Chapter 5

Results of the revised two-factor Study Process Questionnaire: R-SPQ-2F and interviews with tutors

5.1 Introduction

In Chapter four the research methods used in this study were outlined. This chapter deals with the data collected and the analysis of the data.

This study is a two part analysis of students' approaches to learning over a period of time, with the focus being on what impact a change in the tutorials has had on students' approaches to learning, and tutors' perceptions of the tutorials as a domain where learning takes place.

The data collected will be discussed in two parts in order to attempt to answer the research questions. Firstly, the results of the revised two-factor Study Process Questionnaire: R-SPQ-2F over a period of time will be presented and analysed, then the data collected from the questionnaire given to the tutors, and the interview with tutors of the selected tutorial groups, will be presented and analysed.

5.2 Data collected from the revised two-factor Study Process Questionnaire

Before analysing the data collected, it is appropriate to note a statement made by Biggs et al (2001: 136) who clearly state that it is "inappropriate to categorise students as surface or deep learners on the basis of the SPQ responses" as these are a function of both "individual characteristics and teaching context" '. Thus the approach to learning should be seen as ~~a "~~a "relationship between student, context and task". The analysis of the tutors' responses explores this

relationship and tries to identify tutors' ideas around ways to improve this relationship.

The revised two-factor Study Process Questionnaire: R-SPQ-2F was administered as a tool to gauge changes in learning approaches in response to a change in the tutorial system; the change comprised the introduction of two marked tutorials and the tutors' approach to teaching as a result of these activities. The Biggs Study Process Questionnaire was administered twice: the first time before the students' June examination and the second time before their final examination in 2006. The first data set represents the 'pre-test' score and the second set of data represents the 'post-test' score.

The R-SPQ-2F questionnaire comprises 20 questions regarding students' attitudes towards their studies. Students responded to the questionnaire (Appendix 2) 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. There are five questions per scale, which are randomly distributed and these result in a maximum score of 20 for each subscale. The scores for the subscales were derived by summing individual students' responses to the appropriate statement and the relevant subscale scores were combined to compute the scores for the main scales.

Table 5.1 below represents the mean scores and differences in mean scores between the measured period for the different degree courses and between the genders registered for Business Accounting. This R-SPQ-2F version has two main scales: Deep Approach and Surface Approach, and the same component motive and strategy score for each approach.

The Chi test was applied to the data and this test revealed that there were no significant statistical differences over the measured period.

The data was used to identify whether there had been shifts in the approaches to learning over a period of time with particular reference to:

- what approaches to learning are prevalent in students;
- what differences (if any) there are between male and female students' approaches to learning; and
- whether students registered on the different degree courses exhibited different approaches to learning;

and will be reported in this sequence.

Following this the tutors' responses to students' difficulties and how these can be addressed in order to improve teaching and learning in tutorials, will be analysed.

Explanation of abbreviations used in Table 5.1

SM surface motivation
DM deep motivation
DS deep strategy
SS surface strategy
DA deep approach
SA surface approach

ACSC - students registered for Actuarial Science,
BCOM - students registered for Commerce degrees,
BECON - students registered for a Bachelor of Economic Science
QS – students registered for Quantity Surveying

Table 5.1 Approaches to learning adopted by the students in this group

	Pre						Post introduction of the intervention												
Degree														**Deviation between periods**					
ACSC	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**		**SM**	**SS**	**DM**	**DS**	**SA**	**DA**
Male	12.0	9.5	13.0	11.0	**21.5**	**24.0**	11.5	9.0	16.0	13.5	**20.5**	**29.5**		-0.50	-0.50	3.00	2.50	-1.00	5.50
Female	10.0	11.3	18.3	18.0	**21.3**	**36.3**	11.0	15.7	16.7	15.0	**26.7**	**31.7**		1.00	4.33	-1.67	-3.00	5.33	-4.67
Group	10.8	10.6	16.2	15.2	**21.4**	**31.4**	11.2	13.0	16.4	14.4	**24.2**	**30.8**		0.40	2.40	0.20	-0.80	2.80	-0.60
BCOM	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**		**SM**	**SS**	**DM**	**DS**	**SA**	**DA**
Male	11.3	13.4	12.8	13.6	**24.6**	**28.9**	12.0	15.5	12.5	12.9	**27.5**	**25.4**		0.75	2.13	-0.25	-0.75	2.88	-3.50
Female	8.3	8.7	15.0	15.3	**17.0**	**30.3**	8.3	10.0	14.0	12.7	**18.3**	**26.7**		0.00	1.33	-1.00	-2.67	1.33	-3.67
Group	10.5	12.1	13.4	14.1	**22.5**	**29.3**	11.0	14.0	12.9	12.8	**25.0**	**25.7**		0.55	1.91	-0.45	-1.27	2.45	-3.55
BECON	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**		**SM**	**SS**	**DM**	**DS**	**SA**	**DA**
Male	11.3	14.3	17.3	15.7	**25.7**	**33.0**	11.7	13.3	17.0	18.0	**25.0**	**35.0**		0.33	-1.00	-0.33	2.33	-0.67	2.00
Female	10.0	6.0	19.0	20.0	**16.0**	**39.0**	8.0	9.0	16.0	17.0	**17.0**	**33.0**		-2.00	3.00	-3.00	-3.00	1.00	-6.00
Group	5.33	5.08	9.1	8.9	**10.4**	**18.0**	4.9	5.6	8.3	8.75	**10.5**	**17.0**		-0.42	0.50	-0.83	-0.17	0.08	-1.00
QS	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**	**SM**	**SS**	**DM**	**DS**	**SA**	**DA**		**SM**	**SS**	**DM**	**DS**	**SA**	**DA**
Male	10.0	14.3	12.3	12.0	**24.3**	**24.3**	13.7	13.7	13.7	13.7	**27.3**	**27.3**		3.67	-0.67	1.33	1.67	3.00	3.00
Female	8.0	8.5	19.5	16.0	**16.5**	**35.5**	8.0	11.5	17.5	15.5	**19.5**	**33.0**		0.00	3.00	-2.00	-0.50	3.00	-2.50
Group	9.2	12	15.2	13.6	**21.2**	**28.8**	11.4	12.8	15.2	14.4	**24.2**	**29.6**		2.20	0.80	0.00	0.80	3.00	0.80
Total																			
Male	**11.1**	**13.3**	**13.6**	**13.4**	**24.4**	**28.2**	**12.2**	**13.9**	**14.0**	**14.1**	**26.1**	**28.1**		**1.1**	**0.6**	**-0.4**	**0.7**	**1.7**	**-0.1**
Female	**9.0**	**9.2**	**17.6**	**16.9**	**18.2**	**34.4**	**9.1**	**12.1**	**15.8**	**14.6**	**21.2**	**30.4**		**0.1**	**2.9**	**-1.8**	**-2.3**	**3.0**	**-4.0**
Overall	**10.4**	**11.8**	**15.0**	**14.6**	**22.2**	**30.4**	**11.1**	**13.3**	**14.7**	**14.2**	**24.4**	**28.9**		**0.70**	**1.50**	**-0.30**	**-0.40**	**2.20**	**-1.50**

