COGNITIVE PREPARATION OF NCS (GRADES 10 – 12) ACCOUNTING LEARNERS FOR STUDIES AT A UNIVERSITY OF TECHNOLOGY

By

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ABSTRACT

Cognitive preparation of NCS (grades 10 – 12) Accounting learners for studies at a University of Technology.

This study focuses on the cognitive preparation of National Curriculum Statement (NCS) (Grades 10 – 12) Accounting learners for studies at a university of technology (UoT). The purpose was to determine to what extent NCS cognitively prepares Accounting learners for studies at a UoT, and whether there is a difference in the extent to which NCS (pre-2014) and CAPS (2014) cognitively prepare learners for the first-year National Higher Certificate in Accounting and Financial Information Systems at a selected University of Technology (UoT).

This study is contextually situated within the curriculum theories developed by Basil Bernstein‘s ‘code theory’ in the sociology of education. The theoretical framework for this thesis draws on the work of David Conley’s redefining college readiness, in which he argues that Higher Education (HE) readiness is a multi-faceted concept comprising numerous variables. Cognitive preparation for HE Accounting studies is reviewed in terms of the educational objectives of the cognitive domain of Benjamin Bloom.

A mixed method approach for the research design was employed. The quantitative approach entailed completion and analysis of questionnaires by first-year Accounting students at a selected UoT to ascertain learners’ levels of Accounting competence as envisioned by the NCS (Grades 10 – 12). Marks for the Grade 12 National Senior Certificate (NSC) examination in Accounting were obtained so that these examination marks could be compared with students’ levels of Accounting competence and marks at the end of the first term (March). The qualitative approach entailed document analyses of the Accounting FET (Grades 10 – 12) curriculum, the curriculum of the National Higher Certificate, the NSC Accounting examination of 2014, and the National Higher Certificate in Accounting March 2015 assessment, as well as interviews with the Accounting 1 lecturers at a selected UoT.

Data revealed that the NCS (Grades 10 – 12) Accounting curriculum (formal or intended curriculum) adequately prepares learners cognitively for studies at a UoT.

There is little evidence that CAPS prepares learners better for tertiary studies than students not trained according to CAPS. There is a statistically significant relationship between the mark obtained in the NSC, the mark in the questionnaire and the formal assessment in March. There are, however, various other factors that contribute to academic success or failure and drop-out in HE. Findings from this study suggest that the Department of Basic Education (DBE) and universities could work more closely together in various subject groups to ensure these challenges are met and that universities provide feedback to the DBE on whether the changes implemented are making a difference to the quality of first-year students who enter university.

DECLARATION

I, Antoinette Venter, declare that the contents of this thesis represent my own unaided work and that the thesis has not previously been submitted for academic examination towards any qualification. This thesis represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

16 July 2016

…….. ……

Signed Date

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DEDICATION

With all my love to my husband, Philip and children, Suzaan and Talitha.

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ACRONYMS

B.Tech	Bachelor of Technology
C(2005)	Curriculum 2005
CAPS	Curriculum and Assessment Policy Statement
CPUT	Cape Peninsula University of Technology
DBE	Department of Basic Education
ECP	Extended Curriculum Program
EMS	Economic and Management Sciences
FET	Further Education and Training
FIS	Financial Information Systems
FS	Financial Statements
GAAP	Generally Accepted Accounting Practice
GET	General Education and Training
HE	Higher Education
IFRS	International Financial Reporting Standards
IT	Information Technology
LTSMs	Learner-Teacher-Support Materials
NBT	National Benchmark Test
NCS	National Curriculum Statement
NHC	National Higher Certificate
NQF	National Qualifications Framework
NSC	National Senior Certificate
OBE	Outcomes Based Education
PEDs	Provincial Education Departments
RNCS	Revised National Curriculum Statement
S.A.	South Africa

SAICA	South African Institute of Chartered Accountants
SAIPA	South African Institute of Professional Accountants
SAQA	South African Qualifications Authority
SGBs	School Governing Bodies
UNESCO	United Nations Education, Scientific and Cultural Organisation
UoT	University of Technology
VAT	Value-added tax

CHAPTER 1
INTRODUCTION

1.1 Background

The period 1994 – 2011 ushered a new era for school education in South Africa (S.A.). Outcomes-based Education (OBE) was introduced: the new system was controversial from the outset for educators and policymakers alike. The reason given for implementing OBE was that education should dispense with rote learning entrenched in the curriculum before 1994 and emphasize instead the individual's construction of knowledge (Mouton, Louw & Strydom, 2012: 1211). Curriculum revision in South Africa began immediately after the 1994 election. It has proceeded in three main waves. In the immediate aftermath of the election, syllabi were cleansed of racist language: controversial and outdated content were removed (Jansen,1999: 58). In 1997, the new national Department of Education (DoE) launched Curriculum 2005, informed by the principles of outcomes-based education, as the foundation of the post-apartheid schools' curriculum. Three years later, in 2000, Curriculum 2005 (up to grade 9) (C2005) was reviewed and revised. Following consultations with unions, public hearings in 2001, presentations within the main organs of government, and further refinement in the light of these public processes, the *Revised National Curriculum Statement,* as the 'streamlined' C2005 was named, became official policy in April 2002. It was scheduled for implementation from 2004 (Chisholm, 2005: 193).

Curriculum 2005 (C2005), generally referred to as OBE, was launched in March 1997, with implementation in Grade 1 scheduled for 1998 and Grade 7 in 1999. Although education during the pre-1994 dispensation had its own shortcomings, educators after 2005 perceived the OBE approach to education as so problematic that it had to be largely abandoned. This disruption led to the implementation of the Revised National Curriculum Statement (RNCS) in 2008 after a review of C2005. However, problems persisted and Minister Angie Motshekga announced a new curriculum improvement process on 6 July 2010. Once again radical changes were planned for the period 2012-2014. This revision was intended to strengthen the

National Curriculum Statement (NCS) in order to improve the quality of teaching and learning in schools (Mouton et al., 2012: 2014).

The challenge taken up by the new leaders in post-apartheid was to build a new South Africa on the principles of universal human rights that would promote justice, equity and non-discrimination in all aspects, including race, colour, language, gender, disability and age. From the beginning, the education system was regarded as central to the long-term re-shaping of society. It was realised that the education system forms a crucial conduit through which the ideals, values, knowledge, attitudes, skills and relation cherished by a society are made available to learners of all ages (Ischinger, 2008: 125)

The education system makes it possible for a learner to pass Grade 12 with 40 % in his home language, 40 % for two subjects and 30 % for three other subjects. In addition to minimum grades required in each subject, universities either set their own entrance tests or use the National Benchmark Tests (NBT). For admission to a Higher Certificate at a University of Technology (UoT), a candidate needs to obtain a National Senior Certificate (NSC), with a pass of 40% in three subjects, one of which is an official language at Home Language level, and a pass of 30% in three subjects. Jansen (2015: 1) claims that incorporation of the low standards of education in the schooling system has become the new system of national education. First there is a low pass grade, where 30 % constitutes a pass in some subjects; then report cards with multiple grading options disguise a fail mark as “not yet achieved”; then there is automatic promotion in grades 10-12. If a learner fails Grade 10, he/she cannot be failed again and is ensured progress to Grade 12. In some schools there are now more progress learners writing this year’s NSC in Grade 12 than learners who attained the last year of schooling by passing in an orthodox way.

Wilkinson (2014) asks the question: are matric results a useful measure of an education system? The Department of Basic Education (DBE) concedes that “contrary to popular belief, the matric pass rate on its own is not a good measure of academic achievement in the schooling system, nor was the pass rate ever designed

for this". Significantly, matriculation results do not account for the large numbers of learners who drop out of school between grade one and matriculation.

Spaull (2013: 3) states the following concerning the South Africa education system:

> As far as educational outcomes, South Africa has the worst education system of all middle-income countries that participate in cross-national assessments of educational achievement. What is more, we perform worse than many low-income African countries. The annually-reported statistics from the National Senior Certificate (NSC) exam in Grade 12 are particularly misleading since they do not take into account those pupils who never make it to Grade 12. Of 100 pupils that start school, only 50 will make it to Grade 12, 40 will pass, and only 12 will qualify for university. While there have been some recent improvements in pupil outcomes, as well as some important policy innovations, the picture that emerges time and again is both dire and consistent: however one chooses to measure learner performance, and at whichever grade one chooses to test, the vast majority of South African pupils are significantly below where they should be in terms of the curriculum, and more generally, have not reached a host of normal numeracy and literacy milestones. As it stands, the South African education system is grossly inefficient, severely underperforming and egregiously unfair.

Ischinger (2008: 129) summarises the situation as follows:

> Despite the great efforts at educational reform and improved resourcing of the education system, there is disappointment in South Africa that the outcomes of the system as measured by internal tests, intra-African tests and international tests are poor and unsatisfactory. One of the key questions facing the South African authorities is why this should be so and how the situation could be improved.

Ischinger (2008: 339) provides a summary of higher education and the multiple challenges it faces:

> On the one hand, they try to respond to market needs by expanding the number and type of course offerings and engaging in commercial activities by creating companies or market oriented courses. On the other hand, they find themselves in the peculiar position of offering a variety of qualifications and programmes, from undergraduate certificates to doctoral degrees, and a mix of types of knowledge, from technological, vocational, career-oriented and professional to general formative. As a result, they are now struggling to reconcile the divide between academic (discipline-based) knowledge and professional (applied) knowledge that emerged from or has been exacerbated by programme mergers. These problems, in association with serious management problems, undoubtedly put comprehensive universities at risk. Choosing a "knowledge niche" based on intellectual competency (*i.e.* the exit point in terms of qualifications, skills and attitudes that a programme intends to produce) appears to be the best way forward.

1.2 Rationale

The high failure rate of first-year Accounting students at higher education institutions has become an issue of great concern worldwide as well as in South Africa (Barnes, Dzansi, Wilkinson and Viljoen, 2009: 36). According to Van Romburgh: (2014: 17), various elements could be possible causes of the declining first-year Accounting pass rate. The literature seems to support a view that one of the main causes are problems experienced at high school level, resulting in students not being adequately prepared for a tertiary education. This, in turn, creates a gap between high school and tertiary accounting education which is widened by issues not yet sufficiently researched in the context of accounting education, including inadequate high school Accounting curricula, underqualified Accounting teachers at high school level and insufficient resources (including textbooks) available to high school learners.

Tewari (2014: 233) found that a very high failure rate leading to a very high drop-out rate in HE is a major concern for many South African universities. The average drop-out rate in South African universities comes to a shocking 40 percent of first year enrolment in the universities. Speckman and Mandew (2014: 44) found that much is made of the National Senior Certificate results (at the end of twelve years of general education), but the truth is that this ‘cannot be used as a completely reliable predictor of student potential to cope and succeed at university’. This can generally be ascribed to the ‘mismatch between the outcomes of schooling and the demands of the entry level [and even beyond] of higher education programmes’ (Scott, Yeld and Hendry, 2007: 43).

Higher Education South Africa (HESA) makes provision for three different qualifications for a learner which obtained a National Senior Certificate. These are Higher Certificates; Diplomas and Bachelor’s Degrees (Department of Education, 2011(d): 47). For admission to a Higher Certificate, a candidate must obtain a National Senior Certificate, with a pass of 40 % in three subjects, one of which is an official language at Home Language level, and a pass of 30 % in three subjects.

