

## **Chapter 2**

### **Teaching and learning in an accounting context**

#### **2.1 Introduction**

The aim of this investigation was to identify the approaches to learning that the students in a small tutorial group adopted before and after the introduction of a marked tutorial. The study also aimed to investigate the factors that enhanced or hindered the learning process from the tutors' perspective.

This chapter is divided into a number of sections. Firstly, the notion of academic practice in the context of the role tutorials and tutors play in developing this practice is clarified, and the 'gap' in terms of the context of the course, is explained.

Hutchings (2007) suggests that the Scholarship of Teaching and Learning, like any scholarship, must be connected to the work of others, be it practice, research, or theory. But not all scholars of teaching find what they're looking for in those theories, as theory takes multiple forms and connects to practice in different ways. Hutchings argues that the theory most at issue is that which informs ongoing practice. Huber & Morreale (2007) argue that by looking at the literature, one can use what others are discovering to improve teaching practice.

Secondly, in order to contextualise the data collected and to understand and unpack tutors' perceptions of the learning process taking place in the tutorials, the literature that provides the theoretical framework for this study, is reviewed.

## 2.2 Academic practice

The primary aim of teaching should be to encourage and promote learning. A question that often arises is: 'What if some of the students are not showing evidence that they have learned what they should have learned?' There are many factors that must be considered when answering this question: one of these is the limited development of academic practice.

Universities have as one of their primary aims the promotion of academic practices. There is no universal way of producing knowledge in academic practice, although there are some common aspects used across contexts and conceptual positions. Academic practices are established through webs of values, criteria, tools, activities and forms of communication that may be peculiar to a particular academic practice or may have some aspects that are common to other academic practices. Craig (1996) proposes that academic practices involve specialised forms of knowledge and content which all students need to learn. Slonimsky and Shalem (2004) describe academic practice as sets of activities orientated towards the development and dissemination of knowledge. Academic practice also involves disciplined activities comprising specialised actions and operations, which promote the development of knowledge.

Many students who enter tertiary institutions are not adequately prepared to face the challenge of academic practice. Pedagogies that are responsive to students' needs and develop academic depth are to be encouraged. Slonimsky and Shalem (2004) suggest that a responsive pedagogy must enable students to grasp the point of the academic practice and to develop the tools to work towards it. It should not be defensive teaching nor should it lower expectations of under-prepared students, as lowering expectations can result in the potential of these students not being accessed. The challenge in a diverse student body, where many of the students lack the skills to succeed at handling complex and demanding disciplinary content, is how to achieve this in a manner that opens

epistemic access to specialised forms of knowledge that constitute academic practice. One way of promoting academic practice is through the use of tutorials.

Reading and writing are a vital part of academic practice, because through reading and writing academic practice is accessed and deepened. The tasks or activities assigned to the tutorials should develop this depth. Tasks can only be selected and designed once the lecturer has an initial understanding of where the students are at a particular point in time. In order to promote learning it is important to ascertain what experiences and interpretative schemes the students bring to the texts used in the discipline. Lecturers need to know who is familiar or unfamiliar with the content or form and to what degree. This is often difficult to do successfully within the large lecture groups comprising the Business Accounting course, however it is possible in a small group, such as a tutorial. Tutors who have been trained can help identify the levels of familiarity of the content that students bring with them to the tutorial context. Only once an understanding of what it is students are struggling with is achieved, can ways be sought to address and rectify the situation. Too often what the students know or do not know is only realised after an assessment task.

The introduction of marked tutorials once a semester as a formative assessment task, has enabled the tutors and the lecturer in the Business Accounting course to identify the levels of understanding the students have of the content. These tutorials are conducted before formal assessment tests and the tutors who mark the tutorial task are able to identify what the students within their group know or do not know before these tests. Remediation in the form of scaffolding can help students overcome difficulties they are experiencing before tackling these high stake assessment tasks, which are used for summative purposes. Prior to the introduction of these formative assessment tasks, identifying what students knew or did not know was only possible after the summative assessment tasks. With these formative assessment tasks, feedback is quick and the stakes are low. Tutors also share their experience of marking and identifying problem areas with

the students. Together they share a space and develop strategies to overcome any identified/perceived gaps. The tutorial tasks selected to bridge these gaps cater for the diverse student body so that analysis and feedback is appropriate.

Feedback can be categorised as evaluative, which is judgmental, with implicit or explicit use of norms; or descriptive, which is task-related. As noted by Slonimsky and Shalem (2004), feedback is an essential part of learning what it means to participate in a practice. In order for students to achieve 'they need to grasp the point of the practice and develop powers to work towards this' (Slonimsky and Shalem 2004: 3). If students don't know, they need to be directed along the right path. Regardless of how much potential someone may have, if they are not given the opportunities to participate and/or not offered mediation, by either the lecturer or tutor in this context, they are unlikely to actually learn (Slonimsky and Shalem 2004:12). It is important that this feedback gives direction, regulation and support.

Gipps (1999) identifies two further types of descriptive feedback: the first form is that of 'specifying attainment' and 'specifying improvement' which underlie a mastery-orientated approach. Here the teacher retains control and power. The second form is that of 'constructing achievement' and 'constructing the way forward' which Gipps (1999) refers to as using both teachers' 'sharp' and 'fuzzy' criteria and using discussion and strategies for future development and self-regulation. In this case the teacher, be that the lecturer or tutor, is sharing power and responsibility with the student. The teacher's role is more of a facilitator than a judge. This type of feedback encourages students to assess their own work and provides strategies to improve, adapt or develop their work. I believe that this can be developed more effectively through small group tutorials than in a large lecture group. Feedback from the tutors to the lecturer on what students are struggling with is also valuable. This ensures feed forward in terms of what is delivered in lectures is more constructive.

Finally, exploring the relation between content and form exposes the tensions that can exist between the familiar and the unfamiliar. Where there is a gap between what a student knows and can do, bridging the gap involves a motivating factor. If the student can overcome this gap we say they have 'learned'. Additionally, overcoming this hurdle could add to his/her self-esteem. The tutors can play a role as mentors in motivating students to achieve and pass this course.

### **2.3 Explanation of the 'gap'**

A 'gap' can be perceived as a knowledge gap, a gap between high school and university, in the sense that there could be mismatches in the syllabus, assessment methods, teaching styles, learning approaches, to name but a few, between school and university; or for some university students the gap involves coming from different cultural and economic backgrounds into a new university environment with its own challenges (Craig 1996). A gap which could be considered normal depends on how students adapt to the educational situation; it is also diverse and this brings with it its own difficulties. Craig (1996) notes that this is a challenge we are faced with as educators but the real challenge is how to make the bridging of the 'gap' as painless as possible.

Craig (1996) uses the Pascual-Leone distinction between 'structural mental capacity' (Ms) (which involves our given, innate mental capacity, that which we are born with) and 'functional mental capacity' (Mf) (the ways in which we have learned to use our innate mental capacity) to explain this process of learning; in other words to know and to adapt. She explains that education 'exploits' our Ms whereas Mf represents our ability to *use* this capacity. Learning to use our functional mental capacity occurs in many ways, especially with regard to our 'environments'. Individual and group differences and stimulating environments influence how we use our functional mental capacity. A certain gap between 'structural mental capacity' and 'functional mental capacity' is normal and

necessary for learning. Craig (1996) states that if the gap is too big, learning becomes impossible. This 'under preparedness', where the gap is too big, calls for more 'creative measures' in teaching and learning.

Mumba, Rollnick and White (2002:149) suggest that low throughput rates could be attributed to the perceived 'gap' between high school and university. They contend that this gap, often identified in the first semester at university, is due to two contributing aspects: articulation and progression. The articulation aspect refers to 'continuity over the interface between two stages of education' (Mumba et al 2002 :149). Articulation problems could be problems with: testing in exams, content knowledge, and teaching styles. These problems could become potential progression problems later in the year if they are not addressed early in the year. The progression aspect is concerned with 'what happens within the late education stage' (Mumba et al 2002: 149) and is focused on what progress or lack thereof is made by the students.

Mumba et al (2002) further highlight the fact that often students and lecturers have different expectations in terms of teaching and learning, especially at the beginning of a course. The perceptions of teachers and lecturers of the 'gap' are arrived at in their interactions with one another, this being at the micro-level. At the micro-level patterns in teaching and learning strategies and content can be identified. When evaluation of the learning process takes place, information is used for feedback purposes and also to judge the system. At the macro-level the context (syllabus, exams, performance etc) is explored. Any misconceptions should therefore be dealt with at an early stage. If there is a perceived gap, cognisance should be made of this and a strategy adopted to bridge this gap.

