

Promoting Learning in First Year Psychology Students¹

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Abstract

My teaching philosophy is all about challenging students to become critical thinkers and self-directed learners. My aim is to arouse passion and interest in the material they are studying so that they become totally engaged in the learning process. This paper will report on the teaching pedagogies I use to stimulate independent thinking and enthusiasm among my first year psychology students. It will also deliberate on some of the challenges in supporting large numbers of students learning via distance education. It will demonstrate how I have embraced new technologies to improve the learning environment for all students, regardless of their backgrounds or mode of study. It will also showcase a new textbook I have co-authored to enhance the quality of the learning experience for Australian students, promoting student understanding of issues relevant to cross-cultural and Indigenous psychology. This paper will also report on the results of a longitudinal study designed to establish how teachers may best respond to issues of student diversity in their teaching.

Introduction

All commencing students go through a period of transition as they adjust to the challenges thrown up by new learning and social experiences (Devlin, 2003; Venter, 2003). Not all are able to meet these new challenges and many end up leaving university due to “adjustment or environmental factors rather than intellectual difficulties” (Pitkethly & Prosser, 2001, p. 186). It is therefore not surprising that considerable research has been devoted to identifying those factors that influence success at university and developing strategies to smooth the transition experience for students (McKenzie, Gow, & Schweitzer, 2004). Factors thought to influence student completion rates include the need for students to learn to cope with the demands of the course or program, the quality of the teaching provided, and students’ goal commitment and self-efficacy (York, 1999). Additionally, McInnis, James, and Hartley (2000) found that many first-year on-campus students in Australia were not fully prepared for tertiary education, were uncertain about what was expected of them, and were not motivated to achieve.

Today’s commencing cohorts are much more diverse than those students who commenced university prior to the 1970s (Postle, Taylor, Taylor, & Clarke, 2000).

They vary widely across age, culture, educational experience, work experience, and socioeconomic status. Consequently, they enter the tertiary environment with a broad range of learning preferences shaped by their diverse cultural backgrounds and past experiences (Zapalska & Dabb, 2002).

Given that diversity, tertiary educators (particularly those teaching commencing students) need to take a fresh look at the learning environments they provide and how they cater for the diverse learning needs of their students (Entwistle & Smith, 2002). They need a deeper understanding of the factors that influence learning to avoid making a superficial response to student diversity (Burke Guild, 2001). This requires providing learning experiences that respect and value the culturally diverse backgrounds, abilities, skills, and learning preferences of their students (McKenzie & Schweitzer, 2001).

Students need to understand their individual learning preferences as well, because such self-knowledge can empower them to become self-directed and autonomous learners (Sarasin, 1999). Similarly, teachers who are aware of their own learning preferences become more sensitive to the approaches and styles used by others (Banks, Cookson, Gay, & Hawley, 2001, as cited in Smith & Dalton, 2005) and can better adapt their teaching to suit diverse student preferences (Sternberg & Zhang, 2001, as cited in Smith & Dalton). An inclusive learning environment that values the diverse perspectives of its commencing student cohort may make the difference between success and failure (Venter, 2003). The challenge, then, is how to provide that environment, particularly when the course is offered in multiple modes of delivery.

Learning Profiles Research Project

A longitudinal research project is currently underway at the University of Southern Queensland (USQ) aimed at identifying the key factors that impact on student learning. The project was designed to assist educators to (a) adopt appropriate entry requirements for programs, (b) develop relevant curriculum, and (c) employ appropriate teaching methods to improve students’ transition. The results will enable educators to better identify those individual differences factors that

¹ This is the author’s accepted and final manuscript version of: Burton, Lorelle J. (2005) *Promoting learning in first year psychology students*. In: 40th APS Annual Conference: past reflections, future directions, 28 Sep - 02 Oct 2005, Melbourne, Australia. Available from USQ eprints <http://eprints.usq.edu.au>

influence academic achievement. This will ensure that those students who are most at risk of failing or withdrawing from their program are more easily identified, and where appropriate, provided with career counselling, mentoring, or targeted skills enhancement programs.