5.3 Approaches to learning adopted by the students in this group

From Table 5.1 it can be seen that students as a whole have adopted a deep approach to Business Accounting, both before and after the introduction of the marked tutorials. However the deep approach has declined over the period, while the surface approach has increased slightly. The subscale surface strategy increased the most while the other subscales indicated only minor movements between the two periods.

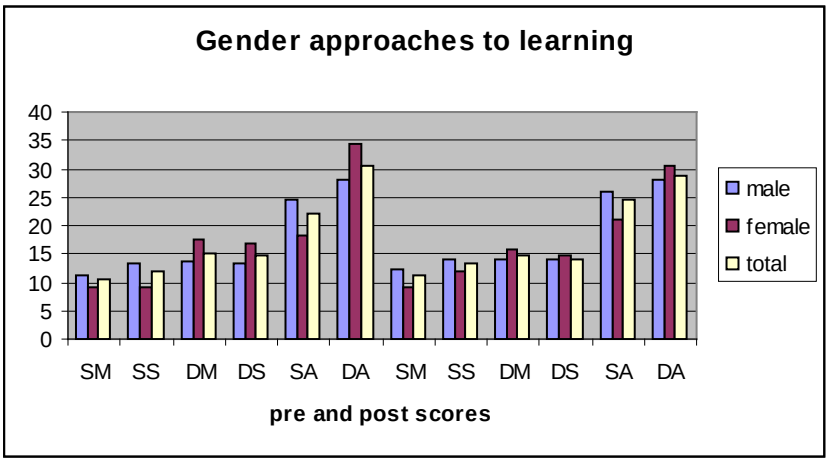
An examination of the scores on a gender basis reveals that the overall approach over the period indicates that female students adopt a deeper approach to learning in this group than their male counterparts, although it, too, has declined over the measured period. The male students' deep approach to learning did not change significantly over the measured period.

For both periods females have adopted a deeper motivational and strategic approach than males, although these subscales for females declined over the measured period.

The surface approach for both males and females increased over the period, more so in the case of females than of males. For females the surface strategy increased more than the increase in the males' surface strategy. Females' deep motive and deep strategy subscales decreased, while in the case of the male students their deep motive and deep strategy scores increased over the measured period.

The graph 5.1 depicts the movements over the entire group, per gender, over the measured period.

Graph 5.1 approaches to learning of the entire group, per gender



The approaches to learning adopted by students registered on the different degree programmes showed very different results.

An analysis of the results per programme indicated that there are some similarities and differences in the approach over the period of time, see Table 5.1.

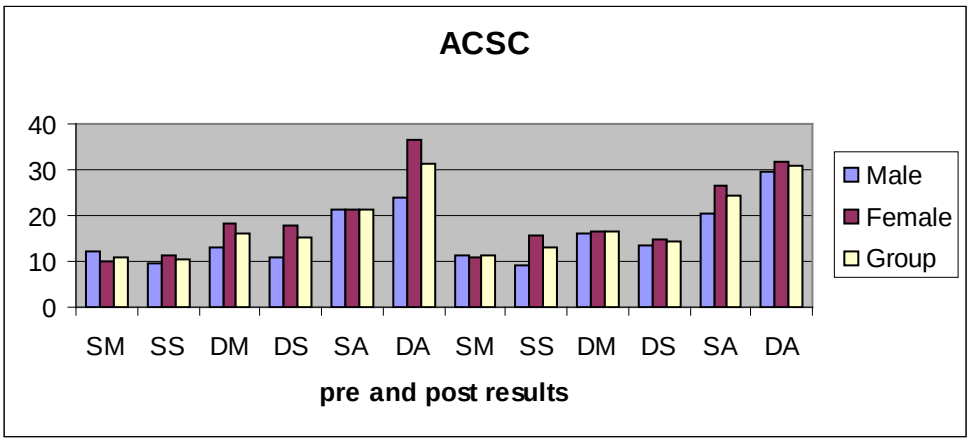
As a group the students registered for Actuarial Science recorded the highest deep approach to learning both before and after the intervention, while the Economic Science students recorded the lowest deep approach both before and after the marked tutorial. The greatest movement was for the Commerce students whose deep approach increased the most.

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.

In terms of the subscales the greatest movement occurred amongst the Actuarial Science students whose surface strategy increased over the measured period, and the Quantity Surveying students, whose surface motive scores increased over time.