Craig (1996) claims that for those students who are part of the 'history' of the university, the way things are done is familiar and comfortable. The issue is how to change and be changed so that all will benefit. This might even imply that what has been done in the past is not longer appropriate.

Craig (1996) suggests that as educators we need to teach so that learners will learn and this, she believes, could be achieved through modelling. Her reasoning is that by using modelling and scaffolding (especially at the beginning of a course) perceived gaps in the interpretations of the texts can be overcome. For those students for whom the language of instruction and the language of the texts is not their own, explanation and interpretation of texts is vital. Mediation in the form of feedback is also important until such time as students can cope and make the knowledge their own. This needs to be done in such a way that they take responsibility for their own learning.

Assessment tasks and activities should track the student's ability to engage with these tasks. The gap between the student's performance and the demands of the task becomes the data for analysis of the educational programme with the specific aim of trying to improve the quality of learning. Craig (1996; 48) makes an important statement when she states that without 'conflict (between what students know and can do, and the task demands/constraints) knowledge and thinking remains static'. The difference between what students know and can do and the task can be varied in terms of form and content. Any move from familiar to unfamiliar form or content and vice versa can result in conflict. The action that is needed is to turn the unfamiliar into the familiar. According to Craig (1996), tasks that are selected and designed need to take into account what the student can or cannot do, the task and cognitive operations required to perform the task, and what strategies are needed to bridge the gap.

As educators we need to devise programmes and material, which will scaffold task engagement. It is important to make explicit the content and form as well as the links between these and the tasks. Craig (1996: 51) claims that 'the structure of our tasks involves and is governed by conventions which makes the task what it is/how it is'. For a newcomer to these conventions adaptation is extremely difficult. Testing, as tracking, is integral to informing those involved in teaching and learning about their success or lack thereof when devising programmes.

In order for students to develop academic practice and achieve understanding in their chosen discipline, all the elements of the education system must work together. Biggs (2000) advocates the term 'alignment' and states that 'in aligned teaching, there is maximum consistency throughout the system. The curriculum is stated in the form of clear objectives, which state the level of understanding required rather than simply a list of topics to be covered. Teaching methods are chosen to do things that the objectives nominate. Finally, assessment tasks address the objectives, so that you can see if students have learned what the objectives state they should have learned' (Biggs 2000: 26).

#### **2.4 Theoretical Framework**

This framework rests on two key constructs. The first construct, which will be discussed in this chapter, describes the development of student approaches to learning and Biggs' (1985,1999) 3P questionnaire in particular. The second construct is the literature pertaining to four important learning theories. Here, an attempt to explain the processes teachers, in particular tutors, can use to bridge the 'gap' is explored. The literature review pertaining to these learning theories will be discussed in Chapter three.

#### **2.5 The development of student approaches to learning**

This section reviews the students' approaches to learning literature. The first section describes the defining dimensions of approaches to learning. The second section deals with the literature examining approaches to learning in accounting and the variable issues of gender and prior educational experience.

### 2.5.1 Approaches to Learning

Educational research in the 1960s started to show an understanding of the influence of both individual and situational variables on educational attainment (Tickle 2001: 955). Before investigating these variables, two terms in particular need to be defined – ‘learning style’ and ‘approach to learning’. ‘Learning style’ can be understood as the expression of personality within the academic context, and according to Schmeck (1988 as cited in Tickle 2001) includes learning strategy, motivation, attitudes and cognitive style. A student will be predisposed to adopting a particular learning strategy. Learning styles are long-term characteristics of students.

Biggs (2003: 13), on the other hand, claims that knowledge is created by student’s ‘learning activities’, that is, their ‘approaches to learning’. These approaches are a short-term response to a learning context. He considers why the same teaching experiences the students were confronted with led to different learning outcomes. His findings suggest that what students construct from an activity depends on their motives and intentions, what prior knowledge they have and how this is used. He sees meaning as personal and a way of interacting with the world. Biggs (1985) uses the term ‘approach to learning’ with a pre-existing motivation accompanying a particular strategy; this strategy being open to change. He further identifies the existence of prior motivations, which are said to direct the choice of working strategy.

Seminal research into ‘approaches’ to learning and their impact on learning outcomes was undertaken by Marton and Saljo (1976) and then by Saljo alone (1979). They were interested in the phenomenon of how students process information and how these differences account for differences in learning outcomes. They describe students’ learning experiences as ‘deep’ and ‘surface’ approaches. Duff (2004: 411) suggests a deep approach is likely to result from relevance to students’ interests (Fransson 1977 cited in Duff 2004: 411); the

interest, support and enthusiasm shown by the instructor (Ramsden 1979 cited in Duff 2004: 411); the introduction of co-operative learning (Hall et al, 2003 cited in Duff 2004: 411) where students have the opportunity to manage their own learning (Ramsden and Entwistle (1981 cited in Duff 2004: 411); and the personal teaching efficacy of the lecturer (Gordon and Debus 2002 cited in Duff 2004: 411). Students with a deep approach focus on the meaning of the text and content.

A surface approach is associated with qualitatively lesser outcomes. Marton and Saljo (1976) regard a surface approach as one that focuses on memorisation, and views learning as a transmissive approach to knowledge.

Ramsden (1979, 1981) identifies a third approach which he labels a 'strategic approach', which draws on students described by Miller and Parlett (1974) as 'cue seekers'. These students receive cues from their teachers. Snyder and Miller (1974 as cited in Gibbs 2005) conducted a study in which they found three types of students who cued perceptions of assessment:

- cue seekers: those who sought out what counted in assessment;
- cue conscious: those who were aware of cues and responded to them: and
- cue deaf: those who missed the cues.

The extent to which students were cued into assessment was found to be a strong predictor of their success. Highly cued students maximised their academic performance by effective study organisation and analysis of the structure and content of the previous examinations to predict questions. Subsequent studies have failed to reproduce the strategic approach as a distinct approach to learning. Work by Janssen (1996) and Entwistle et al (2000) associate the strategic approach as an extrinsic motivation factor where students adopt a deep or surface approach to maximise their grades or marks in a particular academic context.

Most researchers agree that although students exhibit evidence of more than one style or approach to learning, one will ultimately dominate. The approach to learning adopted by students is strongly influenced by a number of factors, teaching being one of these factors. As approaches to learning are malleable, dynamic and sensitive to the learning context, adapting the context to effect changes in students' perceptions of the context may create differences in approaches to learning. As each student is unique, the approach adopted will be unique and depends to a large extent on the nature of the discipline being studied, in this case, accounting.

It is believed that how students approach a task or activity (the process) will strongly impact on the quality of the outcome (the product) of such a task. The approach to learning is affected by students' perceptions of the task which in turn is influenced by their perceptions of the context and their orientation to learning. In addition students' intentions have implications for the outcomes of the learning task as these intentions determine what it is that students learn. Quality outcomes that promote active learning may be fostered through the use of marked tutorials and cooperative learning. In this way students will be encouraged to demonstrate the quality and integrity of their learning.

The approach which students take to learning and the inter-relationship of achievement and satisfaction within the context, provide an indication of subject quality in terms of whether deep approaches to learning are adopted. In order to improve the quality of teaching, it is believed that a deep approach to learning should be encouraged as it is not what is learned that is important but how it is learned. The students need to realise that this course will have relevance to their long-term career needs as either employees or employers. Lecturers and tutors have a role in helping students make the material personally relevant by bridging the 'gap' between what they know and what they need to know.

Whether tutorials and tutors have the ability to encourage a deep approach or change students' approaches to learning is debatable. Haggis (2003) argues that there is an assumption that desirable approaches can be elicited by the use of particular teaching methods. She challenges the assumption that deep approaches ought to be fostered and finally argues that 'academic literacies' offer a better perspective from which to understand student learning in higher education. Haggis notes a further misinterpretation of this approach to learning model, as those who use it see it as encapsulating 'the truth' about student learning. Bryne et al (2002) argue 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. They also suggest that male students fail to report their actual approach to learning. These issues need to be borne in mind when analysing the results of the revised study process questionnaire.

Prosser and Trigwell (1999 as cited in Duff 2004) suggest that understanding student approaches to learning has a deeper significance than simply modelling 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. The curriculum, teaching methods and assessment should be so aligned that they encourage high quality outcomes.

### **2.5.2 Approaches to learning in accounting**

Cognisance of prior research in the education literature supports the notion that there are differences in students' approaches to learning. These approaches to learning are related to the student's prior learning, their conceptions of learning and the teaching context. Other characteristics such as age, gender and culture are known to influence the learning approach (Booth et al 1999; Duff 1999; Gow

et al 1994 and Lucas and Meyer 2003). Ultimately these approaches to learning determine the quality of the learning outcome.

