Debenham & May, 2005; R. Whannell, Whannell, & Chambers, 2011). Another issue associated with the requirement to submit assessment in most weeks of the semester was encountered by students who experienced some form of personal challenge which involved an interruption to their studies. Even an interruption of one week caused students to fall behind in their assessment completion and submission requirements. Even in week 14 of the semester, students were still being substantially challenged by the quantity of assessment.

Contrary to the findings reported by Muilenburg and Berg (2005), the students appeared to be seriously challenged by a lack of computer skills, particularly in the initial weeks of the semester. The assessment in the compulsory academic management course required the ability to create word-processed documents with relatively advanced formatting, including headers and footers, tables and custom margin settings. The TPP program does not include any computer literacy components and the requirement to complete assessment which involved these relatively advanced computer skills was beyond the ability of a number of students. Substantial support and teaching in computer skills was required before these students were able to complete and submit the assessment successfully.

The challenges experienced by the students are evidenced by the relatively low number of students who remained actively engaged with the program as the semester progressed. Fifteen (71%) students were actively attending QCWT and submitting assessment in week 7. This number had dropped to 7 (33%) at week 14. Even at this late stage, when it was hoped that students had reached the stage of being independent and self-motivated, a substantial amount of time was required in the support of students in these areas.

The need for stakeholder collaboration

One of the primary challenges identified for students was the lack of specialist support that was available. Students studying in regional locations do not have access to the administrative and social support services that are available on-

campus. The initial networking completed by the USQ staff member included visits to community organisations such as Mission Australia, which are involved in the training and placement of unemployed individuals. As a consequence, a small number of students were enrolled in the program who required assistance which was beyond the professional expertise of the USQ staff member. In these cases, the services available within the local community were utilised, particularly those from the referring organisation.

This aspect presents a substantial challenge to institutions who offer tertiary bridging programs by distance, even in situations where some form of local support is provided such as in this initiative. Should this initiative be continued and, perhaps expanded, clear guidelines would be necessary in relation to the role of academic staff in relation to students with substantial personal or social problems. The requirement for additional specialist support options must be available to ensure the safety of students. The requirement to collaborate with local providers to facilitate the provision of specialist services when required is considered essential.

Conclusion

While the outcomes achieved by the initiative in regards of program completion were not markedly better than that traditionally achieved in the TPP, the experience of engaging closely with students in a blended learning environment has allowed for a number of issues to be identified which, if targeted appropriately, may result in improved outcomes in future semesters. The literature reviewed indicated that the amount and quality of support provided to tertiary bridging students studying by distance would be the primary aspect that would act to reduce attrition. This initiative provides strong support for this stance. The role of the USQ staff member was primarily directed towards supporting the students in respect of administrative challenges, changing life circumstances and in the preparation and submission of assessment. Extensive support and training in the use of computers was also required. Similar to other research in online and tertiary bridging contexts (Mullenburg & Berge, 2005; R. Whannell, 2010), academic challenges did not appear as a significant stressor for students. Rather, issues associated with administrative and basic academic skills appear as more relevant.

A primary conclusion, which may provide immediate results, would be the modification of the approach taken to assessment. The existing literature (Debenham & May, 2005; R. Whannell, *et al.*, 2011) and the findings from this study indicate that a substantial reduction in the quantity of assessment,

particularly during the first half of the semester, may assist in reducing stress associated with the transition into study and improving completion outcomes. While it may be argued that early success with academic non-challenging assessment may motivate students, this study does not support this stance. The challenges associated with assessment for very academically underprepared students with inadequate computer skills should not be underestimated.


The principle implication that the initiative has for practice for institutions that provide distance tertiary bridging programs is that strategies to reduce attrition through increasing the amount of direct support provided to students have the potential to reduce attrition substantially. However, while positive outcomes have been achieved, a note of caution is necessary. Having academic staff members operating on a face-to-face basis with tertiary bridging students in a regional location without the support services that are taken for granted on-campus presents some challenges. The experiences of atypical students who enrol in tertiary bridging programs indicate that the academic personnel who are chosen to conduct such programs must be appropriately qualified and experienced to undertake the task. A local support network with local service providers must also be available to provide the support services which the academic is not equipped to provide.

This initiative was conducted at the QCWT, which presents a sizable and established educational environment within the local community. The potential exists for further research to be conducted to determine the extent to which tertiary bridging students studying by distance in small regional locations are able to be provided with direct face-to-face support where no such institution exists. In these circumstances, the institution may need to partner with local education providers, such as secondary schools, in order to use existing infrastructure to deliver the program.

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‘Week Zero’ in Open Foundation by Distance: the Successes and Challenges of Embedding an Online Orientation into an Enabling Distance Program

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Abstract

In 2011 a team of academic, administrative and support staff involved in the delivery of Open Foundation by Distance at the University of Newcastle in New South Wales, Australia embarked upon a process of reviewing and reshaping “almost every aspect of the vision, goals and practices” of the program (Kavanagh, et al., 2011, p. 359). This review led to the offering of a substantially redeveloped Distance program in 2012, including fully online study guides and resources in place of a paper-based ‘course pack’ of materials, and a five-day online orientation embedded into the program as a pre-semester component for all commencing students. This paper reports specifically on the first-time offering of this online orientation, ‘Week Zero’. It charts our experiences of developing and producing the five-day schedule of activities, information and resources; the positive outcomes as evidenced by student responses and engagement; and the opportunities for further refinement identified by support and academic staff.

Introduction

Open Foundation by Distance (OF by D) is the off-campus mode of the University of Newcastle’s Enabling program for mature-age students, Open Foundation. Since its initial offering in 2003, enrolments in OF by D have grown steadily from 40 to over 300 students a year (Kavanagh, et al., 2011). In 2010 the English Language and Foundation Studies Centre gained funding from the University’s Equity and Diversity Unit to undertake investigative research into attrition patterns and student support needs in OF by D. This research led to an intensive internal review of “almost every aspect of the vision, goals and practices” of the program in 2011 (Kavanagh, et al., 2011, p. 359). The review

took place via online discussion forums and a two-day face-to-face workshop, and included all academic, support and administrative staff involved in the delivery of OF by D.

The team involved in the review identified the following as particular points of concern:

1. *Students were not supported in their entry into the program.* Prior to the first week of the program students were sent large paper 'course packs' containing their materials for the semester. These packs provided little guidance as to when or how students should start their courses, and did not establish clear expectations about the role of Blackboard as a virtual learning environment (VLE).
2. *Interaction and engagement was lacking from the outset of the program.* In general, students were not engaging with each other, lecturers or support staff in a way that promoted the establishment of active or supportive learning communities (Kift, 2009; Krause, 2005; Tinto, 2003). The capacity for this existed in the course Blackboard sites established to supplement the paper-based course materials, but these sites tended to be under-utilised and under-promoted.
3. *The support provided to students was not coordinated or streamlined,* and was therefore lacking in effectiveness. Valuable support such as Learning Development and Counselling was inconsistently promoted across the six OF by D courses, and there was no centralised way for students to access support resources or staff.

To address these concerns, the Distance team decided to redesign OF by D for fully online delivery via Blackboard in 2012, and to centralise students' access to support staff and resources by adding a program-level Blackboard site. It was also decided that first semester should be extended from 12 to 13 weeks, and a one-week online orientation – Week Zero – was designed into the program as the 'start point' for all commencing students. This paper outlines the design and rationale of Week Zero, presents the outcomes of the orientation's first delivery, and identifies several areas undergoing further development for future offerings.

1. Designing an online orientation

It is well documented that mature-age students commencing Enabling or Foundation programs tend to have heightened academic, emotional and social needs due to a long absence from formal education and/or negative past educational experiences (Daniels, 2011; Jeffrey & Hardie, 2010; West, 2011;

Whannell, Whannell & Chambers, 2011; Willans & Seary, 2010). Commencing students tend to lack an awareness of what is expected and required of them in a tertiary education environment; are unfamiliar with basic academic skills and discourse; and have not had much – if any – exposure to online learning environments (Jeffrey & Hardie, 2010). To address these common difficulties and the more specific findings from the Centre's internal research and review, the two overarching aims of Week Zero were to:

1. guide and support students during their 'entry' into the program by building their confidence and technical skills before the commencement of coursework, and
2. foster ongoing engagement among students, and between students and support staff.

Hosted in the newly established OF by D program site in Blackboard, Week Zero comprised five days of activities, information, resources and videos. The orientation schedule was designed to introduce students to: the Enabling administrative staff and how to use key tools in Blackboard such as quizzes and discussion boards (Day 1); the range of support services and staff available for OF by D students (Day 2); the Enabling Librarian and how to use the university's online library systems (Day 3); and the course lecturers and basic study skills such as critical thinking, academic writing, and using scientific calculators (Days 4/5).

Facilitating access and building technical skills

As Salmon argues, gaining access to a technical system and learning how to use that system "is an essential precondition for learning in any online environment" (2011, p. 70) and one which underlies the success of further stages in online learning. With the program shifting to fully online delivery in 2012, adopting a 'stepped' or scaffolded approach (see Salmon, 2011, pp. 31-59), whereby students were guided into accessing and using the VLE before engagement with coursework began, became a central concern underpinning the design of Week Zero.

The 'offer pack' sent to commencing students was revised to include instructions for logging in to Blackboard. Students were also advised that their studies officially started on the Monday of Week Zero, and that during the orientation week they should spend one to two hours each day working through the orientation material in Blackboard.

To lead students incrementally into the Blackboard environment, more ‘menu buttons’ became visible across the five days of Week Zero, and Adobe Captivate demonstrations with voice-over instructions were provided to guide students through how to use each new area or tool. Additionally, technical support was also made readily available by phone or email from 9am to 9pm throughout the orientation period. By the end of Week Zero, participating students had learnt how to use discussion board forums, send an email through Blackboard, complete online quizzes, and participate in real-time chat.

Figure 1: A Week Zero activity, with a link to an instructional video.

Activity 1.2: 2 truths and 1 lie

Discussion board forums will be used in all your courses. Find out [how to use Blackboard discussion forums](#) (you can also find text instructions [here](#)), then:

1. Go to the [2 Truths and 1 Lie forum](#) and post 2 truths and 1 lie about yourself, and
2. Find someone else's post and reply, guessing which are the truths and which is the lie.

Did anyone reply to you? How accurate were they? Let them know if they got it right!

Inspiring and connecting students

Transition pedagogies emphasise the importance of fostering a sense of being supported, inspired and connected among students who are new to tertiary education (Cassar, Funk, Hutchings, Henderson, & Pancini, 2012; Kift, 2009; Nelson, Kift, Humphreys, & Harper, 2006). Nelson *et al.*, for example, argue that in order to achieve effective transition into tertiary study, educators should cultivate “an awareness of and timely access to support services” and “a sense of belonging through involvement, engagement and connectedness with their university experiences” (2006, p. 1).

Introducing ‘real’ people

One of the key resources designed into Week Zero to reflect these principles was a five-part series, *Moments in the Life of an OF by Distance Student*. The Distance team developed and scripted the series, and engaged the services of a local video-production company to film and produce five two-to-four-minute episodes. The series followed Karli, a real former student, through various experiences in her everyday life while studying OF by D. Importantly, each episode depicted Karli engaging with the real support, administrative and academic staff members involved in OF by D.

Figure 2: The first episode of Moments in the Life of an OF by Distance Student on Week Zero, Day 1.



In addition to the five-part series, the six OF by D lecturers were filmed introducing themselves and welcoming the new cohort, and three former OF by D students provided video testimonials about their experiences in the program. This suite of videos served a dual purpose: to demonstrate that 'real' people had been able to achieve success in OF by D; and to introduce the academic, support and administrative staff available to assist students throughout their enrolment.

Fostering connections and engagement

The potential for social interaction to enhance students' learning and facilitate engagement is widely recognised (Krause, 2005; Salmon, 2011; Slagter van Tryon & Bishop, 2009; Swan, 2005; Tinto, 2003). Several discussion-board activities were therefore designed into Week Zero, in the hope that students would actively engage with each other and with support staff. As an introductory exercise on Day 1, students were asked to post '2 truths and 1 lie' about themselves in a discussion-board forum and to respond to other students' posts. On Day 2 students were introduced to the Coffee Shop forum, which throughout the year was to serve as a 'one-stop shop' for accessing support staff such as a Distance Support Coordinator, Learning Adviser, Counsellor, English Language Support Teacher, Librarian and Student Mentors Coordinator. A 'Getting Started' thread was set up in the Coffee Shop, and students were invited to post questions or concerns about starting their courses.

2. Student responses: Measuring the success of week zero

Students' responses to Week Zero exceeded expectations among the Distance team. In order to measure its impact, students' access and participation in Blackboard during the orientation and into Semester 1 was tracked, and two surveys were administered: one on Day 5 of Week Zero; and one during the second semester.

Increasing access and building confidence with technology

While Week Zero was not in fact mandatory, as a result of providing students with a clear 'start' point online, 94 *per cent* of commencing students accessed Blackboard by the end of Week Zero in 2012. This was a significant increase on the initial Blackboard access rate of only 60 *per cent* at the end of Week 2 in Semester 1, 2011. As Table 1 demonstrates, key parts of the program site were accessed over 20,000 times during the orientation week (by 398 commencing students).

Table 1
'Hits' in the Blackboard program site during Week Zero

Blackboard Area	Hits
Communication	1975
Support	5225
Week Zero Day 1	2942
Week Zero Day 2	2330
Week Zero Day 3	1848
Week Zero Day 4	1700
Week Zero Day 5	1060
Who's Who	1255
Other	1990
Total	20325

The 'guided' entry into the VLE provided students with a tangible sense of relief and preparedness for their studies. In the end-of-Week-Zero survey, over 230 students commented on the usefulness of this scaffolded approach. Comments included:

By only revealing parts of Blackboard each day has been great and not overwhelming. It has all really helped ease into the program.

I'm actually excited to start my courses next week by distance because I now actually feel confident with the sites!

The most useful thing to learn this week has been navigating around the web pages. I'm not too great on computers and it was a tad daunting, but it's looking better now :)

These sentiments were reinforced in the second-semester survey:

Week Zero took me through every part of the website that I needed. I found it extremely valuable as I wouldn't have been able to maximize the value of the support available to me otherwise.

Encouraging engagement

Levels of interaction during Week Zero far exceeded expectations. The Day 1 activity asking students to post '2 truths and 1 lie' about themselves resulted in over 700 posts by more than 260 students. On Day 2, over 160 posts were made in the 'Getting Started' thread, and University staff were able to answer questions and provide reassurance about a range of issues such as ordering textbooks, joining study groups, and returning to study.

For example, one student posted:

Hi, I decided to do this course but now that it is here I am terrified, maybe I have got in over my head.

Other students responded with encouragement and empathy:

I can relate to being terrified about the course, I feel my 8-year-old daughter could probably get better marks than I possibly may get... I'm sure you will be ok, just as I will be. With all the support we have available. good luck :)

Support staff were also able to provide reassurance and direct the student to some useful resources:

Rest assured that feeling a little terrified (or very terrified!) is normal...On Day 4 we'll link you to some videos from former students who started with exactly the same worries...Despite what you may feel at this point, with some perseverance, hard work, and planning, you can do it!

Critically, this initial emphasis on online engagement and communication continued to affect levels of interaction in the program site and course sites

in Blackboard throughout the first semester, demonstrating the orientation's longer-term effectiveness beyond the first week.

Table 2

A comparison of participation in the OF by D program and course sites in 2011 and 2012

		2011	2012
Program site discussion-board participation		32 posts	1900+ posts
Course site discussion-board participation		922 posts	3978 posts
	Australian History	52 posts	288 posts
	Chemistry & Life Sciences	467 posts	970 posts
	Core Mathematics	175 posts	1491 posts
	Earth Science	114 posts	562 posts
	Linguistics	114 posts	667 posts

Week Zero also had a significant and continuing impact on students' awareness of and willingness to contact support staff. While no OF by D students contacted the Enabling Counsellor for assistance during 2011, by September of 2012, 42 students had been in contact with the Counsellor for phone, email or face-to-face consultations. Similarly, e-consultations with the Foundation Studies Learning Adviser increased from 17 in 2011 to 42 by September 2012 – an increase of close to 250 *per cent*.

Instilling inspiration and motivation

The suite of OF by D videos were an integral part of creating a supportive environment and building confidence among students. In the end-of-Week-Zero survey there were 110 mentions of the value of learning about the support available, the lecturers, and the stories of former students. It was evident that the videos featuring 'real' people and their stories had both inspired and motivated students about commencing OF by D:

The most interesting thing is probably listening to the lecturers and previous OF students talking of their "journeys" and trying to relate their experiences to ones I will soon be experiencing. I am so excited to be beginning Open Foundation!

The most useful [resource] I think would be the discussion board and the most interesting thing I've learnt is how supportive the OF lecturers and support staff are. I'm very much looking forward to getting stuck into study next week!

A number of students also expressed surprise and relief that the lecturers seemed “accessible” and “approachable”. The video introductions served to demystify and ‘humanise’ the academics in OF by D, which in turn reassured students about being able to engage with their lecturers during the semester:

It was interesting listening to the lecturers and seeing that they really are just normal people. I had a preconception that Uni lecturers are hard, emotionless people.

The most interesting thing has been learning about the lecturers... Finding out a little about who they are, really helps [me] to relate to them and makes me feel at ease.

The most interesting [thing] would have to be that the lecturers are not old crones that are scary :) I look forward to meeting them.

Overall, the experience of participating in Week Zero – watching the videos, completing the activities, and interacting with fellow students and support staff – served to heighten students’ sense of confidence and preparedness for their courses. This was particularly evident among students returning to study after long absences:

I was feeling a little overwhelmed and not sure a mature-age person like myself would be too long out of school to participate in such an academic field. I am now feeling a little more ‘normal’.

I was worried as I had no idea of what to expect. This has given me the tools to better face it. It has also made me take an hour or so of my night for me and the kids have survived! Showed me a bit that maybe I can do it!! Thanks!

It was daunting starting to study after so long away from it. Week Zero really helped me relax and get a feel for uni life without any pressure. I felt supported, encouraged and well informed to tackle the year ahead as an OF student.

Identifying gaps in design

Despite these successes, the distance team has identified several areas needing refinement for future offerings. First, while effective transition into the technology was achieved, it became evident during the first semester that further guidance was required to assist students with transitioning into the specific structure of their course sites. It was expected that after an introduction

to Blackboard in the program site during Week Zero students would be able to adapt easily to their online courses. However, without structured guidance about where to find critical information and documents such as the Course Outline, some students failed to locate important information in a timely fashion and found the sites confusing and overwhelming. As one student commented in the early weeks of the first semester:

Each course is set out differently, with different names for the same sort of thing (e.g. weekly tutorials). There is so much information on a page is it hard to find what you are looking for. When you have found what you're looking for, it's usually 3 or 4 links to go through to find it again, which is quite confusing.

Subsequently, in 2013 the six course sites will be opened during Week Zero, rather than Week 1, and the orientation will contain a series of structured activities designed to guide students through the critical areas of their online courses.

Student reactions during the first semester of 2012 also revealed that although Week Zero had resulted in a heightened sense of confidence and inspiration at the outset of the program, the more 'serious' and 'academic' nature of coursework and assessments remained confronting for many students. A lack of knowledge about appropriate "methods and strategies for studying" (Bennett & Burgess, 2011, p. 63) resulted in some students engaging with the course materials in unexpected and ineffective ways. For example, one lecturer recounts a student contacting her in Week 1, overwhelmed because she had printed out and tried to make sense of the course materials for the full semester, rather than focussing only on the first week. The 2013 offering of Week Zero will, therefore, incorporate a number of guided academic skills activities designed to enhance students' abilities to engage with their course material.

Conclusion

Week Zero is now an integral component of the fully online OF by D program. The success of the orientation was evidenced by the high rate of Blackboard access achieved during the week, the vibrant interaction that occurred in the discussion board forums, and the sense of support, inspiration and confidence that so many students reported gaining. Crucially, students continued to communicate in Blackboard and to engage with support staff throughout the semester, demonstrating the orientation's longer-term impact as a support initiative. While these successes are significant, several opportunities for further refinements have been identified by the Distance team. These include guiding

students into their course sites during Week Zero, and integrating academic literacy activities design to better prepare students for their coursework. The team is currently working on these refinements for the 2013 offering of OF by D.

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Economics for second language learners

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Abstract

Second language learners may place disproportionate emphasis on new subject-specific concepts. Initial investigation confirmed that such concepts were being recognised as 'key words' often while overlooking other equally significant vocabulary. This became particularly noticeable with a small cohort of very able students studying Economics for the first time. Poor results from two summative tests were indicative of students who were either below the required academic ability or who failed to prepare. However, for this cohort, this was clearly not the case. Follow-up discussion with the students confirmed their awareness of the need to both understand and use new Economics vocabulary. However, this appeared to override vocabulary already mastered while learning the first 1000 and 2000 words of English. Preliminary examination produced interesting results when students were asked to identify key words in a range of sample questions and tasks. This highlighted their habit of ignoring significant terms often used to qualify questions. This practice was causing problems for students attempting paragraph writing as well as multiple-choice questions. Once alerted to the need to consider questions holistically, student test results improved significantly.

Background

The Certificate in Foundation Studies programme at Victoria University of Wellington prepares international students for undergraduate study. The typical foundation student is international and has English as their second language. The majority of these students are moving from a high school environment into academic study with Victoria University.

The certificate programme consists of six courses (chosen from 12) that are intended to be completed within a two-trimester period, one trimester consisting of 12 weeks of tuition followed by an exam week. To gain the Certificate in Foundation Studies (entry into university) students need to pass two compulsory courses in addition to four others. One of these courses is Commerce and Economics (FNDN003).

Relatively short but intensive foundation courses such as these need to fulfil a number of objectives, with the key one being to create an environment that stimulates both student independence and readiness to successfully meet the challenges of undergraduate study. Essentially, “content...has to be material that any secondary school leaver can understand” (Chanock, Clerehan, *et al.*, 2004, p. 23), while at the same time effectively giving students the necessary skills to transition into their chosen university course.

Based on recommendations made as part of a routine programme review in 2008 the Commerce and Economics key course objectives are to:

- provide students with specialised knowledge, techniques and the language necessary for undergraduate studies in Economics and other business courses
- introduce students to basic economic theory and the application of economic theory to practical situations in New Zealand and internationally
- enable students to demonstrate their understanding of a range of economic and social issues by making use of economic theories and concepts.

Concern about poor student pass rates in Commerce and Economics, as well as a growing perception by learners that Economics was ‘too difficult’, generated a growing emphasis on subject-specific language and the need to provide and promote the use of glossaries and the like to enhance student learning. This was based on the assumption that the difficulties encountered by students undertaking Economics for the first time primarily revolved around the need to come to terms with a challenging volume of subject-specific concepts. While true, this more focused approach also failed to significantly improve student results.

Literature review

Appreciation of the difficulties faced, particularly by second language learners, is widely recognised. Consequently, the issue of subject-specific concepts, especially with regard to the teaching and learning of Economics, is one that has generated wide academic interest. Many commentators have noted the ability of students to both understand and apply key concepts as being fundamental to the learning of Economics.

While few would dispute the importance of subject-specific vocabulary, debate exists over exactly what such key concepts represent and how pivotal they are to the initial stages of learning Economics. Some regard these concepts as providing “boundaries” or a “foundation” for further learning and understanding,

while other commentators dismiss such approaches as merely “addressing ways of thinking” (O’Donnell, 2009). Since Meyer and Land first introduced their threshold concepts approach in 2003, researchers have written extensively about the significance of both threshold knowledge and threshold concepts in the learning of Economics.

Although this may appear to be mere semantics, it does impact on how Economics courses and assessments may be formed, with more traditional facilitators aiming to “create opportunities for students to demonstrate... understanding through their answers...[while also enabling]...borderline students...[to demonstrate]...their ‘just passing’ level of understanding” (Davies & Mangan, 2001, p. 15). Conversely, advocates of the threshold concepts approach contend that “it is important that students show development in understanding” (Davies & Mangan, 2001, p. 15). The threshold concept approach may, of course, be highly desirable, but it appears to overlook the fact that international students often have a range of quite different learning styles and preferences as well as different language learning abilities. In order to meet the Commerce and Economics course objectives, it is essential that students gain confidence in their ability to learn Economics and successfully pass the required assessments.

Findings

Over the course of several 12-week trimesters a number of factors were more closely examined as possible causes for poor student results. For example, a number of students rely on direct translations from their first language to familiarise themselves with new subject-specific vocabulary while others refer to basic English dictionaries, both of which can mislead students as to the appropriate application of key economics concepts. One good example of this is in the application of the term ‘marginal’, where it can apply in everyday usage to something being of ‘little consequence’ or ‘little importance’.

Other issues, too, revolve around the desire of some second language learners to know the correct answer without appreciating that a correct response may be generated by supporting evidence or reasoning rather than simply the regurgitation of a specific response. Students who have progressed by way of a methodical, rote learning approach find this type of environment especially challenging and are often reluctant to move away from it. This, too, can be sufficient to keep students from progressing beyond “borderline” grades since they clearly do not “think like an economist”.

In addition, second language learners will often revert to their first language when engaging with fellow students, especially when they are discussing newly introduced concepts or ideas. Similarly, such students will undertake electronic research in their own language. While enabling an initial level of basic comprehension, these habits are sufficient to inhibit progress beyond the most basic understanding of Economics, leaving such students to rely more heavily on learning graphs and vocabulary rather than how these tools might be applied.

A recent rudimentary examination of these types of issues provided a valuable insight into additional factors that may also significantly impact on student learning practices. And, while this examination has not produced any solutions, it has helped to clarify a number of fundamental factors that could support different approaches to the teaching and preparation of assessments pertaining to entry-level Economics.

During this particular examination, it was evident by week eight (early 2012) of the 12-week Economics course that many students in the cohort were struggling to incorporate basic concepts into their thinking. This was particularly noticeable in the two tests (held in weeks one and four). Since all the students in this cohort were particularly able (consistently gaining solid B grades or above in other courses), highly motivated and applied a high level of self-discipline, their poor results were of major concern. Indeed, it was the overall ability of the students within this cohort that generated the further examination of the issues outlined below.

The students showed a high level of verbal competence when applying key concepts to Economics problems, and clearly understood what they were learning. This view was reinforced when the students (individually) prepared and facilitated interactive workshops. However, they were unable to produce convincing test results when faced with short-answer problems and multiple-choice questions.

Students in this small cohort all had a good command of English and ranged in age from 20 to 35 years. They also shared the concern for their poor results and were eager to explore the issues more fully. The students worked closely with their facilitator to provide full and frank feedback. This highlighted a collective struggle with multiple-choice questions where reliance on keywords often led students away from the correct answer, creating confusion over why one answer could be better than another. Based on further discussion with the students, it appeared that it was not necessarily the newly introduced economic concepts

that they were struggling with, but the qualifying language that accompanied such concepts.

