

First Year at Risk Intervention Pilot Project: An intervention to support first year students experiencing early assessment failure

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This paper describes a pilot project to support first year students who have failed or barely passed an early piece of assessment in a large, foundation course. The intervention pilot project is based on a strategy originally devised and pioneered by Professor Keithia Wilson and Associate Professor Alf Lizzio to help first-year students develop self-management and problem-solving capabilities. It involves at-risk students filling out a reflective workbook and participating in an intensive academic planning discussion with their tutor. The success of the original intervention was repeated in this pilot project at a different institution, demonstrating its efficacy in other course and disciplinary contexts

Introduction

As young Australians are being encouraged to enter higher education in ever-increasing numbers, universities are likely to face more diverse student cohorts in years to come. It is probable that some of these students will require extra support to achieve their full potential at university. Further, such support may well need to include strategies to cope with the occasional failure of an assessment item and the advisability of using failure as an opportunity for learning, rather than as an indicator of a perceived lack of suitability for tertiary education.

The research presented here explores the effectiveness of a pilot intervention project based on a First Assessment – First Feedback strategy which was first devised and pioneered by Professor Keithia Wilson and Associate Professor Alf Lizzio at Griffith University (see Wilson & Lizzio 2008). The pilot project has recently been completed with very positive results in a large first year core course at the University of the Sunshine Coast, a regional university with a diverse student cohort. Indeed students who failed or just passed an early assessment item and who participated in the pilot study were twice as likely to pass their course overall than students of a similar ability who did not take part in the project. Further the performance of students who took part in the First Assessment – First Feedback intervention improved to the extent that they ended up almost catching up with those students who clearly passed the first item of assessment. The pilot project has now been expanded into six first year courses across two faculties at our institution.

Context

The recent key recommendations of the Bradley Review (DEER 2008) are that Australian universities increase the proportion of enrolment of students from a low socio-economic status background to 20% and also increase the number of “25- to 34-year-olds having attained a qualification at bachelor level to 40% by 2020” (p. xviii). These targets bring with them added challenges for universities with increasingly diverse cohorts of first-year students likely to need extra support with transition into higher education. It is already well established that the first year of university reverberates throughout a students’ degree and that

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students who make a comparatively smooth transition to tertiary education and enjoy a positive first year experience are likely to have a higher quality tertiary experience over all (Krause, Hartley, James & McInnis, 2005; McKinnis & James, 1995). Further it is a student's first semester or first year results which give the best predictor of how they are likely to perform in the rest of their degree studies, rather than their school ranking with which they entered university (Murray-Harvey & Keeves, 1994). Both students and institutions have a vested interest in ensuring a successful transition to higher education occurs, because an unsuccessful transition is likely to lead to student attrition, something which has financial implications for both the student - with fee debts and loss of income and the institution - with funding shortfalls (McInnis, 2001). Therefore the importance of a positive first year experience to both the individual student, and the institution at which they are enrolled, cannot be overstated and the Bradley Review recommendations underscore this.

However the transition into tertiary education takes time for many students as they adapt to independent learning (Kantanis, 2000), and a successful transition depends as much on the ability to rapidly adapt to self-motivated learning as on academic ability and preparedness (Brinkworth, McCann, Matthews; Nordström, 2009). So a first year student must adapt to a style of learning with which they may not necessarily be all that familiar if they have come from a school environment where their learning has been carefully supported, with for example, multiple draft submissions before the final incarnation of assessment is due. Successful transition also can be compromised by poor course or program choice, lack of preparation, outside pressures including financial and incongruous expectations of the workload of university study (McInnis, James, & Hartley, 2000).

Another pressure facing all students but one over which universities have little control is financial pressure. This looks likely to be exacerbated by the proposed increase in participation among those from a lower socio-economic background. Unsurprisingly the trend towards students being involved in part-time employment would also appear to be on the rise (Krause, Hartley, Kames, & McInnis, 2005; McInnis, et al., 2000) including 55% of students in the 2004 study (Krause, et al., 2005). These percentages are more than borne out at our own institution with recent internal data showing 60.7% of first year students averaging 16.5 hours per week in part-time employment. It has been suggested that increased participation in part-time employment decreases engagement with university (McInnis, et al., 2000) and as the students spend less time on campus their engagement in class activities also diminishes (Krause, et al., 2005). Indeed Kulm and Cramer (2006) found that "the higher the number of hours employed, the lower the GPA" and that "employment interfered with study time" (p. 931). Such data will resonate with those teaching at first year for whom the refrain from students that they cannot attend class because they have to work is becoming increasingly familiar. The need to undertake so many hours of paid employment has implications for successful transition and outcomes in the first year at university, as students struggle to balance university and external commitments.

