

Chapter 6

Conclusion and Recommendations

6.1 Introduction

Living in a world where change and growth in information are exponential we can no longer afford to be insular or isolated. Rapid growth in technology, in particular, now means that access to knowledge is faster and vast. These rapid technological changes also have social, economic and political implications.

According to Muller (2004) the knowledge that is most important to citizens falls into two categories: the first category would provide answers to questions in terms of cultural knowledge, political and moral knowledge, and skills. The second category would provide answers in terms of skills and knowledge for economic productivity – here education would be focused on economic participation; providing skills necessary to produce economic innovation; and those skills relevant for gaining the competitive edge.

Muller (2004) claims that with the massification of higher education and increased production of knowledge there are a number of implications, especially when it comes to standards. The first implication is that the traditional employers of knowledge workers are unable to absorb the volume of qualified graduates in the market. In developing countries, such as in South Africa, traditional institutions are subsidised heavily by the government. The influence these governments have over standards must not be underestimated. This influence could encourage higher education institutions to lower standards to allow more students to gain access and to increase output rates, or it could require institutions to raise standards in order to produce students who are competitive in a global knowledge society.

The second implication that Muller (2004) mentions is that civic, political and economic life is organised around the dynamics of knowledge generating units, which are dispersed in space and time as a result of information technologies. Institutions need to produce graduates whose knowledge can be used and transferred in all spheres whether they be academia, the economy, politics or society in general.

This study was located in ongoing concerns regarding the quality of teaching and learning in higher education institutions. As demands for institutional accountability become more commonplace, institutions must develop their capacities to ask questions about teaching and learning in order to explain their priorities, their expenditures and their plans. Shulman (2000: 101) notes that accountability can also serve as a powerful rationale for encouraging and supporting the work of educators whose research focuses on the instructional mission of the institution.

The rationale for conducting this study was to determine what interventions were needed to enhance the support offered by teachers and tutors, in order to generate a learning environment which would develop in students an intrinsic motivation and deep learning strategy, which could be transferred for use in other areas of knowledge and spheres of life in later years.

Engaging in the Scholarship of Teaching and Learning, and using Lucas's (2001) notion of phenomenographic pedagogy, which involves teaching for conceptual change, this research has enabled the researcher to reconceptualise practices in the Business Accounting course by questioning and reshaping the practice, using insights gleaned from this inquiry and the ideas of others. This work will be made public so that it can be reviewed and critiqued in order for others to build on it.

The challenge was how to develop ways of enhancing both the teaching and learning taking place within limited contact hours, especially within the context of tutorials. This necessitated learning more about the students' initial approaches

to learning and identifying whether a marked tutorial might help them develop a deeper understanding of certain disciplinary principles more quickly and meaningfully. The purpose of these changes in established patterns of teaching was to generate higher quality learning outcomes. The effectiveness of this intervention was examined by comparing students' deep and surface approaches to learning across a period of time in which the students were taught. The data collected provided a rich description of the intervention in the Business Accounting course. Prior studies have not assessed the effectiveness of marked tutorials in changing students' learning approaches. The research confirmed and refuted some perceptions held by both the lecturer and tutors about the student learning taking place, and the factors that were either hindering or enhancing this learning.

This research report set out to answer the following research questions:

- 1 What approaches to learning are prevalent in a heterogeneous group of Business Accounting students at the University of the Witwatersrand (Wits) after the first semester test and before their final exams?
- 2 Is there a difference between the approach to learning adopted by male and female students?
- 3 Is there a difference between the approach to learning adopted by students for the different degree courses?
- 4 What are tutors' perceptions of the problems or difficulties students are facing in understanding the content?
- 5 How do tutors perceive these issues could be addressed in order to improve the quality of teaching and learning?

In the section that follows, the research results will be discussed in the sequence of these questions. The limitations of this study and ways of addressing these limitations will then be discussed. Finally, suggestions for further research conclude this research report.

6. 2 The Main Findings of the Research

Numerous studies have found that educators are able to influence the learning environment and these studies further suggest that improved educational outcomes are achieved when the educator is able to understand the way in which students approach learning. Biggs (1978; Marton and Saljo (1976; Ramsden and Entwistle (1981) and Prosser and Trigwell (1999), cited in Duff (2004) suggest that understanding student approaches to learning has a deeper significance than simply modeling student performance; it should be seen as a powerful tool to improve the quality of students' learning. Duff (2004) claims that educators see the development of desirable (i.e. deep) approaches to learning as a key aim of higher education.