According to SAICA (2015) the minimum requirements for traditional university admission are a Level 5 pass in Mathematics, together with a National Senior Certificate with matriculation exemption. The learner needs to take pure Mathematics (not Mathematical Literacy) as a subject. A good grounding in English is essential, as it will help the learner to understand the concepts of what will be studied. Having Accounting as a school subject could help the learner in their studies towards a degree, but at most traditional universities this is not compulsory. Although Accounting is not required at school level for Accounting in HE, this study want to determine whether the learners that have Accounting at school level are cognitively prepared for studies at a UoT. Koh and Koh (1999: 16) are of the opinion that research seems to suggest that a link between a Mathematics background and performance in Accounting exists, because Accounting is a mathematics-based course that requires quantitative and numeric skills.

According to the subject guide of the Faculty of Business of a selected UoT (2015: 5) the purpose of the subject Financial Accounting I is to develop students' competence to record financial transactions and prepare financial statements for various organizational firms based primarily on Accounting principles. The main outcomes of the subject are to demonstrate understanding of all conceptual issues involved in financial Accounting and the ability to interpret and practically apply Accounting information: the student should demonstrate knowledge of the specific financial reporting practices applicable to various commercial firms. The curriculum has been structured to equip the student with knowledge and skills that can be used across the entire Accounting spectrum. Students should not see a subject/module in isolation, as knowledge gained in Accounting, should be invaluable in areas such as Auditing, Costing and Commercial Law.

According to several lecturers for the National Higher Certificate (NHC) in Accounting and Financial Information Systems at a selected UoT, this training is a stepping stone towards the diploma. From the perspective of lecturers, higher education institutions (HEIs) aim to deliver to the industry the B.Tech (Bachelor of Technology) or National Diploma students. In the future qualifications structure the NHC will be discontinued; the initial idea behind the Higher Certificate is that after the second year the student has a certificate and can then proceed in the third year to the diploma. After the

National Diploma, a student can complete a B. Tech degree. With the NHC a student can become an Accounting clerk. After the NHC there are currently three diploma courses the student can choose from: a National Diploma in internal auditing (the selected UoT is the only university in the Western Cape that offers this diploma), a National Diploma in cost and management Accounting and a National Diploma in Accounting. When a student chooses a diploma in Accounting, she/he is eligible to register and become a member of the South African Institute of Professional Accountants (SAIPA). After the National Diploma and B.Tech degree, a student can become a tax practitioner but is not a chartered accountant (CA) without passing the Board Examination of the Institute of Chartered Accountants.

The pass rate statistics for Financial Accounting I obtained at the selected UoT in the NHC are as follows:

Table 1.1: Financial Accounting 1 in NHC in Accountancy and Financial Information Systems pass rates statistics of a UoT

	2013	2014
Cape Town Full time	81,0 %	74,3 %
Cape Town Part time	70,8 %	69,0 %
Bellville Part time	78,4 %	62,5 %
Wellington Full time	87,5 %	83,6 %
ECP (Extended Curriculum Program) Cape Town Full time	96,6 %	75,4 %
FIS (Financial Information Systems) Cape Town Full time	84,8 %	62,8 %
FIS (Financial Information Systems) Cape Town Part time	60,0 %	69,2 %

Comparison between Grade 12 Accounting results and students' results in Financial Accounting I determines to what extent NCS cognitively prepares students for tertiary studies and more specifically the NHC at a selected UoT. This table illustrates the statistics of first-year students who matriculated before CAPS and students who matriculated in 2014 (CAPS was implemented in 2014). The question is whether there is a difference in the extent to which NCS (pre-2014) and CAPS (2014) cognitively prepare learners for studies at a UoT.

Transitioning from high-school to university can be difficult, and many university teachers feel students are often ill-prepared for the change (Brinkworth, McCann, Matthews and Nordström, 2008: 1). High school Accounting will only be beneficial if there is a close correspondence between the high school curricula and the university curricula (Barnes, et al., 2009: 49).

1.3 Purpose of the study

The purpose of this study is to determine to what extent NCS (Grades 10 – 12) cognitively prepares Accounting learners for first-year studies in the NHC in Accounting at a selected UoT.

1.4 Research questions:

The following two research questions guide the study:

1.4.1 To what extent does the NCS (Grades 10 -12) Accounting curriculum cognitively prepare learners for their first-year NHC at a selected UoT?

1.4.2 Is there a difference in the extent to which NCS (Grades 10 -12) Accounting curriculum (pre-2014) and CAPS (2014) cognitively prepare learners for first-year NHC at a selected UoT?

1.5 Research methods

Research methods in education (and other social sciences) are often divided into two main types: quantitative and qualitative methods (Muijs, 2011: 1). Both quantitative and qualitative approaches were used for the research design referred to by Trochim (2006: 1) as a “mixed approach”. The quantitative approach entails questionnaires to first-year Accounting students at a selected UoT while the qualitative approach entails document analyses and interviews with lecturers at a selected UoT. Questionnaires (primary data) are tailored to elicit data that will help to answer research questions. Secondary data were used in addition to information provided by

primary data. A quantitative approach was used to enhance primary data. The document analysis and interviews enhance secondary data (qualitative).

1.5.1 Questionnaires

The questionnaires were completed at the beginning of participating students' first-year. These questionnaires consisted of two sections: Section A and Section B. Section A sought personal information: for example gender, year in which the respondent matriculated, province, school and mark obtained in the Grade 12 NSC Accounting examination. Section B consisted of single answer multiple choice questions with one correct answer to ascertain learners' Accounting competence (cognitive preparation) as set out in NCS (Grades 10 -12). The ten questions covered the Grade 12 Accounting curriculum and represented all levels of Bloom's taxonomy in alignment with the CAPS guidelines, which were considered when constructing the questionnaire.

Each student's Grade 12 Accounting National Examination mark was compared with the outcome of the questionnaire and the end of the first term's mark (March 2015). For this purpose participants' student numbers were required.

1.5.2 Semi-structured interviews

Semi-structured interviews were conducted with lecturers of a selected UoT at two campuses: Cape Town and Wellington. The overall purpose of the interviews was to determine lecturers' perceptions of the cognitive preparation of the learners in the NCS (Grades 10 -12) and the expectations of Higher Education (HE) Institutions.

1.5.3 Document analysis

Numerous documents were analysed to determine whether NCS (Grades 10 -12) Accounting learners are cognitively prepared for the NHC in Accounting at a selected UoT. To understand and answer the research questions, the following documents were analysed:

CAPS (FET) grade 10 – 12 Accounting curriculum, Grade 12 NSC Accounting examination of 2014, National Higher Certificate Accountancy curriculum, Financial Accounting I and Financial Accounting I question paper and memorandum, first semester formal assessment of March 2015.

1.6 Population and sampling

The population refers to the group relevant to the researcher's study and for whom the findings of the study could be generalized (Fraenkel and Wallen, 2008: 91). The population consists of all students registered for the NHC in Accountancy and Financial Information Systems and who study Financial Accounting 1 at a South African UoT as well as all lecturers at these UoT's involved in Financial Accounting 1.

The sample consists of students and lecturers in the sample affiliated with one selected UoT. The sample was selected using both purposeful and convenience sampling methods. The sample is a subset of the population and the sample consists only of students who have Financial Accounting 1 at a selected UoT. A selected number of students (who make up the sample) are chosen to ensure that the sample is representative of the population. Purposive sampling is used: the researcher employs her own discretion in selecting students. Convenience sampling is deployed: students are selected in terms of accessibility.

The study included first-year NHC Accountancy and Financial information systems students in the Business Faculty at two campuses of a selected UoT: Cape Town and Wellington. There were 290 questionnaires distributed to first-year Accounting students at a selected UoT: four lecturers involved in this programme formed part of the sample.

1.7 Validity and reliability

Wisker (2008: 322) defined validity and reliability as follows:

> Validity is absolutely central to the whole issue of the cohesion in your work between conceptual framework, methods, questions and findings. If your methods, approaches and techniques really fit with and measure the issues you have been researching, the findings are likely to be valid. If you have used inappropriate methods, you are likely to find they are less valid or totally invalid. Reliability relates to how well you have carried out your research. It is considered reliable if another researcher carrying out the same research activities with the same kind of group would be likely to replicate your findings – although their findings need not be identical.

Internal validity was provided by implementing a pilot study at Mowbray campus which ensured that data were recorded fully, using triangulation, maintaining accuracy during data analysis and ensuring that the sample was representative.

1.8 Data analysis

Bogdan and Biklen (1998: 157) describe data analysis as the process of systematically searching and arranging data or information collected in order to increase understanding of information and to present information to others. Questionnaires were analysed using the program SPSS version 23 while interviews were analysed using Atlas ti.

1.9 Ethical considerations

Schnell and Heinritz (2006: 17) submit the following definition of research ethics:

> Research ethics addresses the question, which ethically relevant influences the researchers' interventions could bear on the people with or about whom the researchers do their research. In addition, it is concerned with the procedures that should be applied for protecting those who participate in the research, if this seems necessary.

Punch (2009: 56) states that a researcher's ethical responsibilities include the overarching principles of academic integrity, honesty and respect for the individual. Permission was granted to conduct research at a selected UoT. Written consent was given by those lecturers with whom interviews were conducted. Participants in the

questionnaires were informed that their participation was voluntary and that their identities would remain confidential.

1.10 Overview of the dissertation: A summary

Chapter One provides the rationale for researching cognitive preparation of NSC (Grades 10 -12) Accounting learners for HE and specifically the NHC in Accountancy and Financial Information Systems.

Chapter Two reviews relevant literature and sets out the theoretical framework to provide linkage from literature to the research questions.

Chapter Three outlines the research method utilized in this research. A detailed discussion of the sampling, data collection, data analysis and ethical considerations is presented.

Chapter Four provides a report on the findings and discussions of high school learners' cognitive preparation for tertiary studies to answer the research question.

Chapter Five presents a summary of the findings, limitations of the research, significance of the study, recommendations, conclusions and suggestions for future research.

The following chapter presents a detailed discussion of the literature reviewed for this research.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter comprises a review of scientific literature relevant to the research topic. The purpose of this study is to determine to what extent NCS (Grades 10 -12) cognitively prepares Accounting learners for first-year studies in the NHC at a selected UoT. From 2.2 – 2.6 certain aspects of curriculum are discussed, 2.7 – 2.11 cover Higher Education (HE) and the transition from school to HE. 2.12 – 2.16 discuss cognitive preparation of Accounting learners for tertiary studies.

This study is contextually situated within the curriculum theories developed by Basil Bernstein‘s ‘code theory’ (pedagogy, symbolic control and identity: theory, research, critique) in the sociology of education. The theoretical framework for this thesis draws on the work of David Conley’s (redefining college readiness), which he argues that Higher Education (HE) readiness is a multi-faceted concept comprising numerous variables. Cognitive preparation for HE Accounting studies is reviewed in terms of the educational objectives of the cognitive domain of Benjamin Bloom (taxonomy of educational objectives: the classification of educational goals) (Bloom, 1979).

2.2 The concept of curriculum

Orstein and Hunkins (1998: 11) state that the term curriculum can be viewed as a field of study, subjects or a plan of action or learners’ experiences at school. Jacobs (2000: 97) describes a curriculum as a course to be run. The explanation for this is that a learner needs ‘*desirable knowledge*’ to run a race of life successfully. The following figure in Beane, Toepfer & Alessi (1986: 34) explains definitions of curriculum ranging from abstract to concrete and from school-centered to learner-centered.