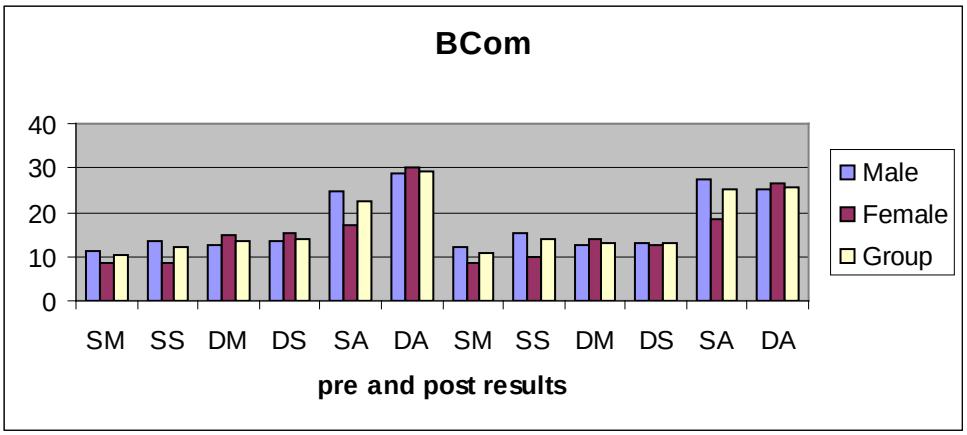
The graphs below depict these movements over the measured period of time.

Graph 5.2 approaches to learning of Actuarial Science students



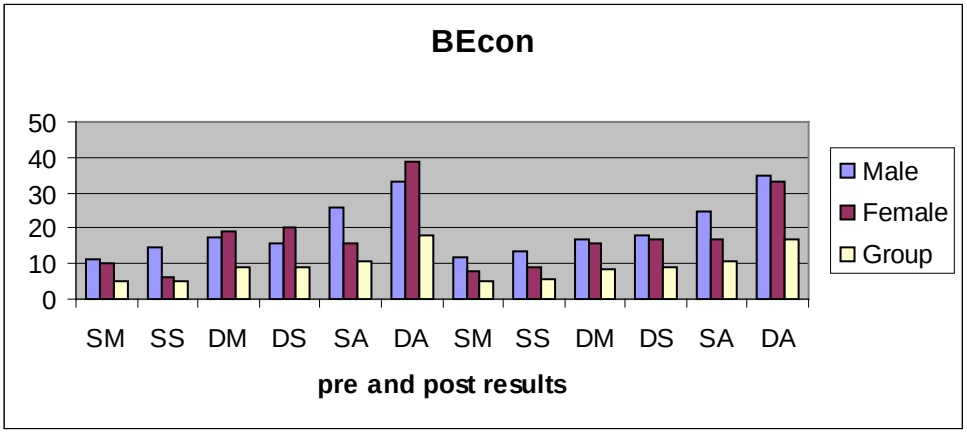
The students represented in the graph above have adopted a greater deep motivation and deep strategy over both measured periods. The actuarial students' surface motivation pre and post test increased slightly, while the surface strategy adopted by these students increased over the measured period of time. The deep motivation for both periods did not change significantly, while the deep strategy adopted pre-test is slightly higher than the post test score.

Graph 5.3 approaches to learning of Commerce students



Graph 5.3 indicates that while the surface motivation and deep motivation scores of B Com students did not change significantly over the period of time, the strategies adopted by these students showed a movement away from a deep strategy towards a surface strategy. For these students, the surface motivation stayed the same, while the deep motivation and the deep strategic approach adopted decreased slightly.

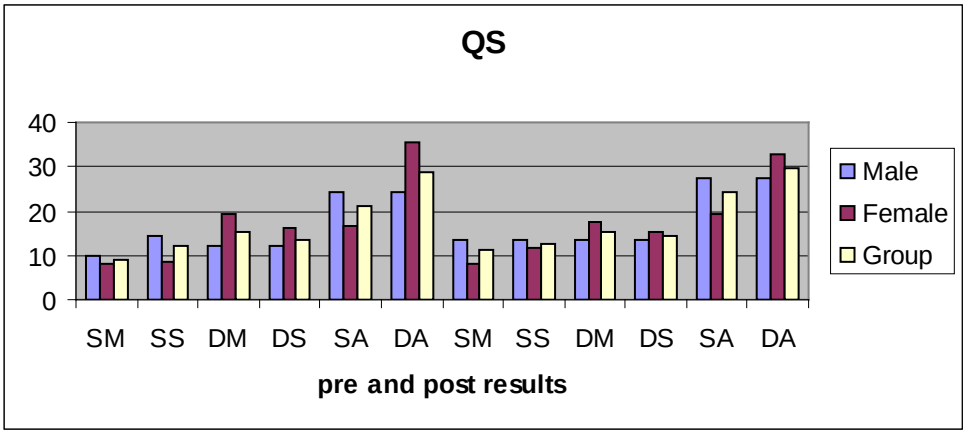
Graph 5.4 approaches to learning of Economic Science students



Graph 5.4 indicates that although female Economic Science students recorded high deep approach scores prior to the marked tutorial they showed a marked decrease in deep approach over the measured period of time. The male students

registered for this course increased their deep approach to learning over this period of time with their subscale deep strategy showing the most movement.

Graph 5.5 approaches to learning of Quantity Surveying students



Graph 5.5 indicates that the Quantity Surveying students' surface approach to learning increased over the period of time while their deep approach decreased slightly. The males' deep approach increased while the females' deep approach decreased after the marked tutorials. Male students' surface motive subscales increased while female students in this group increased their surface strategy over time.

In comparing the groups the most significant change appeared in the increase in the deep approach to learning by male actuarial students, while female economic science students showed a marked decrease in their deep approach to learning over the measured period.