For example, learners struggled to recognise the overall impact of concepts, or qualifying vocabulary, like 'increase' and 'decrease' in a multiple questions such as:

- Quantity demanded for a product will decrease if the:
- A. *Price of a substitute good increases*
 - B. *Consumer incomes fall*
 - C. *Price of the product increases*
 - D. *Price of a substitute good falls*

Although such vocabulary forms part of the first 1,000 to 2,000 words in the English word list, reviews of subsequent summative tests confirm that these concepts are frequently overlooked. Consequently, multiple-choice questions cause a high level of confusion for a number of second language learners. Unfortunately, this type of testing comprises a large segment of formal assessments in entry-level university courses, making the ability to successfully respond paramount to the future success of students.

Similarly, problem-solving questions also create problems for second language learners who rely heavily on key words, particularly at an introductory level. Questions such as the one below can be misread as asking about the demand for 'motorcycles', thus prohibiting students from considering 'helmets' as complements and motorcycles as substitutes to other motor vehicles.

- Comment on how demand for motorcycle helmets could be affected if:
- i. *the price of petrol increased by 50%*
 - ii. *the price of petrol decreased by 50%*
 - iii. *motor vehicle insurance increased by 50%*
 - iv. *public transport became free*

Again, qualifying language created problems when students were asked to respond with a written paragraph to the following:

.....
 : In a well-written paragraph discuss the following:
 : *'Consumers will always demand more when the price falls'.*
 :

Students initially identified 'consumer', 'demand' and 'price' as key words and formed their written responses accordingly. When prompted to analyse the topic more carefully and consider the significance of 'always', there was a notable difference in how students approached the task.

Several students have volunteered comments on what they feel is possibly causing problems. Many freely admit that they often fail to actually read instructions and questions carefully enough. Other, more conscientious students have taken considerable time to analyse their responses with possible model answers and commented on factors such as word placement within questions and how it affects their ability to respond.

One very able, near-native-English-speaking student contended that when he reviewed assessed work, he had found that he had misinterpreted more than one question because he had overlooked the significance of the last word in the instructions. This suggests that the way examiners prepare assessment instructions and related questions may create greater challenges for learners than the actual content of the task.

Another very able student (already a graduate from his own country with entry into Victoria University of Wellington) highlighted this issue when he queried why the following two multiple-choice questions were 'the same' but had different answers.

.....
 : Which of the following might be considered a negative externality of
 : production?
 :
 : A. *Loss of farmland due to increase demand for housing*
 : B. *Fewer workdays lost by workers who have received flu injections*
 : C. *Increased number of road accidents caused by drunk drivers*
 : D. *Environmental damage to rivers caused by effluent run-off from dairy*
 : *farms*
 :

- Which of the following might be considered a negative externality of consumption?
- A. Loss of farmland due to increase demand for housing
 - B. Fewer workdays lost by workers who have received flu injections
 - C. Increased number of road accidents caused by drunk drivers
 - D. Environmental damage to rivers caused by effluent run-off from dairy farms

This student was surprised to find that, in fact, the questions were different and he had simply failed to note the significance of *'production'* and *'consumption'*, the last word in each question.

It has become increasingly clear that while students appreciated the need to learn new economic vocabulary and often used them as principal 'key word indicators' when deciphering questions and problems, they had not mastered the need to approach such tasks from a holistic perspective.

A more focused approach was clearly required to effectively incorporate the use of qualifying language. Once students appreciated that it was often the non-content-specific vocabulary that was possibly causing confusion rather than the academic vocabulary, they became more aware of the need to carefully read questions and instructions and they developed more structured approaches to such tasks.

Although a heightened awareness of issues such as those outlined above has changed the way course instructions and assessments are drafted, it has also led the facilitator to be much more explicit in instructing students on the techniques they need to employ when approaching problem-based questions as well as other tasks that may require a greater reliance on recall. For example, students are now taken through 'how to pass exam' tips, which include examining multiple-choice questions, teasing out problem-based questions and following a paragraph-writing formula.

Conclusion

Subsequent cohorts have been forewarned about the issue of overlooking the significance of qualifying language, and, as a result, pass rates have improved. Most students (over 75 per cent of the cohort) are now able to gain a 50+ per

cent pass in the multiple-choice assessments. This is in contrast to a previously much lower overall average pass rate.

Of course this cannot be treated as a panacea or in any way be seen as addressing the myriad issues related to teaching Economics to second language learners. However, it has helped to lift the performance of students significantly, even those who fall into to the category of being “borderline”.

Essentially, this rudimentary examination has done little more than highlight further questions. To find more meaningful answers, future research could address the following queries:

- Are some, or all, of the above issues relevant only to second language learners?
- Are these types of issues only relevant to the learning of Economics?
- Do these issues also apply to native English speakers?
- Do these types of issues merely reflect a universal learning process?
- Are the above issues simply unique to the kinds of cohorts that pass through the Victoria University of Wellington Foundation Course?

The most significant outcome from this rather brief and basic examination has been that students now appear more confident and better prepared to face a wider range of assessment challenges. It should also be noted that the focus on subject-specific vocabulary or threshold concepts has not lessened in any way. These key concepts have retained their importance in this course but have been approached in a more inclusive manner, so that learners see them as being of equal importance to other common vocabulary that may be already in common usage. For learners, understanding where they could go wrong is just as important as the actual content within the course.

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Improving outcomes for Pasifika students in an academic writing course

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Abstract

With assessment at the tertiary level still based largely on writing output, the ability to write well is a decisive factor in academic success. This is one reason behind the popularity of an academic writing course at a New Zealand university. Arts faculty targeted admission programme requirements and English language diagnostic recommendations have increased enrolments in this course, but disproportionately poor outcomes for Pasifika students indicate the course may be acting more as a barrier than the intended step to academic success for this group. This paper describes a project undertaken to identify and address immediate issues contributing to such outcomes for Pasifika students. Steps taken include finding out more about the students, closer collaboration between support and academic staff, adaptation of course content, assessment processes and classroom practice, and a greater focus on student engagement throughout the course. Interim results of this project in its first semester of operation will be reported.

Introduction

With assessment at the tertiary level firmly based on writing output, and increasing numbers of students from traditionally underserved groups arriving at university (Middleton, 2008; Ministry of Education, 2010), demand for bridging-type writing courses has increased. Enrolments in *English Writing 101*, a credit-bearing, academic writing skills course at The University of Auckland, have tripled from 2006 to 2012, as more students recognise a gap between writing skills learned at high school and those required at university.

Part of the increase in enrolments in *English Writing* comes via referrals from DELNA (Diagnostic English Language Needs Assessment) (2010), the university language-diagnostic system, or via the Targeted Admissions Scheme (TAS) run by the Faculty of Arts. TAS provides entry to students who

might otherwise be excluded due to recently raised university entry criteria. TAS students are required to complete an academic writing course in their first year. A significant number of TAS students are Pasifika, with numbers in *English Writing* increasing from 35 (19%) in 2008 to 116 (35%) in 2012. Pasifika achievement is lower in the National Certificate of Educational Achievement (NCEA); in 2009 for example, 46.1 *per cent* of Pasifika achieved an NCEA Level 3 qualification, compared to around 75 *per cent* for Asian and Pakeha/European groups (Statistics New Zealand, 2010, p. 38).

English Writing is designed to help students with English as a first language write in an academically appropriate way. The course combines process and product, providing practice in skills such as generating ideas, drafting, revising, peer review and integration of sources, and exploring a range of academic text types through illustration and practice. Students receive detailed feedback on their writing from experienced tutors, with peer review practised and completed online. Students who successfully complete the course can reasonably expect grades in other courses to improve, as their writing will be better structured, and ideas expressed more clearly in an appropriate style. In effect, *English Writing* acts as a stepping stone to broader success at university.

Pasifika student outcomes

However, for some students *English Writing* appears to be acting more as a barrier than a step to success. Table 1 illustrates the problem for Pasifika students, who had a mean pass rate of just 55.3 *per cent* from 2008 to 2012, almost 16 *per cent* lower than all *English Writing* students over the same period.

Table 1
Pass rates (%) in *English Writing 101*, 2008-2012.

	2008	2009	2010	2011	2012 ¹	Mean
Pasifika	48.3	47.4	66.3	58.8	55.7	55.3
All students	68.5	68.6	72.8	74.7	71	71.1

A similar trend was evident for new undergraduate first-year students across all Arts courses from 2008 to 2011, with Pasifika students averaging a 65.4 *per cent* pass rate, around 17 *per cent* lower than the 82.7 *per cent* pass rate for all students.

¹ Only Semester One 2012 data available

Table 2

Pass rates (%) for new undergraduate first year Arts students, 2008-2011.

	2008	2009	2010	2011	Mean
Pasifika	58.5	68.8	67.8	66	65.4
All students	80.8	83.2	82.9	83.9	82.7

Source: Equity Office (2011, p. 22)

Madjar, McKinley, Deynzer and van der Merve (2010, p. 3) point out that prior school achievement is one of the main contributors to disparities in academic outcomes at university, and students who make limited progress in their first year are more likely not to complete their degree. Both factors are significant for Pasifika students in *English Writing*, as they have lower NCEA achievement rates and they are more likely not to pass this first year course. In effect, as Benseman, Coxon, Anderson and Anae (2006) state, lower-level papers such as *English Writing* “are acting as a de facto culling mechanism to reduce the numbers of students and...they cull differently according to ethnicity” (p. 151).

This paper describes a research project designed to help *English Writing* recapture its role as a stepping stone to academic success, instead of acting as a culling mechanism based on ethnicity. The project focuses on Pasifika students in particular, who have poorer outcomes in the course. Pasifika students are also targeted in the Tertiary Education Commission’s Pasifika Framework 2013–2017, one aim of which is to create an “unprecedented step up in Pasifika participation and educational performance” (2012, p. 5). The project also reflects objectives in The University of Auckland’s Strategic Plan 2013–2020, which emphasises the university’s special character based on New Zealand’s place in the Pacific and in our most diverse city (2012). Objective 4 of this Plan calls for “a diverse student body of the highest possible academic potential” (p. 6), while Objective 7 aims for a “high quality learning environment that maximises the opportunity for all our students to succeed” (p. 8).

General issues affecting achievement

Student retention, completion and achievement is a well-researched area. In a report aiming to improve tertiary education outcomes for diverse first-year students in New Zealand, Zepke *et al.* (2005) note that factors affecting student retention, persistence and achievement have been investigated internationally for 50 years. They identify two broad themes in the literature on student retention: integration, influenced mainly by the work of Tinto (for example, 1993), which

focuses on students integrating into a new academic culture, and adaptation, which emphasises institutions adapting to a more diverse student body.

In New Zealand, a number of studies have also investigated completion. For example, Scott and Smart (2005) found that ethnicity was a significant risk factor for New Zealand tertiary students, even when other factors, such as gender, socio-economic status, highest school qualification and study intensity were controlled for. Tumen, Shulruf, and Hattie (2008) noted lower rates of graduation for Māori and Pasifika students, though they found that age was the only factor that systematically predicted completion (more mature students completed more often), while ethnicity itself was not significant once high school achievements, first-year results, intensity of study and other background factors were controlled for.

Specific issues affecting Pasifika achievement

Educationalists and researchers have also focused on issues that directly affect Pasifika students in New Zealand tertiary settings, with findings mirroring themes in the broader literature. Many factors appear to be inter-related. Middleton (2008) argues that social changes in New Zealand from 1960 to 1980 closed alternative pathways to employment, forcing non-traditional students into tertiary education and increasing the need for bridging programmes. Benseman *et al.* (2006) identify motivation and attitudes, family, peer group and financial pressures and lack of support services as reasons for Pasifika not completing courses. They note that language may still be an issue for students in some situations, and this is particularly true in *English Writing*, a language-focused course. Scott (2009) found that part-time status has a negative impact on completion, which is likely to be significant for Pasifika students who need to work or who have family responsibilities.

In a Statistics New Zealand report (2010, p. 57), factors affecting Pasifika tertiary learning outcomes were divided into two areas: home or community factors, and institutional factors. Home factors included competing demands from family, church, or work. Institutional factors included the availability of learning support, teaching practices and relationships, and the place of Pacific knowledge and experience within courses. Affective factors were also recognised, including personal attitudes, motivation, and a lack of integration into the institution.

Informal investigations carried out as part of this research project also indicated issues affecting Pasifika student achievement and ways to improve outcomes.

The informal investigations included discussions with Equity staff, colleagues in other first-year courses and the First Year Experience (FYE), a programme assisting new students. Informal feedback was also gathered through discussion with Pasifika *English Writing* students and via anonymous written feedback from these students gathered by Equity staff.

Five strategies employed

Through consideration of the literature and the informal investigations, five broad strategies were identified, all of which can be classed as adaptive (Zepke *et al.*, 2005) to some degree; that is, adaptations to meet the diverse needs of students. Benseman *et al.* (2006) support this approach, suggesting “institutional responsibility is a key element in improving retention of...Pasifika in tertiary education” (p. 161). The strategies aimed to raise the pass rate among Pasifika students by 10 *per cent*, to a level closer to those of all students in *English Writing*.

Better knowledge of students

The first strategy was to get to know students better to understand individual needs. The literature has noted problems for Pasifika students with motivation, engagement and integration (for example, (Madjar *et al.*, 2010; Statistics New Zealand, 2010), especially in large university classes. The literature also calls for learner-centred teaching (Airini *et al.*, 2010; Benseman *et al.*, 2006; Zepke *et al.*, 2005; Zepke, Leach, & Prebble, 2006), a condition of which is knowledge of individual students. Demonstrating such knowledge can help students feel more involved and can help build motivation and engagement. To this end, a database of information on each student was constructed. English language ability, TAS status, attendance, assignment submission and collection, and summaries of communication were collated, along with email and telephone contact information for more efficient and effective communication.

This was a time-consuming but successful strategy, as it helped build a clear picture of each student and allowed us to individualise our teaching. For example, knowledge of a student’s language level helped ensure the students were enrolled in the right course. Repeating students and TAS students were identified and noted as being at risk, and this allowed us to target them with extra information and offers of help early in the semester. It also acted as an “early warning system” (Zepke *et al.*, 2005, p. 17) of those at risk of dropping out.

Closer collaboration with support staff

The second strategy was closer collaboration with support staff. Many researchers emphasise the importance of effective support systems for students (Airini *et al.*, 2010; Benseman *et al.*, 2006; Statistics New Zealand, 2010; Tumen *et al.*, 2008; Zepke *et al.*, 2005), including making such systems an integral part of the course experience (Madjar *et al.*, 2010, p. 106). In the Arts Faculty, support is wide-ranging, including Equity staff, a Tuakana (experienced student) mentor for the course, First Year Experience (FYE) programme staff, TAS academic advisors and others. Discussion with Equity and FYE staff led to the development of an action plan pooling our resources.

A number of actions were taken as part of this joint effort. For example, information on academic or personal problems students faced was shared where appropriate, allowing for more effective responses. Equity staff supported attempts to contact students by following up with text messages and reinforcing announcements via their own email lists. Extra workshops for Māori and Pasifika students were planned and run together by Tuakana and *English Writing* staff, with complementary approaches making the sessions more effective. Names of students who had not submitted assignments were sent to the Tuakana mentor immediately after deadlines, allowing him to check on their progress. FYE staff contacted absent students and offered to run extra sessions focusing on main assignments. TAS advisors were contacted as further support for some students.

Adaptation of course content and assessment structures

The third strategy was to adapt course content and assessment structures to better suit the learners. One goal was to allow Pasifika learners to draw more on their own world view and knowledge. Such an approach is recommended in the literature (Airini *et al.*, 2010; Statistics New Zealand, 2010; Zepke *et al.*, 2005), and is another integral component of a learner-centred teaching approach. It can have a direct impact on student engagement (Zepke, Leach, & Butler, 2010). The fact that *English Writing* focuses on writing skills meant such a change was more feasible than might be the case for courses focusing on subject content.

An action which had already been initiated along these lines was the use of student texts as models, including those by Māori or Pasifika students. Using such texts as the basis of learning materials is a form of contributing student pedagogy (Hamer *et al.*, 2008). This approach helps validate and encourage student voices, allowing a more diverse range of views to be expressed. Another action was to choose assignment and tutorial topics to allow Pasifika students

to employ their own knowledge and experience where possible. For example, a report on first language retention in New Zealand communities was used as a basis for a tutorial on quantitative data description, allowing Pasifika students to draw on their own experience of first language retention or loss.

A second change to the course was the provision of alternatives to assessed online peer review. A number of Pasifika students were unable to meet deadlines for online peer assessed work, due to access, organisation or preparedness problems.

We provided an alternative option: hard copy peer review. This was utilised by up to 10 *per cent* of students, reducing loss of marks for uncompleted work. Such flexibility in assessment procedure is supported in the literature, for example by Zepke *et al.* (2010).

Revisit classroom teaching practice

The fourth strategy was to consider ways to improve classroom teaching practice. This is consistently mentioned in the literature as being vital for student success (for example, Benseman *et al.*, 2006; Statistics New Zealand, 2010). In fact, we considered this our strongest area. Airini *et al.* (2010, pp. 25-32) describe a Quality Tertiary Teaching toolkit (QTTe), which recommends many of the practices already employed in the course. Academic staff in *English Writing* are experienced teachers with backgrounds in second language, primary or secondary school teaching. Peer observation in the course has shown tutors effectively manage classes to engage students and elicit ideas, they encourage a range of views, and they individualise their teaching. Feedback on writing is timely, detailed and clear. Student work is incorporated in learning materials and student learning is scaffolded, with a step-by-step approach to skill building. Students are encouraged to support and learn from each other through opportunities such as peer review and shared writing tasks. The lack of tutorial attendance by Pasifika students, however, indicated something was wrong.

Insight into how classroom practice might be improved was provided by Equity's decision to place a number of TAS students in a single tutorial stream, along the lines of a Tuakana tutorial run in another subject (Henly, 2009). The TAS tutorial required a different approach from the other tutorials, which confident students tend to dominate if allowed to. In the TAS tutorial, for example, small groups worked better initially than a whole class approach. Discussions covered different ground, reflecting the cultural backgrounds and experiences of the Pasifika students. Students appeared to benefit from more explicit explanation

and language support, such as advice on discourse markers and word collocations. This tutorial illustrated that complacency over classroom practice was unwarranted. Despite our assumptions about effective teaching practice, we may still have been unconsciously catering to the more confident students and limiting chances for some Pasifika students to learn.

Employ a proactive approach

The final strategy was to take a much more active, hands-on approach to keep Pasifika students on-task right through the course. Motivation and attitude have been noted as problematic for Pasifika students (Statistics New Zealand, 2010, p. 57) and Madjar *et al.* (2010, p. 8) recommend a proactive approach for the most at-risk students. Equity staff also recommended this to ensure at-risk students were not distracted by the freer university environment. Using the database described earlier, we targeted at-risk students with extra support. We sent multiple reminders of upcoming assessments, emailed those who had missed assignments with completion instructions, and explained late assignment submission procedures (some Pasifika students had completed drafts but were reluctant to submit if they missed a deadline). Personal and school emails were used, along with follow-up phone calls and texts.

Responses were often surprising. *English Writing* staff had expected students to know much of the information, to access it online, or to ask if unsure. In fact, some students appeared to know little about missed assessments or online task processes (“no idea what the heck she is on about” was one response to a reminder about these), and were grateful for the explanations. Task completion rates increased directly in response to this approach.

Based on a suggestion by Equity staff to initiate contact with students outside the classroom, we also attended pre-semester TAS student orientation sessions to build relationships with students (Zepke *et al.*, 2005, p. 17) before classes began. Extra workshops in the Tuakana campus space built on this approach, and we attended a mid-semester writing wānanga on the university marae. We stayed around after classes to talk to students and tutors adopted a more flexible approach to office hours. Perhaps as a result of this more open approach, there was a noticeable increase in the number of Pasifika students taking up offers of one-on-one help.

Conclusion

At time of writing, it is too early to know whether the strategies employed have had a positive effect on Pasifika pass rates, though early indications such as

coursework completion rates are positive. Zepke and Leach (2006) point out that the adaptation approach employed here is only part of a larger picture, and Government, teachers and institutions need to work together to support success (p. 117). A different approach is also required from some students. Tutorial attendance rates continue to be low among Pasifika students, while a small number do not attend class or submit any work at all, possibly indicating other motivations for enrolment. Middleton (2008) warns against unrealistic expectations, pointing to US data that indicates some students simply do not do enough work to pass and at-risk students often avoid support systems designed for them.


One positive outcome for *English Writing* staff is a better understanding of the issues faced by Pasifika students. We think we have become more supportive as a result. A small example is a change in attitudes towards late assignments. We had tended to treat these simply as troublesome or extra work. Now, with a better understanding of the obstacles some students have overcome to complete work (and fresh memories of the work we have put in to help them), every submitted assignment, even late ones, signifies a step towards a successful outcome. Further research on the effectiveness of strategies employed in this course will indicate whether such optimism is justified.

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“Like-minded people, all going through the same thing”: A voluntary study group for mature students in their first semesters at university

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Abstract

Adult entry allows students who may not have been in any formal education for many years to enter university, but many of these students need considerable support through their transition period. To support a group of mature students through their first semesters we set up a voluntary study group as part of a PhD research project. Many of the participants felt completely overwhelmed by the university environment and culture early in the semester and considered leaving university. This paper outlines some of the ways students who took part found support from the study group and continued with their studies. Participants identified developing a sense of belonging at university through purposeful, collaborative academic activity with what many described as a group of “like-minded” peers. They all widened their understanding of academic writing and grew in their academic self-efficacy through participation in the group. The researcher learned that in many cases, often because of negative learning experiences at school followed by negative life experiences, these students cannot be taught initially in the same way as traditional-aged students.

Introduction

According to the New Zealand Ministry of Education (2009), mature students comprise around one third of the students on New Zealand university campuses. Some universities allow students without formal entrance qualifications to enrol under the category ‘adult entry’. However, many of these students need considerable support through their transition period, and it would appear that available sources of support are not always obvious to them. To address this, we decided to trial a voluntary study group to support some mature students

through their first semesters at our university, focussing particularly on students' transition to academic writing and academic literacy, because these are crucial for student success. The study group was part of the first author's PhD research project using action research, so is written as a first-person account of two of the major challenges participants found support for in the study group. The co-authors were supervisors.

The study group

The weekly lunch-hour sessions consisted of student-centred activities incorporating constructivist principles (as discussed in Begg, 1999). Participants were volunteers from first-year papers, with ages ranging from 25 to one student over 60. (Numbers in brackets after quotations in this paper, for example (25-29), indicate the age range of the participant). Using action research methodology enabled me to study the action, the study group, as well as to gather data from participants about their transitions. Then, because action research involves reflection and analysis through iterative cycles, I was able to identify elements in the first cycle that were effective or that could be improved on to provide better support in future cycles. Each session of the first cycle had two components: a focused chat around topics that literature from Australia, UK and USA identifies as being central to mature students re-entering education, and a writing-related activity informed by approaches to teaching writing at university. This format gave participants a chance to reflect on what they were learning about academic writing as we collaborated in the activities. That reflection enabled them to connect the new culture and concepts they were encountering to their previous educational experiences. So the study group functioned as a bridge.

However, those of us brought up on Western folk tales know that even the best bridges may have beings lurking under them: trolls. I liken some of the challenges study group participants encountered during their first semester to trolls: hidden, but emerging to challenge, smother, and gobble up anyone who dares disturb their territory. But we also know that although trolls are very threatening, they are not invincible. The strongest billy goat faced the troll head on and smashed him to pulp. Tolkien's trolls turned to stone when they were exposed to the light.

Two major trolls threatened to overwhelm first-cycle participants: 1) the epistemology at university so very different from what they had experienced at school, and 2) the troll of low academic self-efficacy. In each case, I illustrate how participation in the study group helped students deal with the troll.

A different epistemology

Very early in the semester, participants found their transitions to university were hampered by confusion they experienced in their listening, their reading, and their knowing how to write. The mature students who joined the study group were motivated to succeed, determined to make new starts in their lives, and most had realistic plans for a new career after graduation. In order to succeed, as they understood it, many had entered university expecting to have to become "nerds": to take notes from lectures and course materials and learn the information off by heart to reproduce in essays and exams. That was how, as they remembered, the successful students had behaved at school, under the exam-driven curriculum Lee and Lee (1992) describe, and "that's what I was expecting. Uni will be a piece of cake" (30-34). But Tapeta, who said that, like others in the group quickly found that he could not approach university lectures in the same way he had experienced school or the military: "Here is all this information; take what you want'. And you are sitting there, left boggled with 'What do I want? What do I need?'"

Effect on listening, reading, and writing

Cycle One participants were finding that they did not know how to negotiate the content of their lectures, but none of us could identify exactly why they found it so different. In the chat times, participants shared problems they could identify, particularly the difficulty understanding their lectures and their readings because of disciplinary jargon, but the problem was somehow more than language. Lyn (35-39) claimed, "the psychology...the one I thought I'd absolutely enjoy the most, it's just banging on me...Nothing's making any sense so far." The oldest participant (55+), who had qualified for University Entrance in the 1960s then worked in offices all her life, observed politely in her entry interview in the third week of the semester, "I am enjoying the lectures very much because I can actually listen; however, I am not sure how informative they end up being...You know, I don't know if I am missing or not seeing something really important." These participants could not clearly identify the problem, but they certainly felt they were not being given the clear packages of information they were expecting.

The different epistemology also affected students' approach to reading. Like the students discussed in Wingate's (2009) intervention, participants were prepared to approach reading uncritically, initially viewing texts as sites of uncontested, incontestable information. Mature students had been warned by a student learning advisor at their orientation meeting that at university "everything is *critical, critical, critical*". However, because these students did not yet understand 'critical' as an academic stance, the warning was lost on them. Te

Awhina (30-34) was puzzled by her course readings. She told us how she had spent two weeks reading one chapter because of the difficulty she had with the academic language, but even when she finished the reading, she could not see any direction or cohesion in it. She described her reading as like “pieces of a jigsaw, but I haven’t got the whole picture yet”. Ann (45-49), who had completed a university degree in another country and another language more than two decades ago, was finding university in New Zealand in the 21st century very different. Comparing her previous university education she said, “It was not this critical, analytical thinking...It is definitely a different way of thinking and I have to get into that.”