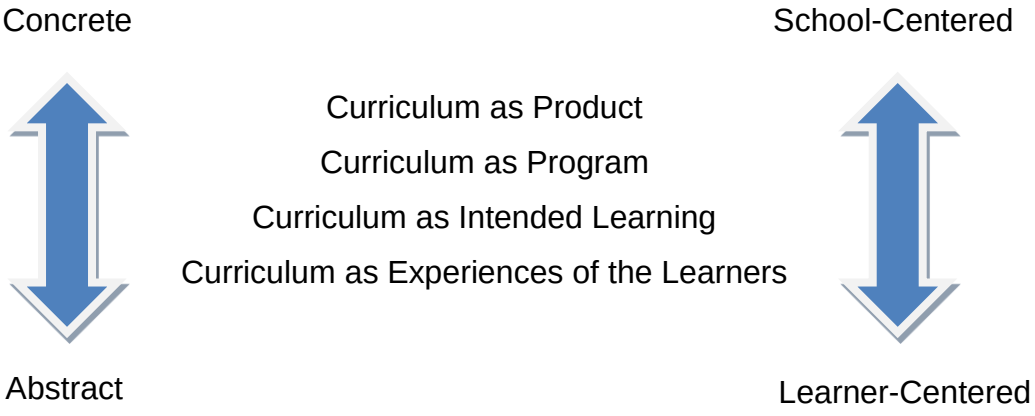


Figure 2.1: The definitions of curriculum (adapted from Beane et al. (1986: 34)

Beane et al. (1986: 29) explains the curriculum as Product, as documents which may include a list of courses, syllabi for various courses, lists of skills and objectives, and titles of textbooks. According to the Department of Education (2008: 42), a curriculum can be regarded as a document or a blueprint for teaching. It can be referred to as a 'syllabus' if it includes in detail the content to be taught, how it should be presented (methodology) and how it should be assessed. According to the Department of Education (2008: 42), a curriculum is known as the official curriculum, the formal curriculum or the intended curriculum.

Curriculum as Program (Beane et al., 1986: 29) at its narrowest extreme refers to the courses of study offered by the school, including both required and elective courses. In its broader sense, the curriculum as program interpretation refers to all aspects of the school in which learning takes place. Pratt (1980: 4) explains that the word 'program' refers to learner activities that result from the implementation of a curriculum.

Curriculum as Intended Learning may be defined as "what is to be learned". Curriculum refers to knowledge or content, skills, attitudes and behaviours that students are supposed to learn at school (Beane et al. 1986: 32).

Curriculum as Experiences of the Learner refers to outcomes of planned situations. This definition has its roots in the idea that what is planned is not always what

actually happens (Beane et al., 1986: 32). Oliva (1982: 10) defines the curriculum as: “a plan or program for all the experiences which the learner encounters under the direction of the school”.

Voogt & Roblin (2012: 301) postulate that there are three different curricula: the intended curriculum (rationale and goals for learning), implemented curriculum (competences are addressed) and attained curriculum (expected learning outcomes are achieved). According to the Department of Education (2008: 42), in curriculum as practice, the emphasis is shifted from what is intended to what actually happens. The focus here is on the experiences of both the teacher and the learner. The curriculum as practice may be known as the experienced curriculum, the actual curriculum or the implemented curriculum.

One of the major challenges in realizing curriculum change is to ensure consistency and balance between these three different curriculum representations. It is known that ways of teaching, learning and assessment do not change simply because a new prescribed curriculum is enforced (Rajoo, 2012: 28).

Kelly (2009: 11) summarises the difference between the planned curriculum and the received curriculum as follows:

> The difference between them may be conscious or unconscious, the cause of any mismatch being either a deliberate attempt by the teachers or others to deceive, to make what they offer appear more attractive than it really is, or merely the fact that, since teachers and learners are human, the realities of any course will never fully match up to the hopes and intentions of those who have planned it.

How a planned curriculum is implemented as the enacted curriculum in any school is a complex process that can vary considerably from school to school: within a school there may be considerable differences of opinion among the teachers of any school (Marsh & Willis, 2007: 245). In conclusion, a curriculum is not a fixed concept. No matter how detailed the plan, there are variations in classroom practice. In addition, the curriculum as actually experienced is influenced by “hidden” factors such as the nature of the relation between people at the school and the way in which the school is organized (Department of Education, 2008: 57).

To determine whether the NCS (Grades 10 -12) curriculum cognitively prepares Accounting learners for tertiary studies, a curriculum evaluation should be undertaken. According to Carl (2009: 141), curriculum evaluation means determination of the standard and outcome of the relevant curriculum (broad, subject or lesson curriculum). Evaluation should take place continuously: during and after each of the design, dissemination and implementation phases, with a view to making timeous adjustments and determining success. Components of the evaluation process are, according to Beane et al. (1986: 265), “the what, the trying and the how well”. In this study a comparative evaluation was made of two different curricula, namely the CAPS (FET) Accounting curriculum and the NHC Accounting curriculum to determine standards, to identify possible shortcomings and to maintain comparable norms and standards.

2.3 Curriculum theories

Much confusion exists about curriculum theory. Part of this confusion grows out of a assumption among some educators that there is a single curriculum theory. There is no one curriculum theory: there is a multiplicity of curriculum theories. Some are explicit, some implicit but all have their disciples. In addition, there is no one curriculum theory that is better than all of the others (Morris & Hamm, 1976: 299). A number of curriculum theories have evolved over the years: theorists have varied perceptions of what constitutes curriculum and what the purpose of curriculum is. Schreuder (2009: 1) asserts that:

> Prominent curriculum theories have influenced and are evident in the NCS for example elements of behaviourism, social reconstructivism and critical theories.

Morris & Hamm (1976: 299) comment on the major characteristics of curriculum theory:

- First, curriculum theory ultimately concerns the “what” or “why” of any educational enterprise. The primary concern is with neither teaching nor learning but with knowledge itself, whether process or product knowledge.
- Second, curriculum theory deals with alternative intellectual structures for

organizing knowledge. In fact, each alternative structure assumes an answer to the question: What knowledge is of most worth?

- Third, curriculum theory moves toward the universal and the abstract. A real value of curricular theory lies not in the specificity of it but in the questions it proliferates. Curriculum theory leads to learning theory which leads to instructional theory which leads to curriculum development which leads to the classroom.

The three-message system (which included curriculum, pedagogy and assessment) of Bernstein (2000:160) is translated as clear subject knowledge, skill standards and effective assessment policies. Bernstein mentions framing and sequencing of curriculum. He is of the opinion that the education system is subject to the ingrained educational myths of society: teachers are subject to the myths of the system (reified into curriculum guides, textbooks, standardized tests and public examinations); and the learners are subject to teachers who choreograph all the myths into subjects, each educational genre with its own ritual, language, sequences and décor and each with its own value (Boomer, Lester, Onore & Cook, 1992: 5).

Songqwaru (2012: 9) explains pedagogic practice, which, according to Bernstein, is provided by a set of three rules, hierarchical, sequencing and criteria rules that act selectively on the content of any pedagogic practice. These rules are the ‘how’ and ‘what’ of any pedagogic practice. Hierarchical rules focus on what the knowledge transmitter has to learn to transmit and what the knowledge acquirer has to learn to be an acquirer. Sequencing rules focus on how much one has to learn in a given time (pace) representing progression in the learning process. Criteria rules involve criteria that the acquirer is expected to appropriate and apply. Such criteria enable the acquirer to understand what counts as legitimate practice Bernstein (1990). In addition, Mhlolo (2011: 43) comments that these rules specify the transmission of suitable content under time and context, and perform the significant function of monitoring the adequate realisation of the pedagogic discourse. The rules operate over three fields: each of which has its own ‘rules of access, privilege and special interest’:

- The field of production where the new knowledge discourses are generated
- The field of recontextualisation where discourses appropriated from the field of production are recontextualised, simplified and transformed into a new pedagogic discourse; and
- The field of reproduction where recontextualised discourses are transformed a second time for general consumption, where pedagogy and curriculum are actually enacted in schools.

This curriculum reform moved away from the criteria of OBE towards a knowledge society based on specific knowledge structures. This approach to curriculum supports Bernstein's view of the classification and frame of a curriculum (Bernstein, 2000:163), resulting in strong boundaries between subjects and further resolving the problem of the conflation of curriculum and pedagogy. It can be concluded that C2005 emphasized a basis in every-day knowledge, whereas the NCS 2002 and 2009 emphasised the notion of subject-based knowledge. It is clear that the *how* of the curriculum (i.e. methodology) cannot replace the *what* of the curriculum (i.e. content). According to Hoadley (2011: 157), there needs to be a clear distinction between knowledge, learning and learners but that each of these components of the curriculum has to interact with one another in order to form a curriculum where specific knowledge is transferred to learners in a manner that they will understand and find worthwhile. Hoadley (2011: 158) concludes that the current curriculum has come full circle, first moving away from a subject-based approach during apartheid and then returning to a subject-based curriculum.

2.4 Reform of the South African school curriculum

Hoadley (2011: 158) reports on a critical analysis of curriculum reform in SA which she performed by referring to changes that took place in three major areas: knowledge (what should be taught), knowers (learners) and knowing (learning).

According to Oosthuizen (2014: 34), there were four major reforms in the South African school curriculum and these reforms took place in order to rectify inequalities

caused by apartheid government. Reforms created a new national curriculum that valued human rights, democracy and equality.

1st Reform: OBE Curriculum 2005 (in 1997)

2nd Reform: Revised NCS for Grade R to 9 (in 2000)

3rd Reform: Revised NCS for Grade 10 to 12 (in 2002)

4th Reform: Revised NCS (CAPS) for R to 12 (in 2012)

The amendments were made to address four main concerns about the NCS as identified by a task team and reported to the Minister of Education in October 2009 (Department of Basic Education, 2009: 12). The four concerns were:

1. Complaints about the implementation of the NCS
2. Teachers who were overburdened with administration
3. Different interpretations of the curriculum requirements
4. Underperformance of learners

Just as in the struggle against apartheid in South Africa, the following competing agendas have been proposed for basic education: 'education for cultural diversity', 'education for national unity', 'education for liberation', 'peoples' education for peoples' power' and 'education with production'. Each of these has its knowledge claims and curriculum programme, driven by a particular set of expectations. Without denying that basic education can perform some of these roles, careful consideration should be paid to what schools stand for, can do and achieve more effectively: that is, reflect on a suitable curriculum (Cross, Mungadi & Rouhani, 2002: 186). It is important to note that change, no matter how well intended, or planned, and irrespective of how small, brings about uncertainty and instability in a system (Department of Basic Education, 2015: 31). Müller (2000: 12) suggests therefore a need to reclaim the pedagogical and cognitive aspects of schooling lost through too much emphasis on outcomes: to restore the importance of the role of the teacher which has been devalued by progressivism: the teacher's role has to be providing the "baggage", the facts, the raw material to be shaped and ordered, i.e. the subject matter or content knowledge.

CAPS has clear advantages over the NCS: it provides detailed, clear guidance regarding subject content to be taught, as well as subject-specific assessment guidance. CAPS adhered to more of the dimensions and characteristics recommended for effective curricula in literature than the NCS did. (Booyse, Du Rand & Koekemoer, 2013: 93).

2.5 CAPS Accounting curriculum

CAPS is not a new curriculum but an amendment to the NCS Grades R – 12. There is one single comprehensive National Curriculum and Assessment Policy for each subject (Du Plessis & Mbunyuza, 2014: 212). CAPS is an adjustment to ***what is taught*** (curriculum) and not ***how knowledge is conveyed*** (teaching methods). There is much debate and discussion about OBE being removed; however, OBE is a method of teaching, not a curriculum. It is the curriculum that has changed and been repackaged and not the teaching method. The curriculum is written now, in content format rather than outcomes format (Du Plessis, 2013: 1). The purpose of CAPS is to clarify and integrate previous policy documents into one cohesive document. This provides easier reference for educators together with a user friendly structure (Rajoo, 2012: 26).