Initially the test battery was offered to two groups of commencing students (a) those enrolled on-campus in any undergraduate program offered by the Faculty of Engineering and Surveying (FOES), and (b) those in the psychology major in the Bachelor of Science program offered by the Faculty of Sciences. These two cohorts provide contrasting samples, particularly in relation to gender and educational background. Engineering is a male dominated profession while psychology has become very female dominated. In the longer term, the research project involves tracking the academic performance of these students until they complete their degrees or leave the university. Additionally, the relationship between prior educational experiences of first year students and academic achievement will be examined. For example, it is expected that previous academic performance (e.g., the Queensland Tertiary Admission Centre [QTAC] rank) will be a significant predictor of academic performance in first-year students (McKenzie & Schweitzer, 2001).

Test battery

A battery of tests was developed to create a “learning profile” for each student by identifying their learning preferences, cognitive abilities (e.g., general reasoning, verbal, and spatial abilities), and major personality traits (see Burton, Dowling, Dorman, & Brodie, 2005). The “Big Five” factors of personality were measured using Goldberg’s (2001) short version International Personality Item Pool (IPIP): Intellect, Conscientiousness, Agreeableness, Extroversion, and Emotional Stability. Other constructs relevant to academic success such as self-efficacy, proactive attitudes, and proactive coping styles were also measured.

The impact of sociocultural influences on performance was also considered. For example, students’ cultural backgrounds, geographical locations, and prior learning experiences may influence how well they adjust to the tertiary learning environment. Data on the backgrounds of the students was therefore also collected. This included, where applicable, their year 12 subject results and their overall performance (OP) score and/or QTAC rank. Additionally, data on age, gender, ethnicity, country of birth, first language, and their place of residence was collected.

The test battery is currently being administered online via a secured website to facilitate a more efficient data collection process and to make the project available to students who are off-campus. This is especially important at a regional university such as USQ where distance education students make up 75%

of the student cohort. Teaching staff are also encouraged to participate in the testing process.

All participants are provided with individual feedback on their “learning profile”. This feedback summarises each student’s learning preferences, strengths, and weaknesses and outlines strategies for optimising their learning environments.

Key findings

This paper summarises the key findings from the first stage of testing involving two groups of first-year psychology students (see Crozier, 2004; Irvine, 2004; Nelson, 2005). Crozier and Irvine each report on data obtained from a group of psychology students who studied on-campus ($N = 60$) in Semester 1, 2004. Nelson analysed data from a separate group of psychology students who studied via distance education in Semester 3, 2004 ($N = 99$). In each report, grade point average (GPA) was the measure of academic achievement.

Crozier (2004) found that the 60 on-campus psychology students (47 females) with a mean age of 22.95 years ($SD = 11.10$) showed a preference for reflective (63.33%) rather than active learning; verbal (66.67%) rather than visual learning; intuitive (53.33%) rather than sensing learning; and global (61.67%) rather than sequential learning (see Felder & Solomon, 2001). A comparison sample of first year engineering students showed similar learning preferences with one exception: The engineering students preferred to learn actively rather than reflectively, $F(1, 90) = 5.29, p < .05$. Although the psychology students preferred learning in multiple modes, they indicated the strongest preference for learning in the kinesthetic mode. This suggested that the students especially enjoy learning via hands-on interaction with course materials and through the practical application of knowledge. As expected, there was no relationship between learning preferences and academic achievement (see Busato, Prins, Elshout, & Hamaker, 2000). Nevertheless, it was anticipated that providing individual feedback may promote self-awareness of learning preferences among students and help to improve their meta-cognitive skills (Thomas, 2002). It provides them with the knowledge necessary to self-manage their learning processes to best suit their own preferences and strengths.

