

Chapter 4

4.1 Introduction

The purpose of this chapter is to describe the research approach and methods that have been used in this study. The starting point was the nature of the research questions outlined in Chapter one based on the aims of this investigation, which were to:

- (a) identify the approaches to learning that students are adopting; and
- (b) identify and explore the factors that enhance or hinder the learning process from the perspective of the tutors.

The study involved administering the revised two-factor Study Process Questionnaire: R-SPQ-2F to students, both prior to and after the introduction of the marked tutorials, and analysing the results. A questionnaire was completed by the tutors and the tutor from the selected tutorial groups was interviewed. An analysis was then done of both the questionnaire given to the tutors, and the interview transcript of the tutor of the selected tutorial groups.

4.2 Background

As already mentioned, there have been a number of problems associated with the Business Accounting course. In trying to understand and increase the throughput rate on the course a number of factors needed to be investigated: the curriculum and content; the teaching of this content; assessment tasks; and the learning taking place in this context. One area of concern was the influence of the marked tutorial, tutors and the tutorial system on students' approach to learning.

4.3 Methodology for this research

Hutchings (2000) claims that there is no single best method or approach for conducting the Scholarship of Teaching and Learning. In this study a mixed-mode methodological approach was adopted.

Reflecting on one's teaching practice in terms of what has worked and what has not worked, and investigating different strategies that may or may not improve teaching and learning, is a continual process. Action Research with its emphasis on continuous improvement and contribution to scholarly activity was thus a suitable approach for this study.

4.3.1 Action Research

Action research is a systematic investigative research method that can improve aspects of educational practice (Paisey and Paisey, 2005). Classroom action research, in particular, as Mettetal (2001; 7) suggests, fits in the centre of a continuum ranging from personal reflection at one end to formal educational research on the other. A claim by Mettetal that classroom action research is more data-based than personal reflection, but is more informal and personal than formal educational research, resonates with this research report. In classroom action research a teacher (in this case the researcher as both the course co-ordinator and the only lecturer on this course) focuses attention on a problem or problems surrounding the teaching and learning taking place in a particular context.

While classroom action research findings cannot always be generalized to other situations, as in traditional research, the results can add to the knowledge base, Action Research makes use of a literature review, data is collected (in this case from two different sources), comparisons are made and triangulation of the data helps to achieve validity. Mettetal (2001) argues that the focus is on the practical

significance of the findings, rather than on the statistical or theoretical significance.

The revised two-factor Study Process Questionnaire: R-SPQ-2F could help identify student approaches to learning, prior to and after the introduction of the marked tutorials. Researching the impact of the researcher's (as course co-ordinator and lecturer's) decision to implement this change meant documenting the effectiveness of this intervention in terms of teaching and learning.

Paisey and Paisey (2005), citing Bassey (1998) and Hand (2001), state that classroom action research typically incorporates five stages. The first step is to define the problem and frame the research questions. Paisey and Paisey (2005) argue that problem identification is dependent on the beliefs of the teacher (and in this case the tutors) involved. The goal of classroom action research should be to inform decision making. It should also be something under the control of the researcher, in this case the lecturer and course co-ordinator, and should be feasible in terms of time, effort and resources. For this reason the tutorial arrangement was one aspect that was identified as being something that could be changed over a short period of time using existing resources. The tutors run the tutorials and the students were allocated to tutorial groups. The educational beliefs that inspired this project and the current educational situation were described in Chapter one.

Second, according to Paisey and Paisey (2005) data is collected and a decision is taken about how teaching could be changed. Third, appropriate changes are selected and implemented. Fourth, the changes are monitored and evaluated. In this study monitoring the changes took various forms including tutor interviews in which tutors were invited to reflect on the perceived problems or difficulties students were facing in understanding the course content, and the ways in which tutors perceived these issues could be addressed in order to improve the quality of teaching and learning. The final step in Classroom Action Research is to

review and reflect upon the changes. The experience may suggest that there is reason to continue with the intervention and monitor another cycle involving more students.

Action research is not always recognised as a respectable research method, with critics arguing that it is essentially about good teaching rather than research (McNiff cited in Paisey and Paisey 2005 : 3). It tends to focus on action rather than research. Yet advocates of action research argue that it provides a systematic means of improving education, that it is critical and reflective and that it emphasises the centrality of the practitioner. Zuber-Skerritt (1992 cited in Paisey and Paisey 2005: 3) claims that by engaging in action research teachers can learn and become knowledgeable through observation, reflection, and formulating strategies and testing these.

Classroom Action Research was used in this small-scale research project designed to encourage students to actively engage with the material through the introduction of a marked tutorial.

A questionnaire was devised for tutors because action research projects are often criticized as lacking in rigour (Kember & Gow 1992) and for being subjective if they do not collect data systematically.

This research project only underwent one cycle of the Action Research process.

4.3.2 Phenomenography

Phenomenography was chosen as the main method to analyse the data collected in interviews with tutors. Qualitative research is suited to certain research problems which attempt to obtain details about phenomena, such as processes and factors

affecting learning, which are difficult to obtain by quantitative research methods. The findings of qualitative research are not arrived at by statistical procedures.