Educators should take into account approaches to learning if they want to improve the quality of student learning, as the literature provides conclusive evidence of the relationship between student approaches to learning and the quality of the learning outcomes (Biggs 1978; Biggs et al 2001; Marton and Saljo 1976; Marton and Booth 1997; Prosser and Trigwell 1999; Ramsden and Entwistle 1981 and Ramsden 1992).

Numerous calls have been made for accounting educators to change the way accounting is taught and learned in order to address the perceived deficiencies in accounting graduates ( for example Accounting Education Change Commission (AECC) 1990, Mathews et al, 1990). 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 Mavondo).

A literature review indicated that there was a clear need for further research to be conducted within specific disciplinary settings. In a 1996 edition of *Accounting Education: an international journal*, Lucas published a literature guide on approaches to learning which identifies very little research within the area of accounting education. Since then research into accounting students' approaches to learning has increased and a number of papers have been published in this area.

Prior research indicates that accounting students' approaches to learning differed across different subjects within the same course and they seem to adopt higher

surface learning approaches and lower deep learning approaches compared with other university students (Eley 1992). Gow, Kember and Barry (1994) reported that accounting students' use of a deep approach declined from the first year to the second year, and then increased to the end of the third year. Booth et al (1999) found that second and third year accounting students adopted lower deep and higher surface approaches compared with the reported norms for Australian arts, education and science students.

Gow et al (1994) examined the way accountancy students approach their study and give insight into how students learn and what teaching strategies are needed to improve their learning. In this study scores for the achieving and deep approaches declined from the first year to the second year, indicating that enthusiasm and the use of meaningful approaches to study tasks decline as students progress through their first year. Possible explanations suggested by Gow et al (1994) for the findings are excessive workload, surface assessment demands, lack of intrinsic motivation, a didactic teaching style, high student/staff ratios, and the difficulties faced by the students studying in a second language. These findings are consistent with the argument by Beattie et al (1997) that accounting attracts students who tend predominantly to adopt a surface approach to learning.

More recently Lucas (2001) used the more qualitative phenomenographic approach to identify students' approaches to learning introductory accounting and their conceptions of accounting, as opposed to using inventories which support the identification of quantitative variation in a statistical sense. Her findings reveal that deep and surface approaches to learning can be identified using a qualitative phenomenographic approach. This study also distinguishes those features that are characteristics of the deep and surface approaches within the discipline of accounting. In addition contextual features surrounding these approaches to learning and which are central to understanding them, are also identified.

Lucas (2001; 176) argues in support of a phenomenographic pedagogy which involves teaching for conceptual change. She makes suggestions as to how the findings can be used to make changes through a phenomenographic pedagogy, which seeks to make students' conceptions of the subject matter explicit; she provides diagnostic tools for the identification of distinctively different conceptions of the subject and approaches to learning; and addresses issues of preconceptions and their relevance to teaching and assessment.

Lucas (2001:178 -180) found that while students perceived accounting to be important to their future career in business many students distanced themselves from accounting and did not perceive it to be immediately relevant. Failure of the element of relevance meant that they focused on learning the technique or learning a format in order to pass the subject.

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).

English et al (2004) reported on the nature and effectiveness of a set of interventions aimed at encouraging a deep approach to learning through improving communications skills of students. Students were surveyed at the beginning and end of their first year of study in accounting. At the beginning of the year students exhibited high scores on the surface approach to learning. At the end of the year the students exhibited a decline in their deep approach to learning scores.

Hall et al (2004) on the other hand, reported on the outcomes of an intervention in the learning context that required accounting students to work on three group activities, each designed to promote the adoption of a deep approach to learning.

Results reported in this study indicated that accounting educators can influence students' approaches to learning by adopting specific changes in the learning environment. Using the SPQ (Biggs 1987a) to measure approaches to learning at the beginning and end of a course, they found that accounting students significantly increased their use of deep strategies but did not significantly reduce their use of surface strategies. These results, while not as expected (i.e. students use of surface strategies did not decrease), appear to be consistent with the arguments of Birkett and Mladenovic (2002) and other accounting education research (English et al 1999; Jackling 1999 and Lucas 2002). The overall conclusion of these papers is that encouraging the adoption of a deep approach to learning is possible but that 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.

Other more recent research has sought to measure the effectiveness of accounting students' approaches to learning and correlate these scores with their academic performance (Duff 2004 p413) with mixed results.

Duff (2004; 410) argues that there are a variety of factors that affect student performance in their first year. However, some of these factors can be identified through direct observation (e.g. age and prior educational achievement) or can be influenced by educators (e.g. the development of more effective approaches to learning and preparation for higher education). The aim of Duff's paper was to identify the relationship between accounting and business economics students' approaches to learning and prior academic achievement, age, gender and their subsequent academic performance and progression. Duff also states that as accounting education is a mixture of the mechanical processes and conceptual understanding, this can cause tension. This tension has not gone unrecognized by accounting scholars. Some studies (Jackling 2005: 272) have suggested 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. While Duff (2004: 426) argues that accounting students need to master all three 'defining' approaches to learning (surface, deep and achieving approaches to learning) if they are to be successful in their years in higher education. An effective strategy should have the effect of: first, improving both academic performance and progression; and second, providing a means of achieving higher quality learning outcomes.

### **2.5.2.1 Approaches to Learning and Gender Issues**

A significant amount of research has been conducted in respect of students' approaches to learning within higher education in an attempt to improve understanding of how courses can be delivered and assessed in order to encourage a deep approach to studying. However the findings of studies that have considered the relationship between approaches to learning, gender and learning outcomes have so far been varied and often conflicting.

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). Biggs' (1987b) testing of Australian students suggested that males produced higher scores than females on surface approach, while females produced higher scores on achieving approach. On the other hand Richardson and King (1991) concluded that there was no empirical evidence to suggest that there are any significant gender differences in student learning styles when using quantitative measure such as those adopted by Biggs (1970), Entwistle et al (1979), and Kolb (1984).

Studies in the United Kingdom and Ireland have reported inconclusive results. One study found that female accounting students scored significantly higher on the surface and strategic scales (Jones and Hassall, 1997). Similarly Duff (1999) found that female students were more likely to adopt a surface approach than

males. However Byrne et al (1999) found no significant differences in the approaches to learning of male and female students in a first year account course. Booth et al (1999) found significant differences in the mean scores obtained by males and females, with females recording higher scores on a deep approach compared with males

Byrne et al (2002) found that the deep and strategic approaches are positively associated with high academic performance while an instrumental approach is associated with poor performance. This relationship exists for female students but there is little evidence of a relationship between performance and learning approaches for male students. This may be explained by male students failing to effectively report their actual approach to learning.

In their research de Lange and Mavondo (2004) used the revised version of Biggs' (1987) SPQ to examine differences across gender groups. Their research indicated that there were different learning strategies for male and female students. They also challenged the accepted wisdom with regard to questionnaire development, as they felt that the questions were not gender sensitive both in the way the questions were phrased and in the way the constructs are measured. Duff (2004) suggests that these gender differences may be instrument specific, with some approaches to learning inventories more sensitive to gender than others.

Paver and Gammie (2005) found that female students scored highly on the surface approach and this was the case for students with a feminine-constructed gender (gender identity). They also found that gender, whether biological or constructed, is not a clear determinant of degree performance within accounting and business education.

The literature appears to be contradictory or unclear. Even where gender differences in learning styles are apparent this is not necessarily reflected in

performance measure or learning outcomes. As Gammie et al (2005: 193) suggest, where there are gender differences staff should explore the reasons for the differential and take appropriate action to ensure that each individual student is given a platform on which to maximise his/her potential. This may have implications for educators as they plan lessons that are gender neutral.

Prior research on gender issues related to learning approaches warranted consideration of the possible differences in males and females in this study.

#### **2.5.2.2 Approaches to learning and prior educational experience**

Prior educational experience is a broad term which is defined as a student's abilities or characteristics which encompass cognitive abilities, motivation, personality, and cognitive styles (Snow 1989 cited in Duff 2004: 414), while Dochy et al (2002) highlight the pivotal role this factor plays in learning situations. It is surprising therefore, that only limited evidence exists concerning the relationship between prior educational experience and students' self-reported study approaches. Duff 2004 comments that this is even more surprising given that the relationship between educational experience and an individual's learning orientation is an integral part of the presage-process-product model.

Vermunt and Rijswijk (1988 cited in Duff 2004: 415) report that students with prior experience of higher education are less likely to manifest a surface approach than those individuals without experience of higher education.

Richardson et al (1999) also report scores on the surface approach which are inversely related to students' prior educational experience.

#### **2.5.2.3 Conclusion**

Research within this framework of approaches to learning has added to theory, developed research tools and provided empirical evidence to support changes in teaching.