Chinyani, Kadodo & Madingwe (2013: 65) describe the aims of the school curriculum as follows:

> The school curriculum aims at imparting knowledge and skills through various subjects and the examination aims at assessing the level of mastery of the acquired knowledge and skills. Thus, there exists a discrepancy in the examination and the curriculum aims. It is important to note that the examination may not address all the skills and attitudes that the curriculum wants developed in the learners/students. Due to the importance accorded examinations, aims of the curriculum end up becoming aims of the examination. Therefore, the aims of the curriculum are not taken into consideration even though they may be clearly spelt out in the prescribed curriculum documents.

Accounting focuses on measuring performance, and processing and communication financial information about economic sectors. This discipline ensures that principles such as ethical behaviour, transparency and accountability are adhered to. Accounting deals with the logical, systematic and accurate selection and recording of financial information and transactions, as well as the compilation, analyses, interpretation and communication of financial statements and managerial reports for use by interested parties (Department of Basic Education, 2011(a): 8). Accounting is concerned with the provision, analysis and communication of information to a broad range of internal and external stakeholders for a variety of resource allocation decisions and compliance purposes for example, regulation and governance (Freeman & Bell, 2010: 7)

2.5.1 Curriculum design

According to Ornstein & Hunkins (2004: 18), curriculum design refers to the way the curriculum is conceptualized and how its major components (subject matter or content, instructional methods and materials, learner experiences or activities) are arranged, to provide direction and guidance as the curriculum evolves. All topics in the CAPS Accounting curriculum are organized under the three main topics of Financial Accounting, Managerial Accounting and Managing Resources (which incorporates certain aspects of Auditing (Ngwenya & Hall, 2014: 3).

2.5.2 Potential impact of curriculum in a South African context

The subject encompasses Accounting knowledge, skills and values that focus on the three main topics. These fields cover a broad spectrum of Accounting concepts and skills to prepare learners for a variety of career opportunities and to provide them with valuable personal life skills (Department of Basic Education, 2011(a): 8). CAPS is, on the whole, a better curriculum for the present South African educational context (Grussendorf, Booyse & Burroughs, 2014: 56). Gouws & Russell (2013: 74) state:

> FET is the exit level for school education, and a vital link between schooling and the outside world. The responsibility to provide the opportunity for learners to cross from FET to higher education and training, or to the world of work rest, with the Minister of Labour and the

> Minister of Higher Education who operate on the "demand side", and the Minister of Education who operates on the "supply side".

In Accounting, the "supply side" should produce learners who are able to make the transition to higher education and the workplace and produce learners who are able to identify and solve problems and make decisions using critical and creative thinking.

The current exit level outcomes for the FET Band are clustered under the broad content areas namely Financial Accounting, Managerial Accounting and Managing Resources. The following table 2.2 contains the content topics that are covered in the final Grade 12 examination (Umalusi, 2014: 61).

Table 2.2 : Content topics examined at exit (Grade 12)

FINANCIAL ACCOUNTING OF COMPANIES	
Accounting concepts and the unique accounts of companies	Accounting concepts and accounts unique to companies
GAAP principles	International Financial Reporting Standards (IFRS) and Generally Accepted Accounting Practice (GAAP) Specific GAAP principles
Bookkeeping of companies	Journals
	Ledger
	Trial Balance
	Including the new concepts of selling shares at an issue price and no longer par value, repurchasing of shares at a price higher than the weighted average price, dividends and tax.
Unique accounts: companies	Ordinary share capital
	Retained income
	SARS (Income tax)
	Shareholders for dividends
	Ordinary share dividends
	Appropriation

Accounting equation	The effect of transactions on the accounting equation of a company: all transactions affecting a company up to financial statements including adjustments.
Year-end adjustments	Pre-adjustment Trial Balance
	Application of GAAP principles
	Year- end adjustments in the general journal
	General ledger
	Post adjustment trial balance
	Particular emphasis on Grade 12 company adjustments but includes all prior learnt adjustments including reversals.
Closing transfers, final accounts and trial balances	Closing transfers
	General ledger
	Final accounts: • Trading account • Profit and Loss account • Appropriation account
	Post-closing trial balance
Financial statements **Bookkeeping of companies**	Financial statements: • Income Statement • Balance Sheet • Cash Flow Statement
	Notes to the financial statements
	Analyse a directors report
	Analyse an auditor's report
Analysis and interpretation of financial statements: Companies	Calculations of ratios
	Company: Earnings per shares; dividends per share; net asset value per share; return on shareholders' equity
	Gearing and risk: det: equity; return on total capital employed
	Profitability, liquidity and solvency from previous years
	Analysis and interpretation of the information above
Cash Flow Statements- preparation & interpretation	Cash Flow Statement and accompanying notes
	Analyse and interpret the information from the Cash flow statement

Analyse published financial statements & audit reports	Analyse and interpret this information
RECONCILIATIONS	
Bank reconciliations	Reconciliations at bank statements with cash journals from Grade 11
	Analyse and interpret the bank reconciliation process
Reconciliations to control accounts	Reconcile the control accounts to the subsidiary ledgers
	Correct errors and omissions via journal entries
	Analyse and interpret reconciliations
Age-analysis-interpretation	Analyse and interpret the age analysis for debtors
Creditors reconciliations to creditors' statement – prepare	Reconcile the individual creditors accounts to the creditors statement
	Correct errors and omissions via journal entries
	Ledger
	Creditors reconciliation statement
	Analyse and interpret creditors reconciliations
VALUE ADDED TAX (VAT)	
VAT concepts	Basic concepts of VAT
VAT calculations	VAT calculations
	Effect of bad debts, discounts and goods returned on VAT
VAT recording	VAT control account
	Amount owing/receivable from SARS
COST ACCOUNTING	
Cost concepts	Accounting concepts unique to a manufacturing business
Production Cost Statement	Production Cost Statement
	Notes to the Production Cost Statement
	Analyse, Interpret the Production Cost Statement
	Report on the Production Cost Statement

Manufacturing: short form Income Statement & notes – preparation & interpretation	Short form of Income Statement with notes
	Analyse, interpret and report on the above
Unit costs, break-even point, variable & fixed costs	Calculation and comment on cost items including break-even, direct material, direct labour, factory overhead, administration and selling and distribution costs.
	Analyse, interpret and report on these costs
BUDGETING	
Budget concepts	Basic concepts
Cash budget	Presenting Cash budget
	Analyse, interpret and compare cash budget of a sole trader
	Analyse, interpret and compare cash budget of a company
Projected Income Statement	Presenting Projected Income Statement of a sole trader
	Analyse, interpret and compare Projected Income Statement of a sole trader
	Analyse, interpret and compare Projected Income Statement of a company
FIXED ASSETS	
Concepts of fixed assets	Understanding the concept of a tangible/fixed asset register
	Acquisition of tangible/fixed assets
Depreciation	Depreciation • on cost price (straight-line method) • diminishing balance method.
	Understanding how tangible/fixed assets are recorded when they are fully depreciated
	General ledger
	Fixed Asset Register

Asset disposal	Calculations
	Disposal of tangible/fixed assets (cash, credit, trade-in): • at the beginning of a financial year • during a financial year • at the end of a financial year
	General ledger
	Update the fixed asset register
Interpretation & reporting on fixed assets	Fixed asset note
	Analysing and interpretation based on the fixed asset note and asset disposal account.
INVENTORY SYSTEMS	
Concepts of inventory systems	Explain the perpetual stock system
	Explain the periodic stock system
	Difference between the two stock systems with advantages and disadvantages
Periodic inventory system – preparation	Transactions relevant to the periodic stock system in the subsidiary journals
	General ledger
	Trading account
	Trading statement
Inventory validation – FIFO & Weighted Average and Specific identification method	Calculate the closing stock and gross profit using FIFO or weighted average or specific identification methods.
	Integrate with either periodic or perpetual stock systems
CODE OF ETHICS AND GOVERNANCE	
Code of ethics & governance	Ethical behavior in the financial environment -
	King code and Companies Act
Professional bodies	The role of professional bodies
	The role of the code of professional conduct
INTERNAL CONTROL & INTERNAL AUDIT	
Internal control & internal audit processes	Internal control and audit processes
	Internal control and audit processes in the business environment.
	Difference between the roles of the internal and external auditors

The following table 2.3 summarises the skills that are covered in the suggested classroom activities outlined in the Grade 12 Teaching Plans, clustered under the broad skill areas (Umalusi, 2014: 64).

Table 2.3 : Skills in recommended classroom activities for Grade 12

Language and logic skills	Define concepts relating to companies
	Explain the purpose of the Companies Act – broad overview
	Explain need for and role of professional bodies
	Explain need for and role of International Financial Reporting Standard in the context of Generally Accepted Accounting Practice
	Identify and explain corporate governance issues in ethical and internal control contexts
	Explain role of professional Accounting bodies
	Explain the need for and nature of internal control processes, including documentation, authorisation, division of duties and stock and fixed asset registers and subsidiary ledgers
	Explain the need for and roles of independent auditors and internal auditors
	Explain cost concepts
	Explain budgeting concepts
	Explain VAT concepts
Bookkeeping application skills	Prepare entries according to the perpetual inventory systym
	Prepare entries according to the periodic inventory system
	Prepare unique ledger accounts of companies
	Identify accounts debited and credited (table format)
	Post figures from journals to ledgers
	Prepare trial balances
	Calculations relating to VAT Control account
	Post to debtors and creditors subsidiary ledgers
	Prepare debtors' and creditor's lists
	Prepare closing transfers and post to ledger

Financial reporting application skills	Process year-end adjustment entries
	Prepare Income Statement, Balance Sheet and Notes to financial statements
	Prepare Cash Flow Statements
	Prepare Production cost statements, Abridged Income Statements and Notes
Projection application skills	Prepare Cash Budgets and Projected Income Statements
	Prepare Debtors Collection and Creditors Payment Schedules
Reconciliation skills	Reconcile control accounts to debtors' and creditors' lists
	Reconcile bank transactions to bank statements
	Reconcile creditors' transactions to creditors' statements
Analytical skills	Calculate financial indicators
	Analyse bookkeeping entries in terms of the Accounting Equation
	Analyse and interpret cash flow statements
	Analyse and interpret debtors collection schedules
	Analyse unit costs, variable costs and fixed costs
Evaluation skills	Evaluate financial indicators across financial periods and across different companies
	Evaluate and interpret published financial statements and independent auditors reports
Valuation skills	Value trading stock according to specific identification, weighted average and first-in first-out methods
	Depreciate fixed assets according to straight-line and diminishing balance methods
Creative problem-solving skills	Identify problems from given figures and financial indicators
	Provide valid solutions

The Accounting team (Grussendorf et al. 2014: 63) reported a satisfactory coverage of content and skills across the FET Band and did not find any major omissions. They did, however, express concern that many teachers teach towards the NSC examination and do not allocate enough time for the development of the skill of independent research. The Accounting team suspects that the CAPS document is

not being updated in terms of current developments in the profession: for example in the area of International Financial Reporting Standards (IFRS) Conceptual Framework and terminology relating to financial statement.