Female students registered for the Bachelor of Economics (B Econ) degree were identified as having a greater deep approach to learning, while male actuarial science (ACSC) students recorded the least deep approach the first time this questionnaire was conducted. After the introduction of the marked tutorials and before the final examination, male Bachelor of Economics (B Econ) students recorded the highest deep approach while male Bachelor of Commerce (B Com) students recorded the lowest deep approach to learning.

Male B Econ students recorded the highest surface approach prior to the intervention while female B Econ students recorded the lowest surface approach. After the second measurement of the approaches to learning adopted by students, female B Econ students once again were identified as adopting the lowest surface approach while male B Com students adopted the highest surface approach.

The greatest movement between the two measured periods occurred among the male ACSC students who recorded an overall 11% increase in their deep approach to learning, while female B Econ students showed a marked 12% decrease in their deep approach to learning. The female ACSC students were identified as recording the most significant shift in their surface approach by increasing their score by 10.8% over the period.

(Appendix E indicates the analysis of the individual scores in more detail.)

Table 5.2 Represents changes that took place over the measured period.

	Number of students showing		
	increase	**decrease**	**same**
Surface motive	11	8	4
Surface strategy	14	7	4
Deep motive	14	7	4
Deep strategy	11	11	3
Surface approach	11	11	3
Deep approach	11	10	4

5. 4 Discussion of the shifts in approaches to learning over a period of time

The approach to learning describes the nature of the relationship between student, context and task (Biggs et al 2001; 137). Before further analysing the data collected it should be noted that the conception of learning held by the

students can also affect their approach to learning and that students' approaches to learning are only one part of the total educational event. Presage factors which exist also affect the preferred approach taken by students. It would be naive to discount the effect of prior knowledge of accounting that students might have gained while studying accounting at school; or the fact that students registered for actuarial science have extremely high entrance scores to university compared with the vast majority of students registered in other degree programmes. The fact that a large number of students had not studied accounting before influenced the way the content was taught in the first half of the course and the tasks and activities designed prior to the administering of the questionnaire. These factors, amongst others, interacted to determine the approach adopted, which in turn determined a particular outcome and vice versa. The central issue is whether the learning activities are producing the desired outcome in terms of gaining a deep understanding of the use of financial information in order to make rational economic decisions.

It was encouraging to note that despite heavy workloads towards the end of the year and limited time, the impact of the marked tutorials encouraged consistent active participation with the content of the course. This constant engagement with the material, and the support offered by the tutor in the small tutorial situation, encouraged most students to adopt a deeper approach to learning.

However, to unpack the possible reasons for changes in approach over the measured period it is important to look at the actual questions in the questionnaire and the students' responses to these questions.

Table 5.3 indicates the responses of 25 students to each of the questions. The analysis of these responses follows on page 99.

Table 5.3 Individual student responses to each of the questions on the R-SPQ-2F questionnaire

A rarely agree
B sometimes agree
C true half the time
D frequently
E almost/always

			may pre											**nov post**								
ques		A	**%**	B	**%**	C	**%**	D	**%**	E	**%**	A		**%**	B	**%**	C	**%**	D	**%**	E	**%**
1	DM	4	**9**	13	**30**	2	**5**	14	**33**	10	**23**	1		**3**	6	**19**	6	**19**	13	**42**	5	**16**
5	DM	7	**16**	3	**7**	6	**14**	16	**37**	11	**26**	4		**13**	7	**23**	12	**39**	5	**16**	5	**16**
9	DM	11	**26**	6	**14**	5	**12**	11	**26**	10	**23**	1		**3**	7	**23**	5	**16**	2	**6**	7	**23**
13	DM	5	**12**	14	**33**	10	**23**	7	**16**	7	**16**	2		**6**	9	**29**	13	**42**	4	**13**	3	**10**
17	DM	11	**26**	12	**28**	8	**19**	8	**19**	4	**9**	9		**29**	9	**29**	8	**26**	3	**10**	2	**6**
2	DS	4	**9**	12	**28**	4	**9**	10	**23**	13	**30**	9		**29**	4	**13**	7	**23**	15	**48**	4	**13**
6	DS	10	**23**	15	**35**	8	**19**	9	**21**	1	**2**	9		**29**	9	**29**	15	**48**	1	**3**	1	**3**
10	DS	2	**5**	4	**9**	7	**16**	14	**33**	16	**37**	15		**48**	3	**10**	7	**23**	14	**45**	6	**19**
14	DS	16	**37**	16	**37**	7	**16**	3	**7**	1	**2**	14		**45**	11	**35**	4	**13**	1	**3**	1	**3**
18	DS	6	**14**	11	**26**	8	**19**	9	**21**	9	**21**	3		**10**	9	**29**	10	**32**	6	**19**	3	**10**
3	SM	25	**58**	8	**19**	5	**12**	3	**7**	2	**5**	5		**16**	10	**32**	4	**13**	5	**16**	3	**10**
7	SM	20	**47**	12	**28**	6	**14**	2	**5**	3	**7**	10		**32**	11	**35**	8	**26**	2	**6**	1	**3**
11	SM	16	**37**	14	**33**	10	**23**	3	**7**	0	**0**	5		**16**	6	**19**	7	**23**	2	**6**	1	**3**
15	SM	29	**67**	7	**16**	7	**16**	0	**0**	0	**0**	12		**39**	8	**26**	8	**26**	1	**3**	2	**6**
19	SM	7	**16**	13	**30**	7	**16**	10	**23**	6	**14**	6		**19**	9	**29**	3	**10**	9	**29**	4	**13**
4	SS	8	**19**	10	**23**	4	**9**	10	**23**	11	**26**	2		**6**	3	**10**	5	**16**	12	**39**	6	**19**