While there has been research into approaches to learning in other disciplines in South Africa (Case 2000) there has been little research into approaches to learning in accounting education. What is interesting in this study is that while all the students are taking Business Accounting, not all the students taking Business Accounting are typical accounting students, as many of the students are registered for different degree courses offered by different faculties.

There has been no research on students' approaches to learning for students registered for accounting as well as being registered in other faculties. This study seeks to contribute to the wider agenda of understanding the student learning process within the accounting discipline and particularly in a South African context.

## **2.6 Measuring approaches to learning**

Research initially conducted by Marton and Saljo (1976) and Pask (1976) led researchers Biggs (1987) and Entwistle (1986), to develop student learning inventories. The use of inventories in establishing students' approaches to learning in large groups of students signalled a shift from qualitative to quantitative research methods (Booth et al 1999; and Kember 1995). These inventories, The Study Process Questionnaire (SPQ) by Biggs and the Approaches to Study Questionnaire (ASQ), by Entwistle, have been used extensively over the years. The Study Process Questionnaire (SPQ) by Biggs 1987a, 1993a, 1993b is discussed in detail below and the revised 2P questionnaire is the instrument used in collecting data for this study.

### **2.6.1 The Study Process Questionnaire (SPQ) by Biggs, 1987a, 1993a, 1993b**

Biggs offers the 3P model, which stands for presage, process and product, as a way of explaining why students learn differently. This model connects where

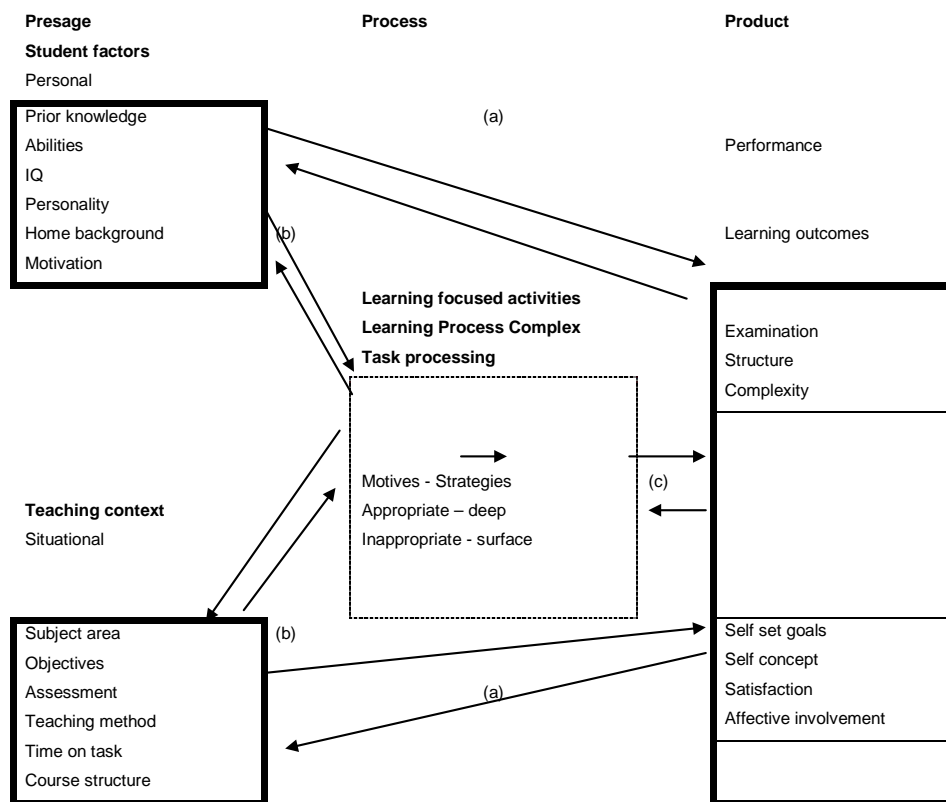
students are when they approach a task, with what they actually do and the final outcome of the task. He contends that the outcome is affected not only by the approaches to learning but also by presage factors.

Biggs' initial model on the construct of deep and surface learning involved not only three stages, presage, process and product, but also included two components not found in other researchers' models, namely, motive and strategy for learning, shown in figure 2.1 below.

Presage factors can not only directly affect the student's performance (path (a)) but can also indirectly affect the student's motives for learning and strategies adopted in approaching a learning (path (b)). These indirect paths form the basis of Biggs' Model. He refers to these variables as the learning process complex.

**Figure 2.1**

**Biggs' Model of Teaching and Learning - 3 P Model. (Biggs, 1987a,1993a,1993b)**



The Biggs 3P model will be used as a framework when considering what factors contribute positively and meaningfully to learning outcomes. The model will be deconstructed into its component parts: presage, process and product. The focus will be on teacher presage factors, as they are the factors that the lecturer and tutor have control of and can influence, and the role they play in the processing and learning of new disciplinary knowledge.

#### **2.6.1.1 Presage factors**

Presage factors exist prior to learning and comprise both teaching and student presage factors. These factors can be identified and allowed for but cannot be changed (Tempone 2001).

##### **2.6.1.1.1 Student presage factors**

Presage factors relate to personal and situational preconditions which impact on a student's approach to learning. These factors include prior knowledge, skills and experience, abilities, preferred ways of learning and personality types. These factors are ones that students bring to the experience and also reflect their expectations of the experience. These will be different for each student. Lecturers and tutors cannot change these experiences but need to identify what students bring to the context in order to work with them and where possible, direct them into deep approaches to learning.

Lucas and Meyer (2003 cited in Gouws 2003) state that the most important single factor which influences learning is what the learner already knows. If students have no prior knowledge this will affect learning. Students will use prior knowledge to deal with new experiences, decode them and try to make sense of them. A mismatch could arise between the new information and prior learning which could be a hindrance (Tempone 2001). When students cannot relate the new experience to their existing web of beliefs, conflict arises. This is especially

so in accounting where some students have done accounting at matriculation level while others come to university with no prior knowledge of accounting and find it a highly complex and difficult subject. By making the material personally relevant, a deep approach to learning can be fostered.

#### **2.6.1.1.2 Teaching presage factors**

These factors include contextual factors such as the structure set by the lecturer and by the institution in which s/he operates, and how students perceive the classroom, the teaching and the assessment. The lecturer and tutor have some control over the contextual factors and can influence them.

Tutorial groups can be identified as a presage factor as the size, composition and selection of the members who comprise these groups can affect the learning environment. While conflict within a tutorial group is inevitable and could encourage debate, group dissonance is a major factor that can hinder this process.

The lecturer's choice of curriculum content can either encourage or dissuade a student to adopt a deep approach to learning. Assessment methods have a considerable impact on what approaches to learning students adopt. If tests are seen as a practice that requires recall, students will adopt a surface approach.

Where these contextual factors are perceived to exist in a positive manner, students are likely to engage in deep approaches to learning (Entwistle & Ramsden 1983). Entwistle and Tait (1990) confirmed earlier studies where deep approaches to learning were associated with perceptions of relevance, and surface approaches with heavy workloads.

### **2.6.1.2 Process factors**

In the Biggs 3P model, process factors are the actions students take to achieve certain outcomes. The process factors motive and strategy, together determine the preferred approach the student takes to learning. The 'process' of this model has two different meanings: the metacognitive one of deciding how to go about a task; and the tactical meaning of determining which cognitive processes, higher or lower level, are to be used (Biggs 1993).

Biggs' 3P model identifies approaches to learning as process factors. It should be remembered that students' approaches to learning are part of the total educational event. Presage factors which exist affect the preferred approach students take. The literature indicates that approaches to learning are most responsive to teacher influences in directing student learning. In order to change these approaches the experiences, perceptions and conceptions of a particular thing by students need to be modified.

Small group tutorials were established to provide an interactive student learning environment for the large and diverse cohort of Business Accounting students. The aim of these tutorials was to maximise students' development and knowledge in accounting through the use of structured tasks and activities. Through further explanation, modelling and scaffolding, accounting knowledge can be developed. While tutorial groups can facilitate student learning, it is the task that can bring the members of the tutorial group together. Feedback within the group allows for reflective learning.

Tutors play an active role in enabling students to develop a way of learning in a particular discipline like accounting. In order for tutorial groups to be a site of deep learning students should actively engage with tutors and use this process of interaction to develop new understanding of particular concepts. This shared space needs to be negotiated so that expectations governing participation and

the criteria used to judge understanding are made explicit. By scaffolding, tutors can make explicit how to set out an exercise, and what strategies are appropriate and need to be adopted in order to tackle a specific task or activity. Students often need a structure through which to understand a concept or topic and the tutors can help create this structure by explaining these concepts in different ways. Students will then be able to identify what is appropriate practice in the accounting discipline. Tutors can also diagnose misconceptions and help move students towards understanding the abstract concepts. This means the tutor adapting the student's perception of the problem to a more appropriate one. By questioning in a proactive, non-threatening way, tutors can get students to communicate their understanding of concepts and correct their misunderstandings accordingly; the reason for adopting this approach is that students themselves often don't ask questions as they often do not know what to ask or how to ask a question so that their misconception can be clarified.