Grussendorf et al. (2014: 63) report that the progression in terms of content from Grade 10 to Grade 12 is appropriate but suggest a reduction in the Grade 10 content (removal of managerial Accounting) to secure better development of skills and the basics of financial Accounting & indicators. Ngwenya & Hall (2014: 26) point out that time allocations at the start of Grade 10 need to be refined: ethics and internal control should be integrated with the teaching of other topics covered throughout the year. Grussendorf et al. (2014: 63) further commented that the spread of cognitive levels as detailed in the CAPS is appropriate but expressed the concern that the development of the higher order skills present in the curriculum, such as analysis, evaluation and creative problem solving, are not guaranteed, as this is currently dependent on the teacher. More explicit guidance regarding development of these higher order skills is definitely required in CAPS. Analysis, evaluation and creative problem solving are important skills (assessment weighting 30%) but not developed during normal teaching time allocated (Ngwenya & Hall, 2014: 27).

The following more explicit guidance on pedagogical methods and recommendation are advised by Ngwenya and Hall (2014: 32):

- A conceptual approach to the subject as opposed to a purely procedural bookkeeping approach is advised.
- Setting-out topics and preparation of financial statements might encourage a procedural approach which is teacher-driven. Over-use of detailed templates encourages rote learning.
- Financial statements and analysis and interpretation should be taught simultaneously, in all grades, to ensure understanding and avoid rote learning.
- Emphasis on a conceptual, analytical and questioning approach.
- Income Statement and Balance Sheet need to be taught In Grade 9.

Van Romburgh (2014: 42) recommends that the school Accounting curriculum (CAPS) focus on the basic concepts of the subject area and build a strong foundation

for learners so that they are able to cope with university Accounting curricula and assessment. More specialist topics relating to auditing, ethics and advanced taxation can be the focus of universities where these subjects are taught separately and the lecturers have the knowledge and experience to present these subjects appropriately.

2.6 Challenges of implementing the CAPS Accounting curriculum

The challenges of implementing the CAPS Accounting curriculum involve how teachers and learners construct and appropriate individual-knowledge within the constraints of the curriculum.

The content knowledge of the Accounting teacher is concluded in an Accounting study of Van Romburgh (2014: 42) about the gap between school, university and practice. Fewer than half of participating students indicated that certain topics in the school curriculum were taught to them at school, including the King III code on corporate governance, managerial Accounting, audit-sampling techniques and the use of information technology in the subject. These topics were added to the school curriculum only recently as part of CAPS. When compared to results obtained from the lecturers' questionnaires, topics relating to auditing and the King Code were not regarded by the students as important topics. Teaching methodologies according to Schreuder (2014: 121) are a challenge, because teaching methodologies need to distinguish the various sections of the curriculum and adapt to different groups of learners and teachers depending on who are sitting in front of them: there should not be a one-size-fits-all approach. Teachers need to move from teaching rules to teaching concepts of Accounting and enhancing practical skill, which should provide students with a basis from which to comprehend and remember the rules better. In addition, such individual appropriation of content-knowledge facilitates other generally stated goals of Accounting education such as developing thinking abilities, communication and problem-solving skills, and the capacity for life-long learning (Van Romburgh, 2014: 53).

Oosthuizen (2014: 192) recommends that high school educators reflect on the teaching methods which they use: more innovative and interactive teaching methods should be utilized in order to develop learners' problem-solving skills, analytical thinking skills, critical thinking skills and the ability to interpret financial information.

Challenges regarding teaching methodology are, according to Schreuder (2014: 147), the approach of the teachers, how learners are introduced to new concepts, stimulation of critical thinking and the importance of balancing lower order or routine procedures with higher order cognitive skills. Schreuder shows a concern for relating theory to practice by means of relevant newspapers and magazines. Teachers can integrate real-life scenarios into their teaching of the subject. Teachers need to focus on how things are done in practice. When learners have this picture, it is much easier to teach the theory. Practical application of concepts and skills can be achieved by giving adequate and regular homework. Schreuder's study shows that such 'homework' should be marked by visual presentation: so that learners can *see* the answers and not only *hear* them. Marking and checking homework is important for teachers to ascertain what the problem areas are for learners.

Ngwenya & Maistry (2012: 24) state that: for learners to master Accounting skills, they need regular practice. But large class sizes presents a challenge to teachers of Accounting. Teachers attempt to ascertain whether learners have completed the required work but large classes make it difficult to provide individual attention. Another challenge for teachers is that there is little or no support from school management and/or subject advisers. Sometimes there is no qualified head of department in the subject: the teacher is left on his or her own (Schreuder, 2014: 121).

Gouws & Russell (2013: 74) state the FET learners are a product of what they learnt during the GET (General Education and Training) phase. Although OBE (C2005), NCS and CAPS have been systematically introduced throughout the education system from the Foundation Phase upwards, many learners are currently in Grade 10 without the necessary and expected skills, knowledge, attitudes and values. Schreuder (2009: 99), who conducted an empirical study on The Role of Economic

and Management Sciences (EMS) in preparing learners for Accounting in Grade 10, identified three challenges with regard to the transition from Grade 9 to Grade 10. First, teachers who are unqualified to teach Accounting often neglect to teach the subject and tend to focus more on Economics and Business Studies. Second, all EMS teachers who participated in the study revealed that time allocated for Accounting is insufficient "to do justice to the content they need to address". Lastly, Grade 10 Accounting teachers need to dedicate a term to teach the learners the basics of Accounting before the Grade 10 syllabus can commence. Teachers are compelled to offer classes after school to complete the Grade 10 Accounting syllabus. These challenges strain teachers' resources. Accounting is a hierarchical, cumulative process which means that individual steps in the learning process cannot be left out.

In a report released to review the implementation of the National Curriculum Statement (Department of Basic Education, 2009: 39), it is stated that there is a worrying gap between knowledge required for Grade 10 and what is provided in Grade 9, especially for the subject of Accounting. The transition to Accounting in Grade 10 was perceived as problematic due to the fact that in the Senior Phase the subject is grouped with two other subjects, namely Business Studies and Economics to form the subject Economic and Management Sciences (EMS). It was found that many teachers who teach EMS are not adequately trained to teach all three subjects and therefore concentrated on the subject(s) they know best or are more comfortable with. The learning area EMS in the Senior Phase content aims for "breadth rather than depth, resulting in inadequate preparation" to specialize in Grade 10 Accounting (Department of Basic Education, 2009: 39).

In addition, Rajoo (2012: 26) asserts there are a number of challenges that many schools and learners face in EMS. Accounting used to be a subject in its own right in Curriculum 2005: the technique and practice of Accounting could be firmly established. When learners chose Accounting as a secondary subject at grade 10 level, a basic understanding of Accounting was evident and learners had this foundation for progressing towards a more in-depth study of the subject.

According to Assain & Lumadi (2012: 257), the new curriculum (CAPS) places an obligation on educators to teach and think about EMS in an integrated way. However in the classroom many EMS educators avoid teaching Accounting which effect is realized when the Grade 9 learners enter the FET Band. Rayoo (2012: 25) points out that a key element of teacher effectiveness which leads to quality teaching is teacher preparedness. If the teacher is not adequately prepared, learners find that effective teaching and learning do not occur.

Challenges regarding learners are a lack of commitment, attitude (learners who are not willing to co-operate or work on their own), lack of sufficient prior knowledge, access to good and correct resources including textbooks, required stationery and a calculator (Schreuder, 2014: 147). What happens in the classroom, while shaped by the background of learners, has a profound influence on children's learning and future chances in life. Many of the problems observed in South African classrooms are clearly rooted in the poor subject knowledge of teachers. These shortcomings are obvious when teachers are called upon to assess the performance of learners (Taylor, 2011: 16).

In order for learners to succeed in Accounting, they need to be actively engaged in independent work. This engagement needs to extend to working outside school hours at home. Data, however, reveals that the social background of learners is not always conducive to learners working at home. This deprivation and lack of parental involvement can compromise the quality of teaching (Schreuder, 2014: 167). Learners' lack of interest, poor reading ability, tendency not to do homework, inability to work independently, together with a lack of parental involvement, constrain acquisition of subject knowledge and skills which demand a high level of commitment from teachers, learners and parents (Schreuder, 2009: 115).

Another challenge is time management at many South African schools. In particular, timetabling was found to be uneven across schools. In some schools, there are too many 'free periods' for teachers, with the result that classes are larger than they might otherwise have been (Department of Basic Education, 2011(c): 104). Taylor (2011: 15) asserts the inefficient use of time is a prominent feature of many South

African schools, occurring at three levels: getting to school, getting to class, and covering the curriculum efficiently when in class. The study revealed high levels of teacher and learner absenteeism, late coming and skipping classes by learners as well as teachers, as reported by principals. Leave, and in particular abuse of sick leave by teachers, offers another gap for teachers to spend less time at school. Many South African teachers spend less than half their time in class and teaching. Ensuring effective use of time in any institution is a leadership responsibility which appears from the available evidence to be a responsibility that the large majority of South African principals fail to bear (Taylor 2011: 16).

Most learners in South African schools face a language barrier in the classroom. Any child who cannot use the language with which s/he is most familiar (usually the home language), is disadvantaged and unlikely to perform to the best of his/her ability. The ability to communicate effectively in the learning situation is not the only issue that is at stake. A child's self-confidence and sense of self in society are undermined if the home language cannot be used for learning: such challenges are further undermined by the experience of repeated underachievement. This disadvantage has cognitive, psychological, social and cultural aspects, all manifested in the ongoing failure of our education system (Owen-Smith, 2010: 32). Another challenge is leaners' inability to read and understand questions which affect comprehension of the subject: teachers acknowledge the need to play a role not only in teaching the content of the subject but in teaching learners how to read and understand subject-related matter. Data reveal that language is often a barrier to learners of Accounting. Data illuminate the importance of subject-specific literacy and acknowledge that sound language ability of learners improves knowledge acquisition (Schreuder, 2014: 167).

2.7 The role of schools to prepare learners for tertiary studies

In the National Curriculum and Assessment Policy Statement (CAPS) for Accounting (Department of Basic Education, 2011(a): 4), the general aims of the South African curriculum gives expression to knowledge, skills and values worth learning in South African schools. This curriculum aims to ensure that children acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the

curriculum promotes knowledge in local contexts, while being sensitive to global imperatives. CAPS Grades R – 12 serves the purpose of equipping learners, irrespective of their socio-economic background, race, gender, physical ability or intellectual ability, with the knowledge, skills and values necessary for self-fulfillment, and meaningful participation in society as citizens of a free country; providing access to higher education; facilitating the transition of learners from education institutions to the workplace; and providing employers with a sufficient profile of a learner's competences.

According to the South African Bill of Rights, everyone has the right to education, and it is the state's duty: to build enough schools and provide enough teachers for everyone to be able to go to school and obtain a proper education. Equal access to education signifies an equal and dignified society and holistic equity in all spheres of life, while Learner-Teacher-Support Materials (LTSMs) refer to any tool or resource used to enhance teaching and the understanding of the subject content. Modisaotsile (2012: 4). Poverty has devastating effects on children's life chances, and nowhere is this more strongly felt than in schooling. The mechanism for this reproductive effect of schools is the covariation between lack of home support, the poverty of the community, the level of school resources and the expertise of principals and teachers (Taylor: 2011: 14).

According to Modisaotsile (2012: 3) good school performance is linked to the participation of all stakeholders in education. These stakeholders include parents, teachers, learners, school governing bodies (SGBs), government departments, and the private sector. It is therefore submitted that building relationships of mutualism among the stakeholders in education will improve the quality of education. The interests of all stakeholders should be aligned to support the common goal of achieving good educational outcomes that are responsive to community needs and economic development (National Planning Commission, 2011: 302).