This troll of a different epistemology also affected participants’ approach to writing. Again, Ann (45-49) was most explicit, trying to describe differences she was noticing: “[Previously] it was just so different...different style...It was more giving information back and bullet points and just more about information than the style.” Early on, she realised she should approach writing differently, but was not yet sure how to: “There is definitely a different way. [When] I did my BA degree it was much more, ‘this is the information, you go and learn it and give it back to us’.”

The troll identified

Like the first-year students Wingate (2009) writes about, participants were unprepared for a university environment which expects students to construct their own knowledge from the multiple, often contradictory, sources presented to them. They were finding that those ways of knowing and learning that they had seen lead to success at high school did not translate to university. These students were encountering an aspect of academic “culture”, as Cullity (2008) puts it. Like non-traditional students elsewhere, for example, those described by Bamber and Tett (2000) in Scotland, and Cullity (2008) in Australia, they were realising that the university, even each different discipline, not only used different language, but also had different values and ways of doing things from any of their previous experiences (Gee, 1989; Lillis, 1999), but none of us could identify exactly why they found it so different.

After weeks of discussing their feelings of confusion and strangeness in this new, academic culture, we finally identified the cause of the confusion. In the weekly study group I was guiding participants through a close analysis of the literature review section of a journal article. I encouraged them to examine how the writer had synthesised the sources she used. Then Ann made the lightbulb announcement: “There’s no right answers about this; there’s different

views." That simple observation identified the troll: the recognition by many disciplines that there are multiple realities and plural truths. Participants had not consciously thought about that before; their confusion had been caused when many of their lectures and readings had presented no "right" answers. They were fearful of approaching essay topics with prompts like "critically discuss...", "to what extent...?" and "how far did...?" What were they supposed to write? This epistemology valued by the university, as Gamache (2002), Hendricks and Quinn (2000), and Wingate (2009) write, required them to take an active part in constructing their own knowledge from their own syntheses of their lectures and readings, just as the author whose text they were reading had done.

How did the study group help?

Making this epistemology explicit provided the key for participants in the study group to take a different approach to their lectures and course readings. Once we had identified that the university valued knowledge construction, participants in that session began to understand how they should negotiate university study. They began to connect bits of information they had heard in lectures and read in their study guides. Ann (45-49) told the group how a tutor in one of her subject papers had explained to students the concept of the plurality of knowledge and the onus on them to take their own stance in their writing:

It's almost like a dinner, and they invite all these people to dinner, and you're there, but you're almost there to...what's the word...to facilitate, and your analytical view is that facilitation; that's the way we should see it.

However, until the different epistemology had been made explicit, Ann had not understood how to apply that illustration to her writing. Gwen (35-39), a participant who was grappling with two history papers, reacted to Ann's revelation of "no right answers" with a long "Aaahhhh!" Then she began to verbalise her own developing understanding of constructing her own stance on a topic from synthesising information: "That's what you show by your choices of what you choose to discuss, what references you choose to include or exclude." In order to help all the participants understand how to approach texts, I questioned Gwen about how she was learning this. She responded, "To me it's really looking at what they're saying and not taking it at face value...looking at it, analysing it, and then arguing with it, and critically looking at what are they asking you." However, until the different epistemology was made explicit, although Gwen was trying to practise what she had been asked for in her essays, she had not really understood why.

I made notes in my reflections on that session about Ann and Gwen. Both had prepared themselves in some way before the semester: “It seems to me that Ann and Gwen, especially, are beginning to understand the whole ‘academic culture’ thing...[are] sort[ing] out the epistemological sorts of things.” However, other participants in that same session of the study group were baffled by Ann’s and Gwen’s revelations. Lyn (35-39), with no preparation, and no time during the semester to read through the Online Writing and Learning Link (OWLL), remained confused by the university culture and did not understand the concept of developing her own stance: “Your own voice? Or are you saying the reader’s voice?” Others were silent through the discussion, and some of their writing, particularly from those who spliced collections of quotes to say what they could have written themselves, with no critique, demonstrated that they did not really understand the different epistemological values.

Changes for Cycle Two

Because that discussion helped participants so much, I realised participants in future cycles needed to be alerted to the troll from the beginning of their time at university so they could cope with lectures and begin to read and write critically. Based on my analysis and reflection between Cycles One and Two, I designed a simple reflective exercise for participants. I combined insights gleaned from adult learning (Zepke, Leach, & Prebble, 2006), bridging education (Acheson, & Day, 2006), transformative learning theories (Manalo, 2009; Mezirow, 1997; Zepke, 2011) and the process of reflection (Dymont, & O’Connell, 2010; Francis, 1995). I planned the exercise to help participants connect their past and their new educational experiences, to act as a large rock to throw under the bridge to block off the troll. I wanted to guide students through the reflective process, beyond just describing and into critical reflection, because Cycle One participants had made me aware how important, but how new, the skill of critiquing was. I hoped that participants might eventually be able to transfer the process of critiquing something simple, like their schooldays, to the more complex process of critiquing academic articles as they negotiated their essays.

In the first meetings of Cycles Two and Three, after introductions and a “getting to know you” exercise, we collaborated in a short reflective exercise. First, participants described to each other what they remembered from their schooling. We discussed the expectations on students and teachers under that paradigm. While our memories may not be accurate, and participants’ previous education may actually have been more student-centred than they remembered, they unanimously recalled teacher-dominated classrooms—“It was all dictated” (30-34)—and passive, bored students copying material to regurgitate for

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exams—"learning by rote" (44-49). Then we critiqued that and progressed to a discussion about a lecturer's purpose in presenting different interpretations of a topic, or different theories on a topic. We also discussed what the university expected students to do with those different interpretations as they became active constructors of their own knowledge.

Did the study group help?

Participants from Cycles Two and Three who were alerted to the different epistemology by the reflective exercise were better equipped to cope with it than Cycle One participants had been. Exposing the troll had an immediate effect on the way participants engaged with their papers. Zara (25-29), who had struggled through an extramural paper but for whom this was her first semester on campus, recognised the epistemology as soon as it was made explicit: "They will say something, but there's no way you...I could have regurgitated any of that...It was like I had to pool everything from everywhere." Similarly, Mac (45-49), who had completed a semester of tertiary preparation at a regional polytechnic, claimed in her entry interview that the reflection fitted with what she now understood about the different ways of knowing between her schooling and a modern tertiary institution:

There was no discussion on it, especially at high school, so definitely that resonated with me...Just remembering about the way that we were taught at school...learning by rote, and here at uni we do have to think for ourselves but follow the guidance or the guidelines of each particular discipline to fit in with that...

Tara (30-34), completely new to tertiary study, but whose adult roles had involved her in an instructional role in a different setting, said:

It was good that we had that first up, 'cos even coming from the army...they would teach you, 'cos I was an instructor, and I would teach the test. They wouldn't even have to find the answer, 'cos I would tell them how that piece of equipment works...When I came to Massey, I had to find out everything myself.

Participants from each cycle had taken psychology—those lectures that "banged" on Lyn (35-39) and made "no sense" to her—but it was not until after the troll had been exposed that Tim (25-29), in Cycle Three, told us how the lecturer had explained that everything in science was theoretical and students needed to remember the theories and the names of the people who developed and supported them. For Tim, the reflective exercise unlocked the key to

listening to lectures: “It was good to make a connection as to how the system at uni works. And that the learning part was up to me. I felt lost in lectures before becoming aware of this.”

The second troll: Low academic self-efficacy

A second troll that threatened to overwhelm participants was one well-documented in the literature about adult students re-entering education, for example by Willans (2008) and Stone (2008). Participants were all aware of this one before entering university. It was, as Leigh (50-54) noted, “the reason we didn’t come in the first place”. That troll was their low academic self-efficacy: beliefs about their academic capability entrenched from their past educational experiences (Bandura, 1993; Bong & Skaalvik, 2003). This troll, as low academic self-efficacy is documented to do (Bong & Skaalvik, 2003), quickly showed its influence on participants’ thought patterns, contributing to the fragile egos they lived with. It led to their crippling anxiety and feelings of being totally overwhelmed by the university environment and culture. The excessive stress many participants experienced because of these emotions also contributed to “noise” in communication so they just did not hear whole messages.

Effect on thought patterns

The conviction that they were not really academic material and could not cope was held by participants from all the age groups. Of the older study group members, Leigh (50-54) and Mary (55+) chose ‘self-doubt’ as their focus for a paragraph about challenges mature students face when re-entering university. Of the younger participants, Tara (30-34), when preparing her first essay, did not want to look at examples of A-grade student essays because, “I’m aiming for a ‘C’”. She combed the Internet looking for examples of ‘C’ essays because she felt they would have language and sentence structures like those she might use, and because she did not feel that an ‘A’ could be within her reach. Zara (25-29), after receiving a good mark for a narrative essay she had discussed extensively in the study group, confessed, “I don’t take ownership of my good marks, only the bad ones.” There was a murmur of agreement from all participants as she made that announcement. Similarly, Linda (31-34) shared at the end of the semester:

Those ‘A’s that I did get I kind of felt like I didn’t deserve them. Like it wasn’t me. I’ve never been an ‘A’ student...All through school I was a ‘C’ or sometimes a ‘B’ student and so getting an ‘A’ almost seems, you know, undeserved.

Effect on egos

Students who are convinced that they are not academically able may also be unable to accept constructive criticism of their work, because it brings back those feelings of being hopeless at school. Zara (25-29) described in a study group how she went home in tears after a session in which a writing advisor tried to talk her through her first essay: "I got really offended, and I felt really, really stupid, and I ended up going home and crying." The advisor's no-doubt helpful comments seemed to her to destroy her frail academic ego: "I've taken it as proof of my lack of something: my lack of ability." Unfortunately, those of us who teach apprehensive adults may inadvertently damage those fragile egos. We are significant others in these students' education, and, as Bong and Skaalvik (2003) discuss, significant others in education can reinforce a student's low academic self-efficacy. Zara left the study group after a session in which we had collaboratively worked with her on an essay she was writing. She found the help she sought with her writing in weekly one-on-one appointments in the writing centre with students trained as peer tutors. She did, though, return after the end of the semester for her final interview.

Anxiety and stress

Low academic self-efficacy also contributed to participants feeling crippling anxiety and overwhelming stress. Linda (30-34) was one of the many very anxious participants. She had been a successful woman before entering university, a retail manager, a performer in a high-status brass band, and holder of a tertiary graphic design qualification from years before. She hoped to become a primary school teacher. But Linda was in tears as she explained in her entry interview: "Not knowing what the expectations are is what is the biggest worry, and also knowing that this is completely different from anything that I have ever done before so I don't know what I am supposed to be doing half the time." Other participants cried in my office, anxious about what the university required, and whether or not they could cope; others shared about their private "meltdowns". Jane (40-44), for example, a competent personnel manager, reported how she "went home, took to my bed, and cried for the afternoon". As early as their second or third week at university, many, again across the age groups, were feeling so stressed that they seriously considered leaving university: "Why am I putting myself through all this stress?" (55+) and "I am finding it all a bit overwhelming to the point where only last week, I had questions about what am I doing and I wanted to pull out" (30-34).

Causing “noise”

The anxiety and overwhelming stress experienced by many participants contributed to “noise” interfering with information communicated in lectures or by tutors. Zara (25-29) waited patiently for her study guides to arrive in the mail, the way they had when she studied an extramural paper. Finally, in the third week of the semester, she realised “everybody else had their material”, so she found out where to collect it from. Elle (45-49) received a low mark for an online test. Although the test had been live from the beginning of the semester for students to work through, she had not noted the information that it was an open-book test. Several did not collect marked assignments because they did not hear that they could.

How did the study group help?

The study group was a place where we could put into practice two recognised ways to deal with low academic self-efficacy: mastery, through mastery of skills and concepts; and succeeding vicariously, through observing the progress of similar peers (Bandura, 1993; Bong & Skaalvik, 2003). Mastery of what could seem to be even basic university skills helped these mature students develop confidence. In the “safe place” (35-39) of the group, participants shared with each other how they mastered logging on to Stream (the online environment), how to find the OWLL (Online Writing and Learning Link), the Centre for Teaching and Learning, the peer tutors, links to interactive help with APA or Harvard referencing systems, and how they accessed databases. Mastery of those skills was almost like a way of measuring steps of success. Participants could see their own progress; they knew they had succeeded at that skill. In the same way, a former mature student of mine (40-44) had reported how she “loved APA” because it was one activity for which she knew she could follow the rules and succeed. Many study group participants felt the same. In the study group we laughed at people’s descriptions of getting lost on campus or within a building, and shared how to find our way around. The collaborative activities provided opportunities for participants to practise, and master, the disciplinary jargon they were learning, and clarify new concepts. Nobody laughed at mistakes or incorrect understandings: “Coming to your group helped me get things I wasn’t getting in class” (45-49) and “...made me understand it better” (30-34).

Some participants felt very sensitive about their age difference from school-leavers and shared that they felt that if they asked a question in the context of a mixed-age class, younger students might judge them as “dumb”. Some, like Hamish (25-29), felt their tutors’ time was taken up responding to the younger students so they kept quiet in their tutorials. Those sorts of experiences

reinforced their low academic self-efficacy. In contrast, in the study group they found that among "like-minded people", where many had the same fears, the experience of asking questions built confidence. Moana (25-29) said about the first study group she attended:

I got to ask about writing an essay, in a small group, with people around your own age, or with similar goals in mind, who kind of know where you are coming from and not to know that they think you are stupid or that you are being judged in any way. I really enjoy being in there.

For Hamish and Moana and several younger participants who had been shy at school, the study group provided a place where they could venture to speak up in class for the first time. Moana was able to transfer that confidence to her other classes:

This might sound funny, but...in last week's one, it was a couple of days later, but I actually spoke up in class and asked a question and I have never done that before, but after I asked them I sat back and I thought, wow! It just came out and that is helping me a lot.

As Moana found, the study group provided a place for people "who kind of know where you are coming from" to meet. Those people could increase their academic self-efficacy by observing the success of others they deemed similar to themselves. They had opportunities to share as they received assignments back and learned they had passed. They were able to conclude "if she can, then I can" (50-54). Participants watched each other and learned as they overcame overwhelming stress, failing an essay, problems with their families' or their own health, or losing their work on a computer. Mary (55+) summed up that effect of the group: "The talking, those specific examples, people coming along with a particular problem. Everyone can learn from that."

So?

The study group certainly provided a bridge, a place of collective scaffolding (Donato, 1994) where participants could connect the new knowledge, skills and culture they were encountering to their existing knowledge (Begg, 1999). For some, the gap between the two educational environments might have been too big without the study group. As Tara (30-34) emailed: "I honestly feel that without your help and guidance I may not have made it through my first semester, which set the direction towards my social work degree." The study group provided the place for students to connect with each other, and to

connect the bits of the academic jigsaw they were encountering. Importantly, it provided a place where students could increase their academic self-efficacy by mastering some of the skills they needed for university, and where they could gain confidence from watching “like-minded people going through the same thing” (40-44). Above all, because action research allowed for reflection, and re-designing between cycles, participants in Cycles Two and Three could be given a key to academic literacy early in the semester by being alerted to the major troll of a different epistemology with its different expectations.

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Pathways for non-traditional learners in a research-intensive university

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Theme: Policy

Abstract

The current Australian higher education policy environment has been shaped by the Commonwealth targets for 40 per cent of 25- to 34-year-olds to hold a bachelor's-level degree or higher by 2020, and for low socio-economic status (LSES) participation to increase to 20 per cent by 2025. Universities have responded to this policy agenda by increasing enrolments and developing a range of pathway programs, including enabling programs, VET articulation agreements and nested awards. For “selecting”, research-intensive institutions such as Monash University, responding to the access agenda is fraught with tensions concerning institutional identity, status and contribution. In developing a set of access strategies for mature-age learners, Monash University is seeking to broaden access without compromising academic status. This involves creating mechanisms to engage high-potential LSES mature-age students through recruitment and selection processes with activities that assist them to translate their workplace and community experiences into the university environment, and provide a balance of opportunity, support and challenge.

Widening participation at a selecting institution

This paper reports on discussions within an Australian research-intensive, “selecting” university (Moodie, 2009) about how it might further contribute to national policy objectives of broadening access to higher education by engaging more young mature-age (21- to 29-year-old) students. The paper considers the policy context and the institutional context and reviews the literature on the mature-age student cohort, and then outlines a proposed institutional response, including the development of an enabling pathway for mature-age students.

Policy context

The current Australian higher education policy environment has been shaped by the Commonwealth targets for 40 *per cent* of 25 to 34-year-olds to hold a bachelor's-level degree or higher by 2020, and for low socio-economic status (LSES) participation to increase to 20 *per cent* by 2025 (Bradley, 2008).

Universities have responded to this policy agenda by developing a range of strategies for recruiting and supporting students from disadvantaged backgrounds. Students in schools have been the focus of most of this activity, with strategies including schools outreach programs, mentoring, and special consideration in admissions. Non-school leaver students have benefited from an increasing range of pathways to university study, including enabling programs, VET articulation agreements and nested awards. The proliferation of access programs and alternative admission schemes, particularly those targeted at disadvantaged students, has occurred across all Australian universities. This includes both "selecting" universities, which have high entry requirements and 'strong demand for their programs', and younger "recruiting" universities that offer more open entry to a more diverse student intake (Moodie, 2009, p. 315-16). These access programs are designed to address under-preparation for tertiary study and to prepare students for success at university.

Broadening access and participation has always been linked to concerns about diminished entry standards (Watts, 2004; Sastry & Bekhradnia, 2007). Nonetheless, there are good reasons for selecting institutions to carefully develop pathways and enabling programs. As observed by Tight (2012, p. 212), "if potential entrants to higher education are judged solely or largely on the basis of their prior qualifications, what is being assessed...is not so much the success of higher education in widening participation, but the success of prior schooling in doing so." This risks a situation where activities to broaden participation remain focused upon younger school-leaver cohorts (Osborne, Marks, & Turner, 2004, pp. 312-3; Fuller & Paton, 2007). In addition, concerns are emerging that the demand for places in higher education may have outstripped student supply as the numbers of appropriately qualified school leavers do not exist to provide the necessary numbers of graduates (Sellar, Gale, & Parker, 2009). As a consequence, alternative pathways into higher education are becoming increasingly important in order to satisfy national and international demands for skilled workers and to provide individuals with the necessary qualifications to participate effectively in knowledge economies (Gale, 2010). If these initiatives then assist institutions to meet enrolment targets or national objectives, this is an additional benefit (Osborne *et al.*, 2004, p. 213).

Universities across the sector need to increase LSES participation to avoid these students becoming concentrated in lower-status courses and institutions. For the benefits of widening participation to be achieved, research institutions should seek to enrol an increasing diversity of students (Sellar *et al.*, 2009). Selecting universities act as conduits to professional fields and careers. In addition, studying in a research-intensive university may provide students greater access to socially powerful knowledge and the capacity for research (Appadurai, 2006; Wheelahan, 2007).

Institutional context

In developing a set of access strategies for mature-age learners, Monash University is seeking to broaden access without compromising academic standards. This involves creating mechanisms to engage high-potential LSES mature-age students through recruitment and selection processes with activities that assist them to translate their workplace and community experiences into the university environment, and provide a balance of opportunity, support and challenge (Buckler, Bigger, & Townsend, 2006; Charlton, Barrow, & Hornby-Atkinson, 2006). Policy issues include admissions standards and the creation of institutionally “acceptable” alternatives to the Australian Tertiary Admission Rank (ATAR) derived from Year 12 studies. Curriculum and pedagogy issues include identifying what students need to know to succeed in university study and how to effectively equip them with the necessary skills and knowledge.

Monash University primarily recruits school-leaver students, and currently does not have an entry mechanism for non-school leavers who do not meet its standard admissions criteria. Although Monash University has strong vocational education and training (VET) articulation for a research-intensive university, the current alternative pathway options all have limitations for the mature-age LSES cohort.

In 2012, 71.9 *per cent* of commencing Monash University students were school leavers, selected on the basis of their Year 12 results. This reflects competition for entry to many Monash courses, and the current admissions policy. The University’s current minimum entry requirements for undergraduate degrees are: completion of the Victorian Certificate of Education (VCE) or equivalent (at an ATAR of 70 or above; that is, in the top 30 *per cent* of achievement); satisfactory completion of two university units, taken at any Australian university, or VET Certificate IV or above (graded assessment required). Equivalent overseas qualifications are recognised for international applicants, and minimum English requirements also apply for all applicants. This means that prospective mature-

age students who have not completed Year 12 or who have incomplete tertiary qualifications are not eligible for admission. Many other mature-age students satisfy minimum entry standards but are not competitive for selection to the course of their choice because of prerequisite requirements or the time elapsed since the completion of their qualification.

The available Monash University pathway options all have limitations for LSES mature-age applicants. TAFE pathways are significant for mature students, and Monash University has relatively high VET articulation, with about eight *per cent* of applicants admitted on the basis of VET qualifications. However, TAFE articulation is strongest in disciplines where qualifications are clearly linked to professional advancement, such as Nursing, and many Monash University degrees do not have a cognate VET qualification. Of the pathway programs currently offered in-house, Monash University Foundation Year is not available to domestic students, and Monash University College Diplomas are available only on a fee-paying basis at a rate higher than the Commonwealth Supported Places in mainstream programs, limiting access for low-income students. Similarly, single-unit study, which can qualify students for admission, is only available at full-fee rates, and no deferred payment option is available. The largest Monash University-delivered pathway for domestic students is the Diploma of Tertiary Studies (Levy and Murray, 2005a). Applicants for this Diploma require a minimum 50 ATAR and the prerequisites for their chosen destination degree. The Diploma of Tertiary Studies is only available at Monash University's regional and outer metropolitan campuses. Monash University also provides a small Indigenous Enabling Program, which is offered free of tuition fees but is available only to Indigenous Australians.

Engaging mature-age students

As observed by Smith (2008, p. 21) there is considerable “evidence in relation to curriculum structure and/or pedagogical approaches that meet older learners’ needs and support student success and degree attainment”. Monash University’s approach is informed by established research and the experiences of other institutions in servicing these cohorts (Cullity, 2006; Stone, 2008). Devlin, Kift, Nelson, Smith and McKay (2012) suggest students and institutions need to work together to bridge incongruent perceptions. Building on the work of James and Beckett (2002, p. 2), McInnis (2001) and Cullity (2006) in relation to mature-age students, these writers argue that effective transition and engagement involves the efforts of both students and institutions.

Mature-age learners from LSES backgrounds between the ages of 21 and 29 are the focus for the Monash University proposals. This cohort is recognised as among the most difficult to engage and sustain through a degree (Baxter & Hatt, 1999). Successive authors have categorised mature-age students according to particular characteristics, motivations and skill sets (Baxter & Hatt, 1999; Osborne *et al.*, 2004; Cullity, 2006; Goldfinch & Hughes, 2007). There is broad consensus that students in their early to mid-twenties, who have not come directly from school, will experience tertiary study differently to their school-leaver peers, but most reiterate that there is no typical student experience (Harvey, Drew, & Smith, 2006; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Yorke & Longden, 2008; James, Krause, & Jennings, 2010).

International research establishes that mature-age students are more likely to come from LSES categories, select institutions close to their homes, and have non-standard entry qualifications (Purcell, Wilton, & Elias, 2007; Smith, 2008). The preference for local study appears to be linked to the time constraints of LSES students generally (Devlin *et al.*, 2012; Levy & Earl, 2012). There is also broad consensus that mature-age students are looking for flexible forms of engagement with universities (Pollard, Bates, Hunt, & Bellis, 2008). This can test the preparedness of institutions to be flexible when they primarily focus on school leavers (Fuller & Paton, 2007; Schwartz, 2004). A UK study (Osborne *et al.*, 2004, p. 296) identified six distinct cohorts of mature-age students, each with particular motivating and constraining factors that shape their engagement with higher education. Common constraints included: financial concerns, lack of educational confidence, peer and family attitudes, work and family commitments, and expected career outcomes. Interest, career goals, self-development and desire for change are motivators for mature-age students (Osborne *et al.*, 2004, p. 297).

Davies and Williams (2001) have argued that mature-age students' experiences and engagement with universities are characterised by both fragility and risk. The risks in pursuing higher education are greater for non-school leavers who need to balance current earning capacity and prospects against the potential future rewards, costs and time as well as risk of failure. Mature-age students are also more fragile as learners and information seekers, even when they have high levels of commitment to pursuing higher education. The complexity of investing in higher education, newness of their identity as learners, limited access to programs and services, and a raft of other commitments often mean this engagement is finely balanced. Characterised by Davies and Williams (2001) as fragility, it does not then take much change in personal circumstances

to disrupt their perseverance (Osborne *et al.*, 2004, p. 309). Limited time and financial resources, lack of confidence and the need to balance competing commitments are key factors shaping LSES mature-age students' engagement with higher education.

Designing a response: Scaffolding, opportunity and challenge

With these factors in mind, Monash University has designed a process of engagement for mature-age students with the aim of maximising recruitment and sustaining retention. The following aspects will be included:

- creating a range of opportunities for contact and engagement with Monash University. Feedback from mature-age students indicates that they value personal contact and personalised advice (Whittaker, Gallacher, & Crossan, 2004)
- providing information that supports applicants' decision making in assessing risks and benefits, including costs, expectations and career outcomes (Harker, Slade, & Harker, 2008)
- diversifying the ways that applicants can demonstrate their preparation for university study using work and community achievements (Goldfinch & Hughes, 2007)
- providing a preparation program that meets the needs of mature-age students (Ramsay, Jones, & Barker, 2007).

This approach is supported by international research that has established the complexity of mature-age students' decisions to engage in higher education (Osborne *et al.*, 2004; Harker *et al.*, 2008) and the importance of providing encouraging admissions advice and guidance (Whittaker *et al.*, 2004) and opportunities for pre-entry study preparation and academic skills acquisition (Schwartz, 2004; Buckler *et al.*, 2006).

The four elements of the Monash University response are: an improved marketing and communication strategy; a new Mature Age Entry Scheme; "portfolio" sessions to offer the opportunity for a university "taster" experience and self-test; and an enabling program.

Marketing and communication

Throughout 2012, Monash University has developed an improved marketing and communication strategy targeting mature-age students. A dedicated web presence with key information has been developed and the Pathways to

Monash University guide, which outlines pathway options, has been updated. A series of mature-age information events held at different campuses were well attended, with recruitment and faculty staff providing advice to several hundred prospective students. Taken together, these initiatives aim to provide mature-age applicants with accessible, relevant and comprehensive information online and in hard copy, coupled with the opportunity to seek individual advice from recruitment staff and academic advisors. Mature-age students often appreciate extended consultations to review their existing qualifications and experience, and to identify the pathways available to their preferred courses and careers.