8	SS	18	**42**	15	**35**	5	**12**	3	**7**	2	**5**	10		**32**	11	**35**	5	**16**	3	**10**	2	**6**
12	SS	8	**19**	13	**30**	11	**26**	10	**23**	1	**2**	2		**6**	10	**32**	6	**19**	7	**23**	3	**10**
16	SS	12	**28**	6	**14**	6	**14**	9	**21**	10	**23**	4		**13**	6	**19**	7	**23**	4	**13**	10	**32**
20	SS	33	**77**	6	**14**	3	**7**	1	**2**	0	**0**	19		**61**	8	**26**	2	**6**	1	**3**	1	**3**

The questions related to the numbers

1	DM	sometimes studying gives me a feeling of deep personal satisfaction
5	DM	I think virtually any topic can be interesting once I get into it
9	DM	I find studying some topics can be as exciting as a good book or movie
13	DM	I work hard at my studies because I find the material interesting
17	DM	I come to most classes with questions on the subject I want answered
2	DS	I have to do enough work on a topic so that I can form my own conclusions
6	DS	most new topics are interesting and I often spend trying to get more info about them
10	DS	I test myself on important topics until I understand them completely
14	DS	I spend a lot of my free time finding out about interesting topics which we discussed in class
18	DS	I make a point of looking at most of the suggested readings that go with lectures
3	SM	I aim to pass while doing as little work as possible
7	SM	I don't find my course very interesting so I keep my work to a minimum
11	SM	I can get by in most tests/exams by memorising key sections rather than trying to understand them
15	SM	I don't find it helpful to study topics in depth. It is confusing and it wastes time
19	SM	I see no point in learning material that is not likely to be in the exam
4	SS	I only study seriously what is given out in class or in study guidelines
8	SS	I learn by going over and over things until I know them by heart even if I don't understand them
12	SS	I restrict my study to what is specifically set as I don't think it necessary to do anything extra
16	SS	I don't think lecturers should expect students to spend time on material that won't be examined
20	SS	I find the best way to pass the exams is to try to remember answers to possible questions

5.5 Analysis of responses to the individual questions of the R-SPQ-2F questionnaire

Responses to questions that showed a marked difference or similarity over time are discussed below and a comment made at the end of each category of questions.

Questions 1,5,9,13,17 - relating to Deep Motivation

An interesting observation is how important students perceive intrinsic motivation to be in terms of success. They identify studying a subject or topic as important in terms of the positive reinforcement they obtain. The fact that the material is challenging did not detract from most students adopting a deep motivational approach. The impression gained was that they tried to find personal meaning from studying the material.

Of interest was the fact that most students found the subject interesting but not as exciting as 'a good book or movie'. One of the reasons for discussing topical issues reported in financial newspapers and magazines is to make the subject relevant and interesting, which most students acknowledged. The moment students do not find the content interesting, they become demotivated. As this course is compulsory for most students, this could be an obstacle to deep learning; however, if the relevance of studying the content is made clear and is interesting this could be identified as an extrinsic motivational factor.

What is of concern is the fact that over the studied period students did not come to class with questions on the subjects that they want answered (Question 17). It appears that they are passive learners and are not reflecting on the activities taking place in the tutorials or lectures; or it may be that they are exhibiting alpha behaviour, which is a form of resistance to unfamiliar content, or beta behaviour, which is partial accommodation with minimal change to existing ideas therefore not necessitating further questions. An additional possibility could be that

students were not taking 'ownership' of the course content and establishing positive emotions associated with learning accounting (Biggs 1985). As Marton and Saljo (1976) suggest, many of these students might be assimilating the content knowledge but not interpreting and abstracting meaning.

Question 3, 7,11,15,19 - relating to Surface Motivation

Question 3 - 'I aim to pass while doing as little work as possible' showed a marked change from 'never' and 'sometimes true' to more answers of 'frequently true' or 'sometimes true'. This change in approach is of concern as the reasons for the introduction of the marked tutorials was specifically because there was a perception that students were not engaging with the material, and the tutors reported that the marked tutorials did encourage active engagement with course activities and tasks.

5.5.1 Discussion of the general observations to deep and surface motivational approaches

A problem identified by the tutors was that students did not raise questions in tutorials. In order to address this, the teaching approach needs to be adapted and in the analysis of the tutors' responses, the general feeling amongst tutors was that during tutorials more questioning needed to take place in order to solicit engagement with the subject content and to develop a deeper understanding.
A perspective of the researcher and of the tutors is that for those students who do adopt the surface motivational approach, the relevance or value of the course now in terms of their future career, may not be apparent. The tutors have suggested that students' lack of motivation could be because:

- for most students the course is compulsory or is of a semi-compulsory nature; and/or
- students have a high workload and insufficient time; this could be the case for the quantity surveying students who do this course in their third or fourth year of study.

How students react to the tutorial situation is determined to a large extent by their own beliefs about their ability to act effectively. Some students have staying power and others lack confidence or lack motivation. Students who lack confidence or who are fearful often adopt a surface approach. These students lack confidence and avoid active negotiation as they feel that they have nothing worthwhile to contribute. Failure or difficulties can have a discouraging or demotivating effect on learning and one of the tutors' roles can be to help those students, that is, those who are prepared to accept help, to overcome some of these feelings. Social motivation and achievement motivation can facilitate learning yet is could be argued that if other students become competitors this can be demotivating to some students.

Questions 2,10,14,18 - relating to Deep Strategy

There was a noticeable shift in students' responses to Question 6 – 'most new topics are interesting and I often spend time trying to get more information about them'. More students indicated that this was 'never true' or 'half true' prior to the final examinations, than they did the first time the questionnaire was conducted. The problem that needs to be explored further is whether this response is a result of work overload during the second part of the year; whether students are adopting a strategic approach in order to maximize their time and overall result; or whether for those students who have done accounting at school level before this is not something new. In fact the response could be a combination of all of these points.

That ~~students~~student's construct knowledge for themselves is encouraging despite the reality that this takes time. Students and tutors perceive time as a valuable commodity, which has be to allocated, among other things, to other subjects being studied, so it is not surprising that students do not spend their 'free' time finding out about 'interesting topics'.