Using Biggs's revised two-factor Study Process Questionnaire: R-SPQ-2F, the results provide some support for the ability of accounting educators to influence student's approaches to learning. The results of this study provide evidence that introducing a marked tutorial to the learning context influences students' approaches to learning.

As in the study conducted by Gow, Kember and Cooper (1994) the insights gained by studying the way students learn has helped provide insights into how student learning can be improved.

Overall the results showed that collectively students changed their approaches to learning in the measured period and this is similar to the study conducted by Hall et al (2004), in which the results reported that accounting educators can influence student's approaches to learning by instituting specific changes in the learning environment. From the findings a heterogeneous group of Business Accounting students adopted a deep approach to Business Accounting, both before and after the introduction of the marked tutorial, although this deep

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approach declined over the measured period.; This result differs from the findings of Beattie et al, (1997) that accounting attracts students who tend predominantly to adopt a surface approach to learning. The surface approach increased with both the subscale surface motivation and surface strategy increasing over the measured period.

Overall these results concur with the findings of Biggs (1987) and Gow et al (1994) who demonstrated that a deeper approach to learning in higher education declines as students move through a course or from the first year to the second year.

An important factor influencing students' approaches to learning in this study was the assessment activity – the marked tutorial. As Ramsden (1985) and Harris and Bell (1986 cited in Byrne et al 2002) suggest, assessment exerts a powerful influence on the approach to learning adopted by students and they vary their strategies and attitudes of learning in order to cope with the assessment system. Within phenomenographic pedagogy, assessment methods are aligned with learning objectives. As Lucas (2001) suggests, the design of modes of assessment should be reviewed so that students cannot benefit unduly from the adoption of surface (format) approaches to learning. Using activities designed for the tutorials students should be encouraged to adopt a relating (more deep) approach to learning.

The demands of the assessment task on the overall student workload should be examined, as previous research shows that a high workload encourages a surface approach (Ramsden and Entwistle, 1981 and Gow et al, 1994) which may mitigate the effects of supportive learning interventions.

Encouraging the adoption of a deep approach to learning is possible but in accounting, as in many other disciplines, lower level strategies (such as rote learning, paraphrasing and describing) are required to underpin progression to higher levels of understanding. More recently research has suggested that the

use of surface approaches, particularly linked with memorization and rote learning, are over-simplifications of the learning approaches adopted by accounting students (Lucas and Meyer, 2003a), and as Duff (2004) has stated, accounting education is a mixture of mechanical processes and conceptual understanding. This mixture of approaches can cause tension.

Jackling (2005: 272) also notes that given the nature of the tasks in accounting that build on prior knowledge and the recording of transactions following particular algorithms, a surface approach to learning may be more predominant among accounting students, yet this is not the case in these research findings.

Most studies which explore student learning approaches partition their data on the basis of gender (Biggs 1987; Booth et al, 1999; Duff et al, 2003; Gow et al, 1994 and Lucas and Meyer 2003). In this research, an examination of the scores on a gender basis reveals that female students appear to adopt a deeper approach to learning than their male counterparts, although their deep approach declined throughout the period of measurement. These findings are similar the findings of Booth et al (1999) who found significant differences in the mean scores obtained by males and females, with females recording higher scores on a deep approach compared with males. However, Duff's (1999) findings reported that female students were more likely to adopt a surface approach than males and this is similar to the findings of Paver and Gammie (2005), who found that female students scored highly on the surface approach. This was the case for students with a feminine constructed gender (gender identity). The male students' deep approach to learning did not change significantly over the measured period.

For both periods females adopted a deeper motivational and strategic approach than males, although the subscales for females also declined while the male students' subscales both increased over the measured period. De Lange and Mavondo (2004) indicated that there were different learning strategies for male

and female students and this could be because questions were not gender specific. Duff (2004) also suggested that these gender differences may be instrument specific, with some approaches to learning inventories more sensitive to gender than others.

The gender differences identified in this study need considerably more contemplation and analysis. There is also a need to examine whether these gender differences are replicated in other populations. Where there are gender differences staff should explore the reasons for the differential and take appropriate action.

The approaches adopted by the students registered in different degree programmes, showed very different results. As a group the students registered for Actuarial Science recorded the highest deep approach to learning both before and after the intervention while the Economic Science students recorded the lowest deep approach both before and after the marked tutorial. The greatest change was for the Commerce students whose deep approach increased the most.