Monash Portfolio Program

A step on from information events, the proposed Monash Portfolio Program (MPP) sessions will offer prospective students the opportunity to “experience” university study before committing to a course. The MPP will form a bridge between traditional recruitment and marketing activities and enrolment in degree or preparatory courses. The MPP sessions support the decision-making process of assessing the potential risks and benefits of study in the context of personal, career and family circumstances. There are international precedents of this model, such as the Learning Cafes run in the community by Birkbeck in London, where it was reported that:

more students than we would have liked were enrolling on the HE introductory studies without a full awareness of where their weaknesses lay, and once the course had started it was too late for many of them to start unpicking and addressing their needs.

The learning cafés were our solution. The sessions were designed to build participants’ confidence, and to recognise how the skills they possess relate to university-level study and also to explore what different academic disciplines entail and help them to choose areas which match their interests and skills (Buddington, 2012).

The MPP aims to provide students who are considering university study with a low-cost and low-risk opportunity to experience university style learning and to assess their skills for first year study. Three to five evening sessions modelling university learning would be offered across a semester, both on campus and in community settings. Each session would involve a preparation task, a one-hour lecture and a one-hour tutorial, and an opportunity for informal interaction with staff and peers. At the conclusion of each session students would be invited to

register to complete an 800-word assignment. This work would provide scope for students to demonstrate their ability to perform at an undergraduate level without being overly daunting or challenging. Portfolio pieces would be submitted online and graded by appropriate faculty staff at first-year standard and returned to students with a written report providing summative and formative feedback.

Mature Age Entry Scheme

A Mature Age Entry Scheme, currently under consideration, will provide capacity to consider a range of evidence as a basis for selection to Monash University courses. Applicants would be able to present evidence including:

- previous educational attainment including complete and partial secondary studies, VET qualifications and higher education studies, taking into account the relevance, recency, AQF level and marks attained
- employment history, including the relevance, duration and roles held
- published work, including journalism, work generated in the course of employment, and creative works, taking into account the nature, relevance and quality of the work
- aptitude tests, including STAT, UniTest, and others
- assessment undertaken in the Monash Portfolio Program
- assessment undertaken in other non-award courses, for example massive open online courses (MOOCs).

Using a matrix, a score would be generated with bands similar to those used for international qualification equivalency and this would be used to direct applicants toward pathways or programs of study appropriate to their existing skill sets. For those who did not satisfy requirements for entry into Monash University Bachelor programs, appropriate alternative pathways would be recommended.

Monash University Preparatory Program (MUPP)

Enabling programs are offered by many Australian universities and typically contain units that introduce students to the nature of university learning and scholarship, the study skills necessary for success, numeracy knowledge and skills required by different courses, and an introduction to different discipline areas. The more open the access, the more extensive these courses need to be. Course lengths are typically either single-semester or full-year and mode of

study can be either full-time or part-time. Some institutions deliver content via residential intensives.

With Commonwealth Government funding, enabling courses may be offered free of charge to participants, reducing financial barriers to access. The limitations of this funding mean that it is not feasible to offer the program as an open-access course. Therefore, the aim is to provide appropriately scaffolded study skills, and the opportunity for students to demonstrate their abilities and potential. Content would focus on providing students with the opportunity to demonstrate and refine their literacy and numeracy in order to qualify for entry into the broadest range of Monash University Bachelor programs. The inclusion of two university-level units would also qualify students for entry under the institution's existing single-unit provision, and the incorporation of English-rich and mathematics units would assist them to meet other key prerequisites.

The Monash University Preparation Program (MUPP) is intended to provide a supported entry into higher education for applicants who do not satisfy conventional entry requirements. These applicants may have completed Year 12 equivalent over five years ago, have gaps in their pre-requisite studies, have tertiary qualifications that are partial, dated or from an overseas provider, or feel that they need extra support to prepare for university study. Currently these students are referred to TAFE, Open Universities Australia or another university as there is no Monash pathway that addresses their educational needs.

The structure of the program would include four units. All students would undertake an academic literacy unit drawn from the Diploma of Tertiary Studies (Levy & Earl, 2012) and an academic skills unit addressing core writing and research skills. Students seeking to enter a course requiring a Year 12 mathematics prerequisite would study a university-level maths unit and a mathematics skills unit. Students seeking to enter other courses would undertake a first-year core unit from their chosen degree and an academic numeracy unit that would also satisfy mathematics prerequisites for courses requiring a Year 11 mathematics study.

Conclusion

These proposals are still in development, and the conversation within Monash University has not yet reached a conclusion. However, the significance of widening participation through targeted outreach and pathways is becoming better understood. Monash University hopes to target talented LSES mature-age students, those who “left school for reasons other than a disinterest in learning” (Cullity, 2006, p. 185).

Creating mechanisms to engage high-potential LSES mature-age students through recruitment and selection processes will be complemented with learning activities in the Monash Portfolio Program (MPP) and the Monash University Preparatory Program (MUPP) to assist them to translate their workplace and community experiences into the university environment, and provide a balance of opportunity, support and challenge. Central to these will be curricula and pedagogies that assist students to demystify the nature of university scholarship and learning, explicitly assist them to develop their academic literacies and embed these contextually within the content of core units of study. These strategies are acknowledged as appropriate for these students (Cullity, 2006) and their effectiveness has already been established by the Diploma of Tertiary Studies pathway (Levy & Earl, 2012; Levy & Murray, 2003, 2005a; 2005b).

As observed by Cullity (2006, p. 177) the purpose of pathways into higher education such as those currently under consideration are to “provide mature learners with admission criteria to university and introduce students to academic culture, including practices and expectations of study”. Monash University’s mature-age initiatives aim to provide opportunity for LSES mature-age students to attain a well-recognised qualification, and to widen participation in higher education.

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From opinionated debaters to objective logicians: Critical Thinking as a Key Transition Element in Foundation Programs for the Underprepared Student

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Theme: Policy

Abstract

Recent reforms to Australian higher education are leading to an increase in underprepared students entering higher education. In particular, the federal government's agenda to increase higher education participation for Australia to keep pace with its OECD competitors in terms of future graduate skills needs is leading to sector expansion and a broadening of the student recruitment pool. This, in turn, is creating opportunities for access by students who may not yet have developed skills as strong independent learners. USQ has introduced a Foundation Diploma program as a transition pathway into undergraduate study for underprepared students. The Foundation Diploma includes Foundation courses which concentrate on building skills crucial for university success. One such skill is critical thinking, which has proven beneficial to underprepared students not only as a set of core skills essential for academic study, but also as a basis for helping 'first in family' students to understand and access academic culture; and ultimately serving as a critical graduate attribute and life skill. This paper describes how and why critical thinking has been built into the Foundation Diploma program as a core transition element and students' reaction to it.

The impact of recent reforms to Australian higher education on the need for enabling and foundation programs

In 2009, the Australian Labor federal government announced sweeping reforms to Australian higher education (Commonwealth of Australia, 2009). These

reforms furthered two trends that have been in play in Australia for over two decades – the increasing deregulation of the higher education market and an increasingly rigorous regulatory and reporting regime for higher education institutions. The first trend is serving to increasingly expose universities to free market forces with the effect of driving a student-centred culture. The second trend has positioned the Commonwealth as the major change agent for universities, increasingly obliging universities to serve as vehicles for implementing public policy.

A centrepiece of the recent reform package was a pair of inter-related targets for the university sector – 20% of people from low socio-economic status (LSES) participating in higher education by 2020, up from 15% in 2008; and 40% of 18-34 year olds attaining a minimum of a degree qualification by 2025, up from around 32% in 2008. As well as representing a desired social justice target, the former target was designed to fuel the latter – LSES, as the largest under-represented group in university study, being seen as the fuel for achieving the higher degree attainment target that the government believes is necessary for Australia to remain internationally competitive in the knowledge economy of ‘the Asian Century’.

Market deregulation, coupled with the fact that the level of government funding to universities in Australia’s predominantly publicly-funded higher education sector is linked to student load, has served to both enable and encourage the growth in the sector required to pursue the Commonwealth’s participation and attainment targets. Partly on the insistence of the Federal government this growth has occurred without an easing of mainstream entry standards. Hence, there is an increasing dependence on enabling and foundation programs to position a growing number of under-prepared students for successful transition into higher education.

The USQ foundation program

The University of Southern Queensland (USQ) has in place a range of access strategies for a diverse range of students. These strategies are designed to maintain the integrity of mainstream academic entry standards and not to place unrealistic expectations on students approaching higher education study from LSES or educationally disadvantaged backgrounds. In 2011, USQ introduced a Foundation Diploma program which provides credit for articulation into mainstream undergraduate programs at USQ. The Diploma was developed jointly by USQ Faculties and the University’s Open Access College (OAC) and is offered by OAC outside of the Faculty structure. It essentially operates as

an open access pathway providing significant levels of individualised student support and exit level standards appropriate to the level of undergraduate credit afforded.

Six Foundation Diplomas are offered: the Diploma of Aboriginal and Torres Strait Islander Foundations; the Diploma of Business Foundations; The Diploma of Creative Arts Foundations; the Diploma of Engineering and Spatial Science Foundations; the Diploma of Science Foundations; and the Diploma of Social Studies Foundations. Students study four online foundation courses (subjects) offered by the Open Access College, and then progress to four discipline-based courses offered by the relevant Faculties. The opportunity then exists to graduate with a competitive qualification for the professional workplace, or to transfer some credit into a number of undergraduate programs. The programs can be studied both full- and part-time.

The four compulsory courses are: DIP1000 E-Literacy for Contemporary Society; DIP1001 Academic and Professional English; DIP 1002: Strategies for Successful Study; and DIP1003 Essential Mathematics The foundation subjects include 'transition elements' that provide the basis for engendering LSES and 'first in family' /first generation students with a range of transferable skills that are typically not well provided for in the educational backgrounds of these students but which are crucial to their successful transition and success in their degree study.

One of the principal transition elements included in the foundation component of the diploma courses is 'critical thinking' (CT) which makes up 70% of the coursework for course DIP1002: Strategies for Successful Study.

CT as a core undergraduate quality

CT has been variously defined as thinking that is: reasonable and reflective (Ennis, 1989); that enables an individual to engage in activities with reflective scepticism (McPeck, 1990); that displays mastery of intellectual skills and abilities (Paul, 1993); or that enables an individual to be appropriately moved by reasons (Bailin & Siegel, 2002). Overall, CT may be thought of as thinking that is sceptical, open-minded, evidence-based, rigorous, principled and heroic – the last descriptor coined by Paul (1994) in terms of having the courage to face harsh realities and to confront one's own biases. CT is recognised as crucial for all contemporary academic contexts as it is seen as providing an attitude and an inter-related set of core academic skills that ensure objective analysis, deep understanding, effective problem solving and the ability to

draw sound conclusions based on logic which all lie at the heart of academic process (Nosich, 2009). CT, therefore, provides a basis for the conduct of sound scholarship and the development of effective self-directed learners.

Terenzini et al. (1995, p. 24) referred to CT ability as a skill that was: “enduring . . . , a central element in lifelong learning, and . . . an appropriate (if not essential) skill for colleges and universities to develop among students.” Put simply: “critical skills are vital to post-secondary success” (Kenedy, n.d.)

CT is also seen as an essential element of general and professional education. This is in response to the rapidly changing professional and workplace environments whereby CT serves as a basis for positioning all individuals to operate effectively in an increasingly demanding knowledge society where the sheer volume and diversity of readily-accessible information sources creates its own special challenges and pitfalls (Paul, 1993).

For LSES, ‘first in family’/first generation and ‘second chance adult learners’, the study of CT theory and practice provides both a core set of skills that are essential for successful undergraduate study, and a core set of attitudes, approaches, behaviours and understandings that ease students into the unfamiliar and challenging academic culture. The latter is crucial as the inaccessibility of university culture is frequently cited as a major barrier to success for non-traditional higher education students (Tinto & Pusser, 2006).

However, while CT is universally acknowledged as a core skill of academic scholarship and a prized graduate attribute, its inclusion in university first year curricula has been marred by a disagreement that has smouldered for over two decades between two broad schools of thought. This concerns whether CT can be taught as a generalist skill involving transferrable skills (Ennis, 1990) or if CT is largely meaningful only when applied to a discipline-specific context which requires a depth of discipline-specific knowledge (McPeck, 1990). Clarke (2011) argued that while it is understandable that professional academics would see most value in applying CT after a high level of competence in a particular discipline had been achieved, the value of teaching CT early in the undergraduate program has major benefits, and its consideration as a foundation or transition skill is becoming increasingly evident (Beasley & Cao, 2012; Brown & David, 2010; Kenedy, n.d.).

In practice, USQ’s Foundation Diploma students are taught CT initially as a generalist skill that gradually becomes applied to discipline-specific contexts

as their commitment to and knowledge of a particular discipline develops; thus aligning “*the capacity for critical thinking, student learning progression and the development of disciplinary knowledge*” (Hammer & Green, 2011).

A second issue concerns whether it is sufficient for students to simply be exposed to CT in order for CT skills to develop or whether the principles and practice of CT should be explicitly taught.

In acknowledging the move from elite to mass higher education, CAUT (1993) noted that: “We can no longer assume ... that universities are a largely intellectual elite body groomed by their secondary schooling and social background for university study. ... lecturers need to make explicit practices that once were left implicit.” In the nearly two decades since CAUT published that statement, Australian higher education has moved even further from mass higher education towards an expectation of universal higher education. With the university student constituency now being represented by people from an extremely diverse range of backgrounds and abilities, it is crucial that students not only engage in CT but that they study it, essentially as a discipline in its own right. Paul (1993) for example, makes the analogy of an elite athlete not only practicing their craft but studying the science and principles of their sport in order to achieve higher levels of performance.

In practice, the explicit study of CT principles in undergraduate programs has tended to gain momentum, particularly over the last decade, as student-centred learning models have resulted in:

... a paradigm shift ... from a focus on teaching to a focus on learning. ... [as] possibly the most noticeable changes that can be seen ... are a greater emphasis on the development of skills, and in particular, general transferable ‘life’ skills (and the notion of lifelong learning), and the writing of course units and modules in terms of intended student learning outcomes. (Rust 2002, p. 146)

Hence, the prevailing view is, as noted on the website for the Centre for Teaching at Vanderbilt University under ‘Principles and Strategies for Teaching First-Year Students’: “*Most students can’t “pick up” critical thinking skills along the way in a course that focuses on content. They need explicit instructions in thinking critically*” (Centre for Teaching, 2012).

A third consideration is the degree to which CT in the curriculum is simply concerned with skills development, or if some deeper form of learning is

involved. Skills development is certainly an important outcome of the study of CT. Skills such as observing, reasoning, analysing and problem solving (Ennis, 1989) are critical to academic success. This is important not only from the view of engendering foundation students with core transferable skills but also for a major target group for the Foundation Diploma - students who just missed the normal entry requirements. Here, putting an emphasis on improving important core academic skills gives students who present as weaker academically, the edge they require to successfully transition into mainstream undergraduate study.

However, a study of CT involves more than simply the development of a core skills set. Paul (1993) sees CT more as a set of behaviours and psychological traits that represent a core set of attitudes, approaches and understandings that are equally important in positioning students for success. The need for students to understand and access the university culture has already been discussed - but there are other barriers that students must overcome. Kalmar (2002) points out that, during the course of study, many students will come to adopt viewpoints and ideas that are very different from those they had when they entered higher education. The ability to be openly critical of oneself and the capacity to be open to change as a result of that self-analysis can be confronting to many students; and the study of the discipline of CT can significantly facilitate this transformative process of self-change.

The experience with CT development in the USQ foundation diploma: from opinionated debater to objective logician

Debate as the antithesis of CT

The Collins Cobuild Dictionary (2001, p. 389) defines 'debate' as: "...discussion ...in which people express different opinions about a particular subject." Debate is a common element of public discourse and people with good debating skills are much admired in society. The top performers in school debating teams are referred to in complimentary terms as 'mental athletes', the most successful barristers are those who can sway the views of a magistrate or jury, politicians contest their skills with their peers through political debate on the floor of the House, and talkback radio hosts are paid handsomely for their skills in rhetoric and persuasion to convince people to adopt particular beliefs. It is little wonder then that the common public perception of intellectual strength comes to be associated with holding strong opinions and being able to convince other people to support them. It is important to appreciate, however, that opinionated

debating, no matter how forceful or successful, is the antithesis of the CT that sits at the heart of academic scholarship – the detached objectivism that we have defined as sceptical, open-minded, evidence-based, rigorous, principled and heroic. Unlike debating which seeks to persuade by building the strongest possible arguments in support of a pre-determined conclusion, CT relies on techniques such as ‘Socratic questioning’ (also known as the dialectical approach) that *“challenge the accuracy and completeness of thinking in a way that acts to move people towards their ultimate goal”* (‘Socratic Questioning’, n.d.) – thus drawing out ideas and arguments that are logical and rigorous: ‘ex duco’.

Students tend to come to university as opinionated debaters, which puts them at odds with the academic culture. The attitude adopted in the USQ Foundation Diploma program is that the sooner newly enrolled students can adjust their debating mindset and replace it with a paradigm based on CT then the sooner they will be positioned to understand the expectations placed on them and to develop as successful undergraduate scholars.

The structure of the CT course component

The structure of the CT course in the Foundation Diploma program starts with a consideration of CT and university culture. The course therefore takes students through the way academic culture has developed and the fundamental characteristics of a ‘culture of enquiry’, before defining CT and considering how it has come to serve as the bedrock of academic culture. This serves to place a consideration of CT and why it is important within the context of the university environment and the expectations that are placed on students. Discussing the university culture explicitly has proven effective in providing ‘first in family’/first generation students with a clear appreciation that they need to come to grips with something that is different to what they may have expected and alerts them to the need to investigate what the institution expects of them. This engendering of a need for wariness in an alien culture is further emphasised by the inclusion of a brief study of other intellectual traditions which ultimately argues for CT as a global tradition. This early stage of the CT course may be considered as ‘the enlightenment stage’ where the notion of a university culture begins to be appreciated and the links between CT and academic scholarship are established.

The second stage of the CT course requires students to ‘build their toolkit’. This involves a study of reasoning and developing skills in critical analysis by ‘asking the right questions’. The approach taken in the CT course is to deconstruct

a piece of writing into ten important elements – context, audience, purpose, question at issue, conclusion/thesis, premise/reasons, assumptions, information, implications and consequences, and alternatives. An emphasis is given to the need to ‘ask the right questions’ as a basis for analysing arguments and lines of reasoning. Students may find the mechanical nature of this study difficult and laborious; but for many it is a revelation. Some students have an inherent sense of sifting through and analysing an argument, but most students require an ordered structure and a clear process to guide them through effective analysis. This is a stage where some students falter, but the discipline provided by successfully navigating this stage empowers students.

The third stage of the CT course is the implementation stage where students practice critical analysis and evaluation while learning additional concepts in the form of types of argument, identifying fallacies and understanding and evaluating research methodology.

The course concludes with a brief consideration of the relationship between CT and creative thinking.

Approach to CT study

The program materials and approaches were heavily influenced by US generalist theorists such as Richard Paul (Paul, 1993) and Robert H Ennis (Ennis, 1989), drawing on very long traditions that extend back thousands of years to Hellenic philosophical traditions. Course DIP1002 is delivered online. Students progress through a program which requires them to manage their own learning through a process of self-development. Students have access to an online student discussion forum and are encouraged to explore current and topical issues in order to engage. Weekly formative quizzes and discussion questions encourage students to practice their understanding of CT aspects such as recognising fallacies, acknowledging other valid viewpoints and so on. These are offered to give students the opportunity to develop their CT ‘muscles’, and improve self-confidence while being comfortable with others’ perspectives. Formative assessment is through quizzes, two major assignments – analysing arguments and line of reasoning for pieces of academic writing - and a final closed book exam that covers the full scope of the course.

Objectives for student learning

The study in CT addresses a number of academic, personal and practical aims. It provides an awareness of academic culture and expectations on students, providing them with a ‘heads-up’ that is especially important for ‘first in family’

/ first generation students. It develops an appreciation of good scholarship, and the value of adopting a questioning, analytical approach – thus providing a context for understanding the expectations that the academic culture places on students. This also positions students to identify and unlearn ‘bad habits’, which is an aspect of transition into higher education and the first year experience that deserves more attention.

The explicit study of CT fosters an awareness that knowledge is contestable. Importantly, it positions the student to adopt a stance of open-mindedness – being open to new ideas – but with the appropriate scepticism that requires sound evidence in order to be convinced. CT also encourages self-analysis and the confidence to be critical of oneself and open to change as a result. This development of an attitudinal and skills-based ‘tool-kit’ buoys students well when they move into any discipline-focussed study.

Further, competence in CT provides students with a boost in confidence and self-esteem – providing a basis for the student taking control of their undergraduate study. This, again, is a particularly important benefit for ‘first in family’ / first generation learners who may otherwise be intimidated or confused by the university culture.

Finally, CT is an essential foundation for innovative and creative thinking.

How the course has been received

I have already alluded to the perception that students find the CT course challenging. This is reflected in standard student course evaluation reports where DIP1002 consistently rates above course, department and faculty mean ratings against the student evaluation question “The workload in this course was too high”. However, while GPA for this course is lower than for the other foundation courses in the Diploma, the pass rate is not significantly different.

A mini-survey was conducted of Diploma students either four months after they had completed the DIP1002 course or 12 months after course completion. Three questions were asked relating to the students’ perceived value of their study in CT, with responses requested using a number-based rating scale from 1 = “not at all” to 5 = “it was extremely useful”. In all, 12 full responses were received out of 34 survey forms e-mailed (a response rate of 35.3%). Ten of these respondents had completed the course four months previously; while the remaining two had completed the course 12 months previously.

The results of this mini-survey are shown in the table below.

Questions	3 = provided some benefit	4 = it was very useful	5 = it was extremely useful
1. In the Diploma program did your study of CT help you to understand the expectations of university study?	1	7	4
		91.7%	
2. In the Diploma program did your study of CT help you to understand university culture?	2	6	4
		83.3%	
3. Do you anticipate that your study of CT will assist in your further study?	0	1	11
		100.0%	

(n = 12 respondents / 34 surveyed; a response rate of 35.3%)

* no respondents selected ratings 1 = “not at all” or 2 = “not much” to any of the three questions asked.

While no definitive conclusions can be drawn from this small sample, it is encouraging that all respondents found benefit in their experience in studying CT – with 11 out of 12 respondents finding it very useful or extremely useful with regard to understanding the expectations of university study; 10 out of 12 respondents finding it very useful or extremely useful with regard to understanding the university culture; and all but one of the respondents anticipating that it would prove extremely useful in their future study. It would appear that the 12 respondents did take from the course a belief in the

importance of CT to academic study.

Learnings by the respondents are reflected in the following comments, collected as part of the survey process:

- I feel that critical thinking is the cornerstone to understanding what university life is all about. Studying critical thinking honestly changed my life and the moment I starting applying critical thinking in my everyday life is the moment I truly felt like a university student. Understanding the principles of critical thinking has opened my mind.
- I personally did not think that i would use it so much in my study but since completing the critical thinking course I have used it in many ways that i did not think i would. It has actually amazed me that critical thinking is really a large part of university studies.
- The study of critical thinking has helped me in a number of ways. The most important i have found is that it has shown me the relevance of finding substance to what you are reading to ensure the validity of the work. This is especially important in the engineering field i wish to further my studies in. Even in the last six months since completing DIP1002 i have found the lessons learned in this course have helped not only in my studies but within my professional career also. I would highly recommend this course to any student.
- The skills taught provide obvious benefit in any situation one is expected to exercise judgement be it during study, reading the news paper or reflecting on personal performance.
- I think that the Critical thinking element of the diploma course is going to be of great use for my future studies. It has refreshed and restored the way that i will be thinking about all my assignment work going forward from that subject. I believe it to be a key element to the start of all diploma courses.

Conclusion


To conclude: considerable emphasis is given in higher education discourse about what students need to learn in their important first year of study. However, students entering higher education may also need to “unlearn” habits picked up during their schooling or general life experiences, through exposure to the popular media, and the like. In particular, styles of discourse such as debates, legal-style arguments as undertaken in an oppositional legal system, and the support of personal views are frequently encouraged in everyday life, and involve selecting arguments to support a pre-determined position. While these forms of discourses do have their intellectual merits, they run counter to the need in CT for detached objectivity, and the principled heroism to go where the evidence takes one. Many students find the leap from taking an opinionated stance to becoming an open-minded but sceptical critical thinker extremely difficult, but the sooner this transition occurs the sooner the learner is positioned for success in undergraduate study. The necessary transition is assisted by a formal study of CT early in the undergraduate experience and this strategy is being used as the basis for a key transition element in the Foundation Diploma program at USQ.

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Getting Comfortable with Science: A general science course for gaining scientific literacy and confidence in teaching science

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Abstract

The recent Education Review Office (ERO) report (May, 2012) highlighted the impoverished state of science at primary schools in New Zealand. They attributed it to a lack of teacher confidence and suitable professional development opportunities for teachers. As a response, the course “Getting Comfortable with Science” was developed at the Waikato Pathways College Continuing Education section. This course provides a broad base of big science ideas underlying common contexts used to teach science at primary schools. The target participants were primary school and pre-service teachers wanting to boost their science knowledge. This online, non-assessed, low-cost course seeks to provide a platform for enhancing science content knowledge as part of pedagogical content knowledge. It encourages self-directed learning and collaboration with other learners in an online context. Online resources, especially those on the Science Learning Hubs, are utilised. This paper discusses the development and running of the course. Analysis of the evaluation responses from participants on teacher confidence to teach science will be discussed. This has important implications for science being taught at primary schools and the spin-offs for secondary school science and careers in science – a possible answer to Stephen Joyce’s thrust to encourage science and maths skills in the population.

How much science is being taught at primary schools in New Zealand? We may all have our own views on that especially based on the experiences of our own children or on children we know who have gone through primary school recently. The ERO report that came out in May 2012 gave a starkly dismal picture of science at New Zealand primary schools in years 5 to 8. They attributed the impoverished teaching of science at primary schools to the lack of

teacher confidence and preparation, and also to the lack of suitable professional development opportunities for teachers.

A lack of knowledge and understanding of the science curriculum requirements, and of what constitutes effective science teaching, was evident in many schools. Many teachers do not appear to be confident or well prepared for teaching science. They have generally had limited ongoing professional learning development opportunities in science. This has contributed to the low priority many teachers place on it. (ERO, 2012)

The low priority would mean that adequate science teaching both in quantity (amount of time spent) and quality (innovative approaches) was not happening in many primary schools. This has serious implications especially for the **right** of every child to be exposed to understanding how the world that they live in works and even beyond to the outer reaches of space.

Students have the right to participate in science programmes that build on an innate excitement about discovering the world around them. (ERO, 2012)

With our world becoming more and more scientifically based, being scientifically literate is the right of every individual. This needs to be started right from primary school.