The response to Question 18 – 'I make a point of looking at most of the suggested readings' is interesting as the tutors observed that students came to tutorials without having read the course materials. This observation is validated by the students' responses to this question, indicating that most did not look at these readings. The tutors also noted that if students had done the readings the tasks and activities in tutorials would not have been difficult as they would have had prior knowledge. It is important then to encourage students to do the recommended reading prior to lectures in order to develop or construct schema so that new knowledge can be understood and assimilated.

Questions 4, 8,12,16,20 - relating to Surface strategy

What is of concern is that students only study what is given out in class – Question 4. This attitude adopted by some students was noted by tutors as problematic as the moment a task or activity asked them to 'think out of the box' it was perceived to be 'unfair', again displaying resistance to disturbances in schema.

What is encouraging (Question 8) is that most students realise that rote learning is not appropriate at university level and in fact should be discouraged. However, tutors noted that some students memorised concepts without understanding them or being able to apply them. It should be noted that memorising content is appropriate in some cases and areas. An example would be learning the format and structure of financial statements or memorising the definitions of elements of financial statements.

5.5.2 Discussion of the general observations on deep and surface strategies

The strategy a student adopts is affected by a number of contextual factors such as their own values and motives, task demands, and assessment methods. It should be noted that the strategy indicator is characterised by the presence or

absence of the intention to understand the material. Most students agree that in order to succeed you have to put in effort, but the degree of effort varies from student to student. Many students recognise the need to study a topic in depth in order to find meaning and understanding. Students who adopt a surface approach fail to reflect on their learning strategies and simply reproduce facts and ideas.

Finally, many of the factors which determine whether a student adopts a deep or a surface approach to learning are within the control of the lecturer and tutor and will be discussed later.

5.6 Data collected from the tutors

The second part this chapter looks at the qualitatively different ways tutors experienced and perceived the learning process in tutorials. Of the 15 tutors involved in the course in 2006, 11 responded to a request to respond in writing to the issues raised in the initial discussion to discuss the role played by tutorials in facilitating and encouraging learning of accounting. Using the method described in Chapter three, the outcome space was interpreted as consisting of three categories describing the factors that hinder or enhance learning, and the ways of improving the process of learning in the tutorial. Each of these three categories has different structural aspects and there are relationships between them which were explored.

Table 5.4 depicts the outcome space that will be discussed in detail.

Table 5.4 Outcome Space of Tutorials as a place of learning	
Referential Aspect – the impact on the learning process: (the how)	**Structural Aspect - identifying the factors that hinder or enhance learning and the relationship between these aspects: (the what)**
Category A of presage factors	• Work attitude and maturity of the students • Prior knowledge of accounting • Language
Category B of the tutorial context	• Role of the tutors as a mentor and facilitator, and as a member of the community of practice. • Role of the tutorials as a place for the development of academic practice within a community of practice.
Category C of ways of improving learning and teaching processes taking place in the tutorial context	• Active participation • Tasks and activities

5.7 Meaning of the categories with tutor comments as examples

5.7.1 Category A - Presage factors.

The study of the tutor responses identified three factors that either hindered or enhanced the learning process.

5.7.1.1 Work attitude and maturity of the students

This factor elicited a varied response from the tutors and stems from the fact that the course is compulsory for many of the students. Each time students enter a new learning context they bring with them previous experiences, some of which may have undermined their confidence and curiosity, or which may motivate them to learn something new. These attitudes and motivation impact upon how students orientate themselves towards studying accounting, especially when this course is not one of choice.

The general consensus among tutors was that students did not come to the tutorials prepared. The tutors felt frustrated that they could not help the students update their knowledge or fill in the gaps in what they did not know or did not understand, if the students had not done the pre-reading or at least attempted it.

A tutor's comment that illustrates this point follows:

> …from my experience this year it is the attitude of students that hampers the effectiveness of tutorials. The majority of the students are fresh out of school and do not adapt quickly to the work ethic expected of them at university level. They simply 'show face' at tutorials to earn DP (due performance) which defeats the purpose of these sessions.

In order to achieve they need to engage in the act of learning. Students need an attitude of willingness to participate. Self belief and engagement with learning

are intrinsically linked. If students do not want to participate actively in tutorial activities they often resort to copying task solutions or adjusting their solutions when compared to the given solutions, without understanding why their answers are incorrect.

A tutor's comment illustrates the above:

> … students have not attempted the tutorials or have solutions to the questions, they will not gain anything.

A senior tutor identified a perceived difference between mature and immature first year students, students attending university after having worked in commerce before attending university, and senior students (those close to graduating) when he commented that:

> …there is a huge difference between these students. The difference is the attitude, mindset and willingness to learn.

With the introduction of the marked tutorial some tutors identified a shift in attitude towards the subject, as the following tutor's comment illustrates:

> I noticed students became more conscientious where marked tutorials were involved. The class was more interested in the topics discussed and participation in the form of questions increased.

Whether this was a strategic move because the marked tutorial counted towards their year mark or because students were interested in gaining a deeper understanding of the concepts is uncertain.

5.7.1.2 Prior knowledge of accounting

Most of the tutors believed that students with matriculation (matric) accounting and non-matriculation accounting should be separated into different tutorials

groups as they found it difficult to deal with the diversity of students in terms of prior knowledge.

Tutors' comments which illustrate this follow:

> … separate matric and non-matric students - the reason (being that tutors) can work on specific issues and can work on problem areas more effectively.
>
> They should be split because those with (matric accounting) get bored and those without find it intimidating.
>
> … it will be easy for a tutor to deal with a particular group of students in terms of approach and tutoring style that matches students' needs.

One of the tutors was of the opinion that they should not be separated:

> because those who have accounting knowledge from school can help those who do not have any (accounting) knowledge.