These processes used by tutors to help students learn through interaction can promote real learning. Not only can these processes help students gain a deeper understanding of the concepts and principles of accounting, but students can also acquire new accounting knowledge, develop existing knowledge, develop thinking skills and clarify misunderstandings. In a tutorial situation both the students and the tutor are expected to contribute, however students will only benefit in their learning if they take responsibility for their own learning and participate actively in situations and tasks that require engagement (The Harvard Business School 1984 as cited in Sims and Demeduk 1995).

Personal motivation achieved within the group as a result of tutors' and members' interactions can be one of the greatest contributors to student learning. If students and tutors work together they can achieve a better result or develop higher order skills than if they work on their own. Tutors who adopt a consultative approach with students could encourage better quality outcomes in terms of

developing students' analysing and interpretative skills, by engaging them with the subject material.

The central issue to all of this is whether the learning activity is producing the desired outcome.

### **2.6.1.3 The Product**

In the 3P model, product is the outcome of the process employed in the learning process - the 'how much' is learned. The Structure of the Observed Learning Outcome (SOLO) taxonomy is a means of assessing the outcome or product of student learning. As Biggs & Collis (1982) suggest, the 3P model can be contextualised when SOLO is applied to student responses.

Biggs concedes that it is difficult to determine the cause of good or poor learning, but studies have linked surface approaches to learning with low order outcomes and deep approaches with higher order outcomes (Entwistle & Ramsden 1983).

### **2.7 The Study Process Questionnaire**

Biggs developed the original Study Process Questionnaire (SPQ) which consisted of 42 items or statements to which students responded using a 5 point Likert scale (ranging from 'always true of me' to 'only rarely true of me') which in turn related to different sub-scales. The SPQ results yielded three approach scores and a component motive and strategy score for each approach. According to Biggs, Kember and Leung (2001) the SPQ scores could be quality indicators at presage, process and product levels, referring to preferred, ongoing and contextual approaches to learning (Biggs et al 2001: 137).

In this 3P model Biggs outlines three main approaches, namely 'deep', 'surface' and 'achieving' as shown in table 2.1 below:

**Table 2.1**

**Motive and strategy approaches to learning and studying (Biggs, 1985 and 1987)**

Approach	Motive	Strategy
Surface	Sub scale: Extrinsic Surface motive is instrumental and the main purpose is to gain a qualification with pass only aspirations and a corresponding fear of failure, or this could be phrased as to meet the requirements minimally, not working too hard and not failing.	Reproductive: Limit target to bare essentials and reproduce through rote learning.
Deep	Sub scale: Intrinsic Purpose of studying is to actualise interest and competence in particular academic subjects.	To gain a full, meaningful understanding and competency in an area through reading, interacting with others.
Achieving	Based on competition and ego-enhancement: obtain highest grades, whether or not material is interesting.	Based on organising: follow up all suggested readings, schedule time, behave as 'model student'.

The third form, the achieving or strategic approach, should not be discounted. This approach could be classified as a well-organised surface approach where the aim is to maximise marks attained. Here students often see learning as learning to play the game according to the perceived rules, which is often by

adopting a technique as the appropriate strategy. Biggs suggests that the achieving motive is based on competition and ego-enhancement. The researcher believes this is debatable. Some students come from backgrounds where there are severe financial constraints, so the achievement characteristic may not be appropriate in the competitive sense, but may be a strong intrinsic motivator to achieve to a better standard of living and to be a source of pride in the community from which they came.

What is important is that deep or surface approaches to learning are not attributes of individuals and that they correlate closely with motivation, but are not necessarily the same thing. Case and Marshall (2004) noted the following:

- Approaches to learning are not characteristics of learners.
- Approaches to learning do not describe development stages through which learners pass. A different approach can be adopted in different contexts.
- Approaches to learning are not synonymous with learning styles.

Biggs et al (2001: 136) 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, in his opinion, the approach to learning should be seen as a 'relationship between student, context and task'.

## **2.8 The revised two-factor Study Process Questionnaire: R-SPQ-2F**

The original version of the Questionnaire developed by Biggs in the 1970s, was revised by Kember and Leung in 2000/2001 and assesses deep and surface approaches only. This revised version now consists of 20 items or statements (Appendix B). The final version has two main scales: Deep Approach and Surface Approach and the same component motive and strategy score for each approach. This 'new' version is shorter, simpler and easier to administer.

Each motive and strategy element is multidimensional. 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. Kember et al (1999) suggest that there are also four motivation indicators: intrinsic interest, a positive motivator referring to courses with good career preparation, a negative minimising motive and achievement motivation. Biggs et al (2001:135) refers to three motives: 'to keep out of trouble with minimal effort, to engage the task appropriately, and to maximise grades'.

## **2.9 Conclusion**

The most common use of the R-SPQ-2F is in identifying common learning approaches; this information can be used to establish appropriate teaching methods, curriculum and assessment tasks and, as was done in this study, it can be used to collect data. Most researchers agree that students exhibit evidence of more than one style or approach to learning but that one will dominate. These approaches can change from time to time and from situation to situation. It should be noted that administering a standard inventory does not address the contextual subtleties and nuances. An important aspect of context is the nature of the discipline being studied, in this case, accounting. Case (2000) argues that language confounds meaning that can be attached to these responses. The analysis of the tutors' questionnaires constituted an endeavour to interpret this meaning.

In Chapter three the second construct of the theoretical framework, the literature pertaining to four important learning theories, will be reviewed in order to understand and interpret the responses the tutors made in terms of what is happening pedagogically in the context of this course.

## Chapter 3

### Conceptions of learning

#### 3.1 Introduction

Using learning theory perspectives to complement approaches to learning may yield useful insights which help comprehend why and what students are having difficulty understanding. It may also provide insights as to why students are unable to achieve the aim of higher education, which is to foster a deep approach to learning. Understanding learning theory, in itself, can help contribute to what we understand by 'learning' and can contribute to reflecting on one's own practice of teaching.

Over the years a broad range of perspectives on learning have been used from behaviourist theory to communities of practice. Each of the theories has its uses, but some more so than others. In this section it is not the intention to cover all of these theories but only those which inform the data collected in this study.

Learning is a complex process and is one of meaning-making that necessarily interacts with the world around it. Learning is identified not as passively receiving information, but as an active process of building familiarity with the new knowledge ('construction') and making an adjustment of pre-existing knowledge. In the words of Craig (2001: 48) 'action is ... that which will turn the unfamiliar into the familiar.' Educators need to design tasks that lead to 'action for re-cognition' (Craig 1996: 53).

A quotation by Tyler (1949: 63 cited in Biggs 2003), is as pertinent today as it was years ago: 'learning takes place through the active behaviour of the student: it is what he does that he learns, not what the teacher does.'

A review of the conceptions and theories of learning follows which will be used as a foundation for the scholarship of teaching and learning. Kreber (2006) and Jarvis (1999) argue that theories serve as information that practitioners need to transform into situation-specific knowledge as they try them out in practice; in doing so they create valid knowledge.

Finally, the role that social and cultural factors play in learning, and the role that language plays, is examined.

### **3.2 Students' conceptions of learning**

The way students adapt to the demands of university is often mediated by their own conceptions of learning, and their beliefs and reasons for being at university. An important factor with regard to how students study is the understanding that they have about the nature and purpose of learning.

Marton and Säljö (1984 cited in Sims and Demeduk 1995), identified that learning had been viewed by many as:

- 1 an increase in knowledge,
- 2 memorising,
- 3 the acquisition of facts, methods etc which can be retained and used later,
- 4 the abstraction of meaning, and
- 5 an interpretative process aimed at understanding reality.

The first three views relate to the straight forward acquisition (assimilation) of knowledge needed for reproducing information. There is no interpretation or transforming of this knowledge. There is no challenge to existing knowledge structures. These three categories reflect a surface approach. The last two concepts imply that the student is engaging with new knowledge, incorporating

this information into prior knowledge and existing webs of belief in order to achieve understanding, in other words, constructing knowledge (a Piagetian perspective). These last two categories reflect a deep approach to learning. The development of the last two concepts, abstract thinking and interpretation of complex issues, can be developed and consolidated in the tutorial environment, thus deepening the approach to learning.