The core business of schools is learning and teaching, and the core task of principals is to ensure their school ethos is conducive to these priorities. Principals need to provide leadership on the curriculum, as well as administration and management

(National Planning Commission, 2011: 303). An important management dimension is the responsibility of the principal and her team to ensure not only that teachers are in class and teaching during school hours, but also that teachers cover the curriculum effectively when they are in class. Unfortunately, the majority of South African principals do not understand their responsibilities regarding this latter function, the main business of the school (Taylor 2011:17). Whole school development with a focus on a culture of positive behaviour must be well managed, as it involves an attitude and work ethic that are driven by good professional behaviour, support structures and good planning. Realising a permanent belief in the system requires active leadership. The important role players are the school management team, educators, learners, representative council of learners, class monitors and the school governing body (SGB). The management of a culture of positive behaviour is a co-ordinated and integrated approach with a clear task for each role player to ensure positive behavior (Department of Education, 2007: 3).

Teaching in schools can be improved through targeted support by district offices. District offices should also ensure communication and information sharing between the education authorities and schools, and also between schools (National Planning Commission, 2011: 303). The SGB is the 'government' of the school, established in terms of the South African Schools Act (Act no 84 of 1996). It is mandated to set policies and rules that govern the school, and to monitor the implementation of the rules. The SGB gets its mandate from the different members (learners, parents, teaching and non-teaching staff) of the school community. An SGB must ensure that the school is governed in the best interests of all the stakeholders. All SGB members must always put the best interests of the school before any personal interests (Modisaotsile, 2012: 4).

The teachers' duties and responsibilities are to create a learner-centred classroom where discussion is allowed between learners, but the discussion takes place in a focussed and orderly manner; and to prepare well so that lessons can run smoothly and discipline can be applied more easily (Department of Education, 2007: 5). South Africa's education system wil not work effectively until undue union influence and critical educational factors are resolved according to Stellenbosch University

researchers. They describe these factors as binding constraints, which include weak institutional functionality, poor teacher content knowledge and insufficient learning time for pupils (Masondo, 2016).

> Teachers need to know how to translate that knowledge for effective learning in the classroom. This implies that content knowledge and pedagogical skills both need to be good (Masondo, 2016).

The quality of education remains very poor, and the output rate has not improved. Furthermore, classrooms are still overcrowded: the ratio of teachers to learners is 1:32 in South African public schools (Modisaotsile, 2012: 2). One of the main reasons South Africa needs more teachers is to reduce class sizes. Class sizes impact on learner performance. Small classes allow teachers to give more attention to individual learners (National Planning Commission, 2011: 306). There are many good reasons why parents should be involved in their child's education. One of the reasons is the ratio of teacher to learner in schools. One classroom teacher and 25 to 35 young minds to educate can be a very difficult task to accomplish.The ratio of learners to teachers is too high, and although it is difficult to acknowledge, some learners simply fall through the cracks in the system. Parents are the safety net for their children, yet too many of them fail to realise this important fact. (Modisaotsile 2012:3)

The responsibilities of the parents are to take primary responsibility for their child's discipline and know the school's code of conduct and encourage their child to uphold it (Department of Education, 2007: 11). Parents have a fundamental responsibility to ensure that their children are at school and their homework is done. Unfortunately, many parents have never had the opportunity to attend school themselves, and do not know how to read and write. Nevertheless, the more parents participate in the schooling of their children, in a sustainable way, at every level, the better for learner achievements (Modisaotsile, 2012: 4).

The dropout rate is very high, and literacy and numeracy levels are low. Other challenges include: poor teacher training; unskilled teachers; lack of commitment to teach by teachers; poor support for learners at home; and a shortage of resources in

education despite the large budgetary commitments by government (Modisaotsile, 2012: 2).

The South African education system needs urgent action. Building national capabilities requires quality early childhood development, basic education, further and higher education. The priorities in basic education are human capacity, school management, district support, infrastructure and results-oriented mutual accountability between schools and communities (National Policy Commission, 2011: 295). To ensure that all schools meet minimum standards for infrastructure and to target no-fee schools when planning infrastructure to compensate for resource deficits in communities. There should be well-equipped libraries, laboratories, computer and media centres to ensure that learners in no-fee schools have access to similar learning resources to their counterparts in less poor communities (National Planning Commission, 2011: 303). Du Plessis and Gerber (2012: 83) emphasise that there are problems within the education system, including continual changes and amendments to curricula, the type of teacher training, inadequate support to teachers, teaching time compared to other activities and availability of learning and teaching materials such as text books.

According to Mouton, Louw and Strydom (2013: 285) in South Africa, there is no benchmarking of the National Senior Certificate (NSC) examination; therefore, first-year students have difficulty in adapting to the university environment as they find themselves devoid of indispensable bases for the pursuit of their studies and the weakness of the level of education given at school level in a large number of instances. In order for high school learners to prepare themselves for success at university, they need to take cognisance of major differences between high school and tertiary studies (Oosthuizen, 2014: 1). Such differences include high school classes which are relatively small and in which learners enjoy personal attention from teachers compared with universities where there are up to 500 students in one class and where lecturers do not necessarily know students individually (McIlroy, 2003: 14). High school learners are often motivated by fear of punishment or by nagging of teachers to submit homework and assignments, whereas successful university students need to be self-motivated and driven to perform (McKenzie & Schweitzer,

2001:24). The work-load increases at university: students need life skills such as time-management and study skills to cope with such challenges (McIlroy, 2003:15). University students experience more independence than at high school. Students entering university for the first time need to realise that with independence comes responsibility for them to make the correct choices and to be accountable for their own actions and progress (McIlroy, 2003:15; McKenzie & Schweitzer, 2001:28).

Frick (2008: 20) points out that certain schools are perceived to prepare learners for university by including work in curricula which is repeated or built upon at university level. Elements within the school environment which were perceived to increase first-year students' chances of success include so-called "good teachers", fostering independence and freedom at university and encouraging learners to work hard. Skills acquired at school were perceived as valuable in achieving success as a first-year student. These skills include skills developed in the areas of language, listening, reading, essay writing, numeric calculations, class discussions, analysis exercises, note-taking in class, critical thinking, verbal communication, debating, time - management, study skills, self-study and group work. Individual traits developed at school and that increased tertiary level success included diligence and hard work, self-discipline, independence, insight, and talent.

Reading is one of the most important academic tasks encountered by learners and students. In higher education, students are exposed to a number of texts and textbooks that require independent reading. At this level they are expected to comprehend what they read so that they can analyse, critique, evaluate and synthesize information from various sources. Many students entering higher education are not adequately prepared to meet these challenges (Bharuthram, 2012: 205). Another well-documented feature of the South African school system is that a very strong verbal culture dominates classrooms, with the teacher doing most of the talking and learners doing very little talking, reading and writing. There are two issues concerning reading and writing that require attention: getting books to schools and promoting their use in classrooms (Taylor, 2011: 16).

Our education system should prepare the learners at least from Grade 10 onwards when it comes to choosing career paths. In order to achieve this, the schools should dedicate the beginning of every year to career guidance or include it in the curriculum. This will allow learners to select subjects that are in line with their future plans (Mhlanga, 2011). In addition to this (National Planning Commission, 2011: 304) emphasise to ensure that learners at the earliest stages of primary school are aware of further educational opportunities and can make informed career choices. This will help reduce the high number of learners who drop out.

A definition of inclusive education according to Loreman, Deppeler & Harvey (2005:2) is full inclusion of children or students with diverse abilities in all aspects of schooling that other children/students are able to access and enjoy. This definition of inclusion does not imply that children/students with diverse abilities will not receive specialised assistance or teaching outside the classroom when required. Inclusive education and training can also be defined as: acknowledging that all children and youth can learn and that all children and youth need support. Enabling education structures, systems and learning methodologies to meet the needs of all learners. Acknowledging and respecting differences in learners, whether due to age, gender, ethnicity, language, class, disability, HIV or other infectious diseases. Broader than formal schooling and acknowledging that learning also occurs in the home and community, and within formal and informal settings and structures (Department of Education, 2011: 6).

Inclusive education may be regarded as a system of equality based on human rights and democratic principles which confront all forms of discrimination and which ensures that students in need receive additional resources and are not ignored or neglected (Puri & Abraham, 2008: 25). Provide inclusive education that enables everyone to participate effectively in a free society. Education provides knowledge and skills that people with disabilities can use to exercise a range of other human rights, such as the right to political participation, the right to work, the right to live independently and contribute to the community, the right to participate in cultural life, and the right to raise a family. Ensuring that all learners with disabilities have access to quality education will help South Africa meet its employment equity goals in

the long run (National Planning Commission, 2011: 304).

According to King (2016) there is a vital intersect between schools as a pipeline to higher education, and higher education as the conduit for teachers into schools. The best preparation in school is to teach learners to understand their own abilities and interests and to give them the tools with which to explore future options. There is a need for a closer relationship between schools and universities, with universities showing a willingness to interrogate the way they do things. Education is about much more than children sitting in classrooms, acquiring skills that can be objectively tested. Both the inputs to, and the outputs from, education are far more complex than much of the usual international discourse suggests.The inputs to education are described in technical terms, such as optimal pupil-to-teacher ratio or the availability of chalk and textbooks. Outputs are often described in economic terms, including the higher incomes associated with each additional year of education.Because education is first and foremost the vehicle through which societies reproduce themselves, both the inputs and the outputs in an education system may more rightly be thought of as a set of ideas about how a society is structured and should be structured in future (Modisaotsile, 2012: 5).

2.8 Definition, role and challenges of HE

Higher Education (HE) is defined as “all types of studies, training, or training for research at the post-secondary level, provided by universities or other educational establishments approved as institutions of HE by the competent State authorities” at the UNESCO World Conference on Higher Education in 1998 (UNESCO). Another definition of HE (Ebrahim, 2009:41) refers to all post-matriculation educational institutions: universities, colleges and technikons (currently universities of technology).

The role of HE has become increasingly prominent as society has become progressively more dependent on information systems and IT. To realise its potential benefits, HE needs to be cultivated, nurtured and supported by a conducive policy environment and sufficient resources for issues such as access and massification, the brain drain, staff and student retention and infrastructure (Müller, 2013: 19).

According to Speckman and Mandew (2014: 77), the role of HE is to equip a critical mass of skilled and educated graduates.

The ultimate role of HE (Davids, 2003: 35) is to underwrite democratic principles, eradicate past inequalities, to uplift the people of the country socially and educationally, to ensure a growing economy and to create new knowledge. HE should meet the moral, political and economic needs of the new S.A. This can be attained by:

- Meeting the learning needs and aspirations of individuals.
- Addressing developmental needs of society and by providing the labour market with competencies necessary for ensure economic growth.
- Generating new knowledge through research, learning and teaching.

Wilson (2014: 32) points out that Accounting in HE has to change if it is to be relevant to students, to the Accounting profession, and to stakeholders in the wider community (who rely in a variety of ways on the services rendered by Accounting practitioners). Of crucial significance in the calls for change in Accounting education and training has been the array of changes taking place in the dynamic environment of Accounting practice, including the increasing pace of change in financial reporting and markets; increasing uncertainty, recognition of risk, complexity, regulatory activity, globalization, interdisciplinary practices and technological change. There has been a need for Accounting educators to respond to demands for change by adapting traditional ways of addressing matters such as students' motivation and approaches to learning; curriculum design and course content; pedagogy (including developments in educational technology); skills development (whether generic or technical); assessment (of students, programmes, and academic staff); contextual issues (including sustainability and ethics); and institutional issues (including the interface between academic education in Accounting and professional training in Accounting – whether initial or continuing).