Confidence to teach science

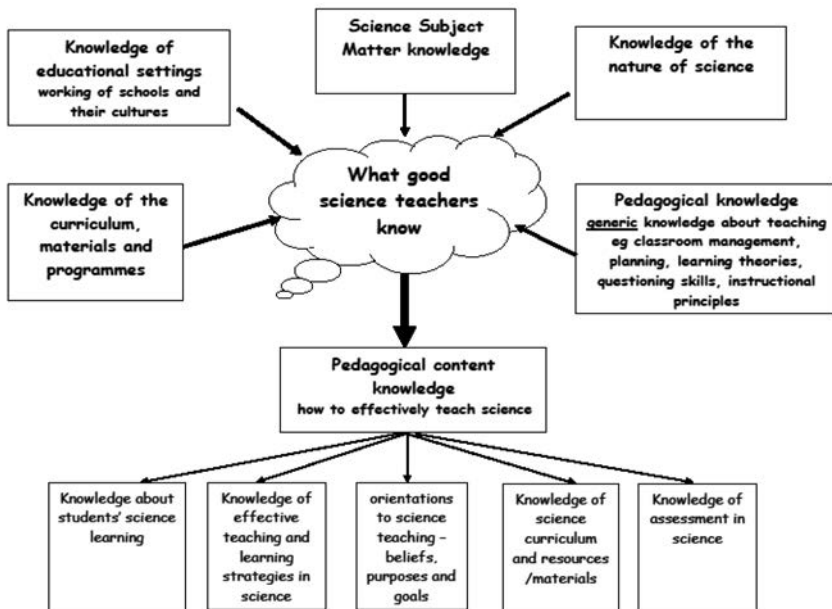
An effective way to achieve this is to enable primary school teachers to become more confident in doing science with their classes. Furthermore, if teachers can understand, buy into, and believe that it is the right of every child to become scientifically literate alongside the usual literacy and numeracy at primary schools, teachers will see it as imperative that they teach science effectively in their classrooms.

Pedagogical content knowledge

If we look at research literature on science teaching at primary schools (or elementary schools), we often come across this idea of pedagogical content knowledge (PCK). Heywood and Parker (2010) define it as follows:

PCK concerns knowledge related to the translation of subject knowledge in the act of instruction; it requires knowledge of the cognitive demand of the subject as well as the instructional practices appropriate to structuring learning... (p. 113).

In the act of instruction or the moment of teaching, many different aspects come together to guide our teaching actions consciously or automatically. These are comprehensively set out by Kathy Saunders (2007) in Figure 1. All these various aspects are distilled into PCK on how to effectively teach science. So knowledge about the subject matter, students, curriculum, resources, assessments, and beliefs come together at the moment of teaching – we are guided to make decisions as we go based on these different areas of knowledge.



Kathy Saunders (2007). Adapted from Shulman (1986), Friedrichson & Dana (2005),Abell, 2007

Figure 1. Pedagogical content knowledge by Kathy Saunders (2007). Adapted from Shulman (1986), Frederickson & Dana (2005), Abel (2007)

Primary education courses have tended to focus on the “how” to teach rather than the “what” to teach. Thus, the pedagogical aspects and other areas such as curriculum, class management, and so on are dealt with but subject matter knowledge is often not a focus. Recently one university decreased the time given for science in their Bachelor of Teaching (Primary) programme to just 24 hours, which amounts to one paper in one semester for the whole three-year degree. Inevitably the area of subject content knowledge is left out. This is also reflected in the comment by Bleicher (2007, p. 841):

Teacher preparation programs are designed to build the foundation for strong pedagogical knowledge. However, preservice teachers' science understanding is often insufficient to provide the confidence required to teach science effectively....

Bleicher and Lindgren (2005, p. 221) warn that:

[i]f teachers lack understanding of core concepts, they probably will not feel comfortable when teaching science to children. This may result in what we so often see today: an absence of science teaching at the elementary level...when an effort is made to focus on development of science conceptual understanding in preservice elementary teachers, their success in learning and development of science teaching self-efficacy are positively correlated.

It is good to see that their research showed that developing science conceptual understanding in the teachers has positive effects on their science teaching.

Science content knowledge

The need for having science content knowledge is also stressed by Weld and Funk (2005, p. 189):

The likelihood that elementary teachers will teach science depends largely on their own preparation and confidence in science...A recent survey...found that fewer than 3 in 10 elementary teachers felt well prepared to teach science, and 72% felt a need for deepening their content knowledge in science.

The science content knowledge needs to be learnt through approaches that take into account the other facets of PCK – through constructivist and inquiry-based approaches, and so on.

The spin-offs from good primary science teaching are described by Hechter (2011, p. 199):

More effective science content teaching in the required courses for preservice teachers will generate more confident science teachers-to-be. These teachers will go to the field and teach students...Better prepared and more capable science students at the elementary will progress to a higher quality of science students upwards on the academic ladder en route to post-secondary science courses

With the exhortation by ERO, the statements by Stephen Joyce and ideas from the literature review, we decided to develop a course that could support subject content learning of established and pre-service primary school teachers.

Getting comfortable with science

A general science course called “Getting Comfortable with Science” was developed and implemented by Waikato Pathways College Continuing Education section. Given the resources available and the needs of the teachers, it was a four-week-long online course that was non-assessed. The focus was to provide information and links to the areas to be studied and conduct interactions among participants in the form of forums. This course was run on a Moodle platform and each of the four weeks was a module devoted to one of the following science strands: physical world, material world, living world, and planet earth and beyond. The course was administered and advertised by Continuing Education, targeting primary school teachers and pre-service primary teachers. There were nine participants registered but each participant registered could be a team of up to four teachers. Being government-funded, the cost was kept very low (at \$120 for four weeks). The course was developed and taught by staff at Pathways College.

Participants and their reasons for taking this course

The type of participants ranged from an older pre-service student teacher trying to reconnect with science, final-year primary teacher education degree students, Graduate Diploma in Primary Teaching students, and beginning and established primary school teachers in the Waikato region. Their reasons for taking this course are summarised below:

- Want to feel confident teaching science (all participants)
- Felt a need for a firm understanding of science concepts to teach science
- Looking to fill gaps in science knowledge
- Have not looked at science since first year of degree
- Mature student: cannot remember any science from school
- Knowledge of science not good at all: want to do students justice in science; develop knowledge in all aspects of science
- No interest in science: course may change dislike for science
- Love science but want to learn more
- Want to learn more about Earth Sciences: useful also outside the science classroom.

Thus, looking for confidence to teach science, filling in gaps in their science knowledge and wanting to do their students justice in science were some key features for the participants to do the “Getting Comfortable with Science” course.

Design and development

We talked to experienced primary school teachers who were working in the Science Learning Hub (SLH: www.sciencelearn.org.nz) to get a clear idea of contexts that were useful for primary science and to target the big science ideas that students needed to know. The links to the contexts and stories on the SLH were also accessed. This gave a platform to build a course that was more relevant to primary school teachers. The expertise of the Science teachers at Waikato Pathways College was enlisted to tease out the main basic ideas in the different science disciplines.

A general course outline was developed using a thematic teaching approach such as that shown below:

- *Invisible war* (Living World): hygiene, microbes, nutrition
- *Kitchen chemistry* (Material World): acids and bases, states of matter, strange liquids
- *Superheroes* (Physical World): electricity, energy, force and motion
- *Third rock from the sun* (Planet Earth and Beyond): Formation of rocks, space, volcanoes.

The standard was pitched at that of NCEA Level 1 Science as it was decided that teachers needed to know more than what was taught in primary school science, in case students asked questions outside the prepared lesson, which is often the case. The course was non-assessed. It ran for four weeks with a stipulation that participants spend around seven to eight hours a week on the course. Each week tackled one module, for example, Living World, Material World, and so on. All material were available on PowerPoint slides and there were forums and activities to engage in – especially trawling through SLH to seek answers to their questions. The diagnostic pre-test was great in addressing where the participants were at with their science knowledge and also to point the way to what was to be learned in the course. Each week ended with a summative assessment that had the answers provided separately. Participants can do the assessments and self-mark their answers.

The paper proceeded smoothly with all participants able to access the course on Moodle as well as receive guidance to explore SLH and share ideas in the forums.



Figure 2. Moodle, the online platform



Figure 3. The Science Learning Hub

Feedback from participants

The feedback focussed on the format of the paper, subject material, confidence to teach science and assessment.

1. Format of the paper:

- More hands-on science to help understanding
- Enjoyed the format
- SLH:
 - » gave participants the confidence to teach science knowing that SLH was available to use
 - » source material for classrooms
- Online format's flexibility worked well (especially for working participants)
 - » Easily accessible
- Generally well-timed paper (four weeks not too long or short)
- More math support needed.

The online format of the paper is preferred by the students and this is reflected in a study by Hudson (2006, p. 370):

It appeared that preservice teachers appreciated the flexibility of working online as they can adjust their studies to fit in with their commitments and lifestyle.

2. Subject material:

- Chemistry and Physics were less familiar material:
 - » generally less well received
 - » subject material did not seem applicable to primary school students
- Biology and Earth Science were more familiar material:
 - » generally better received

- » applicable to primary school students' learning (the 'everyday ideas' that primary school students grapple with).

This was also seen in the findings by Yilmaz-Tuzun (2008, p. 183): "Overall, study participants felt more comfortable teaching biology concepts than teaching chemistry concepts, physics concepts or both."

3. Teaching science in school:

- On the question of learning material higher than that required in primary schools, some would have preferred a level of material directly related to teaching primary school students
 - » At the same time they generally felt more confident to teach science in a primary school setting as a result of learning science at a higher (secondary) level
- Feel confident to teach now they have some resources to call upon
- A confidence and a "let's learn together" approach to teaching/learning science in the classroom
- Excited to teach science in school now.

4. Assessment:

- The self directed assessments enhanced the learning
 - » wanted more feedback
- Gave direction while studying
- Gave an idea of the depth of learning required
- Wanted more SLH-based assessments
- Wanted a mock test at the end.

5. General comments:

- More primary-based ideas for use with their teaching
- Wanted some immediately useable unit plans/materials to adopt into their classroom lessons
- Liked the themes, would use them in their teaching
- More time for some of the material
- Some participants using the course as professional development related their experiences/learning to other teachers at staff meetings
- Worked collaboratively on the paper.

Course tutor's reflections

- Make stronger links to the SLH, specifically the 'Teaching and Learning Approaches' to address the desire for resources/unit plans applicable to primary school teaching.
- Endeavour to make the chemistry and physics of a more "everyday" content.
- Maintain as a non-assessed paper, but mark and return the weekly assessment tasks to give more feedback.
- Relate more assessment tasks to SLH or other online resources besides the PowerPoint slides to encourage participants self-directed learning.

Six out of the seven respondents said that they gained more confidence to teach science at primary school.

The value of this course, as one possible step in the right direction to help answer the call from ERO about primary science teaching, can be summed up thus:

Even if only one teacher found that the course gave them more confidence to teach science and gets excited to do so, imagine the hundreds of students this one teacher will inspire about science.

Science content knowledge that covers the basic big ideas in the different science disciplines need to be acquired by those wishing to be primary school teachers.

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ICT for prisoner education: The story of a trial project

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Abstract

This paper tells the story of a collaborative trial project between the University of Southern Queensland (USQ) and Queensland Corrective Services, from its inception to the present stage of near-completion. The project involved the use of internet-independent ICT for prisoner education. A major aim was to enable prisoners to greatly enhance their employment and further education prospects by developing their e-literacy/learning skills. The project involved the development of an internet-independent form of a USQ course Moodle site that could be placed on a correctional centre server “intra-netted” to computer labs for educational use by prisoners. Additionally, participating prisoners were individually supplied with internet-independent e-readers containing the course study materials. The trial commenced at the start of semester 2, 2012. Student support in the use of the Moodle site and the e-readers was provided by correctional centre staff and through regular visits by USQ Tertiary Preparation Program (TPP) teachers. The evaluation plan for the trial included gathering weekly feedback from the students via an evaluation instrument in the Moodle site, and from the correctional centre staff. This paper provides an account of the numerous challenges encountered and overcome by the project team, and a summary evaluation of the trial project.

Background information

A University of Southern Queensland (USQ) internet learning environment is created for each USQ course within a Moodle community site, referred to at USQ as the course StudyDesk. In addition to the standard course learning materials that are made available to all students enrolled in the course, the StudyDesk environment provides a variety of online learning resources that cannot effectively be provided to students by means other than by on-campus, face-to-face sessions. Access to the StudyDesk is of particular value to the distance education students who can access it. The resources provided by StudyDesk include, not exhaustively, discussion forums, various ways (such as automatically marked quizzes) by which students can receive instant feedback

on their understanding of course learning material, and additional learning resources such as video recordings of lectures and other types of documents. The discussion forums provide the opportunity for students to raise questions, make comments, and respond to each other, and for course lecturers to respond to students' messages.

Approximately one-third of the students who enrol in the TPP in the distance education mode (amounting to approximately 450 students per annum) do not have sufficient access to the Internet to be able to use the course StudyDesks. Approximately 300 of these students (per annum) reside in correctional centres, and have no access to the Internet.

The trial project, which is narrated in this paper, involved placing an internet-free version of the StudyDesk of a USQ Tertiary Preparation Program course on a server at a correctional centre at which students were enrolled in the course. The internet-free version of the Moodle community site was referred to as SAM (Stand Alone Moodle). The students were provided with supervised access to SAM on a weekly sessional basis. Additionally, each student was supplied with an e-reader that could not access the Internet. All of the course materials were placed on the e-readers. The students were permitted to take the e-readers to their cells, thereby being able to access the electronic copy of the course study materials during the daily lockdown period of the centre. In addition to assistance provided to the students in using SAM and the e-readers by a member of the correctional centre's education staff, the students could access a fortnightly tutorial session on the course provided by a visiting member of the USQ TPP teaching team.

The TPP course of which the modified StudyDesk was uploaded in SAM was TPP7120 Studying to Succeed, one of the compulsory core courses of the program. TPP7120 is a two unit-point course consisting of academic communication skills and study-management skills in equal proportions of content and assessment. The TPP is offered through the Open Access College (OAC) of USQ.

An evaluation plan for the project was included in the implementation plan, involving focus groups with the students and education staff involved in the project prior to the start, and at the end, of the semester in which the trial of the project was scheduled to occur (USQ semester 2, 2012), and collecting feedback information on a weekly basis from the students and the correctional centre staff member responsible for assisting the students.

The story

In 2010

The story of the project begins in 2010 with Gary, the TPP7120 course team leader, deeply concerned that each year approximately 450 of his students, the majority of whom are prisoners, could not benefit from access to their course StudyDesk. He was continually making significant enhancements to the TPP7120 StudyDesk to facilitate student learning from the course. He was particularly concerned that students who did not have access to the StudyDesk lacked any opportunity, at the tertiary preparation stage of their studies, to learn how to use an internet learning environment. He knew that if they enrolled in a higher education program after completing the TPP, their progress with study would depend on their ability to make effective use of the e-learning environment. As a starting point in allaying his concern, Gary sought advice from Bronwyn, an Australian Digital Futures Institute (ADFI) at USQ staff member, as to the possibility of developing an internet-independent version of the StudyDesk that could be made available to students who did not have access to the Internet. Bronwyn advised Gary that development of an internet-free version of the Moodle StudyDesk site was technically possible, and would require a very significant commitment of ICT and OAC teaching staff resources to achieve. Soon after providing this advice, Bronwyn resigned from USQ.

In 2011

After Bronwyn's departure, Gary's idea of an internet-independent TPP7120 StudyDesk remained in abeyance for about 12 months until, at Bronwyn's suggestion, Helen, a new appointee to ADFI, took up the idea as a possible ADFI-OAC joint project targeting TPP7120 students in correctional centres. After consultation with Gary, in July 2011 Helen established a project development team ('the team') consisting of herself, Angela (an ADFI colleague), Tas (the TPP Coordinator), and Lesley (pseudonym) (the senior education staff member at a Queensland correctional centre). Helen named the proposed project *Portable Learning Environments for Incarcerated Adult Distance Education Students* (PLEIADES). As Helen later remarked, "When I first joined this project, I did not realise the true enormity of the battle we were facing" (Helen, personal communication, 3 October 2012).

Initial informal consultations to explore parameters of the proposed project and their possible impact on relevant USQ service units were held between the team, the USQ Information Technology (IT) team, and representatives from USQ Student Services. Helen's recollection of these consultative meetings is expressed in her words: "Most of these meetings felt like gibberish" (Helen,

personal communication, 3 October 2012). Contrary to the advice that Bronwyn had given to Gary, the IT team expressed the view that what the project team wanted simply could not be achieved. Helen's wise response to this viewpoint was to limit the scope of what the project set out to deliver, to the extent that the IT team's constantly emerging objections to the project were neutralised.

The team, led by Helen, developed a project plan for the proposed PLEADES project. At Helen's suggestion, the team decided that the project be expanded from the original idea of providing an internet-independent version of the course StudyDesk to include the provision of e-readers to the students. Initially, Helen made her suggestion to try to ensure that the project aligned with ADFI's research agenda, thus enhancing the probability that ADFI management would support the project.

As a long-standing positive working relationship had been established between TPP staff and Lesley, and the centre at which she was employed was within 80 kilometres of the USQ campus, the team decided to try to arrange for a trial of PLEIADES to be conducted at that centre. The project planning process began with identification of the principal stakeholders in the proposed project as USQ, Queensland Corrective Services (QCS), and PRIVPRO (pseudonym) (the private company that manages the targeted correctional centre). A plan for gaining support for the project from each of them was developed by the team. This plan involved a variety of activities targeting the main stakeholders at various levels during the period July to December 2011.

Obtaining support from USQ seemed at first to be a straightforward prospect, considering USQ's strong policy commitment to social justice and enabling education for educationally disadvantaged people. However, 'The layers of [USQ] support were unbelievably complex' (Helen, personal communication, 3 October 2012). The complexity to which Helen referred stemmed in part from the highly bureaucratic and 'silo-ed' decision-making structures of USQ and in part from the polarisation of attitudes towards prisoner education amongst the representatives of the various USQ silos and decision-making bodies, some of whom were extremely supportive and others very negative. As a result of consultations with USQ internal stakeholders in the propose project, which were carried out in many forums by Helen and Angela, Helen received numerous inquiries from faculties' teaching staff who were interested in using SAM in correctional centres. An irony of this situation was the wide interest in the project from a USQ teaching perspective versus the extreme difficulties experienced by the team in obtaining material support from USQ to progress the project.

In July 2011, the team unsuccessfully applied for a grant from the USQ Social Justice Fund to support development of the project. In response to the team's failure to secure USQ social justice funding to pay for staff work time, during July and August 2011 Helen and Angela successfully lobbied managers of ADFI and of USQ IT to obtain in-kind support for the project by way of allocations of specialist staff time to work on the technical aspects. In August 2011, Tas successfully applied to the Director OAC for a grant of funds and for an in-kind contribution of his and Gary's work time. Lesley successfully lobbied the managers of the targeted correctional centre to obtain in-principle support to conduct the project at the centre. Clearance was obtained from the USQ Human Research Ethics Committee in August 2011 for the proposed project to proceed.

A joint paper about the proposed project was presented by Helen, Tas and Lesley at an Australasian Corrections Education Association (ACEA) conference in November 2011. After extensive consultation with Ralph (pseudonym), who was the Director of the Adult Education, Vocational Education and Training (AEVET) Branch of QCS, and Brian (pseudonym), Senior Advisor, AEVET Offender Rehabilitation and Management Services of QCS, an application for permission to carry out the trial phase of the project as a research project in the targeted correctional centre was submitted to QCS in September 2011. The long-standing positive professional relationship that had been developed between Ralph, Brian and the TPP team over many years enabled consultation to be open, frank and very informative. Ralph and Brian are strong advocates of prisoner education and training in all forms and at all levels, and have always been strong supporters of the provision of the TPP to offenders in custody. They were very supportive of the concept and aims of the proposed project. However, they emphasised the extreme concerns in QCS about the possibility that the proposed SAM and use of e-readers could enable prisoner access to the Internet or prohibited forms of communication between inmates. As a consequence of this concern, application for approval to trial the proposed project in a correctional centre had to be made via several channels, each of which required detailed documentation regarding the security aspects of the project. At a meeting arranged in October 2011 for Helen and Angela to brief the QCS Commissioner and the QCS Board of Management on the proposed project, the Commissioner expressed strong in-principle support for the project. The prospect of obtaining all of the necessary approvals at the QCS and correctional centre levels was greatly enhanced by the support for the project expressed by the Commissioner and by Ralph.

The team was advised by QCS that an opportunity briefing document relating to the proposed project was required by each of the following QCS bodies:

- Unit and Directorate
- the Privacy, Information and Related Technologies Committee
- QCS Board of Management
- QCS Financial Committee Approval
- Communication and Information Committee.

The required documentation was drafted by Helen and Angela, and, after review by the whole team, the final draft was forwarded to the relevant QCS bodies. The process of obtaining the necessary approvals from QCS took several months to complete as there was no precedent for approving this type of project in Queensland correctional centres and, thus, no established procedures for processing the application for approval. Eventually the approval process was expedited by the Commissioner, and approval was obtained. At this stage, Helen commented, “I often thought during this phase that if we’d known what was involved straight up, we would have never started the project” (Helen, personal communication, 3 October 2012).

As part of the project plan to gather relevant information from the stakeholders, a meeting between the team, 13 QCS correctional centre education officers and Ralph was held in November 2011. At this meeting the education officers were briefed on the proposed project and then participated in a structured workshop facilitated by Helen and Angela to gather the officers’ responses to the proposal, particularly in terms of their perceptions of potential benefits and barriers/disadvantages at the correctional centre level of implementation. The team, accompanied by USQ IT team members, met with managers, education staff and IT staff of the targeted correctional centre in November 2011 to discuss processes and procedures to be followed for the setting up and implementation of the trial project at the centre, and to secure agreement on support arrangements for the project by USQ and the centre management and staff.

In December 2011, Lesley advised the team that she intended to leave the correctional centre early in 2012, and that Krystal (pseudonym), a member of the centre’s education staff, would take over her role on a temporary basis until an on-going appointment was made. Helen concluded that the loss of Lesley’s enthusiastic and highly energetic support for the project dealt a significant blow to its development (Helen, personal communication, 3 October 2012). The uncertainty that resulted from this situation was potentially exacerbated by the imminent closure of the existing correctional centre and its relocation of most of

the inmates and staff to a new centre, which was scheduled to occur during the period December 2011 to January 2012.

As ADFI did not have the expertise to develop a SAM, and no funds were available to outsource this work, the team sought assistance from the USQ Moodle project team, who were very supportive of the project to the extent that they offered their work time to carry out the task, an offer that the team gratefully accepted. The generosity of the offer was highlighted by the fact that, at the time and subsequently, the Moodle team were working to tight deadlines to implement a new version of Moodle USQ-wide. Despite the generosity of the Moodle team, the circumstances resulted in delays with the work, which constantly put the planned implementation of the project in jeopardy.

In 2012

During the period November 2011 to March 2012, Gary worked on the redevelopment of the TPP7120 materials for uploading to a SAM. In addition to removing links to external sites, Gary sourced alternative learning materials to the materials on the sites and made arrangements for copyright clearances to be obtained to load relevant materials to the e-readers. In doing this work, Gary had to contend with having to work across the siloed service structures of USQ, which included the Moodle team, Equella (the USQ digital repository for course reading materials in the online library) management, the USQ Learning Resource Development unit, the USQ Information and Communication Technology unit, and the USQ Library. The situation for Gary was exacerbated by the USQ-wide implementation at the time of the change from Moodle 1.9 to Moodle 2.2, which involved changes to the StudyDesk environment and to the location course learning resources. As Helen remarked of Gary's task, "It was really hard to figure out who was supposed to do what and which piece of the puzzle fitted where and when" (Helen, personal communication, 3 October 2012).

Helen and Angela reviewed a range of e-readers in April and May 2012 to identify possible available candidate machines that met the QCS security requirements for use in the project at the correctional centre. These requirements were so restrictive that "[t]his stage of the project certainly felt like it could not be done" (Helen, personal communication, 3 October 2012). They included no technical possibility of internet connection, no memory slot card facility, and only in-built batteries that could not be removed without completely wrecking the machine. Helen and Angela identified the Sony PRS 350 e-reader as being suitable. However, as this machine was superseded, difficulties in

obtaining supplies at any future time were foreseen. The major difficulty in finding a suitable replacement for the obsolete machines is the no-slot-card-facility restriction as all currently available machines have this facility. Helen and Angela lobbied the senior manager of their USQ division for funding to purchase all of the available machines (a total of 17).

The issue of ownership of the machines when they were placed in the correctional centre was raised by management, and this issue arose as a potential threat to the progress of the project. In addition to the physical property ownership aspect of the issue, the aspect of copyright of the material loaded in the e-readers was raised, as the copyright clearance for the materials applied to USQ rather than the correctional centre. Eventually the issue was resolved by agreement that the correctional centre could use the e-readers on an on-going loan basis from USQ. USQ bureaucracy stepped in again as an obstacle to the purchase of the available suitable machines, as USQ Procurement were opposed to purchasing from the only available supplier. Some representatives of internal USQ stakeholders in the project opposed making the e-readers available for use by incarcerated students, presumably because of bias against the provision of education services to prisoners, thus creating a further obstacle to obtaining approval to use USQ funds for purchasing the e-readers. The issues of procurement and availability to prisoner USQ students were resolved by an agreement that when the correctional centre no longer needed the machines to support TPP studies by inmates, the machines would be donated to the USQ Library. The team was puzzled as to why the Library would want such machines, but at least the issues had been resolved. Helen summed up her impressions of the dreary processes of purchasing the e-readers for the project in these words:

Hurdles of inconceivable stupidity were suddenly appearing. It was clear that some of the obstacles arose because of personal prejudice (Helen, personal communication, 3 October 2012).

Copyright issues presented a further problem with the use of the e-readers in the project. This problem resulted from the need, for technical reasons, to convert all documents for loading in the e-readers to EPUB (Electronic Publishing) file format. Although USQ had obtained copyright permissions to place the relevant documents on the e-readers, it transpired that these permissions did not extend to converting the relevant documents to EPUB format. This situation necessitated negotiating further copyright permissions, which were successfully conducted except for some publications. As a

consequence of this situation, a decision was reached by OAC staff to try to replace all of the externally sourced publications used in the course materials with publications from OERs Commons (Open Educational Resources) in future.