### **3.3 Learning theories**

#### **3.3.1 A behaviourist perspective of learning**

Pavlov and Skinner, two prominent behavioural psychologists, introduced the idea of conditioned responses and reinforcement. From this learning theory it was found that positive reinforcement encourages further learning. Bearing this in mind, it appears that the tutor and lecturer can encourage this form of behaviour to a certain extent in both the lecture and tutorial environment, but there are doubts around its being the only or most reliable form of learning. This form of learning can be used when there is initial resistance to learning a compulsory subject, in that this training model can be used to develop certain skills and knowledge. If students are presented with enough activities over time, some of the basic skills can be developed. More specifically, in the accounting context, learning the structure of financial statements and memorising accounting definitions to be applied to specific problems in assignments and tests, can be linked to behavioural learning theory.

If some students tend towards a reproductive approach to learning and are dependent on memorization and rote learning, they will find it difficult to deal with problem-based questions in accounting where they have to apply their knowledge.

### 3.3.2 A cognitivist perspective of learning

Cognitive theories focus on an individual's internal cognitive structures. Learning is viewed as transformations in these structures. What we see is not necessarily what others see. As lecturers, what we intend or expect our students to see is not necessarily what they see. One of the leading cognitive theorists Piaget (1964) suggests that each individual's view of reality is based on a complex structure of ideas that is constructed from perceived or conceived experiences. We create knowledge by organising what we know according to our webs of belief or structures that already exist. This structure is only altered when conflict arises between a new experience and previous experiences. Piaget suggested that in order to promote learning, 'dissonance' must be created; this could be done by tutors or lecturers explicitly challenging students' existing understanding or knowledge structures. This has the implication that prior knowledge could be an aid or an obstacle to learning and students may struggle with reconciling what they have been taught with what they know or do not know.

Piaget identifies several phases of behaviour or 'compensatory constructions' where the learner grapples with an unfamiliar problem and uses a process to create, trial, select and modify actions until the problem is solved. When this happens, the conflict or 'disturbance' is neutralised and learning has occurred (Rowell 1989: 359). The processes undergone are: assimilation, accommodation and equilibration.

**Assimilation** is the process through which we use our existing structures to take in new information. We need an existing web of beliefs (prior knowledge) to which to relate this new information in order to assimilate it. We learn something new by connecting it to something we know and then building upon it; for example, students listening in a lecture link the new knowledge to their prior knowledge in order to make meaning. Knowledge is not moulded by what is

observed, it is interpreted according to our webs of belief or existing structures. This could be problematic if there are 'gaps' in the schema.

**Accommodation** is the process through which our existing structures change as we take in new or different information. Accommodation occurs where the disturbance is allowed to fit by consciously making space for it, a conceptual restructuring and reorganization. The learner tries to retain his or her original theory and adopts the 'problem' as a variation of that theory, thus, accommodating it and eliminating the disturbance.

Piaget further describes three levels of compensatory constructions: alpha behaviour, beta behaviour and gamma behaviour.

Alpha behaviour: in this phase, resistance occurs. Students deal with the 'disturbance' by attempting to neutralise it by doing one of the following : either ignoring it; rejecting it as anomalous; deforming it, creating a separate theory to account for it; or changing it in such a way that it is no longer a disturbance – fundamentally resisting change in any way. An example in the accounting tutorial context is when students find a task difficult and they then copy or audit a solution; they are not acting but resisting, therefore not really learning. This alpha behaviour can be either a deliberate or an unconscious choice. The outcome of this type of behaviour is restricted to assimilation.

Beta behaviour results in partial accommodation with minimal change to existing ideas; it can be identified as integrating the disturbance as a new construction and eliminating it as a disturbance.

Gamma behaviour results in full internalization of the disturbance and this leads to the anticipation of disturbances in the future - equilibration.

Rowell (1989: 358,359) suggests that the process of reconstruction at the beta and gamma levels *involves considerable effort*.

**Equilibration** refers to the self-regulation that goes on between assimilation and accommodation and is a conservative process. Learners will not easily abandon their erroneous constructs. When we take in new or different information we relate it to what we know; if there is a misfit or discrepancy, a disequilibrium is created. Equilibration is the self-regulatory process through which we regain a balance between what we know and new or different information.

According to Rowell (1989: 356), Piaget's mechanism of equilibration in an individual is 'triggered by a disturbance in the knowledge system when a gap or conflict is recognised'. Perry (1970: 41, 42) claims that to generate meaning (to learn) one needs a balance of assimilation and accommodation. He further states that 'one is usually unaware of the act of assimilation' and only when one makes a mistake does one realise how wrong or incongruent one's thoughts or structures are. By transforming these thoughts one learns. Like most people, learners are resistant to change – we often don't like to leave our zones of comfort. In this comfort zone there is a state of equilibrium. When shortcomings or gaps in learners' thinking are made apparent, dissatisfaction becomes apparent – a state of disequilibrium is created. Errors are part of learning and in fact learning often takes place once the error has been uncovered or when new discoveries are made as a result thereof. Educators need to design tasks that lead to 'action for re-cognition' (Craig 1996: 53) and these tasks should explicitly challenge students' existing understandings. Tutors need to encourage students to engage with the tasks and not be afraid of making mistakes, as it is in learning from one's mistakes that true learning takes place.

Accounting, like mathematics to a certain degree, is a continual construction of knowledge. This knowledge is continually constructed by our actions on the objects. The forms of action are co-ordinated in a logical system. These

operational structures, which the students know how to implement, are reversible. However this operational reversibility is a major obstacle for some students. An assumption that is made by lecturers and tutors is that most students can assimilate new concepts, in that they recognise what is useful for future use. However 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. It is then apparent that they do not know.

An individual will have an emotional investment in a cognitive construct (Rowell 1989: 360) which he/she will be *resistant* to abandoning. It is here that Piaget is able to make a strong case for the social role in learning, since interaction with others should facilitate the process.

### **3.3.3 A constructivist perspective of learning**

Constructivist theories of learning focus on the processes the learners use to build their own mental structures when interacting with the environment (Wenger, 1998: 279). Constructivism as an educational philosophy holds that learners construct their own knowledge rather than discover knowledge; this, then, is within them and is unique to them. This view sees learning as an active process where understanding is not transmitted from the expert to the novice, likened to pouring water into the proverbial jug. Learners need to make sense of something in their own minds. This could be problematic if the learner does not see the relevance of what is to be learnt.

Social constructivists believe that meaning making is a process of social negotiation among participants. Vygotsky's theory sees the understanding of human cognition and learning as social and cultural rather than an individual phenomenon. Vygotsky's view of learning is that it was always mediated by

other people and that the responsibility for learning rests with the mediator and in the quality of the mediation. In the accounting context, this has huge implications in terms of who is selected as a tutor and how he/she is trained. .

Vygotsky (1978) was particularly interested not only in what the learners were capable of independently, but also in how much further they were able to progress with assistance. According to Vygotsky, the role of mediation is central to progress through the “zone of proximal development” (ZPD) and is the process of providing the learner with support during the time they are learning something. This support is reduced as the learner is able to work independently.

The zone of proximal development refers to an area in which a learner might have trouble solving a problem alone but can succeed with the help of someone more knowledgeable. Vygotsky defines the ZPD as:

*‘ the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.’ (Vygotsky 1978b p. 86)*

According to Vygotsky, the Zone of Proximal Development enables ‘good learning’ that is in ‘advance of development’ (or ‘actual development’). This position appears to oppose the position of Piaget who suggests that learners can only learn that which is appropriate to their level. However it should be noted that Vygotsky suggests that a child can only imitate that which is within her developmental level, which suggests that he shares Piaget’s notion of development of knowledge in individuals. Vygotsky argues that ‘actual development’ is not the upper limit of what a child is capable of achieving. The levels of actual and potential development exist in the subject’s mind. This difference between actual and potential development is not directly observable

by another person, but the accessible estimate exists in the observer's mind, and in instruments used to record and analyse the learner's responses.

Vygotsky proposes that the act of participation in a mediated task allows for the redefinition of boundaries: 'instruction *creates* the ZPD' (Wertsch 1984:12). The concept of mediation emphasizes the role played by human and symbolic intermediaries placed between the individual learner and the material to be learned. Psychological tools are those symbolic systems specific to a given culture, that when internalized by individual learners become their inner cognitive tools. Vygotsky describes the use of language and other forms of semiotic mediation (Wertsch 1984: 8) as key to the process by which the advancement of learners to new levels of understanding may be supported by more knowledgeable others. According to Vygotsky, symbolic tools acquired in the course of education shape our sense of the world. Symbolic mediators include different signs, symbols, writing, formulae and graphic organizers (Kozulin 2003: 23-24). Development and learning depends on the mastery of symbolic mediators, their appropriation and internalization (equilibration) in the form of inner psychological tools. What needs to be emphasized is that symbols may remain useless unless their meaning as cognitive tools is properly mediated to the child. Writing in its different forms constitutes a major class of symbolic mediators.