The key challenges for students, especially in the developing world, are to urgently address the results of injurious social and political practices within and beyond higher

education affecting students' cognitive and social-emotional functioning. Key challenges include: organizational and structural positioning, framework and local theory development, engaging proactively and coherently with globalisation and internationalisation, and professionalising and developing an epistemological community. The current context of higher education presents students with many challenges. 'The ever-changing role of student affairs has now become more complex due to diversity of age, ethnic, academic and financial backgrounds of students' (Speckman et al. 2014: 28). According to Moloi, Mkwanazi and Bojabotseha (2014: 469) these challenges include: structural problems in terms of the under-preparedness of students entering university for a particular educational level; knowledge gaps between secondary and higher education, and between higher education and the labour market.

Accounting lecturers should play a significant role in sustaining the profession's social contract through practice – related research and innovative student education involving cognition, knowledge acquisition and Accounting skills along with ethical standards (Raghavan & Thomas, 2014: 76).

There are demands to advance access to quality higher education, through equity and redress, quality, development, democratisation, academic freedom, institutional autonomy, effectiveness and efficiency, and public accountability (Badat, 2010: 7). Added to these demands is the need to produce and retain a new generation of academics with the requisite pedagogical content knowledge, disciplinary knowledge, skills and competencies so that they can contribute to the country's political and knowledge economy and to changes in the future (Moloi et al. 2014).

2.9 Facets of HE readiness

Success in higher education is often based, according to Kokemuller (2014), on a combination of factors, including family support, academic preparedness, life skills and decision-making abilities of the student. Strong family and peer support is important for successful transition into university. For some students, financial

support is an important aspect of getting into and starting HE. Emotional support is often more critical, as students rely on parents, siblings and family members to coach them on the transition and listen in times of difficulty. In the HE setting, a strong peer network and social involvement are crucial. Students need to feel that they belong and can rely on other students to encourage them and hold them accountable for work. Sound learning habits play a key role for students who got by or did well in high school with minimal effort: such students can struggle at the tertiary level without effective academic habits.

Frick (2008: 21) comments on the difference in the academic atmospheres at school and university. Aspects that were noted included a greater emphasis on self-study and study methods at university (having class all day and catching up on their studies in the evenings), lack of individual attention, reluctance to voice their own opinions and language barriers which were created when classes were not conducted in the home language of the student, or where learning materials were not available in the home language. In terms of assessment, the eventual assessment seemed to be distinctly different to the type of assessment which they were accustomed to at school. A lack of academic background such as academic and essay writing, grammar and spelling, vocabulary and terminology as well as oral presentation and study skills was noted as hindrances to first-year success.

A life skill such as balance is central to university student success. Balancing responsibilities of being an independent adult with benefits of freedom from parents and home rules is critical. A university student’s success or failure is often determined by the collective result of decisions made prior to, and at the start of, university. This process of decision-making begins with selecting the right HE institution, program and classes that stimulate the student's interest and motivate him/her to study (Kokemuller, 2014).

The theoretical framework of this study primarily draws on the work of Conley (2007(a): 12) who found that HE readiness is a multi-faceted concept comprising numerous variables that include factors both internal and external to the school environment. LoBiondo-Wood and Haber (1998: 141) define a theoretical framework

as a frame of reference that is a basis for observations, definitions of concepts, research designs, interpretations, and generalizations, much as the frame that rests on a foundation defines the overall design of a house.

Conley (2007(a): 5) defines HE readiness as the level of preparation a student needs in order to enrol and succeed – without remediation. "Succeed" is defined as completing entry-level courses at a level of understanding and proficiency that makes it possible for the student to consider taking the next course in the sequence or the next level of course in the subject area. The HE ready student in this definition is able to understand what is expected in a HE course, cope with the content knowledge that is presented, and leave the course with intellectual lessons and dispositions the course was designed to convey and develop.

In order to provide a functional representation of the key facets of HE readiness, the model of Conley (2007(a): 12) [as presented] organizes the key areas necessary for HE readiness into four concentric levels. In practice, these various facets are not mutually exclusive or perfectly nested as portrayed in the model. They interact with one another extensively. Figure 2.2 indicates the four facets of HE readiness.

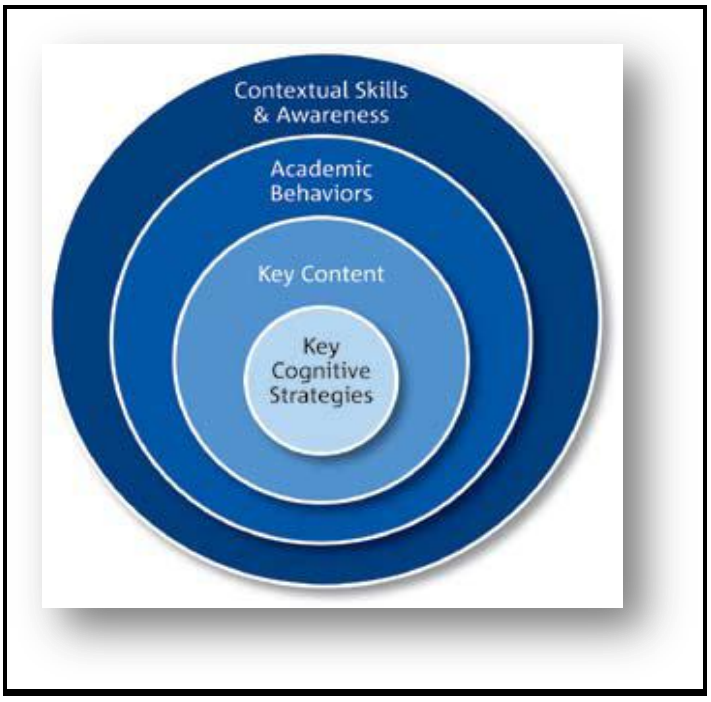


Figure 2.2: Facets of HE readiness (Conley, 2007(a): 12)

Conley (2007(a): 12) suggests a broad definition of readiness includes inter-related cognitive strategies, acquiring key content (content knowledge), academic behaviours, and contextual knowledge and skills. Cognitive strategies include conceptual and evaluative thinking, synthesising and problem solving. These strategies develop over time and are necessary to attain academic success at university. Key content (content knowledge) comprises skills that are inherently part of specific high school subjects, such as critical reading skills. Success depends on developing and using cognitive strategies: through the use of "key cognitive strategies", content knowledge is achieved. Academic behaviours consist of meta-cognitive skills and study skills. Meta-cognitive skills consist of self-awareness, self-monitoring and self-control. Good study-skills comprise time-management, planning a task, setting up the study environment, breaking up tasks into manageable chunks and balancing competing priorities. Lastly, contextual skills and awareness refer to the ability to adapt and understand the context or climate of the institution. Another important area of contextual awareness is known as 'university knowledge'. University knowledge refers to an understanding of the bureaucratic processes associated with applying, enrolling and studying at a university. For success in higher education, students should acquire appropriate institutional culture through transitional learning.

The central element according to Conley (2007(a): 13) is acquisition of cognitive strategies selected for this model to describe the intelligent behaviours necessary for HE readiness and to emphasize that these behaviours need to be developed over a period of time in order to natural ways of thinking. "Key cognitive strategies" are patterns of intellectual behaviour which scaffold cognition and skills necessary for HE-level work. The phrase "key cognitive strategies" invokes a more disciplined approach to thinking than terms such as "dispositions" or "thinking skills". The specific cognitive strategies shown to be closely related to HE success include the following: intellectual openness, inquisitiveness, analysis, reasoning, argumentation, proof, interpretation, precision, accuracy and problem solving.

Byrd and MacDonald (2005: 26) examine the preparedness of students entering college by identified categories, for example skills and abilities (academic skills, time

management, goal focus, and self-advocacy), background factors (family factors, career influences, financial concerns, college preparation and non-traditional student self-concept (self-concept and college system).

The second element of readiness according to Conley is acquisition of key content (content knowledge). Successful academic preparation for HE is grounded in two important dimensions: “key cognitive strategies” and key content knowledge. Understanding and mastering key content knowledge is achieved through the exercise of broader cognitive skills embodied within the “key cognitive strategies”. There are two academic skill areas that have been identified by Conley as central to HE success: writing and research. Writing is the means by which students are evaluated at least to some degree in nearly every postsecondary course. Research requires students to be able to identify and utilize appropriate strategies and methodologies to explore and answer problems and to conduct research on a range of questions (Conley, 2007(a): 14).

To compare Conley (2007(a)) with Byrd and MacDonald (2005) the academic skills included reading, writing, math, technology, communication and study skills which are similar to Conley’s content knowledge. Participants in the Byrd and MacDonald study reported that they felt overwhelmed when they began university-level work because high school required little intellectual stimulation, resulting in lowered vocabulary and math skills.

Lemmens (2010: 276) asserts the cognitive dimension related to academic achievement at high school forms the base for the evaluations of cognitive ability. High school achievement is a measure of the cognitive preparedness of students and consists of content knowledge that Conley (2007) deems to be important for readiness. The “key cognitive strategies” discussed in Conley are a reflection of the abilities and skills that students have gained at high school. To achieve success in Accounting at a Higher Education Institution, the student must have a thorough understanding of basic concepts, principles, and the ability to identify and solve problems. Sargent’s (2013: 582) answer to the question of why prior knowledge is important and has an impact on learning, is that learning builds cumulatively, moving

from the simple to the more complex, not by linear one-fact-at-a-time remembering but by creating organized clusters of related ideas.

Lemmens (2010: 279) developed a model of readiness for university education and identified four dimensions of readiness characteristics: the contextual dimension (parental, socio-cultural, financial), cognitive sub-dimension (skills and abilities, academic preparedness), non-cognitive sub-dimension (educational values, self-efficacy, target goal, beliefs and behaviours, coping strategies and biological dimension (gender and race).

For the purpose of this study, the focus is on the first two elements of Figure 2.2 of Conley's model: "key cognitive strategies" and key content. This study is about the cognitive preparation of NCS (Grades 10 -12) learners for Accounting studies at a selected UoT and therefore the emphasis is on the first two elements.

Reed and Justice (2014: 41) conclude that a clear difference was demonstrated between how high school teachers and HE perceived readiness levels. High school teachers perceived that their students were ready for HE in the areas of academic maturity, academic motivation, learning styles, assertiveness, social and interpersonal skills, advice seeking, and goal setting. As a whole, in these same areas HE felt that students were unprepared to begin tertiary studies. There appeared to be a lack of communication between the two groups of educators. A collaborative effort from both sides is needed to break this impasse.

There are various factors, such as personal, financial, emotional, social environment and health and wellness that can contribute to academic success. If such factors are lacking, the student could drop out and/or fail (De Villiers & Smit, 2012: 9). This study focusses on the learner's cognitive preparedness for HE Accounting studies at a University of Technology. Levy & Earl (2012: 9) state that higher education is a collaborative endeavour that works most effectively and efficiently when there is a match between the aspirations, preparedness, motivations and activities of participants and providers.

2.10 Transition from high school to HE

Speckman and Mandew (2014: 77) assert that it is widely acknowledged that a combination of factors prevents access to higher education, some of which extend back into early childhood and through the years of primary and secondary schooling, making their impact felt well before students reach tertiary level. The system of racial discrimination institutionalised by apartheid in South Africa was particularly unfair when it came to the inequities built into the education sector. Its aftereffects still account for low throughput rates at both school and university level. It is concerning, however, that after almost 20 years of democracy, different and unequal resources (in relation to infrastructure, teacher training and management) within the country's schooling system still prevent the poorest of the poor, that is the majority of the population, from completing their schooling and being able to access higher education.