Activating prior knowledge can help negotiate identity in ways that motivate students. Creating small communities of practice in tutorial groups can facilitate this process. Tutors believed that finding out what students know is easier in this context and this prior knowledge can then be used to help one another. It also makes it easier to teach new concepts and principles.

The tutors also observed that students had not pre-read the course materials and if they had attempted to read the materials they often did not understand them. This is borne out by the response to questions in the Biggs questionnaire already discussed.

Perkins' (1992) concept of 'fragile knowledge' reminds us that not all students are confident in using the information they have acquired and if they do have the

information, it is not certain that they really understand it. In accounting students are often bombarded with financial terms, principles and practices that are confusing to say the least. Students often do not know how to use this new information or might be afraid to try in case they are not correct. Cognitive challenge is essential but how does one give contextual support to a diverse student body without alienating some or confusing others? Appropriate scaffolding and feedback to students is important. This can be done by both the lecturer and the tutors, but putting this into practice is not easy.

5.7.1.3 Language

The ability to communicate both orally and in writing is important. Students are expected to communicate through the medium of English at this institution. However for tutors of English second language students the low levels of English proficiency are problematic. While it is common knowledge that students experience difficulty with the language they encounter in a new subject like accounting, they also lack the ability to contextualise the subject in their own schema. Many of these subjects have a specialised language with little or no meaning outside of the discourse. Language used by lecturers is often not the same as that used by teachers at school or found in other texts or in normal conversation. Cummins (1996; 52-53) makes the comment that 'conversational skills are interpreted as a valid index of overall proficiency in the language' and that these misconceptions 'ignore fundamental social and historical factors that influence academic success'.

A comment by one of the tutors illustrates this point:

> Students find that the text in the accounting textbook is difficult to understand.

This could be related to the specialized language used in the text itself, or to the fact that some students have no prior knowledge to which they can relate new concepts introduced in the textbook.

As most of the students on the course come from extremely diverse cultural backgrounds, many tutors believe that students who are not first language English speakers don't have the ability to express themselves adequately or understand the texts, especially case type questions in tasks or examinations. Many of the tutors could not understand how some students who converse adequately could not answer theoretical questions. A frequent comment was - 'what they write does not make any sense at all'.

Many of the tutors who speak an African language were encouraged to code-switch during tutorials and reported that this had helped students understand some of the concepts and principles peculiar to accounting. Students could then relate a term or concept which is not only new in terms of the language of instruction and the prescribed text, but also in terms of the subject itself, to their own understanding and in this way make meaning for themselves. Tutors have acknowledged that code switching is often difficult as there are often no words in indigenous languages that can be used to explain the English word and achieve the same meaning. Code switching as a form of support enabled students to 'try on' the new language and overcome their fear of the discourse. This process also ensured that they did not lose face.

5.7.2 Category B - the tutorial context

5.7.2.1 Role of the tutors

As a mentor or facilitator

All the tutors saw their major role as a mentor or facilitator. Many of the tutors saw their role as one which could 'make things better' or as helping students engage with the activities in order to achieve the outcome of the task – the role of mediator. The tutors further identified their role as being one that supported

students' own learning processes by helping them understand the content and principles so that these could be applied in different situations.

A tutor's comment illustrating the role of mentor follows:

> I would like to see the tutor as offering help, not only with the subject matter, but emotional support as well. But they need to be trained.

In terms of their role as facilitators all the tutors saw their role as helping students bridge the gap between what they know and do not know (Vygotsky's ZPD). This involved showing students techniques and methods for going about a task – the 'old timer' showing the newcomer how to become a member of the new community. They also agreed that they could set and direct the tone during the tutorials and that it was up to them to encourage students to engage with the material in the tutorials.

As a member of a community of practice

Tutors saw themselves as members of the student tutorial group and as members of the teaching community. There was a feeling that the students perceived the tutors as more approachable than the lecturer, as the tutors are also students, and as such could identify with the problems students were facing. From the teaching perspective the tutors saw themselves as 'newcomers' to teaching practice and the lecturer as an 'old timer'.

The following tutor's comment illustrates the notion of belonging to a community:

> (tutorials) allow students to learn a subject through a past student, the tutor, who gives them encouragement and who they can relate to.

The role of feedback to members of these communities was identified as important. This feedback needed to be communicated in such a way that it brought about change in learning. All the tutors felt that communication in the form of feedback to students was important in that it could help students

overcome problems and help deepen their understanding of accounting. Feedback from tutors to the lecturing staff and vice versa was also useful in improving teaching and learning.

As one tutor commented:

> Feedback is important as it directs us to areas where we need to focus more as well as making us aware of where students are weak (or) struggling.

The tutors believed that the marked tutorials gave them the opportunity to provide effective feedback to both the students and the lecturer on problematic areas or difficulties they identified when marking the tutorial. The tutors were then able to show the students the processes and skills applicable to particular tasks. They felt that making the marking criteria explicit helped students negotiate meaning by clarifying problematic areas or correcting erroneous practices.

5.7.2.2 Role of the tutorials

In this section the factors that hinder or enhance learning in the tutorial in particular will be explored.

Size of the tutorials

In terms of the tutorial as a place for learning and as a community of practice the size of the community was raised as a factor that could hinder learning. The tutorial groups range in size from 25 to 30 students. If the groups were too big tutors believed that not all issues could be dealt with.

This is illustrated by a tutor's comment:

> … everyone has different problems. Not all can be covered in one and a half hours if the group is too big.

Another tutor's comment:

> I would make classes smaller if possible. I would assign questions to students the previous week. They then present to the class. Students would prepare more thoroughly if they knew that periodically they have to present to the class. This can't be done if the class is too big.

Development of academic practice within a community of practice

Many of the students come to the tutorial with different experiences, prior knowledge and from different cultural backgrounds. It is by sharing and entering into conversations with others that confusing or difficult issues are illuminated or other interpretations debated.