The data collected from the revised two-factor Study Process Questionnaire: R-SPQ-2F was analysed quantitatively.

A study of students' approaches to learning originally done by Marton and Saljo (1976) was mainly informed by phenomenography; this theoretical perspective emphasises that what is learned is defined by students, not by teachers. This study examines the variation in students' approaches to learning over a short period of time in one particular tutorial group, after the introduction of marked tutorials. The marked tutorial was introduced as an intervention to encourage students to apply the knowledge they had gained in lectures and from the prescribed course texts. These tutorials were marked by tutors and problems were identified and analysed. This information was then used by both the tutor and lecturer to feed back into the teaching and learning process in order to address those areas where there might be misalignment.

Phenomenography underpins the main methods used in this study and aims to discover regularities. Phenomenography concentrates on finding meaning and understanding that supports the phenomenon being studied. Marton (1981) describes phenomenography as a research method that maps the qualitatively different ways in which people experience, conceptualise, perceive and understand the phenomena around them. This research report attempts to report on the results of a phenomenographic case study undertaken in two Business Accounting tutorial groups in the School of Accountancy at Wits, in 2006. Using the social theory of learning in particular, and elements of the other theories of learning as the conceptual framework, a phenomenographic approach was used to identify and describe the qualitatively different ways in which the participants in this case study understand the phenomena in the world around them; particularly the way participation in tutorials affects the approach they

adopt to learning. The use of a phenomenographic approach was seen as providing a way of understanding the variations in statements and questions raised by the tutors. This method also aims to describe, analyse and understand the experiences of tutors and their perceptions of student learning. Exploring ways of seeing a phenomenon and of gaining an understanding of how this phenomenon was experienced can help both lecturers and tutors plan teaching interventions based on these results.

The reason for the inclusion of qualitative data in the form of tables and graphs needs to be explained. The students' approaches to learning were measured before and after the intervention, which in this case was the introduction of the marked tutorial. A comparison could then be made of the pre-marked tutorial and post-marked tutorial scores. The individual student's responses to the questions of the revised two-factor Study Process Questionnaire: R-SPQ-2F were analysed and then summarized in order to determine the group's overall approaches to learning before and after the introduction of the marked tutorial. This was done in order to understand and uncover any categories, variations, similarities or differences occurring in the groups as a whole over the measured period. These results could then be analysed together with the tutor's perceptions of the learning taking place in these groups.

4.4 Research population

The student participants are undergraduate students who were enrolled for the Business Accounting course in 2006. It was decided to select an experienced tutor who had been a tutor on this course for the last two years and who had already graduated with a B Com degree. The students in the experienced tutor's tutorial were selected by default as the participants in the research. Other tutorial groups were excluded as their tutors had no experience in tutoring and were still undergraduate students themselves. Students in the various tutorial groups (there are 39 tutorial groups in total) were randomly selected at the beginning of

the year and were allocated to specific tutorial groups either on a Monday or Wednesday afternoon, depending on students' timetable. The groups, on the whole, represented the diverse student body in terms of age, race and gender.

The revised two-factor Study Process Questionnaire was given to two selected tutorial groups of students over a period of time. The first time the questionnaire was administered to the students there were 41 responses from a possible 50 students. Students who did not attend the tutorial on the day the questionnaire was administered were excluded from the sample. The questionnaire was then administered a second time and this time there were 31 responses. It was decided to include in the data analysis only those students who had completed the questionnaire both times.

This sample represented 25 students, which was 50% of the selected group, or 4% of the total number of students registered on the course.

Table 4.1 Breakdown of the research population

Course registered for:	Male	Female	Total
B Sc Actuarial Science	2	3	5
B Com	8	3	11
B Econ Science	3	1	4
B Sc Quantity Surveying	3	2	5
	16	9	25

In addition all the tutors on the course, fifteen in total, were approached and were asked to reflect on their experiences of supervising and running tutorials.

Finally, the tutor for both tutorial groups selected was interviewed. As this tutor had tutored for a number of years, his experiences, awareness and reflections on the tutor system were a valuable source of information. The tutor was given the opportunity to account for how things appeared to him in the tutorial setting and to describe his experiences over the last two years.

4.5 Methods of collecting and analysing data

Using Biggs' (2003) '3 P model as the conceptual framework the revised two-factor Study Process Questionnaire: R-SPQ-2F was administered as the tool to gauge changes in learning approaches in response to changes in the tutorial system. The Biggs Study Process Questionnaire was administered twice; the first time before students' June exam and the second time before their final exam in November 2006. The R-SPQ-2F questionnaire was processed by the Centre for Learning Teaching and Development (CLTD) at Wits and used to collect data on students' approaches to learning in order to identify:

- what approaches to learning were 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;
- whether there was a difference between the approach to learning adopted by male and female students; and
- whether students from the non-accounting degree programmes displayed different learning approaches.

The data collected from the R-SPQ-2F questionnaire was also used to analyse the shifts in students' approaches to learning over a period of time.