Another worrying trend is the significant lack of time first year students devote to private study (i.e. in addition to scheduled class hours), with students averaging only 11 hours per week (Krause, et al., 2005). Most academics expect a minimum requirement of two hours of external study for every one hour of class contact (Kuh, 2003), and with an average of 16 hours class contact reported in the Krause et al study, the 11 hours falls far short of ideal. In a US study by Collier and Morgan (2008) students' time on task for an assignment (and their course study in general) was more closely linked to what time they had available (fitting it in

and around their other life commitments) rather than the time and effort the actual assessment item warranted and the priority of their university studies was not as high as their teachers would have expected. Two recent studies of commencing students in an Australian university have revealed a similarly worrying mismatch of student and academic staff expectations especially in the area of assessment (Brinkworth, et al., 2009; Crisp, et al., 2009). While students recognise that university study is different from that in high school, their expectations regarding assessment – both preparation for and feedback from – are more akin to what is found in the high school setting (Brinkworth, et al., 2009; Crisp, et al., 2009). They expected to have drafts of assignments read and to get marked work back within one week of submission. For students to succeed, academic expectations need to be high and sufficient time must be spent studying, for example reading, researching and completing assessment tasks (so called ‘time-on-task’) (Tinto, 2005). Unfortunately, in first year courses this is most often not the case with students perceiving low expectations and not spending sufficient time-on-task (Kuh, 2003). In a study by Kantanis (2000) on students commencing a first year English course, students placed prominence on the social expectations of starting university, rather than academic expectations. Not surprisingly, those surveyed expressed that there was a “much heavier workload than expected” (p. 3). Therefore, “in addition to academic skills, university success requires mastery of the “college student” role” (Collier & Morgan, 2008, p. 425). This can be especially difficult for first generation university students who lack some of the “cultural capital” (p. 429) that students with family who have attended university possess. Misconceptions about how a successful student behaves at university are likely to impact on the quality of student assessment, and increase the likelihood of first year students experiencing early fails.

Assessment

Students measure much of their success at university by the feedback they receive on assessment. However for a substantial number of students, that is, 34%, in their first year at university there appears to be a mismatch between a student’s predicted academic performance on assessment and the reality of lower grades (Krause, et al., 2005). The ‘moment of truth’ when a lower than expected grade is experienced can be quite a confronting experience (Krause, 2001; Krause, et al., 2005; Potter & Lynch, 2008; Wilson & Lizzio, 2008). While some students reflect on the assessment feedback and are galvanised into action to make the necessary changes and improvements, others can be demoralised by the experience (Krause, et al., 2005; Potter & Lynch, 2008). This may ultimately lead to disengagement and an increased risk of dropping out. Murtaugh et al. (1999) found that a student’s lower academic achievements in their first semester at university can be indicative of their increased risk of attrition. The question of fairness in regards to assessment and feedback and its association with performance also needs to be considered. Weak performance on an assessment may be perceived by the student as a consequence of unfair or unjust marking, which can further compound poor performance and lead to further disengagement, and possibly withdrawal (Lizzio, Wilson, & Hadaway, 2007).

Students who do best at assessment are often self-regulated learners, that is learners who approach their academic work with “confidence, diligence, and resourcefulness” and who are “metacognitively, motivationally, and behaviourally active participants in their own learning” (Zimmermann, 1990). Academic self-efficacy that is, the confidence or belief in oneself to undertake and complete a task such as assessment, is related to self-regulation (Kitsantas, Winsler, & Huie, 2008; Wilson & Lizzio, 2008) however students’ ability to self-

regulate their own learning and the degree to which they possess self-efficacy varies widely (Wilson & Lizzio, 2008). McKenzie and colleagues found that first year students who employed self-regulation such as effective learning strategies were more likely to achieve higher grades (McKenzie, Gow, & Schweitzer, 2004). Porter and Swing (2006) argue that students who either have or “quickly gain” self efficacy in higher education “believe that they are likely to be successful in college and so plan to continue their enrolment” (p. 106). Thus, self regulatory behaviours and self efficacy are important for first year student persistence (and university retention).