Most tutors believed that tutorials were an extremely useful tool in gaining understanding and meaning in accounting. In the tutorial students were able to clarify concepts dealt with in the lecture or in the texts. The tutor was also able to help them acquire the skills necessary within the discipline.

The following comments illustrate this:

> Tuts help iron out issues and matters you think you understand until you put them into practice. I've also found (personally) that they are great for learning exam technique.

> Lectures are not long enough to deal with each and every question and to do all practical examples; therefore, tutorials help students to practice and learn to apply the theory to different cases.

As Starfield (1994) suggests, traditional skills gain significance when acquired within the discipline. By sharing knowledge with more experienced members of a

community of practice, newcomers develop an appropriate standard of academic literacy.

5.7.3 Category C – ways of improving the learning process in the tutorial context.

The intention here is to look forward from the perspective of what happened in the past in order to solve some of the perceived problems and to make recommendations for tutorials in the future.

5.7.3.1 Active participation

A major challenge identified both by the researcher, and by the tutors, was how to get students to engage actively with the course material in order to develop a deep understanding of the content. In this context the presage student factor of motivation is critical. One needs to be innovative in terms of teaching methodologies in order to stimulate or maintain a student's motivation level. Learners can shift their approach when a supportive learning environment is provided, but they need to learn by doing. Learning by doing relates the theory to practice.

In order to encourage active participation, lecturers and tutors must not alienate students, or discourage students with tasks that are so challenging that they cannot cope. This leads to frustration. The aim is not to have them withdraw. Appropriate support in the form of scaffolding and modeling can activate the student. With this in mind it was decided to provide some solutions to tasks and activities each week. The problem is that not all students actually do these exercises. Instead they either copy the exercises or adjust their solutions. For solutions which students already have, the tutors felt that only important issues should be highlighted and explained in detail. They also felt the students should be allowed to ask questions, challenge each other and not feel intimidated. The

tutors saw their role as helping to create an environment where this could happen.

There was considerable debate among the tutors as to whether to withdraw the tutorial solutions completely or to provide some solutions but not all.

The following comments from the tutors illustrate this:

> I feel it is important that solutions for key tuts not be given to students in advance. Only basic tuts should have solutions attached.
>
> If they don't have the solutions before a tut this is a problem because the tuts are difficult and students get stuck when trying to do the tut and may not be able to carry on.
>
> If students have not attempted the tutorials or have solutions to complete their answers they will not gain anything.

As Perkins (1992: 77) comments, 'we should teach different stuff' and the question of 'what stuff?' is answered by his understanding of the role of 'understanding performances'. He suggests that these are the ways to acquire and understand knowledge. These are the 'things we can do'. In terms of teaching for understanding we need to encourage active participation. Often students do not see the purpose of completing the exercises set for tutorials – they often want the solutions so that they can see how it ought to be completed without actively engaging with the material themselves. This method of looking at the question and then the solution in order to determine what they do or do not understand, will not lead to understanding.

To overcome this problem all the tutors agreed that marked tutorials were effective and in fact more should be given. They also suggested that marked tutorials should count more towards the year mark as they believed that students would not participate if the tutorials did not count for marks.

Tutors' comments that illustrate the above include the following:

> In order for this system to be effective, the weighting that these assessments carry should be increased from (current) 5% to 30% since it is all year round and a true refection of students' ongoing learning process.
>
> If it counts more they will be engaged throughout the year.
>
> During the course of the year I noticed students became more conscientious where marked tutorials were involved. The class was more interested in the topics discussed and participation in the form of questions being asked increased. It is for these reasons that I believe increasing frequency of these marked tutorials will have a positive impact on the learning process.
>
> If the unseen tutorial isn't for marks then the students have no motivation to come prepared.

A major issue discussed with the tutors was whether attendance at tutorials should be compulsory or not. At present students have to attend 75% of tutorials in order to attain satisfactory performance. Satisfactory performance allows them to write the final examination.

The comments from tutors on this issue are reflected below:

> Students, the majority, approach tutorials with the aim of getting SP, not improving their knowledge. If the tutorials consist of an unseen question which is completed, then marked and finally discussed, this would be more effective.

> I think tuts should be compulsory for all who have achieved less than 65% in the previous test. The good kids don't need the tuts since they consult if needed. The weak students need the tuts. It is sad to see students attend tuts only for a SP, as many do. It is a counter productive situation – they don't learn anything if they haven't prepared.

> I think they (tutorials) should be compulsory as I think that a tut should be much more than just a discussion of the solution.

Most tutors believe that attending tutorials is beneficial but the challenge is to convince students that they are a useful tool to develop academic practice.

5.7.3.2 Tasks and activities

The general perception amongst the tutors was that tasks and activities set should determine whether students can transfer the skills and new knowledge learned to different contexts. The tasks and activities should be developed over a period of time from simple to complex so that students can build on their existing knowledge. These exercises should also cover all the skills necessary to complete the task.

This is a suggestion from one of the tutors that may have merit if used in the future:

> The students are given loads of examples and don't do any of them. The main sense I get is that they feel overwhelmed. I think a better approach is to work on one loaded cash flow statement question, for example, over the three allocated tuts. This gives them time to familiarize themselves

with the details over the 3/4 weeks, seeing how to break it down. It might also be a good idea to use the same company all through ratio analysis as well, and for them to see the links between what the ratio analysis is telling them and the cash flow e.g. the effect of slow turnaround from receivables on the operating cash flows.

A closer relationship needs to be developed between the lecturer and the tutors in order to determine that the activities and tasks set for each tutorial are appropriate for the diverse cohort in each tutorial group. This is in order for quality learning to take place.

5.8 Conclusion

The marked tutorial had a positive impact on the students' level of engagement and interaction. Smaller tutorial groups and more time should be allowed for interaction between the tutor and the diverse student body in order to address all the problems and issues that students might have.