It was apparent that male actuarial students changed their deep approach to learning to the most, followed by male economic science students and male quantity surveying students who all respectively increased their deep approach over the period. Female economic science students showed a marked decrease in their deep approach to learning over the measured period.

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The surface approach scores for all four course groups increased over the measured period. Prior to and after the marked tutorial the Economic Science students recorded the lowest surface approach while the Commerce students had the highest surface score prior to and after the marked tutorial. The greatest movement towards a more surface approach was recorded by the Quantity Surveying students.

An important aspect to consider is the argument put forward by Bryne et al (2002) that student's perceptions of their approach to learning may be quite different from their actual approach. Students may have responded to the questions in the way they thought would be desired or expected, rather than reporting their actual learning approaches. Bryne et al (2002) also suggest that male students fail to report their actual approach to learning.

Accounting education needs to establish a base for accounting graduates to develop life-long learning skills. A number of researchers have indicated that in order to achieve this, accounting education needs to support the view that a deep approach to learning is one way of moving away from procedural tasks and memorisation of professional standards to a more desired conceptual and analytical form of learning (Beattie et al 1997; Davidson 2002; Hall et al 2004 and de Lange and Mavondodate?).

Whether tutorials and tutors have the ability to encourage a deep approach or change students' approaches to learning is debatable; Kember and Gow (1989) conclude that it is possible to influence student's approaches to learning, but opinion is divided over how this can be achieved.

An important aspect of phenomenographic pedagogy is that the educators' (in this case the tutors') focus is on central issues within the subject. Using the data collected from the tutors and the analysis of the responses, the tutors' suggestions for ways of enhancing student learning can be used to make pedagogical changes. Slominsky and Shalem (2004) suggest that a responsive pedagogy must enable students to grasp the point of academic practice and to develop the tools to work towards it.

Tutors' perceptions of the problems students are facing in understanding the content are listed briefly below:

- A poor work ethic and attitude towards the tutorial tasks and activities. Some students were identified as being resistant to activities that were designed to assist them to engage actively with the material and increase their understanding of principles and concepts. These students saw it as the tutor's job to teach them and this attitude led to a loss of respect and frustration all round.
- Students who were not prepared to take responsibility for their own learning. The tutors perceived some students to lack the maturity necessary to take responsibility for their own learning. Students did not come prepared for the tutorials and tutors felt frustrated that they could not help students if the students themselves had not identified their own difficulties. This could be what Gee (1999) describes as cultural models varying according to social class and 'sociocultural' membership. Students coming from a different cultural model than that of an educational institution, might find it very alienating. When the mediator and learner are working from different cultural backgrounds, the process will be more difficult than when they are working from similar backgrounds.
- The varying degrees of prior business and accounting knowledge within the diverse cohort of students made it challenging to address individual problems or difficulties within the limited time frame.
- The varying degrees of English language ability within the diverse student body presented a further problem. This factor required traditional approaches to teaching within the tutorial to be extensively reviewed. As Sfard (1998) suggests, becoming a member of a certain community entails the ability to communicate in the language of the community and act according to its norms. If students are not prepared to participate they will not be able to communicate effectively. Slominsky and Shalem (2004) also recognise that there are great difficulties involved in learning in a language that is not one's first language. Bruner (1996) suggests

that if students lack the language ability and skills to understand the practice, they may resist help and simply try to put in extra work.

Rollnick (2000) makes the point that some students are doubly challenged, in that not only do they have to learn the social practice of the new language but also the practice of the discourse they are trying to join.

- The tutors' and students' conceptions of learning also differed. Many students perceived learning to be the accumulation of facts, competencies and skills with the tutor and lecturer the transmitters of this knowledge, whereas learning is much more than this. Learning occurs in and through participation.
- The provision of solutions to tasks and activities was perceived by some tutors as a factor hindering learning as many students simply copy the exercise solutions or audit them.
- Accounting, like mathematics to a certain degree, is a continual construction of knowledge. These operational structures, which the students know how to implement, are reversible. However this operational reversibility is a major obstacle for some students. Many students want a short cut method to learning new concepts; they want the meaning of concepts to be summarised or condensed into set patterns of operation. It has become evident after the marked tutorials that this is in fact a problem and many students cannot reverse the operations in certain situations.

The tutors' ways of addressing the above problematic areas in order to improve the quality of teaching and learning are summarized below:

- Tutors tried to address the above issues in their own particular ways using teaching styles that they felt comfortable with. These styles varied and were also tailored to suit the needs of individual students within the tutorial groups.