Institutional support strategies for students, such as Wilson and Lizzio’s 2008 early intervention strategy are also important and it is clear is that these support strategies to improve retention and student persistence need to be proactive, preventative and targeted, rather than generic (Taylor & Lawrence, 2007; Walsh, Larsen, & Parry, 2009; Wilson & Lizzio, 2008). The characteristics of the student population can alter an institution’s retention rates. For example, in a study of community colleges in the US, which have an open door policy and enrolments of a larger proportion of academically under-prepared students (not unlike the situation in some regional universities in Australia), it was found that student retention was positively correlated with student’s accessing enabling and supplemental instruction (Fike & Fike, 2008). Walsh, Larsen and Parry (2009) show the importance of the relationship between student and academic tutor in helping students engage with their university and therefore succeed at university. Seeking support from academic tutors, rather than generic support services was important for the development of realistic expectations about university and therefore self-efficacy.

From an analysis of the literature, several certainties emerge. Future generations of students are likely to require more support rather than less; student expectations about university are often at odds with the reality of being a student, students who make the transition to university smoothly are likely to stay at university and succeed, and strategies to support students during their first year are more effective if they are targeted at specific students by teaching staff who know them. The ‘just in time intervention’ by Wilson & Lizzio (2008) serves to target students at risk of attrition due to early failure of an assessment item, to assist them in reflection on their performance, and to guide them towards becoming self-regulated learners. Participants responded with increased academic success in subsequent assessment. Interventions of this nature, are essential both for student persistence and therefore increased university retention rates (Tinto, 2005), especially in light of the increasing diverse cohorts entering the higher education sector. Given Wilson and Lizzio’s success with their Early Intervention Strategy, a form of ‘intrusive advising’, Anna Potter instigated a pilot project based on this strategy at our institution, a university where the majority of the students come from low socio economic backgrounds and are often first in family to attend a higher education institution

The Study

The intervention pilot project ran in a large first year foundation course made up of students from a range of disciplines, the vast majority of whom were in their first semester of study. The course has an enrolment each semester of approximately 800 students and is largely taught by sessional teaching staff although the course coordinator and another continuing staff member also tutor several classes. Due to the increased effectiveness of targeted, personalised interventions, the pilot was run by the course coordinator, with each tutor

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including the course coordinator approaching their own students with the intervention strategy. All teaching staff, including sessionals, had previously participated in a day long workshop on the strategy, led by Keithia Wilson and Alf Lizzio.

The research questions of interest were:

How effective is Wilson and Lizzio's Just-in-time strategy in contributing to the academic success and persistence of first year students at our institution?

How do students feel about their underperformance during their first semester at university and what impact does this have on their commitment to their studies?

Procedure

In a close replication of Wilson and Lizzio's original project, our pilot project worked as follows: students who failed, just passed or did not submit their first major piece of assessment were emailed by their tutor in week eight of semester and invited to participate in an academic planning process. The assessment in question was a 1000 word essay worth 25% of the course's overall marks. The course's 2 hour weekly tutorials had, over eight weeks, included many writing and research-based activities aimed at fostering student understanding of how to complete the essay satisfactorily. While this type of academic literacy is not usually a pre-requisite of entry to university, eight weeks into the course students are expected to have developed some academic writing skills. The students who accepted our invitation completed a reflective workbook (structured around a self-regulation problem solving cycle) emailed to them with the initial invitation, before participating in a forty five minute academic advising discussion with their tutor, based on their answers to the workbook questions. The process concluded with action planning and where appropriate, referral to student services or other means of support. The tutor and student stayed in touch via email or more often by class contact to maintain a positive momentum.

As in Wilson's and Lizzio's pilot, three sources of data were collected

- Students completed an evaluation survey in which they were able to give feedback about their experience of the process, rating its effectiveness and usefulness.
- The subsequent academic performance of students who participated in the intervention (n = 89) compared with those of a similar achievement (n= 178) and those with an initially higher achievement in the course (n=395).
- The students' workbook responses on a range of issues related to their initial underperformance were also evaluated.