Mediation' or 'mediational means' (Crook 1994: 38) is an activity or function that bridges or creates linkages between what is unfamiliar and what is familiar. It establishes a form of communication that is shared between teacher and learner (adult and child in Vygotsky's approach) in the zone of proximal development, so that intersubjectivity (effective communication between two or more people) and effective learning can take place. The role of 'marked tutorials' in identifying what students know and do not know and developing ways of presenting or communicating 'raw' content, is a pedagogic skill that tutors themselves need to

develop. Without pedagogic content knowledge, tutors and lecturers are unable to present the content in such a way that it makes sense to the students.

Where the teacher uses scaffolding, a rapid transition can be made between what the student already habitually knows and what he needs to know according to the rules of the game of a specific discipline in a university. In this way the learner paradox is overcome, with the teacher acting as a 'bridge' to ease the transition between what the learner knows (the familiar) and what he does not know (the unfamiliar). In this case the generation of conflict is interpreted by Craig as 'action' and the classroom lesson and environment as an 'appropriate occasion for action' (Craig 2001: 48).

Wertsch (1984:8) helps describe the 'situation definition' as one of the theoretical constructs relating to the ZPD. During mediation in the ZPD, the child is expected to 'give up' his/her previous situation definition in favour of a qualitatively new one which is negotiated with the mediator. The mediator needs to be aware that his/her definitions may differ at a cultural level as well as a cognitive one from those of the learner. The language, for example, may be interpreted differently from what may have been intended by the mediator and this may influence the learning process in unintentional ways. Language in its different forms undoubtedly constitutes the major symbolic tool appropriated by children that shapes their understanding of the world. Vygotsky observes that language forms do not replace other forms but co-exist in the human mind. Likewise new forms of understanding do not dislodge the previous ones but complement them. Education becomes a process of acquisition of symbolic tools that makes different forms of understanding possible.

A significant difference between Piaget and Vygotsky relates to whether the ability to learn, to construct, is inborn or whether other people are necessary for the learning process. Piaget sees the individual as the source of learning while Vygotsky emphasises that one cannot learn without interaction with others. For

Cognitivists and Constructivists, learning occurs when there is disequilibrium, a disturbance of knowledge. If knowledge and thinking are static, no learning occurs. Cognitive conflict may involve learning or resistance: in both instances it involves the action of the subject on that gap.

### **3.3.4 Situated learning theorists perspectives on learning**

Social theories of learning focus on the environment in which learning takes place. Situated learning theories are particularly appropriate in Accounting in becoming part of the discourse through participation in the 'practice' through tutorials.

Situated learning theorists advocate that learning occurs when a 'person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice' (Lave and Wenger 1991: 29). The situated learning approach views learning as an act of membership in a 'community of practice'. These theorists see learning not just as a cognitive issue but as a social phenomenon located/situated not in individual minds (cognition) but in the experienced (historical process) and lived-in world (social world). The focus is on learning by doing and addressing real problems. This learning takes place via 'legitimate peripheral participation' in on-going social practice.

Knowledge required by members of the community is largely present in a supportive social environment and the tools of the culture. Knowledge, and in particularly knowledgeable skill, is incorporated in processes of changing identity in and through membership in a community of practitioners. Apprenticeship as a social process of learning, and social practice as a complex structure of interrelated processes of production and transformation of communities of participants, offers an alternative cultural point of view to learning (Lave 1993). Rather than particular tools and techniques for learning, there are ways of

becoming a participant and of participating. There are also ways in which participants and practices change. The specific ways of participating differ in specific practices.

Legitimate peripheral participation extends the concept of situated learning to incorporate the 'act of doing'. Through social engagement with the content and form, a student is gradually apprenticed into the learning environment. Learning in participation 'focuses attention on ways in which it is evolving continuously renewed sets of relations; this of course, consistent with a relational view of persons; their actions; and the world' (Lave and Wenger 1991: 50).

The concept of 'peripheral' implies that the newcomer ('apprentice') is close to the 'action' of the discipline as practiced by the 'masters', and with extended participation will be drawn even closer into the centre of the practice to ultimately take over the role of master or become an 'old-timer'. There are ways of becoming a participant, ways of participating and ways in which participants and practices change, and the learning of specific ways of participating differs in particular situated practices. Learning occurs in and through participation. In the tutorial context there are the students who are the newcomers and the tutors and lecturer who are the old timers to the discipline of accounting as a subject at university.

Learning is not only about gaining knowledge and skills but also about how it transforms you as a person. You gain an identity that makes you belong to a community where you gain respect. Lave and Wenger (1991) state that 'change is a fundamental property of communities of practice and their activities'; however, it is important to recognise how threatening change is in terms of ownership, power and control. Change needs to be managed sensibly. Successful learning leads to a change of identity of the learner, from someone participating on the fringes to becoming a full member or 'old timer' of the community of practice.

Lave (Lave and Wenger 1991) argues that learning is a function of the activity, context and culture in which it occurs. She goes on to explain that social interaction is an important component of situated learning. The emphasis is on interpersonal relationships (Wenger 1998: 280). Thus, if we take learning to be increasing participation in a practice, 'rather than a teacher-learner dyad', this points to a richly diverse field of essential actors and with it, other forms of relationships of participation (Lave and Wenger 1991: 56). By being involved, the learner is gaining access to the structures of a certain discipline. By participating they are in the process of becoming an expert or master. However, in a context of legitimate peripheral participation, as described by Lave and Wenger, the cultural norms of the specific community of practice in which they operate will play a dominant role in determining the resultant learning. They will define the context within which the standards and constituents of the desired learning occur. Indeed, according to situated learning theory, no learning will occur that is not directed by this community. Becoming a member of a certain community entails the ability to communicate in the language of the community and act according to its norms Sfard, A (1998: 6). If students are not prepared to participate they will not be able to communicate effectively and this will defeat the main aim which is to produce graduates who are able to cope and compete in a commercial environment.

Lecturers are in the practice of teaching accounting in a university and are not accountants; neither are they trying to teach students to become accountants. They all belong to other communities of practice within the university. They need to be taught how to become users of financial information so that they can make logical and informed decisions. However most of these students will only put into practice what they have learnt when they leave university and are faced with real world problems. Some see very little relevance and connection between the subject and their lives at present. Students need to associate what they are learning with the identities of the users of financial information in the working

environment; crossing these boundaries can be problematic if they have a limited imagination as to what happens in the business environment.

The constructivist perspective and the sociocultural perspective have two elements in common in that they both emphasise the role of activity in learning and focus on the processes of learning. These points emphasise the importance of the students' active participation in tutorials.

### **3.4 The role of social and cultural factors in learning**

Our histories and our interactions with others define our identity, whatever language we speak. Learners bring to the learning situation knowledge acquired from family and their cultural background. In order for learners to succeed there need to be connections between the child's in-school learning and background knowledge.

Gee (1999) points out how cultural models vary 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. Their beliefs, norms and values derived from their social context or 'situatedness' might not be the same as those who have power and control in educational institutions. Gee suggests that at first it might be intimidating and alienating for a student to come in contact with an unfamiliar discourse and initially he/she may not have the 'toolkit' to cope. Gee also discusses the role of cultural models as "tools of enquiry" mediating between the individual and the institution.

Bruner's(1996) nine tenets relating to the culture of education are useful in thinking about how the cultural values students and teachers bring to the learning process may affect its outcomes and the assumptions made about learning. Bruner (1996: 14) claims that nothing is culture free: mental functioning is

influenced and constrained by culture. He further argues that 'if pedagogy is to empower human beings to go beyond their 'native predispositions', it must transmit the 'toolkit' the culture has developed for doing so' (Ibid. p17). Bruner also highlights the fact that education is never neutral and is always political.

When the mediator and learner are working from very different cultural backgrounds, the process will be more difficult than when they are working from similar backgrounds. One of the success factors in the accounting tutorial context is that tutors are students themselves, many having come from the same backgrounds as the students attending the tutorial.

The students bring to the task not only their prior learning but also the cultural context of that learning. According to the socio-culturalists there is a dialectical relationship between knowledge and social activity. The form and content of knowledge created under the guidance and scaffolding of a mediator is likely to be *influenced* by the mediator. If the mediator and learner are working with different cultural models, the process will be more difficult than if they are working with similar models. The learner brings to the task not only his/her prior learning but also the cultural context of that learning. According to Crook (1994), the cultural perspective insists that the nature of cognition is fundamentally social because all higher mental functions are rooted in socio-cultural history, and acquisition of new understandings is made possible through supportive social interactions (Crook 1994: 47-48).