Irvine (2004) examined the relationships between the big five factors of personality and academic achievement. She found that the on-campus students scored highest on the Agreeableness personality trait ($M = 41.62, SD = 5.02$) – being sympathetic, trusting, cooperative, modest, and straightforward. This is not surprising as you would expect people embarking on a career in psychology to possess these same traits. In contrast, they showed the lowest mean score on the Emotional Stability trait ($M = 30.15, SD = 7.71$), indicating that they were able to manage challenges and were not easily stressed. Contrary to expectations, however, none of the personality traits predicted GPA. The students scored moderate to high on self-efficacy, proactive attitude, and proactive coping variables,

indicating a willingness to take responsibility for working hard to achieve their goals.

Nelson (2005) replicated the results obtained by Irvine (2004) using a sample of 99 distance education psychology students (72 female). She also examined the relationships between personality, approaches to learning, and academic achievement. As expected, she found that a Deep approach (seeking understanding by relating ideas to previous knowledge and experience) was significantly correlated with GPA, $r = .21, p < .05$. Similarly, a significant relationship was evident between adoption of a Strategic approach (showing consistent time and effort management to achieve the highest possible grades) and GPA, $r = .25, p < .05$. A Surface learning approach was significantly negatively correlated with GPA, $r = -.23, p < .05$. A key finding was that personality traits are related to, and predictive of, the approaches to learning that students adopt. For example, Intellect was both significantly correlated with, and a predictor of, the Deep approach to learning. Additionally, she found that the Strategic and Surface approaches were significant predictors of academic achievement. For example, those students who adopted a Strategic approach to learning were successful; those who adopted a Surface approach were not.

The Learning and Teaching Environment

A student's first year at university is usually a period of adjustment to a new way of life and a new way of learning. The foundations laid in this period are crucial to their future success. This means that teachers face a significant burden in not only conveying course content but also setting students on the path to becoming independent and self-directed learners. Each student arrives at university with learning preferences that have been developed over many years, rooted in their culture, family background, and prior educational experiences (Smith & Smith, 1999). Similarly, teachers also bring values and beliefs to the teaching environment based on their own cultural backgrounds and world views. Thus teachers need to be aware of the diversity of their student cohorts, and to adapt their own teaching methods to cater for that diversity.

Knowing the learning profiles of my first-year cohort therefore helps me to match course delivery to their learning needs, allowing each student the opportunity to structure their own learning processes. The data from the first stage of testing indicated that my first year psychology students prefer to learn in a variety of ways and that my teaching practices should be inclusive enough to accommodate these preferences. Teaching methods, materials, and resources should cater to as many of the learning preferences of the group as possible, to help maximise the learning potential of each student (Sarasin, 1999).

For example, to emphasise the unique learning perspective of every student, I (a) use visual and auditory aids in PowerPoint lectures to accommodate different learning styles, (b) draw on real life examples to better demonstrate the link between theory and

practice, (c) use applied activities that encourage active listening and reflective thinking, and (d) seek confirmation that students comprehend the course content.

Of course, it is impractical to develop a different course for each and every student, and address every idiosyncrasy and cultural trait (Dunn & Marinetti, 2004). But there are simple approaches that can help to optimise the learning environment for students with different cultural backgrounds. The first step is to be aware that students come with different learning backgrounds. The next step is to consciously consider how to accommodate those differences in learning styles in course materials and assessment. A good place to start is getting to know students at the start of the semester and encouraging international students to feel part of the learning context (Biggs, 1999). Wherever possible, I try to relate course materials to the international student's experience and ask questions that demonstrate how everyone brings a unique approach to understanding the topic at hand. This approach values the individual contributions of every student, rather than generalising their views as characteristic of their country of origin (Malcolm & McGregor, 1995). When students draw on personal experiences they can better establish a link between theory and practice and become more independent in their approaches to learning (McLoughlin, 2001). The final step is to actually teach in a way that embodies this inclusive philosophy, so students can engage with the material in a way that fits their learning needs and optimises their chances of success.

The learning experience can be enhanced further by including material that effectively places its theoretical constructs within students' cultural and academic experience. To this end, I have recently adapted an American first-year psychology textbook to the Australian and Asian-Pacific landscape. The revisions will help students to better engage in the learning process by providing local examples that are close to their personal experiences and which can be easily applied to their own lives. For example, the Westen, Burton, and Kowalski (2005) textbook draws on research emerging from both Australia and New Zealand and examines cross-cultural research to help students explore the role of culture in shaping basic psychological processes. The textbook also includes a new chapter on cross-cultural and indigenous psychology, a topic the Australian Psychological Society recognises as vital in the training of psychologists.