In May 2012 the team learned that Michael (pseudonym) had been appointed as the replacement for Lesley, the former senior education staff member at the target correctional centre for the project who had resigned at the start of 2012. The new appointment resulted in yet another change to the leadership personnel for the implementation of the project at the correctional centre level, there having been several temporary delegations of the leadership function since the resignation of Lesley at the beginning of 2012.

In July 2013, all of the materials to be loaded into the e-readers were converted to EPUB format by staff employed by using the funding grant from OAC, and were subsequently loaded into the machines. A training video on how to use the e-readers was produced for the project by the USQ Digital Media Services production team for inclusion in the SAM version of the course StudyDesk for the benefit of the students. Training in the use of SAM and the e-readers was provided by Helen, Angela and the Moodle team at the USQ Toowoomba campus for the education staff at the target correctional centre who were to be involved in the implementation of the project. A back-up CD of relevant material and a training video were also produced for their use. Simon (pseudonym), who was an IT technician at the correctional centre, and Krystal received training at the USQ campus in using the SAM version of the course StudyDesk and the e-readers, by previous arrangement.

In keeping with the project plan to gather project-relevant information from stakeholders, two focus group sessions were conducted at the target correctional centre by Helen, Angela and Tas in early in July 2012. One of these sessions involved the students who were enrolled in TPP7120 in semester 1, 2012. The other session was conducted with students who were enrolled in semester 2, 2012, the semester in which implementation of the trial phase of the project was scheduled to commence in the week beginning Monday 16 July. The focus group activity was preceded by a briefing by Helen and Angela on the proposed trial project. The purpose of the focus groups was to gather information from the students pertaining to their previous experiences with formal education and other learning environments, post-release career aspirations and the skills they would need in order to achieve these aspirations, perceptions of the characteristics of successful learners, perceptions of difficulties of studying within a correctional centre, experience with using ICT,

and concerns with/comments on any other matters related to the project. The date of the briefing and focus groups sessions (5 July) was chosen as being sufficiently close to the commencement date of the implementation of the trial project to engage the interest of the students who had enrolled in TPP7120 in semester 2, 2012 in the sessions.

While the focus group sessions were being conducted, a USQ IT technician and Simon uploaded the SAM version of the course StudyDesk in a PC that was configured to act as a server for the internal network of PCs in two classrooms of the centre's education facility. The PC was used in this way because the centre did not have sufficient capacity in its education facility server to accommodate SAM. The capacity of the regular server was largely taken up with programs and files relating to other education and training activities for centre inmates, much of which was mandatory training material.

Implementation of the trial project was scheduled to begin in the first week of USQ semester 2, 2012, the week beginning Monday 16 July. However, "The best laid schemes of mice and men often go awry" (paraphrased from Robert Burns, *To a Mouse*). In the week prior to the scheduled start of the trial, the team learned that the role of Krystal, the education staff member who had been assigned to support the students with using SAM and the e-readers in their study of the course, had been re-assigned to Jessica (pseudonym), who was a new education staff member at the centre. Several hours on each Friday afternoon of the semester had been allocated by centre management for the students enrolled in the course to have access to the education facility that housed the PCs networked to the server on which SAM had been installed. The team was informed by Michael that Jessica would be available to assist the students to use the StudyDesk and the e-readers. Arrangements were made for Jessica to receive training in the use of the course StudyDesk and the e-readers. Unfortunately, as the team subsequently discovered, by the end of the second week into the trial there had been no formal hand-over of the re-assigned student support role and no briefing provided for Jessica by the centre staff who had been involved in the preparations for the implementation of the project.

Seven students at the correctional centre were enrolled in the course in semester 2, 2012. In addition to these seven new enrolments, there were two students who had extended their study of the courses from semester 1, 2012 into semester 2. Arrangements were made for a TPP lecturer to visit the students each fortnight during the semester for several hours to provide the

students with tutorial assistance in the course. These duties were assigned to Kate, a lecturer in the course. Student attendance at Kate's sessions was on a voluntary basis. Unknown to the team at the time of commencement of the trial, the rate of pay to inmates for attendance at education sessions was considerably less than the rate paid for other work in which they could engage within the centre. A negative effect of this situation for the trial project, as the team was to discover, was that some of the students chose to engage in work that provided the higher rate of pay instead of attending the tutorial sessions.

Kate was not aware that the SAM StudyDesk was loaded onto computers in a computer lab when she attended for her first visit on Wednesday in week 1 of the semester (on 18 July 2012). On her first visit Kate was accompanied by Naomi, the TPP careers counsellor, as the first assignment in the course was on the topic of career planning. The class was not held in the computer lab. Kate did know about the e-readers, which were allocated to students during this visit. As Kate had not seen the e-readers before, she was of limited assistance to the students with their problems in using them. She was able to compile a list of apparent errors the students observed in trying to use the e-readers. Kate and the students did not locate the readings for the course in the e-readers, and the pages were slow to change. During this first visit, Kate and Naomi concentrated upon providing tutorial assistance for the students. Some inmates who were not enrolled in the course visited the classroom in which the USQ staff were working with the enrolled students. Conversations between the students and the non-students were distracting to the tutoring process. At times, the USQ staff were somewhat confused as to which of the inmates present in the classroom were enrolled in the course.

After her first visit, Kate was asked to monitor the progress of the trial project, to provide assistance to the students (and if necessary, to the education support staff member at the centre) in using the SAM version of the course StudyDesk. During her second visit to the students (in week 3 of the semester (1 August)), Kate observed that the students had not received their passwords to access SAM, and only three students initially attended her session. Simon was called in, and the students were eventually allocated passwords. The process of setting up passwords, and then the process of the students trying to log on using the passwords took approximately an hour of the class time. Kate provided tutorial assistance concurrently with IT assistance, to achieve some outcomes for the students. Once the StudyDesk was available, the students seemed very impressed with the resources available there. However, Kate and the students found that the online quizzes they had expected to be able to start to use to

register activity were not there and so could not be completed; by this time, no usable data had been recorded for the project. After the tutorial session, Jessica made hard copy print-outs of the quizzes for the students to fill out on paper. Several of these were returned to the project team after Kate's next visit.

The lack of use of the StudyDesk by the students was of great concern to the team, particularly because the instrument for recording student feedback about the use of the devices was located in the StudyDesk and was intended to gather feedback on a weekly basis; thus, vital evaluation information about the trial project was not being gathered. Helen contacted Michael about this situation, and found herself in conflict with him about the lack of previously agreed support that the centre was providing to the students. After several telephone conversations between Helen and Michael, during which the conflict escalated, Helen arranged to meet with several members of the centre's management team to discuss the situation. The meeting was constructive in terms of clarifying the student support agreements that had been reached, and confirming the centre management's commitment to the agreements. One of the especially beneficial outcomes of the meeting was a decision by the centre management that the students who attended the scheduled education sessions would be paid at the same rate as inmates who engaged in employment work in the centre. Kate reported the problem of the missing StudyDesk quizzes to Angela, who initially thought an early version of the StudyDesk had been loaded in SAM. The issue was rectified before Kate's next visit.

Kate's third visit was in week 5 of the semester (on 15 August). On this visit Kate was accompanied by Susan, another lecturer in the course. By this time most of the students had been given passwords. However, two of the students who attended the session had forgotten their passwords. Simon was called in again, and the passwords were renewed, which involved yet another lengthy process. Kate and Susan needed passwords too, so they could chat in the forum with the students. The allocation of passwords to the USQ lecturers was not completed before the end of the session. The first quiz entries were made by the students, providing some useful evaluation data. Kate and Susan provided tutorial assistance to the students. Feedback to Kate and Susan from the students indicated that one student had returned the e-reader as he preferred to use the paper materials. Another student complained that access to the computer room to use the StudyDesk was too limited, making it practically impossible for him to use it. As a result of issues with Kate's workload, her duties in the project were re-assigned to Susan. Throughout all these early sessions, the tutorial assistance Kate provided was appreciated by the students, despite the issues

with the technology. The impact of the technical problems was minimised by continued attention to the study program by the lecturers and students.

Just prior to Susan's first scheduled visit, which was in week 9 of the semester (on 12 September), the team was informed that Jessica's support role for the project at the centre had been re-assigned to Ruby (pseudonym), another member of the centre's education staff. From her first visit, Susan reported that Ruby had been helpful in "rounding up" the students and in requesting inmates who were not enrolled in the course to leave the room in which Susan was to work with the students. Initially, only one student was able to log on to SAM, as all of the others needed new passwords. Eventually, with assistance from Simon, all of the students were logged on and they completed the week 1 feedback questionnaire in the StudyDesk. With Susan's assistance, all of the students completed a quiz relating to one of the course study modules, using the StudyDesk. To complete her tutorial session, Susan engaged the students in an open discussion about their learning experiences in the courses to date, of which she made an electronic recording. Comments made by the students included that most of them preferred one-to-one tutoring rather than group discussions. One of the students remarked, 'The quiz helps you remember things the computer is easier' (Susan, personal communication, 13 September 2012).

Susan's next visit was in week 11 of the semester (on 26 September). Ruby accompanied her to the education facility classroom, and stayed with her during her tutorial session. Only one student was present at the scheduled time of the session (1.00pm). Three others had arrived by 1.30pm. Two inmates who were not enrolled in the course also attended the session by 1.30pm. All of the attending students had lost or forgotten their SAM passwords, which resulted in a delay to the work that was planned to be completed during the session while Simon assigned new passwords. Bearing in mind the student feedback from her previous session, Susan encouraged each student individually to engage in some way with the StudyDesk. She concluded that most of the students would not engage in this activity on their own initiative, and needed to be assigned individualised tasks before they would participate. She encouraged them to do this by contributing postings about themselves, such as their career goals, supplementary reading in which they had engaged, and current affairs in which they were interested. Three of the students posted comments or questions in the StudyDesk discussion forum. Susan observed that the students' progress with study of the course was diverse with regard to how far they had progressed and on which aspects they were focussed, and she noted the difficulty that this

diversity created for tutoring the students in a group setting. She noted that the students who attended the tutorial session had completed most of the course's assessment tasks, and were in less need of tutor assistance than those who did not attend. Some of the attendees preferred to talk about their philosophical or sociological ideas or career aspirations than about their study of the course.

Susan concluded that the students who attended her tutorial session did so because they sought the actual presence of a teacher to confirm their identities as students, and that the relatively impersonal electronic environment of the StudyDesk was not attractive to them perhaps because through their incarceration they already experienced a sense of alienation from a student social environment. A major factor influencing students' decisions not to attend the sessions seemed to be their perceptions that the group environment of the classroom lacked privacy and personal space (Susan, personal communication, 27 September 2012). The conclusions reached by Susan from her observations during this visit challenged implicit assumptions that the team had made when planning the trial project, that the students would value highly the opportunity to experience an e-learning environment similar to that available to students who had internet access and that they would appreciate being able to work together on a group basis with a TPP teacher. As a result of Susan's information, the team became aware that these challenges would have to be addressed if the project was to move from the trial phase to wider and on-going implementation in Queensland correctional centres.

Susan's visits continued in each of the remaining two fortnights of the semester. Her next visit was in week 13 (on 10 October). Ruby and Simon were present during this session, which was attended by four students and one inmate who intended to enrol in the course in the next semester. All four students remembered their SAM password, and, after frequent encouragement by Susan, completed at least one of the feedback quizzes in the StudyDesk. For this session, Susan engaged the students in one-to-one consultation on their learning plans and activities, in accordance with her conclusion from previous sessions that generally the students disliked working in a group setting. She noted that the students responded positively to the individual attention she gave them and that they tended to talk about their planned undergraduate studies and career-related goals, which were to obtain employment in a profession. Three of the students spoke to Susan about their perceived need to have use of laptop computers, as exemplified by the following recorded statement of one of the students: 'I don't really use the computer that much. If I had a laptop, I'd use it. I'd use it in me cell...I'm not comfortable sitting around people all the time.

We don't get very much privacy in here' (Susan, personal communication, 11 October 2012).

Only two students attended Susan's final tutorial session, which was in week 15 of the semester (on 24 October). As some students had focussed discussion on their career goals during previous visits, Susan provided the students with individualised information packs that she had obtained from Naomi. These packs contained information on the particular career questions and interests that individual students had expressed.

On 9 November, Helen, with two other ADFI staff members, and Susan and Tas conducted focus group sessions with students at SQCC, one for the students who had studied the course in the semester 2, 2012 trial phase of the project, and the other for students who were to begin their study of the course in semester 3, 2012. Arrangements for conducting the sessions at the correctional centre had been made with Krystal, who had been re-assigned to duties associated with the project in place of Ruby. When the USQ team arrived, these arrangements were in place and the students were assembled ready to start the sessions. A USQ staff member took notes of the discussion during the sessions, and made an audio-recording of the discussion.

Susan and Tas attended the session for the students who had studied the course in semester 2, 2012. Tas facilitated the session, while Susan made written notes of the discussion and also made an audio-recording of the sessional talk. In response to an invitation to talk about their use of the e-readers, two students said that they used theirs every day and three students indicated that they did not use theirs very often if at all. These three students expressed a strong preference for using the course printed study materials rather than the e-reader because of difficulty in using the device or the small size of the print on it. Subsequent discussion revealed that some of the students did not know how to enlarge the screen size of the text, and that very little assistance had been provided to them in the use of the device by the centre education staff. Tas expressed surprise that students had apparently received little help, and pointed out that USQ had provided training in using the e-reader for the education staff involved and a relevant training video had been placed on the SAM course StudyDesk for use by the staff and the students. Some students responded to Tas's information by referring to their perceived lack of support from their assigned centre education staff member. One student remarked that he "wouldn't know the education officer if I saw her". Another student said, "Our liaison person has changed three times (this semester)

already” (words in parentheses added) (Susan, personal communication from her notes taken at the session, 12 November 2012). Much of the subsequent discussion by the students focussed on their perceived lack of correctional centre support for undertaking study, including their limited access to the education computer labs and their inability to have access to laptop computers. In response to a subsequent inquiry by Tas about TPP students’ lack of access to use of laptop computers, a centre education staff member told him that QCS policy required that these computers could only be made available to students who had commenced undergraduate studies. He explained that the reason for this policy was that a large number of inmates would enrol in the TPP solely to obtain access to a laptop computer and without any intention of studying in the TPP.

After discussion of the use of the e-readers had been exhausted, Tas invited the students to talk about their use of the course StudyDesk in SAM. Much of what the students said about this aspect of the trial project focussed on their perceived lack of adequate access to the education computer labs to use the StudyDesk. One student said, “The problem you have in jail is getting across to the room. We’re only allowed to use the computer room four hours a week.” He added, “And you have to type your assignment in that time too” (Susan, personal communication from her notes taken at the session, 12 November 2012). A centre education staff member who was present at the session questioned the student’s account, and an exchange of views occurred between the staff member and some of the students regarding their access to the computer labs. The different perceptions seemed to have arisen from apparent differences between the centre’s policy regarding access by TPP students, and what actually occurred in practice when the students attempted to obtain access.

Tas attempted to re-focus the discussion on the students’ experiences of actually using the StudyDesk when they did have access to it, by inviting them to comment on their use of the discussion forum. One of the students said, in explaining why he did not use the forum, “It takes too long to get a response” (Susan, personal communication from her notes taken at the session, 12 November 2012). Another student suggested that automatic responses to questions frequently asked by “outside” students of the course be incorporated into the discussion forum, so that when a student posted a question, an answer would be automatically displayed. Tas agreed that this was a useful suggestion, and that it would be followed up by the project team.

As a concluding phase to the session, Tas invited the students to make any further comments or suggestions, or ask any questions, relating to their experience of studying the course. One of the students remarked, "It's a fantastic course." Another student asked if the TPP mathematics courses would be made available on e-reader in the future. Tas replied that this idea would be considered. A third student suggested that an electronic archive of all TPP study materials be made available in SAM, to which Tas responded that being able to make this constructive suggestion a reality depended on the capacity of the correctional centre's available server as the current capacity was not adequate for this purpose.

The focus group session on 12 November 2012 was the final direct contact between the students enrolled in the course in semester 2, 2012 and the USQ staff.

This story of a partnership trial project between USQ and QCS draws to a close with some ambivalent reflections by the project team members, which included:

- No communications security risk issues arose
- A minority of the students used the course StudyDesk in SAM
- The majority of students were reluctant to make any use of the StudyDesk
- A majority of the students preferred to work alone rather than in the group setting originally planned for the project implementation
- Student access to the StudyDesk was generally perceived by the students to be much too restricted
- A majority of the students used the e-readers for studying the course learning materials
- A majority of the students regarded the dictionary in the e-readers as the most valuable aspect of having access to the devices, and access to the study material on the device as being of lesser value
- Agreed arrangements by the correctional centre personnel for education support of the students for using the devices were often not realised in practice, partly because there were three changes of education support staff during the implementation of the project
- The educational value of the project to the students could not be definitely determined because:
 - » the anticipated amount and quality correctional centre education support for implementing the project (as had been agreed by SQCC management) was not provided (in particular assisting the students with using the devices and encouraging them to do so)


- » the size of the sample of students was too small from which to generalise (the responses of this group may have been peculiar to the group rather than generalisable)
- The effectiveness of the arrangements made in the project for the use of ICT for prisoner education is heavily dependent on the amount and quality of the education and technical support provided by the correctional centre with which the arrangements are made.

Despite the seemingly endless tribulations encountered in the trial project, and the ambivalence of the evaluation data obtained so far, the team looks forward with incurable optimism to the continuation of the project with a new group of students at the trial target centre in semester 3, 2012, and the implementation and expansion of the project in several other Queensland correctional centres in the 2013–14 period and beyond.

The following comment made by Helen when she read a draft of this paper seems most apt, considering the tortuous pathway she had to steer the trail project through to its conclusion: “It’s a heart wrenching chronicle” (Helen, personal communication, 15 November 2012).

Postscript 19 November 2012:

Of the seven students at the correctional centre who enrolled in the course in semester 2, 2012, one obtained a high distinction, one obtained a grade of ‘A’, two are awaiting finalisation of their grade (assessments in progress but incomplete at this time), two did not submit any assessment items and thus obtained a fail grade, and one withdrew his enrolment and re-enrolled in semester 3, 2012. Both of the students who continued their study of the course from semester 1, 2012 obtained a grade of ‘B’.



Widening participation in higher education through online pedagogy and open education practices (OEP)

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Abstract

The recent and exponential growth in open education resources (OER) is seriously challenging traditional models of education. Continuous improvements in information technology, infrastructure and services, coupled with the emergence of open online provision of education, is poised to enable more people to access learning opportunities while driving down costs to the student and overcoming some logistical barriers. This paper reports on two initiatives to utilise technology and open source learning materials to bring bridging programs to two unique cohorts of students: those incarcerated in correctional centres and those hindered by their social, cultural and linguistic backgrounds. Both groups require unique adaptations of existing curriculum and pedagogy to overcome challenges to their participation and success. The paper considers issues of intellectual property and copyright of resource materials, and advocates the use of open educational resources and the adoption of a pedagogy of discovery to equip these students with the skills to independently support their own education and training.

Context

Continuing advances in technology and the provision of global access to education through online delivery has already provided considerable opportunities to widen participation in higher education. For many years the provision of online education remained tied to commercial course offerings but of late, with the exponential growth in the availability of open education resources and the more widespread adoption of open education practices, this provision is becoming increasingly affordable and accessible. It has long been recognised that open and distance learning (ODL) and e-learning will provide the means for the world to address the anticipated substantial growth in demand for higher education (Bossu, Bull, & Brown, 2012). The rapid expansion in demand for higher education is most evident in developing nations, particularly

India and China, but many others are following the trend identified in developed countries where participation rates of between 40 and 50 *per cent* are perceived as necessary for sustained development (Daniel, Kanwar, & Uvalic-Trumbic, 2009).

The emerging diversity of mobile technologies and the growing use of Web 2.0 technologies fostering social networking, interaction and collaboration, coupled with the expansion of information networks, such as the National Broadband Network (NBN) in Australia, have provided the opportunity to substantially widen participation in higher education to people who might otherwise not have been able to access tertiary studies (Bossu, *et al.*, 2012). However, until recently, even with the advent of OER content repositories providing free and global access to the sum of knowledge they contain, it is still necessary to enrol with an institution in order to access learning materials for formal credit. Over the last decade a vast and growing number of OER sites have emerged, threatening to reshape the future provision of higher education.

The early foundations for OER were laid in the Open Content Project, the OpenCourseWare (OCW) activities of MIT, the Open Knowledge Foundation, and the William and Flora Hewlett Foundation and others. These projects established repositories of educational content that could be accessed via the Internet as authoritative sources of knowledge. They, and other projects, have subsequently evolved to a state of sharable, freely available educational content with philosophical underpinnings grounded in the accessibility of education being a public social responsibility. The Internet has provided OER with a global dissemination platform aimed at enhancing collective wisdom and designing learning experiences that maximise the use of the medium. The adoption and use of OER has also signalled a fundamental shift in the way in which academics view their courses, away from the information conveyed in course content towards the processes used in learning and acquiring knowledge.

The early work of the Massachusetts Institute of Technology (MIT) in establishing the OpenCourseWare Consortium (OCWC) (<http://ocw.mit.edu>) has produced perhaps the most widely recognised open content repository. The Consortium <http://www.ocwconsortium.org/> now comprises more than 250 educational institutions spread across the globe, each contributing their lecture and teaching materials from a minimum of 10 courses, to this publicly accessible domain. These institutions share the common goal of advancing the sharing of educational content and, as a consequence, impacting upon global educational opportunity. MIT itself now boasts some 1900 online courses, with the total

published collection of the Consortium amassing in excess of 13,000 courses in 20 different languages.

More recently, MOOCs (Massive Open Online Courses) have emerged. These herald a new era in online provision of education. Several of the world's leading universities have forged alliances: EdX is an alliance between MIT, Harvard and Berkley, while Coursera has been established by Stanford University to offer MOOCs to mass audiences. The elite university brands of these institutions, coupled with quality content and online provision, make MOOCs an attractive proposition for many prospective students, which has sent shock waves through the global education environment, influencing institutions worldwide to recognise the changing face of higher education provision. Daniels (2012, p. 3) noted, "There seems to be a herd instinct at work as universities observe their peers joining the MOOCs bandwagon and jump on for fear of being left behind."

While this new wave of open online content has shaken traditional institutions, MOOCs, at this stage, do not provide credit towards an undergraduate degree. They issue certificates upon successful completion of the course, wider recognition of which is yet to be fully determined. However, they clearly mark the direction of online and open education and the formal credentialing of courses undertaken in this mode may not be far away.

One such initiative is being forged by the OER Foundation (<http://wikieducator.org/OERF:Home>), an independent, not-for-profit organisation that has established a strategic international alliance between institutional members of the Foundation to provide accredited and credentialed higher education awards. For all intents and purposes, the first steps towards building an OER university (OERu, 2011) (http://wikieducator.org/Towards_an_OER_university:_Free_learning_for_all_students_worldwide).

The OER Foundation has already accrued an impressive list of highly regarded institutional members who share the foresight to recognise the momentum that OER is generating. As the OER movement grows, many other higher education institutions are likely to be swept into recognising that they must participate in order to compete. Why would a student continue to pay the high fees of a traditional degree when that same or a very similar qualification may soon be offered for free or at very little cost? The OER Foundation (OERu, 2011) has proposed a logic model that links learners to the OER university, the academic contributions of various member institutions and results in formal qualifications for participant students. The model is designed to provide affordable access to

tertiary studies for learners who might otherwise be excluded from participating in higher education.

Along with the exponential growth in the availability of OER and the changing landscape of technology has come a shift in the way in which academics view their learning materials and the practices they employ as their pedagogy.

The discussion regarding OER has increasingly evolved to be one of OEP (Open Educational Practices) in which new approaches to delivery, curriculum development, pedagogy and sustainable business continue to emerge.

Institutions are now toying with a range of initiatives that will lead to more widespread and effective open pedagogical practices based upon the creative use and management of OER with the intent to improve the degree of openness and the quality of provision. The movement has resulted in a significant number of reports, journal articles, case studies, guidelines and framework documents spearheading open educational developments (Bossu, Brown, & Bull, 2011).

Widening participation

In Australia, as in other developed nations, widening participation in higher education has been a central feature of government policy for more than the last two decades. This policy direction was famously articulated in the policy and action framework entitled *A Fair Chance for All: Higher education that's within everyone's reach* (NBEET, 1990). Subsequently, this widening participation framework became the driving force to remedy the mismatch between the composition of Australia society and the social composition of the Australian higher education sector, a general policy direction which persists to this day. Despite the good intentions of this framework and subsequent policy additions, such as the most recent Bradley review of Australian higher education (Bradley, Noonan, Nugent, & Scales, 2008), which set ambitious reform targets for the sector, while participation improvements across some sectors of Australian society have been achieved, in other areas, in particular low socio-economic status (SES) and remote and regional participation, little has changed in 20 years (James, 2007).

A further Australian social inclusion policy has been the provision of government-funded access for people who were identified as belonging to groups considered under-represented in Australian higher education and in need of preparatory studies prior to entry to undergraduate programs. This well-intentioned enabling policy has provided a funding platform for widening participation across the sector and has been effective at the institutional level, but it has not succeeded to further diversify the national student population

(Bossu, *et al.*, 2012). While the policy does recognise that widening participation demands appropriate preparatory programs for those who are underprepared for tertiary studies (Daniel, 2011), a search of OER sites does not produce many accessible preparatory courses (Huijser, Bedford, & Bull, 2008). One of the few is provided by the OAC at the University of Southern Queensland on their OCW consortium site. This is the largest distance education program in the Australian higher education sector, the Tertiary Preparation Program (TPP). The core courses of this program are accessible but at the present time the mechanisms do not exist for formal recognition of the successful completion of the courses which, through traditional enrolment, leads to guaranteed entry to undergraduate studies.

While there are a range of factors that have been identified as contributing to participation or non-participation in higher education, cost and geographic isolation persist as barriers. Despite long-established ODL provision and enhancements and expansion of information networks, both of which suggest the removal or reduction of barriers, Australian participation rates for low SES and rural and isolated persons remain an issue. Such inequalities between groups can be broadly described in terms of access to, use of, or knowledge of ICT as a digital divide (http://en.wikipedia.org/wiki/Digital_divide). Clearly there are sections of the population who still have limited or no access to appropriate broadband technology, because of either cost or inadequate computing skills. For these people, the emergence of OER and OEP has not yet provided the vehicle to overcome their educational disadvantage. Their dependence on affordable access and the technological skills to use the provisions effectively limits their ability to participate and serves to widen the digital divide further (Helsper, 2011). Two specific groups of potential students and a means to assist them to overcome or reduce the impediments of these barriers are examined below.