Results

Our trial of the First Assessment, First Feedback Early Intervention strategy found that the at-risk students (those who had failed or just passed their first essay) who participated in the intervention by filling out the workbook and attending an intensive guided discussion with their tutor had an improved academic performance compared with at-risk students who did not participate. 73% of participating students achieved a pass rate or higher on their next formal academic essay compared with 43% of those who did not participate. On examination of overall success rates in the course, we found that of those students who took part in the

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intervention 81% achieved a pass mark or higher, compared with students of a similar academic ability who did not take part, of whom 51% had a pass mark or higher. The improvements in academic performance among participants meant that their eventual academic performance significantly narrowed any gap between them, and students who were not invited to participate in the early intervention strategy, that is, those students who easily passed their first essay. At risk participants' mean average mark across all assessment in the course was eventually 0.61, compared with 0.73 for the not-at-risk cohort. However the at-risk non-participants' average grade was only 0.45 (See fig 1).

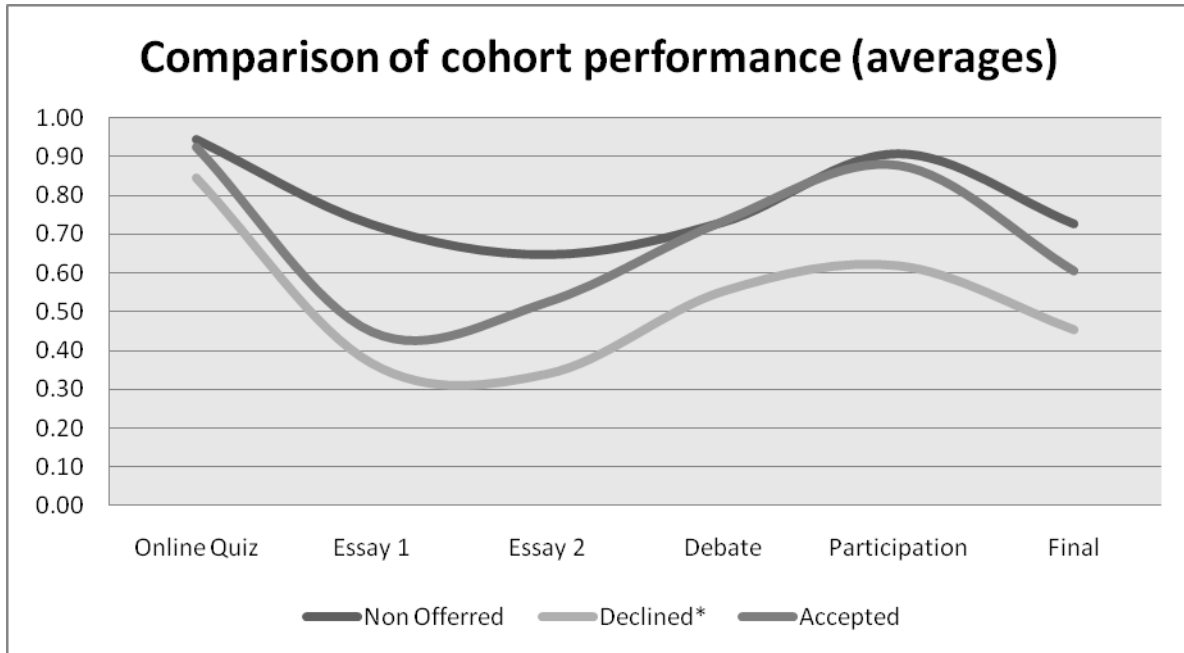


Fig one

At risk students' evaluations of their experiences in the course so far were interesting. For example, although 99% of students understood the feedback they received on their essays and felt the mark was a fair one, 70% had expected to do better than they actually did and 75% were worried (at the time of filling out the workbook) that they might not be smart enough for university, clear evidence indeed of the damage caused to students' confidence by early assessment failure. However given almost all the students had accepted responsibility for their assessment results and conceded the mark was just, it was then relatively straightforward to pinpoint which behaviours had caused them to perform poorly, and to identify and specify future strategies to minimise such behaviours. For example, 49% of participants identified a lack of understanding of the workload involved in assessment as a key factor in their failure, 47% felt disinclined to seek help and resigned themselves to a poor outcome, 25% cited too much time spent in paid work while a further 27% blamed poor time management techniques – all of which supports previous findings on first year students' lack of understanding of the workload and expectations of tertiary study. What was particularly encouraging in the overall intervention process was the students' sense of feeling connected to their tutor, and a corresponding sense of being able to seek help in future, with the initial 25% of students who felt 'very able' to seek help before the intensive guided discussion with their tutor increasing to 79% and the 22% who felt 'very connected' to their tutor before the intensive guided discussion increasing to 78% (see fig 2). Further, participating students reported increases in motivation and confidence, with those students

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describing themselves as feeling ‘very motivated’ increasing from 30% to 79%, and those describing themselves as feeling ‘very confident’ increasing from 18% to 74%.