- All the tutors suggested that marked tutorials as a tool to encourage active engagement and preparation before tutorials, should be conducted more than just once a term. Some tutors recommended that these be conducted every second week.
- The role of feedback to student members within the tutorials was identified as important, as it could help students overcome problems and help deepen their understanding of accounting. Positive feedback could also motivate students.
- Feedback from tutors to the lecturing staff was also identified as being useful in that problems could then be addressed or rectified in the lecture as well as in the tutorial.
- The tutors identified their role as helping to create an environment where the students felt free to ask questions and debate issues without feeling intimidated. As Business Accounting is a compulsory course for a number of students, participation does not necessarily lead to motivation. Within tutorials understanding and meaning in accounting can be made.

6.3 Limitations of this study

This study has a number of limitations:

- This was a once-off study conducted over a short period of time. Classroom action research findings cannot always be generalized to other situations, yet the results can add to the knowledge base and be used in further cycles of research.
- The number of students in the total study was twenty-five, which represented only 4% of the total number of students registered on this course.
- Other factors that were not included in the study may have contributed to the change in students' learning approaches.

- This study did take into account students' prior knowledge of accounting or prior experience of higher education.

6.4 Other areas of concern

While the tutorial system does enhance the learning experience and allows for interaction, the fact that these tutorials are presented by student tutors who have not yet participated in business and have not been exposed to the role of financial accounting, is problematic.

Despite the fact that they are committed and intellectually competent they are third year students who have only two years of theoretical accounting knowledge behind them. They have no teaching background and teach the way they were taught.

The tutors are not representative of the broader student population in terms of race and gender, and often cannot relate to other cultures and languages

Tutors are given only one official day of training at the beginning of the year. Thereafter they meet once a week with the lecturer to discuss any areas of concern resulting either from the previous week or to issues relating to the coming week's questions. Their own perceptions of learning need to be explored and expanded if they are to become more effective in their roles as mediators and facilitators.

The staff resourcing issue is problematic and a challenge. With only one lecturer on a course serving approximately 650 students each year, and dealing with 15 student tutors, the time and energy needed to develop different teaching and learning strategies, and to mentor both students and tutors alike, is limited. By tapping into the valuable and varied tutor resources available each year, new ideas can be explored and adopted. Reflecting on one's current practice to discover new ways of doing old things can also be informative, particularly in

planning the way forward and in order to facilitate better learning outcomes for students in the future; this is a constantly evolving circle.

Educators in Business Accounting are not provided with an incentive or even time to actively pursue the Scholarship of Teaching and Learning. The consequent lack of research in accounting education impacts not only on higher education institutions but also on the accounting profession. When education fails to change and improve the process of developing competent and ethical graduates, the world of business and accountancy suffers.

As professionals, educators often continue to care about teaching excellence and to participate in ongoing dialogue on the topic, but at the same time they are aware of the forces of change, and when and where possible participate in the change process. Reflecting on teaching and learning in a particular context is not enough, and as Hutchings (2000) suggests, by engaging in the Scholarship of Teaching and Learning new questions may prompt new lines of educational research.

6.5 Suggestions for Further Research

Arising out of this study further research is suggested in the following areas:

1. A correlation study could be conducted to ascertain a relationship between the students' approaches to learning and the marks attained on their June and year-end examination results.
2. A further dilemma which could be addressed is whether social and cultural factors influence approaches to learning. How do western and eastern cultural strategies manifest in different approaches to learning and is there an 'African' approach to learning?

3. A deeper investigation of the motivational elements of approaches to learning could be conducted, particularly within the cohort of students registered on this course. For example, what role does career motivation play at first year level? How relevant is a course to a student when the content will only be applied later in their career? Does the course stimulate and interest students and what value does it have if it is an external reward?
4. Assessment tasks could also be evaluated using Biggs and Collis (1982) SOLO taxonomy to determine the level of cognitive processing required to complete each task.

6.6 Conclusion

What the student learns is important but it is how the student learns that may be more significant. In order to enhance teaching it is important to understand how students learn. Students do not learn more or less than each other; they learn differently from each other (Tempone 2001). For lecturers and tutors to be effective they need to identify those factors beyond their control and those within their control in order to create the desired teaching and learning environment. As the elements in the educational system are within the control of educators, it is important that these elements work together. Biggs (2000) advocates the term 'alignment' where the curriculum is stated in the form of clear objectives (which should include the level of understanding), where teaching methods are chosen to accomplish things that the objectives nominate and where assessment tasks address the objectives to test whether the students have learned what they should have learned. This research is a first step in the direction of alignment.