A common trait evident in ideas held by both Vygotsky and Piaget is the importance of social interaction in the learning process. Piaget seems to suggest that learning can only take place in the context of cognitive conflict, whereas for Vygotsky this social interaction is much more important, as he claims that learning can only take place in a social interaction between people.

Lave (1993) suggests that the notion of learning should be treated as ‘the whole person’s legitimate peripheral participation in communities of practice.’ This rethink of learning sees the mind, culture, history, and the social world as interrelated processes that constitute each other.

Tutorials play an important part in teaching and learning accounting. In a tutorial situation students are able to clarify concepts dealt with in lectures with the support provided in the form of scaffolding by the tutor. This scaffolding should lessen during the year until such time as they can cope on their own. In addition, students are able to apply or transfer their ‘acquired’ knowledge to different situations or contexts through interacting with their peers. The social dimension, which is particularly salient to the participation metaphor, is encouraged in the tutorial situation. Tutorials also promote collaboration, sharing and togetherness. Legitimate peripheral participation helps to identify the process by which a newcomer becomes part of the community of practice.

Comment [J1]: Is this what you meant?  
Or *participating along* with their peers?

In terms of learning within communities of practice through time and exposure to practices, newcomers will eventually become ‘old-timers’. Lave (1996) found that apprentices learn many complex ‘lessons’ at once. Time could be considered a constraint in that some students need more time to become ‘old-timers’. If students have some accounting cultural capital, having practised accounting in a decontextualised setting at school, they will need less time to become full members of the Business Accounting practice at university. If a student has a mental image this can help him/her understand the subject matter; lecturers and tutors need to cultivate these mental images.

Comment [J2]: Of what?

Finally, if knowledge is conceived as a commodity, it is only natural that attitudes towards learning reflect the way the given society thinks about material wealth. In a capitalist society, knowledge understood as a commodity is an additional attribute of position and power.

### 3.5 The role of language in learning

A language has so much of its culture imbued in it. Slominsky and Shalem (2004: 82) recognise that there are great difficulties involved in learning in a language that is not one's main language.

According to Vygotsky our sense of the world is shaped by symbolic tools acquired in the course of education. Education becomes a process of acquisition of symbolic tools that makes the different forms of understanding possible. Vygotsky views development in terms of intellectual tools, such as language, that we accumulate as we grow up in a society and that mediate the kind of understanding that we form or construct. Language in its different forms undoubtedly constitutes the major symbolic tool appropriated by children that shapes their understanding of the world. Writing in its different forms constitutes the major class of symbolic mediators. He stresses that one language form does not replace another but co-exists in the human mind. The challenge of obtaining a new vocabulary must of necessity create a disturbance or gap, and, if one accepts Piaget, this can only be resolved by effective equilibration.

Bruner (1996: 15-19) describes two tools by which we make meaning accessible – mental functioning and language. Bruner (1996) argues that the constraints imposed by language 'can be expanded by increasing our linguistic awareness'. If students' toolkits, developed in their particular cultures, are not sufficiently developed, for example, if they lack the language ability and skills to understand the practice, they may resist help and simply try to put in more work. The constraints of language may also be linked to Bruner's tenet of 'identity and self-esteem'. At some stage they may become demotivated. This in turn may affect their self-esteem. Students from language traditions which are different from the medium of instruction are more likely to be constrained in this way. Those

students who feel marginalised in terms of language differences may consequently suffer a loss of self-esteem with its resultant negative impact on motivation.

Cummin's (1996) use of the terms, basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) distinguishes between contextualised and decontextualised language. He has elaborated this distinction into a framework that distinguishes the cognitive and contextual demands made by particular forms of communication (Cummins 1996:57). This framework takes into account the context, cognitive demand and language ability of the students engaged in the activities. The framework helps to identify the extent to which students can cope with the cognitive and linguistic demands of the educational environment in which they have to operate. In context-embedded communication students have to 'actively negotiate meaning' (Cummins 1996: 58) and here the tutors' and lecturers' role is vital in terms of providing feedback when the message is not understood. The language used here will be supported by interpersonal and situational cues. On the other hand context-reduced communication in accounting will depend heavily on the financial language itself. The tasks and activities chosen over time need to be cognitively demanding and increasingly context-reduced. As Cummins (1996: 59) suggests, 'cognitive challenge is essential for academic growth but contextual support... to meet that challenge must also be present in the activities'. Information that is situation-specific is more meaningful.

Traditionally in South Africa, students from white middle class backgrounds whose home language was English were expected to cope with tertiary education, in contrast with those students who had English as a second or perhaps third language. In addition, the skills and processes necessary to succeed were either taught at the schools they attended or were taught at home. Today many of the students who are registered at Wits matriculated with English as a second language. Many others have experienced their schooling in a

language that is not their home language. English et al (2004; 465) note that the learner accesses the subject matter through language, and becomes familiar with a subject by mastering the language of the discipline. Using language to know and understand a subject is usually a product of the private domain of learning. When a student explains a subject to others orally or in writing, his/her level of understanding is demonstrated.

In order to fit in with the mainstream student cohort, students who lack language ability and skills often resist help with understanding the language and simply try to put in more work than those students who have English as their mother tongue. At some stage they may become demotivated when faced with communicating in a discourse in a language with which they are not comfortable. Often students are left to their own devices to make sense of texts and their meanings.

Rollnick (2000) makes the point that it is easier for first language speakers to master the genre as they are better able to identify the appropriate register to use. This requires experience and familiarity with the discourse community. If students are not familiar with this, they will not be able to communicate effectively. While some academics might recognize that the new students are not yet full members of the community, they often overlook the fact that second language learners are doubly challenged, in that they not only have to learn the social practice of the new language, but also the practice of the discourse they are trying to join.

Tutors who are speakers of other African languages in particular, are often able to mediate by code switching, thus helping students overcome difficulties in understanding the language of instruction and the language in the texts. Through a mediator, who uses scaffolding, or in a community of practice, by learning to speak the language of the practice, this meaning can be constructed.

In the situated learning context, meaning is negotiated and language is a social activity.

### 3.6 What motivates students to learn?

There are numerous studies that link motivation to learning outcomes (Biggs et al 2001). Motivation has been identified in the literature as one of the key sub-scales in the determination of the quality of learning outcomes (Biggs 1987; and Ramsden and Entwistle 1981).

Student learning approaches and motivation are related to the perceived value of the course, specifically future employment prospects and personal development gained by students (de Lange and Mavondo, 2004).

Biggs & Collis (1982:17) suggest that learning quality depends on two factors: firstly, features *outside* of the learner, for example the quality of the teaching, and secondly, features *intrinsic* to the learner, for example motivation and prior knowledge, amongst others. Both of these may be considered presage factors according to Biggs' 3 P model. In terms of a student's *intrinsic* determinants, if the student has no intention of learning or very little intention, not much attention will be paid to the contents of a course. If there is no or little prior knowledge, students often mask their ignorance in order not to 'lose face,' or respond with a tautology, or choose content where the response is in terms of their own point of view or concerns. Piaget describes these responses as egocentric. Perry (1970) suggests that students' movements from one position to another 'involves organisation of major personal investments'. He further suggests that there are a variety of metaphors for conceptualising motivation, such as "drive" and "need" in particular, and a standard external to themselves.

Biggs (2003: 58) refers to the expectancy value theory of motivation (Feather 1982) as a commonsense theory for why people do or do not learn. First, what

we want to learn must be important and must have some value to the learner. Secondly, it must be possible; there must be some measure of success. Success can be attributed to a number of factors, the most likely being ability and effort. If students believe that the factors attributable to success are uncontrollable, their self-belief is diminished.

In a context of legitimate peripheral participation, as described by Lave and Wenger (1991), the cultural norms of the specific community of practice in which the learners operate, will play a dominant role in determining the resultant learning. The community will define the context within which the desired learning will occur. According to situated learning theory, no learning will occur that is not directed by this community. So the tutor and the other participants in the tutorial play an important role in motivating students to achieve. Learning a subject is a process of becoming a member of a certain community. 'Learning' thus implies becoming a different person: you are creating a new identity. Lave (1993: 87) suggests that participation entails motivation and cannot be forced. On the other hand, Lave and Wenger (1991) suggest that the initiative comes from the learner/apprentice. As Business Accounting is a compulsory course for a number of students, participation does not necessarily lead to motivation.

### **3.7 Conclusion**

*Growth* may be equated with learning but it goes beyond learning. It implies that not only is something new added to the existing cognitive structures, but that the individual is able to operate at a higher, or more advanced level, with more complex insights and understanding: what Siegler (1995 : 38) regards as a more 'sophisticated mode of thought that eliminates the shortcomings of the old one'. In this regard it is the researcher's intention to improve not only the quality of the teaching and learning of the content, but to grow as a teacher and learner.