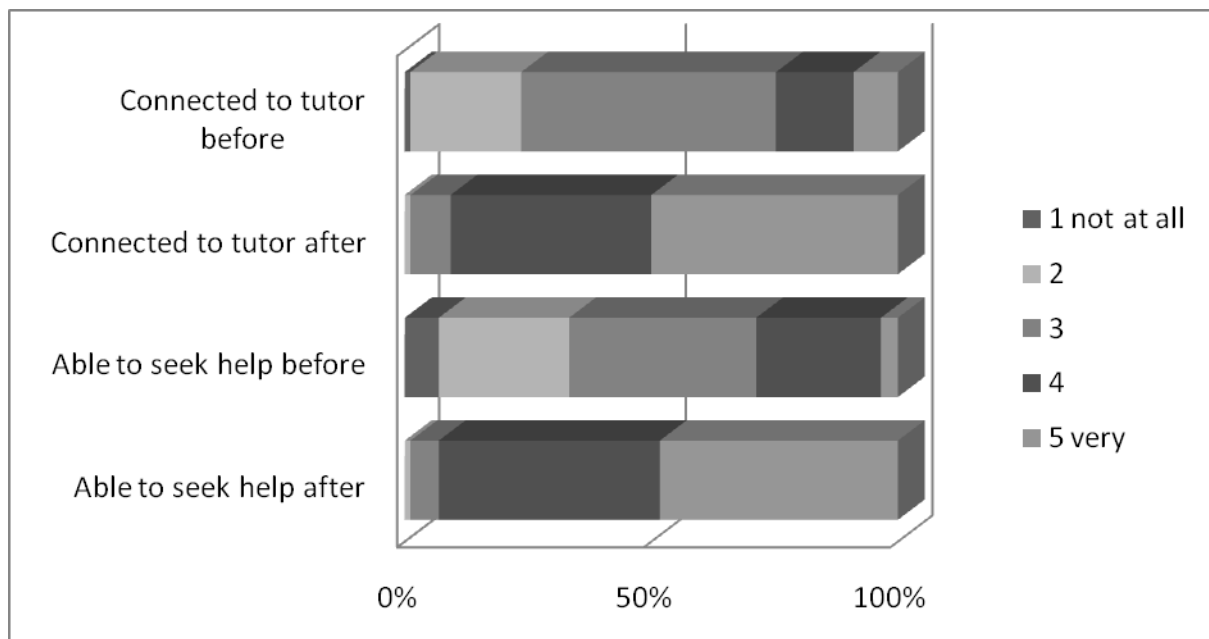


Fig 2

Students qualitative comments included ‘I really thought failing the first essay would mean me failing the course’ and ‘just being able to sit and talk to someone about this has been so helpful’.

Discussion

The findings of the intervention pilot project are very encouraging. They suggest that the intervention strategy has real merit in terms of helping students identify and solve impediments to their academic success, self-regulate their behaviour and thus achieve improved academic outcomes. The intervention is also extremely effective at enhancing first year students’ sense of connectivity to their tutors, and concomitant ability to seek help. While the course selected for the pilot was just one of four courses in which first year students are likely to be enrolled, it is a compulsory core course which all students must pass in order to complete the requirements of their degree program. However the ability to identify impediments to academic success and to seek help, and the improved capacity to self-regulate behaviour are generic traits which we would suggest would stand students in good stead in their other courses. For those who are considering trialling such a strategy themselves, the following points may prove useful.

- The piece of assessment must have sufficient weighting for its failure to really ‘matter’ to students.
- Participating staff must be completely committed to the project.
- Increasing help-seeking behaviours can place additional burdens on sessional staff members (all of whom were paid for their participation in the pilot project).
- The intervention has to be portrayed in a very positive light to students who might otherwise see it as having a ‘remedial’ quality.

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Due to the success of the pilot project in supporting first year students, the Early Intervention Strategy has now been expanded into six first year courses from other disciplines, to see how effective it is in different contexts and faculties. The pilot study which took place at our institution would not have been possible without the generous assistance of Professor Keithia Wilson and Associate Professor Alf Lizzio and we remain grateful to them for all their help and support.

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