Incarcerated students

Prisoners in Australian correctional centres have no direct access to the Internet, and, in many cases, have very limited access to computing facilities. Incarcerated students' access to the Internet is generally limited to information that is accessed by correctional centre education officers from an approved education provider's website and given to students in print form for approved study purposes. While education officers willingly make every effort to support their students, their heavy workloads and the limited time and resources available to access and print study materials impinge upon their capacity to support students who may be enrolled in a diverse range of courses and programs. Increasingly, most programs offered by Australian higher education institutions rely upon internet access to relay essential

study information. This situation severely limits the ability of incarcerated students to undertake tertiary study and would appear to place prisoners on the losing side of the digital divide. Compounding these limitations in obtaining an education and professional qualification, which might be used to advantage to gain employment upon release and assist in reducing recidivism, is the socially marginalising effect of being illiterate with regard to the ability to use information technology for life and employment purposes. Long periods of incarceration are likely to further exacerbate this social and educational disadvantage through the lack of opportunity to acquire information literacy during the period of incarceration.

Such arguments would suggest that the inclusion of the use of information technology in prisoner education programs, particularly those related to future employment prospects, would assist in offender rehabilitation and reduce the rate of recidivism after release. However, the paramount concern of correctional services authorities is, understandably, security, and unlimited access to the Internet would consequently be a serious threat to this concern. So, for those involved in provision of education to prisoners, an assumption should be made that this situation is unlikely to change in the foreseeable future and access to the Internet by incarcerated students will continue to be almost totally restricted or only supported by the assistance of their education officers. Furthermore, there is anecdotal evidence that a growing number of tertiary institutions are now withdrawing their support for the enrolment of prisoner students in their programs due to their increasing reliance on internet delivery of study materials and the resourcing difficulties which this presents to the institution.

In response to these concerns, academics and researchers at the USQ have a trial project, Pleiades, under way with the Queensland Department of Corrections and specifically the Southern Queensland Correctional Centre (SQCC), in which a simulated internet study environment has been made available to incarcerated students enrolled in bridging courses (Farley, Murphy & Bedford, 2012).

The Pleiades project, underpinned by the technical expertise of the Australian Digital Futures Institute (ADFI) at USQ, is piloting the delivery of Open Access College (OAC) preparatory courses using internet-independent digital technologies with the aim of reducing the digital divide for these students. The project has created a simulated version of the university's StudyDesk environment and utilises a stand-alone version of the Moodle learning management system (SAM). The study materials are loaded onto a network server within the correctional facility; there is no internet connectivity. This

enables students to interact with the content of the course, engage in discussion forums within the limits of the centre, complete online activities, and interact with various multimedia course-delivery methods. This brings a learning experience to incarcerated students which to a large extent mimics the experience of all other students enrolled in the course. It also provides the added benefit of providing incarcerated students with an opportunity to develop e-literacy skills, which so important for future study or employment purposes (Murphy, 2012).

In addition to SAM, the project has provided students with specially selected e-readers. They have no wireless or other connectivity abilities, but are loaded with all course-related readings and enable students to continue their studies outside of the computer laboratory.

The success of this pilot will be evaluated over coming months and if considered successful will no doubt be rolled out to other prisons across Queensland. The project also lends itself to addressing the internet-access issues of other groups such as those from rural and remote regions with limited internet accessibility.

Culturally and linguistically diverse students

International students have become a significant source of income for Australian tertiary institutions and the third largest export earner for Australia, attracting \$16.3 billion dollars in export income in 2010–11 (Australian Education International, 2011). Many of these international students undertake English language preparatory studies prior to entry to their undergraduate and postgraduate programs. They are often sponsored by their own governments. The cost of living and studying in Australia is high and this has limited the participation of students from many developing nations and from families of lower SES, who are unable to afford the cost of an Australian higher education.

Australia also has a significant migrant and refugee immigration intake each year, resulting in large numbers of new residents from non-English speaking backgrounds (NESB), who are confronted with difficulties in obtaining employment and further education and training until proficiency with the English language is improved. Migrants and refugees are often restricted in their ability to attend face-to-face English language tuition, which has been the traditional means for acquiring these language skills, due to family and financial factors.

In response to these social environments, for internationals who may not be adequately endowed to meet the high costs of living and studying in an expensive country, and for domestic NESB persons who may be restricted in their participation by a range of impinging social circumstances, new modes of

delivery of English language education and pathways which assist such groups to access higher education and which harness enhancements in information technology, need to be developed. Substantial improvements in online education can now provide for learning of English language virtually anywhere and at any time, providing much more flexible study opportunities without the need to attend face-to-face, classroom-based lessons.

Providing a bridge to higher education, the OAC at USQ has developed an online English for Academic Purposes (EAP) Program, which upon successful completion guarantees entry to the undergraduate programs of USQ. The online program mimics the on-campus offering but it utilises multimedia capabilities to provide extensive study materials, additional resources, quizzes, discussion forums and social chat. Considerable online tutor support is still an important component of the program but this is mediated by the facilitation of peer-assisted communication and collaboration.

One of the challenges of developing an online English language program has been limitations imposed as a result of copyright considerations. There is a huge volume of English language teaching materials and resources readily available but relatively few of these are open source. As a result this program has chosen to develop their own materials and to direct students to open source sites for supplementary materials.

The EAP online program cannot fully be described as 'open' as there is a fee attached to tuition for international students. However, in terms of widening participation to Australian permanent residents, both migrants and refugees from NESB, the program has secured funding from the Australian government's enabling provision mentioned earlier in this paper and, as a result, there is no cost to these students. It has also gone to great lengths to replace the use of copyright materials with open source resources, largely removing the cost of expensive textbooks.

Intellectual property

One of the major challenges for open resource practitioners are issues surrounding intellectual property, more specifically copyright. Under copyright law one cannot reproduce, copy or distribute to the public copyright materials without the permission of the copyright owner. This primarily serves an economic purpose, providing remuneration to the publisher and/or the creator of the work. There are some permissions that can be provided, the most common being known as 'fair dealing' in which a proportion of the material may be used without payment. However, while modern technology has the capacity to widely

draw upon copyright materials for educational purposes, the full advantage of these materials are frequently not realised due to the legal restrictions surrounding their use (OECD, 2007).

In response to these concerns, open licences have been developed to enable authors to make their work more freely available. The most well-known of these open licences is Creative Commons, which provides a range of descriptors to be used at the discretion of the provider should they wish to place limits on the use and repurposing of the materials. The licence descriptors can be used alone or in combinations. Creative Commons licences have provided a means to negotiate the legal rights in digital content and, as a result, provide the facility for the sharing, reshaping and repurposing of knowledge for the benefit of education and innovation (OECD, 2007). The advent of open licensing of educational materials and the huge growth of OER availability have lifted the limits and scope of online opportunities and provided new scope for pedagogical innovation.

A pedagogy of discovery

Taylor and Mackintosh (2011) have proposed a pedagogy of discovery as a means to complement the establishment of an OER university. This work was inspired by the 2009 development of a comprehensive framework known as “Learning Literacies for a Digital Age” (LLiDA) (Beetham, McGill, & Littlejohn, 2009). The LLiDA framework provides a detailed analysis of academic practices and matches these to digital practices specifying competencies in a wide range of learning skills.

A pedagogy of discovery commences with relatively structured tasks and directions, requiring students to develop strategies to identify open online content and to practise using a range of digital tools to select and evaluate content for relevance to their particular needs. Facilitator feedback is provided in the early stages of developing these skills and this support is gradually replaced by challenging students to work in collaborative networks in support of their learning endeavours. It is argued that by embedding such practices in the pedagogy of higher education, students will acquire the expertise to apply self-direction in their learning throughout life. The student sits at the centre of the learning process, receiving encouragement and guided engagement until comfortably able to contribute autonomously with other learners and peers. A significant feature of the pedagogy of discovery is its scalability to large numbers of students, making it an attractive and sustainable means to provide online education on a global scale (Taylor *et al.*, 2011).

Future directions

This paper set out to briefly describe the revolution that is occurring in higher education as a result of the substantial growth in the availability of OER and the emergence of wide ranging OEPs. These online developments can potentially contribute to widening participation in higher education to many individuals who may have access to the Internet but until now have been limited in their ability to participate by financial and social factors. There is still a long way to progress in this regard, but the OEP practices described in this paper, to address the participation of incarcerated students and NESB students, demonstrate that conventional online technologies and emerging pedagogical practices can contribute to overcoming the barriers that have prevented some people from obtaining a higher education.

There is now no turning back the clock; we should expect governments, institutions and individuals to increasingly recognise the social benefits that will accrue from the reduced cost of open access to higher education and its online offering to a global audience. It is difficult to predict future directions of the movement, but it will continue to challenge traditional models of higher education and require creative and innovative approaches to the provision of curriculum and pedagogy.

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Positive impact of an embedded model of counselling support in enabling programs

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Abstract

In 2010 the University of Newcastle's Counselling Service and the English Language and Foundation Studies Centre collaborated to establish an outreach counsellor for all enabling students. A unique aspect of the service delivery model was to locate and embed the counsellor close to both academic staff and the students. Research clearly establishes that students are "more likely to persist and graduate in settings that provide support – academic, social and personal – in ways which is [sic] both available and connected to other parts of their collegiate experience" (Tinto, 2000, p. 2.). The connection between student attrition and a student's whole university experience has informed our approach.

This paper examines the development of an effective collaborative partnership between academic and teaching staff, Learning Development, English Language support and the Careers Service. The project emphasises early intervention and integrated support in a timely manner with strategies tailored to meet students' progressive adjustment needs. The number of students accessing counselling support will be compared before and after commencement of the project. This paper unpacks how delivery of an embedded counselling model can positively impact upon students' university experience and their ability to complete an enabling program.

Introduction

The University of Newcastle (UoN) has one of the largest and oldest Enabling Programs in Australia and takes in some 2200 students per year at Callaghan (University of Newcastle, 2011). The UoN provides three enabling programs: Newstep for students under twenty years of age; Open Foundation for students over twenty; and YAPUG for Aboriginal and Torres Strait Islander students. The aim of these programs is to support student transition into a university degree and to gain a HSC equivalency.

About 40 *per cent* of the enabling student population is identified as low socio-economic status (SES), through postcode (Planning and Core Centre Reports, 2011). Supporting these students to access higher education and matriculate to undergraduate studies is of key importance to the enabling programs and the Australian federal government (Bradley, Noonan, Nugent, & Scales, 2009). Delvin and McKay (2011) argue that students from low SES backgrounds “can lack confidence and self-esteem, which can in turn affect their overall sense of ‘belonging’ in higher education and their choices about seeking support” (Delvin & McKay, 2011, p. 3). The provision of a dedicated counsellor recognises the benefit of timely, student-focused support to address educational disadvantage.

Background

In 2010 an Outreach Counsellor role was established to support students in the university’s enabling programs. Recognising that “access without support is not opportunity” (Smith, 2010, p. 1), this role was intended to promote the university’s social inclusion agenda and enhance student retention (Australian Federal Government, 2009). Enabling staff recognise that their students face a variety of personal and social barriers to education including poverty, homelessness, caring responsibilities, disability, transport barriers, financial pressures, and drug and alcohol dependency (Kadambi, Audet, & Knish, 2010). The UoN provides counselling services; however, these are located across campus and have not been well attended by the enabling student population. The aim of placing a dedicated enabling counsellor in the English Language and Foundation Studies (ELFS) Centre was to improve accessibility and provide classroom-based outreach services.

The addition of an embedded counsellor provided the ability to explore the potential role of other student services in supporting enabling students. Direct access to counselling support increased the ability to work collaboratively with academic and teaching staff, Learning Development and Student Support services to achieve the best outcomes for students. It was hoped that the long-term benefit would be to contribute and increase knowledge about the issues that contribute to student attrition and which factors are predictive of student retention.

University connectivity and influence on attrition

There has been much written about the concept of ‘learning communities’ and ‘collaborative pedagogy’ and how these can be linked to student success and engagement in University life (Engstrom & Tinto, 2008; O’ Shea & McKay, 2011; Tinto, 2003, 2006). Research indicates that students who actively engage

'academically and socially' within the university are more likely to complete their degree program than students who do not (Tinto, 2006, p. 4). Allen, Robbins, Casillas and Oh's (2008) research concludes that "[s]ocial connectedness had a positive direct effect on [students] staying, which reinforces the importance of peer and faculty relationships and having a sense of belonging on campus" (Allen, *et al.*, 2008, p. 661). These concepts support the Australian federal government's vision for the higher education sector to create a positive student experience, as this will influence the student experience and "boost retention, progress and ultimately, completion rates" (Australian Government, 2009, p. 15).

Building an embedded counselling model

An embedded outreach model has been a highly successful way of providing a flexible, responsive and creative counselling service to a high at-risk group of students with potentially a very high rate of attrition. The enabling counsellor adopted a service delivery model that embedded support though an outreach collaborative support model. This model of support was based on whole group, small groups, individual and online support.

The whole group delivered presentations during lectures; the small groups delivered workshops at orientation, in lectures and collaborated on workshops with the Learning Development advisor. The individual support was delivered as individual appointments, drop-in sessions and email/phone consultations. Online resources developed for on-campus and distance students were a 'Coffee Shop' forum, Week Zero, The Motivational Toolbox and Blackboard support. This model of delivery created a 'one-stop shop' for counselling support for enabling students.

Whole group: In-lecture presentations

Presentations delivered to whole lectures are an efficient way to promote the university's Counselling Service. Students can be reluctant to access counselling services perhaps due to preconceived perceptions about counselling support. The in-class presentation provides a platform to inform students of the benefits (or added value) of counselling support to their university experience. During the presentations, the outreach counsellor outlines supportive coping strategies such as: life/study/work balance; developing good study habits; motivational strategies; anxiety reduction techniques; and strategies to address personal issues that may be impacting upon the student's ability to focus or complete their study. In addition, these presentations also build awareness of the pathway to access counselling support.

Data from the Counselling Service provides evidence that the embedded counselling role has lifted the student awareness and access to counselling support. During 2010 the counsellor was employed for 15 hours and 12 presentations were delivered in-class with the number increasing to 54 presentations delivered in 2012, when the role became full-time. No in-class presentations were provided before 2010. As in-class presentations increased so too did the referrals to the UoN Counselling Service.

Period 2007–2009:

During this period data indicates that on average 42 enabling students attended counselling per year. The figures below indicate how enabling students were referred to the counselling service: six by family and friends, five by academic staff, and 20 were the students' own idea. The other 11 referrals were by other internal and external services. No students indicated that they presented due to presentations in lectures (see Table 1).

Table 1

Referral rates before Outreach Counsellor role was established, at Callaghan, in 2007-2009 inclusive

Referrals to the UoN Counselling Service: Callaghan	2007	2008	2009	Median
It was my idea	21	19	20	20
A friend/parent	4	7	6	6
Academic staff	5	3	6	5
Wollotuka	0	0	9	3
Non-academic staff	1	2	0	1
Other health professional	3	6	9	6
Other	4	5	0	3
Presentations in lectures	0	0	0	0
Total of students	42	45	41	42

Period 2010–2012:

By 2012 enabling students who attended the UoN counselling service increased to 144. How they were referred was: 11 by family and friends; 18 by academic staff; five by Wollotuka staff; eight by other health professionals; nine by non-academic staff; 29 were the student's own idea. The other 15 students were referred by other internal and external referral services. Thirty-eight students indicated that they presented due to presentations in lectures (see Table 2).

Table 2

Referral rates since Outreach Counsellor role was established, at Callaghan, in 2010-2012 inclusive

Referrals to the UoN Counselling Service: Callaghan	2010	2011	2012*	Median
It was my idea	28	20	40	29
A friend/parent	8	4	11	8
Academic staff	20	18	18	19
Wollotuka staff	4	3	5	4
Non-academic staff	0	1	9	3
Other health professional	11	7	8	9
Other	12	21	15	16
Presentations in lectures	9	38	38	29
Total of students	91	112	144	116

*As of 5th of November 2012

Comparing data from 2007 to 2009 with 2010 to 2012 there is evidence that students accessing counselling support increased by 276 *per cent*. In addition, in 2011 and 2012 38 students indicated that they accessed counselling after in-class presentations in lectures, while during 2007 to 2009 no students indicated that they presented due to in-class presentations (See tables 1 and 2). This evidence supports what Kift (2009) calls “active supportive learning communities” (Kift, 2009, p. 41) as support is actively centralised and streamlines student support services.

Small group: workshops

Another form of support, focused on early intervention, is small group workshops. The Outreach Counsellor, in collaboration with the Learning Development advisor, delivers student-focused workshops during orientation week and throughout each semester. The orientation workshops are focused on strategies to develop good study habits and minimise student anxiety, while semester workshops are focused on ‘Time Management’ and ‘Exam preparation’. All of these workshops seek to provide students with early intervention strategies in order to overcome barriers to learning. These workshops are planned, developed and presented in collaboration with the Learning Development advisor and academic staff to ensure that they are delivered in a timely manner with strategies tailored to meet students’ progressive adjustment needs.

Individual counselling support

Individual counselling support has always been the primary support provided to students by the UoN Counselling Service. This paper will not investigate the student/counsellor relationship, but rather identify the advantage of an embedded counsellor for ease of access to counselling support. By adopting an open door policy it has increased the access to a counsellor for both students and enabling staff. Evidence of the success can be seen by the increase in enabling students who attended the Counselling Service. During 2007 to 2009 128 enabling students presented to counselling compared to 2010 to 2012, when 347 enabling students attended the Counselling Service (see tables 1.and 2). This increase in student engagement is linked to the embedding of an outreach counsellor into the enabling program.

As one staff member stated:

It is great having a counsellor embedded into the enabling program because it means that I can confidently refer students and know that they will gain appropriate targeted support in a timely manner. (Cathy Burgess, Course Coordinator, Chemistry and Life Sciences, Callaghan)

A student also spoke to the Enabling Counsellor about the ease of access stating:

I was so pleased when I found out that you were located in the McMullen Building and that I didn't have to try to find you across campus. (Open Foundation student)

The Enabling Counsellor has also stated that:

Working closely with academic and support staff enhances a collaborative approach of support for students, with diverse and complex needs. (Deanna McCall, Enabling Counsellor, Callaghan)

Additional collaborative support

It became evident that the best approach to delivering timely and supportive student support was from a collaborative student support team perspective. The support team includes a Learning Development advisor, Language Other Than English advisor, Careers Counsellor and Outreach Counsellor. The team meets weekly to discuss student support. This has led to a formal referral system that includes weekly advertising on Blackboard, student referrals, semester planning

and resource building. This has created a team approach to student support, which is transparent, collaborative and led to the development of resources for online support.

Online support

Increasingly, resources are being developed to support students through a blended mode of delivery. A growing aspect of the Outreach Counsellor role is to plan, develop and deliver online resources. The outreach counsellor is responsible for supplying counselling resources on the students' Blackboard sites. Resources made available for students include: outline of the outreach counselling support; counselling tip-sheets and fortnightly motivational posts with embedded YouTube clips.

Open Foundation by Distance online support: Week Zero

Collaborative support was embedded into the Week Zero Open Foundation by Distance (OF by D) program to encourage engagement and interaction with academic and support staff. It is not within the scope of this paper to outline the structure of Week Zero, except to recognise the positive impact it had with streamlining student support into a centralised 'support hub'. This hub was the 'Coffee Shop' forum. The 'Coffee Shop' was set up for support staff to support students, but the response was phenomenal with over 300 students posting over 1400-plus comments by the end of Week Zero, compared to only 32 posts by 10 students in the OF by D program site forums in 2011 (Goode, 2012).

Engagement with the outreach counsellor continued through the year and support increased from zero appointments in 2011 to 42 appointments by September 2012. The OF by D program student survey asked what support was the most useful, to which one student replied:

The most useful I think would be the discussion board and the most interesting thing I've learnt is how supportive the OF lecturers and support staff are.

The 'Coffee Shop' forum became the hub of student support and the student support team regularly posted and provided timely and relevant strategies to address students' needs. One of the best outcomes of the 'Coffee Shop' forum was peer support. The 'Coffee Shop' became a forum not only for staff to support students but also for students to support each other. Academic staff can inform students of the challenges that they may face but when the message comes from another student it resonates with peer acceptance.

For example: one student posted under the thread ‘feeling overwhelmed’:

I have to say the last few days have been a little overwhelming am I the only person feeling this way?

There were 15 responses and other students responded with encouragement and empathy:

You are definitely not alone! I feel overwhelmed as well. I am so worried that I am going to run out of time to study and not do well at all. I thought too, that I had it under control until it set it the time that is required!! Oh, and plus the fact I haven't seen maths like this for 15 years lol. I hope you feel better now, I'm pretty sure there are a few of us feeling this way :)

By creating a space for students to feel safe to reach out to each other it also creates a sense of belonging and ownership of their educational journey. Rossi (2009) considers that “relationships with peers provide learners with an effective means of social and educational support and are a key factor in the development of a learner’s sense of community” (Rossi, 2009, p. 98). The task will be for staff to monitor student posts but to restrict their presence once the forum is established as a safe place for students to support each other.

Motivational resources

In July 2012 the student support team planned, developed and trialled an online motivational resource named The Motivational Toolbox (MT). The MT was designed to increase student participation and engagement, from the first week of semester two. This resource was developed due to academic and teaching staff identifying that student motivation lagged after the semester break. This resource included a teaser, in the form of an animation, at the end of semester one and a follow-up animation at the beginning of the second semester.

Once the teaser has caught the attention of the student they were then led to the MT resource on the Blackboard site. The MT resources were divided into three different sections called ‘toolboxes’: the first toolbox has resources that assist students to *refocus*; the second provides resources to *inspire*; and the third toolbox provided strategies to stay *motivated*. All these resources were planned, developed and created by the Learning Development advisor, Language Other Than English advisor, Careers Counsellor, and Outreach Counsellor.

The MT resource was released on Monday 9 July 2012. The number of 'hits' has been monitored and the results during the two-week period from Monday 9 July to Sunday 22 of July recorded. The results were as follows:

- Open Foundation by Distance: 658 (out of 1182 total 'hits' on the program site during that period and approximately 160 students active in semester two)
- Open Foundation part-time (Callaghan): 226 (out of 423 total 'hits' on the program site during that period, out of approximately 316 active students).

One of the most successful aspects of this resource was the forum 'Coffee Shop'. There was a link to a thread for students to post 'What's motivating you to return to study in semester 2?' There were a total of 20 posts from students on what motivates them. Below is one example:

I am motivated purely because I have proven to myself I can handle the pressures that come with studying and having a family. I never thought I could manage but with the support from all the staff from the foundations office and my partner I can now proudly say I can achieve the marks I need to get into my desired degree.
(OF by D student)

These posts encourage students and build a sense of support and community online. Also it enabled the support staff to reiterate student strategies for developing motivation, as this post by the Careers Advisor indicates:

I've just read through this discussion. It's great to read all the different things that are motivating you this semester from now knowing that you can do the work, to time management, support and career goals. Keep up the great work and good luck for this semester! (Enabling Careers Advisor)

The way in which students positively engaged with the interactive resources and audio-visual 'teasers' supports the success of the project. Due to the uptake of participation by students, and positive feedback from staff, this resource will be refined and offered to all enabling programs in 2013.

Conclusion

Before the Outreach Counsellor role was established there was little interaction between the UoN Counselling Service, student support and the teaching and academic staff. Few class presentations were possible and few students were seen for counselling. An embedded outreach model has been a highly

successful way of providing a flexible, responsive and creative counselling service to a high at-risk group of students with potentially a very high rate of attrition.

The outreach model provides a perfect avenue for students to feel comfortable about accessing support. The increase in students presenting to counselling for support, both online and face-to-face, is evidence that an embedded counselling approach established the necessary links with support staff and normalised the practice of seeking support when required. This paper outlined how the ELFS centre developed a collaborative outreach support model that enhances enabling student's university experience, which increases their engagement and likelihood of completing their program.

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How do students in enabling programs cope when the paper study materials are no longer readily available?

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Abstract

Students studying enabling programs are now expected to learn from the electronic medium rather than from paper study materials. Most universities have budgeting constraints that impact on the production and provision of the traditional paper study materials. As a result of the Bradley Report, universities are increasing the participation rates in their enabling programs (Bradley, et al., 2008) by accepting new students who have low academic skills and often lack confidence to succeed in higher education. Together with increased student numbers in enabling courses and tighter budgeting constraints, electronic resources are seen by universities as being more cost effective. Many students may be computer literate but do they manage to learn effectively or as well as students who studied using traditional methods?

Most undergraduate and postgraduate students learn online or in a blended mode. Enabling programs follow a similar format in order to prepare the students to be successful undergraduates. Learning online can be especially challenging for students studying enabling programs through distance education. The TPP (Tertiary Preparation Program) is an alternative pathway into higher education for students who have been unable to enter university through traditional pathways. Students who succeed in TPP are given automatic entry into most courses at the University of Southern Queensland. This paper will investigate how TPP students (distance education students as well as on-campus students) manage their learning in this paperless electronic environment, whether they have the skills and confidence needed to be successful, and how educators may help.

Introduction

Distance education students have traditionally learned from paper study materials. Their learning was initially supported by mail updates, telephone communication, teleconferencing and vacation schools. This support has been replaced by online communication through forums, online classes and other online resources. Today, it is expected students must have access to the Internet in order to receive this support and study effectively at university (Martin, 2006).

The University of Southern Queensland (USQ) StudyDesk is an online resource that allows students to access lecturers, colleagues, the course content and other resources. USQ uses the Moodle Course Management System to provide a StudyDesk for each course. It is a vehicle through which lecturers can help enrolled students to stay motivated as well as provide support and enrichment throughout the course.

The Tertiary Preparation Program (TPP) is a fee-free bridging program designed to enable prospective tertiary education students to master the essential knowledge and skills required to succeed with their undergraduate studies. Although TPP students are enrolled at the university, they are a group of students that are very different from students in the undergraduate programs (Bedford, 2007). Engaging these students and providing them with a rich educational experience is pivotal for their success not only in TPP but also in their future undergraduate studies (Klinger & Wache, 2009). The core courses offered in the TPP are Studying to Succeed (TPP7120) and Mathematics (TPP7181). Both courses are not online courses but are distance education courses that have been adapted for on-campus students as well as external students. The materials on each course's StudyDesk are support and enrichment materials for voluntary use by the students.

Previous research by the authors focussed on how to better engage students using the online resources, and whether this enhanced engagement was reflected in the final results and the rates of retention (Orth & Robinson, 2010). Towards the third year of the research, the conditions changed whereby students were no longer sent hardcopy study materials, but were expected to utilise the electronic medium. These new conditions made measurement of the outcomes of engagement more complex and difficult to analyse (Orth & Robinson, 2011).