Contemporary educational theory recognises the value of social interaction to learning. As a result, I use asynchronous online discussion groups to open up avenues of two-way interaction between lecturers and students. These groups allow distance students to replicate the type of contact that takes place in tutorials and lectures. They provide opportunities for students to interact in peer groups, to share and develop

knowledge. The forum encourages students less confident about their oral skills to participate in the learning process because it allows more time for reflective thinking. Early interaction between all students in a “safe learning environment” can achieve what Lee and Fradd (1996) described as “cultural congruence” – “a way to promote students’ attention and engagement and develop shared understanding and respect” (p. 74).

The research data indicated that my commencing students are confident learners who have the ability to self-manage their learning environments (Irvine, 2004). It also showed that adoption of a Strategic approach was predictive of academic achievement (Nelson, 2005). Therefore, the learning environments of my students may be further enhanced by encouraging them to employ behaviours that facilitate both Deep and Strategic approaches to learning. To this end, I provide all students with the opportunity to practise new skills and to explore new ideas in ways best suited to their learning style. They are encouraged to link, reflect, and seek meaning in the concepts being studied. This approach facilitates the development of a Deep learning approach, while also teaching the Strategic elements to facilitate achievement of course objectives.

I have embraced other new technologies as a means of improving the learning environment for all students. For example, I have developed interactive practice exercises to help students learn the standard referencing and formatting requirements outlined in the latest publication manual of the American Psychological Association (APA, 2001). These interactive exercises are especially suited to students with a kinesthetic learning preference. They encourage students to better manage their own learning needs and to quickly master the core referencing requirements that are essential in completing their studies. Students can practise the exercises whenever and wherever they wish, as many times as they like, and gain immediate feedback. As a result, students know that their referencing is correct when they submit their assignments. These exercises are published on CD by John Wiley and sold as an ancillary resource with my textbook entitled “An Interactive Approach to Writing Essays and Research Reports in Psychology” (Burton, 2002).

It is vital that appropriate standards and attitudes for learning are set at the foundation level. I recognise that the way assessment is structured and the type of feedback provided to students can have a major impact on their performance. This is particularly true in a foundation course, where many first-year students are experiencing academic requirements and assessment processes for the first time. As a result, I structure the assessment to provide opportunities for students to build the skills they need to succeed. This involves providing less heavily weighted assessment tasks early in the teaching semester so students can practise their skills. They receive extensive feedback on these early tasks to help identify and fix deficiencies. This process

enables students to build the skills necessary to complete more heavily weighted assessment tasks, such as an essay or research report, later in the semester.

Continuous improvement is a cornerstone of my approach to teaching. I recognise that teaching effectively is a skill that can always be improved and I make a conscious effort to continually review and update my efforts, to find improved ways of engaging the minds of students in the learning process. For example, I incorporate evaluation mechanisms within each course that I teach. Feedback from the students themselves on their experiences is extremely valuable in this process. I make sure that all students are given the opportunity to submit formal evaluation reports on the course and I closely scrutinise the results to identify adjustments needed to teaching methods and materials.

Conclusion

The challenge for teachers in today’s tertiary education sector is delivering a learning environment that is inclusive and caters for the increasing diversity among student populations. A one-size-fits-all approach is no longer appropriate. But acknowledging diversity is one thing – achieving inclusiveness is another. A key way for teachers to make effective adjustments to their methodologies is to better understand exactly what the factors are that can make the difference between success and failure in individual students. Acknowledging that different individuals bring different learning styles and backgrounds to the learning context is the first step in providing a more inclusive learning environment.

Acknowledgments

I wish to thank my Honours students, Lee Crozier, Nanette Irvine, and Louise Nelson, for assisting in this longitudinal research project. This project was funded by the FOES and by an USQ Early Career Research Grant.

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