The R-SPQ-2F questionnaire comprises 20 questions regarding students' attitudes towards their studies. This version has two main scales: Deep Approach and Surface Approach, and the same component motive and strategy score for each approach. There are five questions per scale and these questions are randomly distributed. Students respond to the questionnaire (Appendix C) using a 5 point Likert scale (ranging from 'always true of me' to 'only rarely true of me') which in turn is related to the different sub-scales. The R-SPQ-2F results yield two approach scores and a component motive and strategy score for each approach. Each motive and strategy element is multidimensional.

The R-SPQ-2F questionnaire was processed by the Centre for Learning Teaching and Development (CLTD) at Wits. The data from these questionnaires, given in a Likert scale of preference, was coded and analysed using Microsoft Office Excel and presented in a table or graph. A comparison of the two sets of results was made in order to identify what transition and changes were experienced as students adapted to university life, the course, the tutorials, assessment in the form of the marked tutorial and to the practice. A statistical test was conducted on the group questionnaire results over the measured period of time; the results of this test indicated that there was no significance owing to the small sample size.

Focus group interviews were held with the tutors on the course.

Comment [J1]: I couldn't find a 'firstly'

Having formed a close working relationship with the tutors over the year the researcher asked them whether they would be willing to give their input on what they considered to be the strengths and the weaknesses of the tutorial system as it operated in 2006. As a number of tutors had expressed their opinions during the course of the year on the strengths and weaknesses of the tutorials as they currently operated, it was decided to explore these issues further in order to change or adapt the practice for the future. This method allowed the tutors to share their thoughts and experiences simultaneously with each other. In this group discussion a number of scenarios pertaining to the mutually agreed upon questions for the questionnaire were explored and/or clarified. They were also able to consider the range of views expressed by the others in the group, reflect on the issues raised during the group discussion and reflect on their own practice as tutors.

After this meeting the semi-structured questionnaire, based on the issues raised by the tutors in the focus group discussion, was formulated and given to the tutors to make written comments. (Appendix C) The questionnaire was given to tutors after the focus group discussion to enable them to reflect on the comments made by the other tutors and by myself as the researcher. It was believed that

they would comment honestly without undue pressure to conform to any perceived correct way of answering in front of their peers or the researcher. These statements documented their own personal responses to the questions and enabled them to raise further issues arising from the group discussion. Eleven of the fifteen tutors responded to the questions in writing

The data collected from these written responses was used to identify the issues which tutors perceived as problematic, and was also used to identify the ways they perceived these problems could be overcome. If they had any objections they were under no obligation to complete the questionnaire; it was entirely voluntary. The researcher did not ask them to identify themselves in any way when returning the questionnaires. It was also stated that they had the right to see and comment on the analysis and interpretation of the data prior to its submission if they so wished.

Finally, at the end of the year, the researcher met with the tutor of the two tutorial groups selected, and an individual unstructured interview was conducted to gather additional data. An attempt was made to probe his experiences of being a tutor and the challenges he faced in this context.

The process of analyzing the data comprised several phases. At each stage of the process judgements were made as to what category or descriptions of categories were applicable. Marton (1981) suggests that this form of analysis is a discovery procedure which is not necessarily replicable but should be communicated in such a way that other researchers could recognise the different ways of experiencing the phenomenon in question.

Using Marton's (1981) approach the data was analysed by:

- becoming familiar with the data; this involved reading the responses several times and comparing them for meaning; general impressions were noted;

- selecting significant statements to focus on later; here the opinions and attitudes expressed by tutors were explored;
- identifying variations or agreements and grouping these; and
- identifying similarities or differences.

In analyzing the data the focus was on identifying ways of understanding the similarities and differences that emerged and grouping tutors' expressed viewpoints. By grouping relevant statements it was hoped that ways of understanding the relations between the statements and between the groups would be identified. The phenomenon would be communicated in such a way that other researchers could recognize the similarities or differences experienced by the tutors in particular.

3.6 Ethical issues

The researcher met with the selected group of students in the presence of their tutor twice. Each time the students were informed about the research and its intended aims and outcomes. Before administering the Biggs questionnaire a detailed verbal explanation was given to the group regarding what was required and their verbal consent was obtained. What was conveyed to the students is contained in appendix D. It was also stressed that they were under no obligation to complete the questionnaire if they did not wish to do so and they were assured of anonymity as far as possible. Students were also informed that participation in the study was not to assess their individual student performance and would not affect their marks; the data obtained from the questionnaires was for the researcher's use only and would be treated in confidence. Care was taken to ensure that no individual student would be identifiable from the data presented or published.

Before excusing herself from the venue the researcher thanked those who would be completing the questionnaire and asked the tutor to collect the completed

questionnaires. Her reason for leaving was that she believed that had she stayed, the students might have felt that they were obliged to complete the questionnaire or that the researcher would have been able to identify those who had not completed them.

3.7 Conclusion

While the process and results will not have a direct benefit on the students registered for Business Accounting in 2006, the background reading and preliminary work done in preparation for the research will have a positive benefit for future students.