There has been a great deal of research on the preferred study medium for undergraduates (Williams, 2002). This paper will investigate how TPP students

manage their learning in this new online environment, whether they have the skills and confidence needed to be successful without the hardcopy study materials, and what educators can do to assist their learning.

Background, theory and literature review

In a previous paper the authors (Orth & Robinson, 2011) described many fundamental differences between TPP students and traditional undergraduate students. TPP students usually have less developed academic skills than their undergraduate colleagues and require generous support to complete their enabling courses successfully (Mehrotra, *et al.*, 2001). Many TPP students have not completed the final year 12 of secondary education, with approximately 30 *per cent* completing year 10 or less. Even the TPP students who have completed year 12 have usually selected a non-tertiary entrance pathway that would not have emphasised the academic skills essential for success at university (Bradley, *et al.*, 2004). TPP students may be less developed socially compared to mainstream students seeking a traditional pathway towards tertiary education (Hupfield, 2007). This lack of social development in academic and non-academic communication with their peers and teachers at a secondary educational level does affect their confidence to be involved in forums and discussions on StudyDesk that will expose them to public scrutiny (Schulz & Beach, 2004). It may also inhibit them from making enquiries when they do not know how to master the system or the course content.

Most TPP students are the first in their family to attend university and may feel unsure of the basic requirements to succeed at university (Jeffrey & Hardie, 2010). Enabling students often drop out because of a general lack of confidence, lack of family support and an inadequate academic background (McKenzie, 2005). The lack of academic skills, together with the constraints of distance education, is a major impediment for students to enjoy their learning experience as well as achieve success (Gibson, 2001).

As TPP is a fee-free program, students enrol not only with the confidence that if they pass TPP, they can enter university, but also with the knowledge that if they fail or drop out, there will be no fees to pay. This lack of financial penalty may not be an incentive to continue studying when the work becomes more complex or the assignment load too onerous. More than 50 *per cent* of TPP students are under 30 years of age, have not been successful in a traditional secondary education, have yet to develop strong tertiary academic skills including good communication skills, have low academic self-efficacy, and have yet to experience the rigours of full-time work (Whannell, *et al.*, 2011). The

non-supply of the paper study materials could affect the learning of this non-traditional cohort of students. How would this cohort of students manage their learning in this new online environment?

The research carried out by Peterson (2009) with Arts undergraduate students at Monash University found that when students were given the choice of online study materials, paper study materials or physical digital (DVD) materials, they had a strong preference for the paper study materials. There was very little support for the DVD. The report also identified that cost factors did influence the student's decision to select a particular resource mode. This aspect was not reviewed in this report but it may become more critical with the expected increased cost of accessing the national broadband (Rehn & Grech, 2010).

Most universities have budgeting constraints that impact on the production and provision of the traditional paper study materials. In an attempt to reduce operational costs and to create greater flexibility, course materials and resources have been placed online. Recent research in online delivery in the vocational education and training sector by Curtain (2002) found that the costs to operate a highly interactive, major content-based distance education course were about twice the costs to operate a traditional print-based, low-interaction distance education course. The satisfaction ratings for the highly interactive, major content-based distance education course were similar to the satisfaction ratings for the traditional classroom-based course. The operational costs to achieve equitable outcomes for distance education students are considerably more than was originally budgeted for, if high student interaction is to be maintained (Curtain, 2002).

An analysis of the TPP enrolment data indicates that the number of younger students studying TPP in the last decade has steadily increased. Approximately 60 *per cent* of TPP students are in the age group 18–35. Younger students usually rate their computer skills as very good compared to older students. Younger students also use the Internet for social networking as well researching daily activities (Kavanagh, *et al.*, 2011). It was expected that this confidence and experience with technology would make it easier for them to learn online. If students did have difficulties learning online, would they have the academic maturity to recognise the problem and take appropriate steps to help to resolve the issue? How did students learning online replicate the learning methods used when using paper study materials? Reading wordy articles, highlighting important points and making notes are some of the tasks that students need whether online or using paper study materials.

If TPP students recognised that they needed paper study materials, they were encouraged to apply early in the semester for the material to be posted to them. The delay between application and receipt of the paper study materials would have been approximately one to two weeks. Students who had difficulties with learning may not have recognised that the lack of paper study materials was contributing to the problem. They may have confused their inability to read or organise online materials as a lack of academic maturity or poor reading and memory skills. Many TPP students have low academic self-efficacy and could attribute the reasons for their lack of success as intrinsic rather than a learning-mode issue.

Methodology for the research

Students were surveyed in a short online survey after week 8 and at the end of the course (week 15) in semester 3 2011 and semesters 1 and 2 2012. Students were asked to quantify their responses (where possible) using a five-point Likert scale. The five-point scale was reduced to a three-point scale. For simplicity, the 'strongly agree' comments were grouped together with the 'agree' comments as well as 'strongly disagree' comments with the 'disagree' comments. Space was included to allow students to record some qualitative responses. The response rates for all semesters were reasonably strong for a voluntary survey (approximately 16% (42/260) for semester 3 2011, 14% (66/480) for semester 1 2012 and 12% (50/410) for semester 2 2012). The questionnaire at the end of the semester specifically examined how students managed their learning with or without the paper study materials. It was difficult to avoid some bias in the survey results when the survey was voluntary and completed online. Students who are motivated to respond and are confident completing the questionnaire online may respond differently from the general TPP student population (Draugalis & Plaza, 2009).

Many TPP students are in correctional centres without access to the online materials. These TPP students were not included in the study.

Survey results

The following tables represent the student responses to the online surveys. Only data that made a significant statement has been included for consideration. There are differences in the semester 3 cohort and the semesters 1 and 2 cohorts. The data has been tabulated separately because it was collected separately. No review or discussion has been included in this report on the perceived differences between the semesters. These differences have not impacted on the conclusions reached in this report.

How do students in enabling programs cope when the paper study materials are no longer readily available?

Table 1
Age groups from the semester surveys, as a percentage

	Less than 18 (%)	18–30 (%)	31–50 (%)	51+ (%)
Semester 3 2011	2	45.5	50	2.5
Semester 1 2012	4.5	45.5	44	6
Semester 2 2012	0	46	44	10

Table 1 demonstrates that the majority of TPP students are between 18 to 50 years of age. Very few students under the age of 18 are given permission to start TPP. When the enrolment data is reviewed over the past 10 years, an interesting trend is evident, as reported in Table 2.

Table 2
Enrolments numbers and percentages for TPP7120, 2002–2012

	< 18		18–30		31–50		51+	
	No.	%	No.	%	No.	%	No.	%
2002	0	0	147	21	464	66	91	13
2003	0	0	173	26	427	63	76	11
2004	0	0	197	33	340	57	61	10
2005	0	0	226	33	399	59	55	8
2006	0	0	269	38	382	54	55	8
2007	0	0	236	38	342	56	3	6
2008	0	0	312	47	305	46	48	7
2009	0	0	537	51	449	43	62	6
2010	0	0	731	60	426	35	52	4
2011	20	2	727	60	412	34	47	4
2012	41	4	571	54	409	39	30	3

In Table 2, the demographics in 2002 show that there were nearly three (3) times as many TPP students in the age group '31–50' as there were in the age group '18–30'. Over the next decade the percentages changed dramatically with approximately 60 *per cent* of students in the age group '18–30' and 30 *per cent* in the age group '31–50'. The data also reveals that the numbers of students in the age group '31–50' remained fairly constant throughout the decade. The dramatic growth in the total numbers was caused by large growth in the age

group '18–30'. The numbers have declined in the over-51 age group. This new demographic may have implications for the course content and delivery.

Table 3
Students who applied to receive paper study materials, as a percentage

	Applied (%)	Did not apply (%)
Semester 3 2011	34	66
Semester 1 2012	66	34
Semester 2 2012	36	64

Although the percentages were large for the group who did not apply to receive the paper study materials, as evident in Table 3, the percentages for those students who did apply were significant.

Table 4
Age versus Paper application for combined semesters

		Applied for paper materials		Total	
		No	Yes		
Age	under 30	Count	39	33	72
		% within age	54	46	100
	31 and over	Count	42	46	88
		% within age	48	52	100
Total		Count	81	79	160
		% within age	50.6	49.4	100

The four (4) age groups were combined into a group 'under 30' and a group 'over 30' in an attempt to find any association using the Chi-Squared Test. No significant association was found between age group and the application to receive the paper study materials.

How do students in enabling programs cope when the paper study materials are no longer readily available?

Table 5
Gender verses Paper application for combined semesters

			Applied for paper materials		Total
			No	Yes	
Gender	female	Count	39	33	72
		% within gender	54	46	100
	male	Count	42	46	88
		% within gender	48	52	100
Total	Count	81	79	160	
	% within group	50.6	49.4	100	

After a Chi-Squared Test was applied to Table 5, no significant association was found between gender and the application to receive the paper study materials. However, the percentage of males who applied for the paper study materials was noticeably less than the percentage of females.

Table 6
Student rating of individual computer skills, as a percentage

	Very good (%)	Good (%)	Satisfactory (%)	Weak (%)
Semester 3 2011	45	38	14	3
Semester 1 2012	32	49	18	1
Semester 2 2012	32	32	24	12

Table 6 revealed that most respondents rated their computer skills as satisfactory or better. When comparing tables 3 and 6, it is evident that many students who did rate their computer abilities as very good, good or satisfactory had applied to receive the paper study materials, which suggested that confidence in computer skills is not necessarily linked to confidence to learn online.

Table 7
Student's estimation of their expected rating

	HD	A	B	C	Fail
Semester 3 2011	4	3	43	23	7
Semester 1 2012	1	6	56	17	0
Semester 2 2012	2	8	50	28	2

Students often underestimate their final rating compared to what they actually achieved. This is not unusual for beginning students (Tsai, *et al.*, 2011). Table 7 does indicate that the group who responded to the survey had strong self-efficacy and had high expectations for their results. More than 70 *per cent* of the students indicated that they would achieve a B or better, one week prior to their final exam. These high expectations were from both the students studying online and the students studying using paper materials.

Table 8

Student perception that the course was more difficult when paper materials were not automatically mailed, as a percentage

	Agree (%)	Neutral (%)	Disagree (%)
Semester 3 2011	45	29	26
Semester 1 2012	62	21	17
Semester 2 2012	58	30	12

Table 8 indicates that a majority of respondents perceived that the course was more difficult when they did not receive the paper study materials. However, there was a significant percentage of students who felt comfortable studying the course online. The majority of students understood that if they had difficulties studying online, they could apply to receive the paper study materials. Most students received the paper study materials within three weeks of application. These students could have spent up to five weeks studying online before they received the paper study materials. This delay gave students the opportunity to evaluate studying with or without the paper study materials.

Table 9

Student response to indicate their main method of study, as a percentage

	Paper only (%)	Study Desk only (%)	CD Only (%)	CD and Study Desk (%)	CD and paper (%)	Study Desk and paper (%)	All three (%)
Sem. 3 2011	9	14	0	24	4	28	21
Sem. 1 2012	5	18	0	9	3	49	16
Sem. 2 2012	6	14	6	16	0	36	22

Table 9 shows the main method of course study. The CD option was the most unpopular, followed by the option, CD and paper. This response may indicate that the CD is not often used by students and may not need to be included in the student study material. The most popular methods of study were using StudyDesk and the paper study materials together, followed by using all three mediums together (paper, CD and online).

Table 10
Students response to the non-supply of paper study materials, as a percentage

	Personally print out paper materials (%)	Apply for the paper materials immediately (%)	Try using CD or StudyDesk then apply for the paper study materials some weeks later (%)	Do nothing and work online (%)	Do nothing and regret not applying for paper materials (%)
Sem. 3 2011	38	10	12	32	8
Sem. 1 2012	49	19	13	14	5
Sem. 2 2012	30	16	22	20	12

A majority of TPP students either printed the study materials or applied for and received the paper study materials. A significant percentage worked online with or without regrets. These percentages do not exactly match the data in Table 9. This may be in part due to students interpreting differently the meaning of main method of study or online course versus CD. However, the data clearly indicates that most students (60% or more) wanted to use the paper study materials either in conjunction with the online course or not.

Table 11

Methods used to remember important facts by percentage of students who selected to receive the paper materials

	Sem3 2011 (%)	Sem1 2012 (%)	Sem2 2012 (%)
Make notes on the paper materials	86	59	67
Make notes on a separate sheet of paper	57	45	72
Use sticky labels	50	61	56
Underline	93	43	61
Use a highlighter or different colours	86	84	89
Try to memorise it	14	11	6
Other	14	11	6

Table 11 indicates that TPP students who received the paper study materials used a variety of methods to remember important information. Underlining, use of a highlighter and making notes on the paper materials were the most common techniques used.

Table 12

Methods used to remember important facts by percentage of students who did not elect to receive the paper materials

	Sem3 2011	Sem1 2012	Sem2 2012
Use special software to highlight	0	0	6
Cut and paste into a Word document	14	22	25
Read the section frequently	14	22	19
Keep handwritten notes	52	57	69
Print out the important sections	41	57	31
All of the above	7	22	22
Some other method	10	22	6

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Table 12 demonstrates that of the TPP students, who did not apply to receive the paper study materials, a large percentage did not use a variety of techniques to remember the important information and the techniques that they did use were paper-related. They either kept handwritten notes or printed out the important sections.

Table 13

Students accessing the Study Desk, forum and resources after selecting paper study materials, as a percentage

	Never (%)	Occasionally (%)	Once a week (%)	3 times a week (%)	Nearly every day (%)
Semester 3 2011	0	0	7	22	71
Semester 1 2012	2	7	11	22	58
Semester 2 2012	0	22	11	6	61

A majority of TPP students who selected the paper study materials used StudyDesk to access forums and resources (i.e. they were working online) nearly every day.

Table 14

Students who found studying Mathematics online to be difficult after not selecting paper study materials, as a percentage

	Agree (%)	Neutral (%)	Disagree (%)
Semester 3 2011	33	27	38
Semester 1 2012	53	8	29
Semester 2 2012	44	25	31

Table 14 does indicate that a significant percentage of TPP students who decided not to receive the paper study materials did experience difficulty when studying Mathematics online.

Table 15

Students who in hindsight should have applied to receive the paper study materials but did not do so, as a percentage

	Agree (%)	Neutral (%)	Disagree (%)
Semester 3 2011	28	22	50
Semester 1 2012	54	31	15
Semester 2 2012	70	12	18

A significant percentage of TPP students had regrets about their decision not to apply to receive the paper study materials. This may also be a reflection of the data in Table 14.

Discussion

The students who responded to the survey questions were students who were about to complete the course and were very positive about succeeding in the course (Table 7). The responses of the group who did not complete the course and were less optimistic about their chances of success are very relevant to this research. Not having their responses makes the group who answered biased and less reflective of the TPP student population. The data did offer some insight into the issues irrespective of the bias of the respondents. The challenge for future research is find the students who do not respond to these questionnaires and seek their opinions so that the responses may be more representative of the TPP student population.

The changing demographic from the age group 30+ to 18–30 has implications for the course planners. Younger students, who have yet to work for sustained periods of time or experience the variable challenges and experiences of life found in the age group of 30+, may make different demands on the teaching lecturers, may find the course content out of touch with their youthful experiences, and may need greater motivation to complete the course. This group may also be more able to manage their learning online. This bubble in the age group 18–30 may not be sustained in the medium or long term. Economic conditions, employment opportunities, government support, higher education priorities and attractive alternatives to TPP are only some of the variables that may determine the sustainability of this increased demand for TPP.

More than 45 *per cent* of respondents did apply for paper study materials (Table 3). More than 50 *per cent* of students who did not apply for the paper study materials did in hindsight regret that they had not applied (Table 15). Many students with perceived satisfactory or better computer skills also applied for the paper study materials (Table 6). Having sound computer skills or confidence in their ability to succeed did not necessarily mean that these TPP students thought they were able to learn effectively online. It was initially thought that the more mature students would be the group that would apply for the paper study materials. However, the research found that all age groups were equally represented in the group who chose to apply for the paper study materials.

The data reveals that there were at least two (2) distinct groups of respondents. One group of students was relaxed and confident and embraced studying

online whilst another group of students needed the support of the paper study materials. This second group also frequented StudyDesk (Table 13) many times during the week and used the paper study materials. A subset of the first group of students indicated that they found studying Mathematics online to be difficult (Table 14). Very few students found the CD to be necessary when they could access StudyDesk or read the paper study materials. This outcome supported other research carried out by Peterson (2009) at Monash University. Presently, TPP courses are obliged to make the CD available so that low socio-economic status students who do not have access to the Internet can still download the material from the CD.

Students who applied for the paper study materials used a variety of techniques to remember important information. Most percentages included in Table 11 are high in comparison to those in Table 12, where students appear to have used very few techniques to remember important information when studying online. The most popular method to remember important information by the online group was to make handwritten notes. Both groups were confident that the techniques they used were effective to achieve success in TPP (Table 7). More research needs to be done to evaluate whether TPP students who are learning online are studying as effectively or having as rich an educational experience as TPP students who study using the paper study materials.

Conclusion

Since 2008, a larger group of younger students are choosing TPP as an alternative pathway into university. The numbers of more mature students have remained static over the last decade. This changing demographic should not be ignored when constructing or reviewing the existing courses and will impact on the methods used to deliver the courses.

TPP students are split into at least two (2) distinct groups. One group is confident and relaxed when studying TPP7120 online. This group has indicated that Mathematics is more difficult than TPP7120 to study online. This group also will print out any material that they consider important or necessary to succeed in the course. The second group prefers to study using paper materials as well as maintain their links with the online forums and extra resources available on StudyDesk. This group has developed a variety of techniques to assist them to study effectively. There was no significant association between the age group and applying for the paper study materials or between computer ability and the application for the paper study materials. There was also no significant association found between expected achievement level (self-advocacy) and the application for the paper study materials.

Very few TPP students use the CD and in the future this mode of study may be discontinued. TPP is obliged to support students who do not have internet access and the provision of the CD is very important for this student group.

Recommendations

- The course materials should be reviewed in order to accommodate the changing demographic of increasing numbers in the age group 18–30.
- The paper study materials option should continue to be made available.
- All students should be taught how to study effectively online.
- The CD option should be reviewed to see if it is necessary for future TPP programs.
- Further research should continue to evaluate how effectively TPP students learn online.

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A collaborative approach to improving achievement

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Abstract

The University of South Australia's University Aspirations Project, funded by the Australian Government, has worked to improve participation in university education for students from northern metropolitan Adelaide, a low socio-economic area. Throughout the four-year project the university has worked closely with the Northern Adelaide Regional office of the state education department, seconding one of their staff to work within the project team. The identification of common goals relating to an improvement in student achievement has underpinned the development of activities.

In 2012 cross-curriculum activities have been conducted in two schools by the university's School of Education: one school has focused on literacy and the other on research skills. The schools, identified by the education department, negotiated directly with the School of Education to design projects that satisfied the needs of the region, the schools and those of the university. Central to these activities is the belief that to produce change all partners need to be engaged at the outset in the design, implementation and evaluation of any interventions.

Introduction

The University of South Australia has a long history of successful interventions and initiatives designed to increase participation in tertiary education with particular focus on the educationally disadvantaged area of northern metropolitan Adelaide.

This reflects the university's founding legislation, which identifies a commitment to:

- Aboriginal people
- groups, including low socio-economic status (SES) and rural South Australians, that have suffered educational disadvantage, and
- the community.

In 2008 the university was awarded funding by the Commonwealth of Australia Department of Education, Employment and Workplace Relations (DEEWR) (now the Department of Industry, Innovation, Science, Research and Tertiary Education) for the University Aspirations Project. Its aim was to raise aspirations, career awareness, tertiary participation and social inclusion and to promote achievement for students in northern Adelaide schools. At the time of the grant application, northern Adelaide had one of the lowest rates of higher educational attainment and participation in metropolitan Australia (as low as 9 *per cent*). The area was in the lowest quintile on the 2006 ABS SEIFA Index of Disadvantage. Completion of Year 12 was half the metropolitan average, and even lower proportions gained a tertiary entrance score.

Background

Access initiatives

At the commencement of the University Aspirations Project the university already had in place a number of systemic features that were designed to enable people from a wide range of backgrounds, including low SES and first in family, to participate in a university education. These included:

- bonus points based on educational disadvantage
- portfolio entry for students with academic potential who were unlikely to obtain a university entrance rank (ATAR)
- Foundation Studies programs, alternate entry pathways that were mainly directed to the over-18 cohort
- associate degree and diploma programs
- targeted scholarships.

A review of the effectiveness of these measures was undertaken to assess whether they enabled students' access to and success in tertiary education. An outcome of the review was to create UniSA¹ College as physical centre for Foundation Studies and diploma programs and to remove portfolio entry² as an entry pathway. UniSA College's academic programs are built on a culture of success and innovation, flexible approaches to teaching, and the development of a strong and supportive community environment.

¹ UniSA College was established in 2011 with a clear mandate to create pathways enabling more Australians to access tertiary education and raise awareness about tertiary opportunities with those who have not previously considered university study.

² Portfolio entry was deemed to be not effective enough in fulfilling its aim of enabling access to university for able students who were unable to attain an ATAR due to schooling or other issues.

Awareness and achievement initiatives

The historical interventions and initiatives of the university included offerings to schools that were designed to increase awareness of and familiarity with university and other activities that aimed at increasing secondary students' subject knowledge and skills.

Many of the activities incorporated the standard approaches of campus visits, subject-specific lectures, tutorials and laboratory experiences, which were designed by university personnel with some input from teachers.

Collaboration with the state schooling sector

Prior to the commencement of the Project the university had worked with schools and other organisations in northern Adelaide over a long period. However, as the Project was intended specifically to work with schools in the metropolitan area of northern Adelaide to raise educational aspirations, tertiary participation and social inclusion, it was decided to work closely with the state education department in that region and, in a part-time capacity, with the Regional Leadership Consultant from Northern Adelaide Region office of the Department for Education and Child Development (DECD) to ensure high-level collaboration between the university and DECD.

The close working relationship enabled the Project to gain an in-depth understanding of the priorities of the region and to ensure the alignment of Project activities with regional and specific school key performance indicators (KPIs).

Project philosophy

Each of the Project's components was designed to address at least one of the following priorities that were informed by the Design and Evaluation Matrix for Outreach³:

- *building community confidence* through strategies designed to raise awareness of university as an option and dispel myths about university
- *engaging learners* by offering:
 - » teachers professional development fostering quality teaching
 - » high-quality and rigorous student learning using university resources
-

³ Gale, T., Hattam, R., Comber, B., Tranter, D., Bills, D., Sellar, S., & Parker, S. (2010). *Interventions early in school as a means to improve higher education outcomes for disadvantaged students*. National Centre for Student Equity in Higher Education.

- *working together* to improve the education levels of students who have the aspirations for a university education by developing and running school/community/university partnership programs
- *providing resources* and structures to support:
 - » students reaching their full potential
 - » achievement, access, retention and success.

In addition, philosophically there was an intention that all activities would be 'owned' by the diverse participants rather than imposed on them by an external party, in this case the University of South Australia. That ownership could take the form of selection from a suite of activities, contribution of funds, personnel or data to the activity, and/or engagement in the design of the activity. This can be summarised as '*doing things with*' rather than '*doing things to*' participants.

The collaborative approach to improving access and achievement continued to evolve throughout the Project and culminated in the Whole School Change Model.

Whole School Change Model

From its inception the development of the Whole School Change Model was based on strong partnerships between the University Aspirations Project and the School of Education from the University of South Australia and the DECD Northern Regional Office.

Development

Prior to engaging specific schools, meetings were held between the Regional Director of the Northern Adelaide Region and the University School of Education. This was a significant part of the process as it provided both the commitment of the region and alignment with the priorities of the region.

This high level of commitment and collaboration was an essential element in achieving a successful outcome for the project. At this stage the School of Education was interested in working with secondary schools, using a model for supporting teacher professional development and one that worked with school leaders in explicit ways. The Regional Director proposed working intensively with two schools and agreed to select and gain engagement from their principals to participate in the project.

Once the two schools were selected, meetings were held with their principals to align school site and project priorities and develop an Action Plan for the year. The School of Education staff met regularly with site staff as part of their

Professional Learning Communities and developed action research projects for staff to embark upon. At this stage what was initially intended to be two very similar projects evolved into different ones at each school: one focussed on literacy across the curriculum and the other on improving students' research capabilities. Both projects worked with teachers and students at middle school level, years 8 and 9.

Implementation

The following program was followed at both schools:

- Term 1 2012: Initiate professional development activities and collaborations between teachers and School of Education academic staff
- Term 2 2012: Focus on curriculum planning redesigning
- Term 3 2012: Implement innovative curriculum/pedagogy with support from mentors
- Term 4 2012: Analysis of curriculum redesigns and Whole School Change Model. Implications for the Region, other schools and School of Education research.

Observations

The project developed and sustained high expectations for learning by:

- focussing on curriculum and pedagogy
- sustaining professional learning communities for teachers
- taking seriously the pedagogical challenges of teachers
- unsettling deficit views of students and their communities
- treating students' lifeworlds seriously in a curricular and pedagogical sense
- getting past highly scripted models for teaching
- developing contemporary models of negotiating curriculum with students.

It provided a rich array of academic expertise across a number of disciplines that would not normally be available to the schools, resulting in the building of capacity of participating teachers and application of innovative approaches to pedagogy.

The Northern Adelaide Region valued the interventions because they were developed to align with the region's focus on improving literacy achievement for all students. The project was well received by the participating schools as they were able to identify areas they wanted to focus on as part of their

School Improvement Plan, and the School of Education tailored an appropriate approach to meet these needs. In this way positive change was produced within the schools: at School A creative and innovative approaches to pedagogy are being taken across a range of curriculum areas, and at School B the project has resulted in the development of more rigorous research skills in Year 8 students and an increase in the standard of work produced by them.

The project also contributed to the attainment of the University Aspirations Project's goal of promoting achievement for students in northern Adelaide schools and raising aspirations.

For the School of Education the project was a positive experience as they were supported in their engagement with the schools and teachers throughout because the school principals were committed to the project from its inception. The principals' support meant that any impediments to the project were able to be overcome with a minimum of disruption and the academic staff could achieve their desired outcomes.

Conclusions

Generalising from observations of the Whole School Change Model, successful collaborations should have:

- a common goal
- early engagement of partners from initial planning through to final reporting and evaluation
- engagement at a high level to ensure the support of participants
- clear identification of each partner's needs
- the commitment of each partner to genuine negotiation and agreed target outcomes, timelines and resourcing.

The advantage of this style of collaboration is that there is mutual ownership and responsibility and sufficient time to develop mutual respect and understanding. This does take more time in the early planning stages, but it is more likely to have the continued commitment of all partners despite any obstacles encountered in the implementation phase.



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