Supporting and facilitating effective transitions into and through higher education are increasingly student oriented, professionalized and recognized as institutional core business (Wilson, 2009: 1).

The factors that support successful transitions include (Wilson, 2009: 1):

- The need for institutions to nurture student motivations to study, focusing on an interest in learning and/or a vocational outcome.
- An assisted early establishment of learning routines that include attending classes regularly.
- An informed ability to balance study, work and social commitments.
- Cultivation of networks, within and beyond the institution that supports institutional and learning engagement.
- Institutionally cultivated academic persistence and self-confidence among students.
- An appreciation by students of what successful university study entails and the institutionally assisted development of appropriate skill sets.

Attention has been paid to the widening of access to higher education since at least the 1980s and has received a great deal of support from democratically elected government since 1994. There can be little doubt that at the level of policy and steering mechanisms, such as ring-fenced funding formulae for bursaries and extended curriculum programmes (ECP), there has been an overt commitment to extending access to a wider and more diverse group of South African students (Leibowitz & Bozalek, 2014: 91).

2.10.1 Discrepancy between high school preparation and higher education expectations

According to Conley (2007(b): 23), research shows a discrepancy between high school preparation and higher education expectations. The gap in HE readiness reflects the difference between the skills and knowledge that students gain in high school versus the skills and knowledge that HE require (The National Centre for Public Policy and Higher Education, 2010).

According to Fisher and Scott (2011: 10), this mismatch has a number of consequences. School-leavers who meet the minimum statutory requirements have expectations of gaining a place in higher education and gaining a qualification. Those students in the lower half of the spectrum have access to, at best, a limited range of institutions and programmes, and little chance of graduating. At the same time, the costs to higher education of student under-preparedness can be seen in high repetition and drop-out rates, extended completion times, and other inefficiencies. South Africa's low participation rates exacerbate the effects on the economy.

A crucial concept according to MacGregor (2013) is the articulation gap between school and higher education because a gap can be closed from either side. It does not absolve either side from the responsibility of trying to close the articulation gap.

There are four strategies that can help high schools increase the number of university-ready students (Conley, 2007(b): 24).

2.10.1.1 Aligning high school curricula and instruction with university expectations

High school leaders should begin by analysing the content of school curriculum—perhaps by working in partnership with a local university, resulting perhaps in revising tertiary instruction as well. In addition to comparing the content of each high school course with university readiness standards and state content standards, the high school can analyse how well courses in each content area progress in difficulty level during the years of high school (Conley, 2007(b): 24).

Bangser (2008: 9) makes the following suggestions:

- Align high school standards with postsecondary expectations.
- Upgrade high school course requirements so that students take a university and work-ready curriculum.
- Streamline assessment systems so the tests that high school students take serve as readiness tests for universities.
- Hold both high schools and postsecondary institutions accountable for student success.

According to Van Romburgh (2014: 22) CAPS mentions some of the topics that should be in the Accounting curriculum: King Code III, integration of ethical considerations and internal control and internal audit processes in a business environment and relating to companies, reporting on cost information. CAPS encourages educators to set examinations in such a way that at least 10 % of the examination addresses problem-solving skills that require critical and creative thinking. All of these requirements sound excellent on paper but the reality may be quite different. If the above-mentioned topics are, in fact, integrated into high school curricula and examinations are compiled as required by the DBE, the question arises as to why tertiary Accounting educators perceive a continuous deterioration in the quality of first-year Accounting students. In light of all the changes occurring in education and the content of school curricula, the question is raised as to whether educators are sufficiently trained and qualified to understand and apply these

changes in their classrooms, especially in a subject area as complex and fast-changing as Accounting.

It appears from a study from Reed and Justice (2014: 41) about college and high school educators' perceptions of current college readiness levels, that high school and universities benefit from collaborative efforts to address university readiness levels. This research may explain the difference in perceptions because high school educators often focus on benchmarks and typically follow a prescribed curriculum that may tell high school educators that students are achieving in the necessary areas if they succeed within their curricula. On the other hand, universities based their evaluation of students on their abilities in higher-order thinking and expressing ideas critically. If this ability is not detected in a student, then universities will judge the student as not being university ready. Even though limited research (Reed and Justice, 2014: 42) was found that identified the perceptions and differences or likeness between these two populations of educators, this study suggests that a more consistent stream of communication needs to take place at this level. These priorities to bridge the gap between schools and universities included councils from preschool through university to work nationwide to align high school and university curricula. If dialogue among educators is meaningful and productive, the gap between high school and universities will be minimal or closed. When this occurs, high schools will begin to allow for change within their curricula to prepare students for university entrance. In turn, universities will feel they do not have to deviate from their curricula but will be able to enhance and add to their overall student experience and development. It appears from the current findings that high school and universities may benefit from collaborative efforts to address university readiness levels.

2.10.1.2 Developing high-quality curricula in all courses

Conley (2007: 24) suggests how the curriculum in high school courses is different from that found in university courses. High school curricula rarely undergo external review as all university curricula do. The content of a high school curriculum tends to be diverse, with teachers selecting class content largely on the basis of their own

interests and skills rather than on what students need to succeed in university. The format and structure may differ from teacher to teacher.

High school curricula, according to Bangser (2008: 8), need to be rigorous, relevant, and engaging to prepare students for successful postsecondary activities. Students—including those with previously low achievement levels—who take more rigorous, academically intense programs in high school enrol and persist in postsecondary education at higher rates than similar students who pursue less challenging courses of study. Therefore, it is important to create a culture of high standards with consistent, school wide messages about the standards needed for postsecondary success.

2.11 Studies about transition nationally and internationally

Internationally, the following studies were conducted about transition from high school to HE. In an Irish study about students' motives, expectations and preparedness of higher education Byrne & Flood (2006: 115) found that higher education expects students to develop a deep understanding of the course content and to foster a range of cognitive, practical and personal skills. To achieve these aims, students should engage in a variety of learning activities and complete a range of assessments which test the achievement of the espoused outcomes. The transition to higher education can be stressful for students and their ability both to adapt to the type of learning required and to adjust to the wider environment is affected by their preparedness for higher education. The teaching and assessment practices experienced at school may cultivate a particular set of study skills and learning orientation not entirely appropriate for the more independent forms of learning expected in higher education. The students were asked to indicate what they consider to be the greatest difference between university and their school education. Overwhelmingly, students believe that they will be more independent and will have greater responsibility for their own learning in higher education. Thus, they perceive university to be a less controlled teaching and learning environment. However, it is this independence and freedom which pose the greatest educational, personal and

social challenges to students and it is their failure to successfully meet these challenges which may lead to under achievement and/or drop-out.

Lewis (2014: 26), in a study of student background and high school factors, acknowledges the abundance of research that identifies common factors in students' lives known to affect student success, such as gender, race/ethnicity, student and high school socioeconomic factors, academic preparation, and social and cultural capital. While the research shows that these factors impact likelihood of HE completion, the complexity of student influences makes it nearly impossible to discern whether they cause HE completion. Once students enter HE, they are exposed to new academic and social experiences that affect their success. Influences of persistence and completion include academic and financial factors, along with institutional interventions intended to integrate a student's academic and social life.

In a study of the teaching experience of academics teaching Accounting at Australian universities, twenty-four academics were interviewed about their conceptions of teaching, their students' learning and their teaching approach in relation to the Accounting classes they were teaching. Four qualitatively different ways of conceptualising teaching and five for learning and teaching were identified within the data. Broadly, these are interpreted as falling under one of two orientations—teacher-centred/content and a student-centred/learning orientation. The key differences identified between them relate to whether teaching in the discipline is viewed primarily as a matter of transmitting facts and procedures or of encouraging students to develop their own Accounting concepts and perhaps to even change their world view in the process. Teaching a subject such as Accounting with its strong practical focus necessitates covering the factual and technical aspects of the discipline but this does not preclude dealing with the discipline at an abstract/relational level. Different approaches to teaching and learning literature point to the need to develop a student-centered/conceptual change orientation. This need may be more difficult than is commonly assumed (Leveson, 2004: 529).

In a Spanish study (Arguero, Byrne, Flood & Gonzáles, 2009: 295) about preparedness for higher education, students positively evaluate the education they received at school and feel confident in their abilities to initiate their own study activities, to take responsibility for their own learning, to organise their own life generally and to plan their study in a time effective manner. Additionally, students expect that higher education will enable them to experience new ideas, broaden their horizons and meet new people. Male students report significantly higher scores than females regarding confidence to succeed at university but the sample as a whole does not appear to be overly confident. Indeed, the Spanish students in this study are far less confident than the students in the above Irish study. Comparing the levels of confidence of new and repeating students shows that, not surprising, repeating students are less interested in Accounting and feel less prepared to cope with the independent learning environment of university. In conclusion, this study was conducted at a single university with one cohort of students which clearly impacts on the generalizability of the findings. There would be considerable merit in extending this study to other Spanish universities and conducting an international comparison.

In a study in Hong Kong (Suk-Yee, 1999: 304), the results indicate that university students without a school Accounting qualification need extra attention and guidance. On the other hand, students who did Accounting at school level should be alerted to the fact that the benefits provided by school studies of Accounting are only short term and will not be carried to the second year of Accounting.

Nationally the following studies were about transition from high school to HE. Frick (2008: 181) states that first-year students at universities are often school leavers who enter the higher education system with a collection of prior knowledge skills and attitudes obtained during their school careers. The quality of the academic experience and intensity of the high school curriculum affect success in tertiary education. The best prepared high school learners are best positioned to do well in university. Lecturers of first-year modules and planners of foundation programmes often lack insight into the academic backgrounds of first-year students towards whom the university curriculum is directed. Changes in the South African school system – in particular the altered NCS (CAPS) for the FET Band – have possible extensive

implications for higher education institutions. The mainstream first-year students from 2009 onwards will be totally different to their forerunners, or emerge as replicas of the new system.

In a study of Joubert (2010: 44) about significant predictors of success and non-completion in first-year Accounting at the University of the Free State, no consensus exists as to whether or not previous knowledge of Accounting has an influence on performance in first-year Accounting. The researcher is of the opinion that previous Accounting knowledge can be a benefit to students in their first-year Accounting studies, but that it is not a decisive predictor of success in first-year Accounting. There are other factors that strongly influence success or non-completion in first-year Accounting. The reason for this belief is that the researcher, in 12 years of experience in the lecturing of first-year Accounting students, has been confronted with students with previous Accounting knowledge who have failed as opposed to students without previous Accounting knowledge who have succeeded and even passed with distinction.

2.12 The concept of 'cognition'

The purpose of this study is to determine how NCS (Grades 10 – 12) cognitively prepares Accounting learners for their first-year NHC Accounting and Financial Information Systems at a selected UoT. To determine if the NCS cognitively prepares Accounting learners for HE, the definition and theories of cognition are discussed and the cognitive preparation for HE Accounting studies are reviewed in terms of Bloom's taxonomy and work in general.

Learning is the process by which we acquire and retain attitudes, knowledge, understanding, skills and capabilities that cannot be attributed to inherited behaviour patterns or physical growth. Capacity for learning is related to innate physiological factors. The rate of learning depends on both inherited and environmental factors (Farrant, 1980: 107). Sharma (1997: 126) classified students' learning conceptions as one of the following: learning as memorizing, acquiring knowledge, application of

knowledge, making connections between parts of a subject and between subjects and interpreting and understanding reality.

Cognitive learning is achieved by mental processes such as reasoning, remembering and recall. It helps in problem solving, developing new ideas and evaluation (Farrant, 1980: 107). Cognition is the activity of knowing and the psychological processes through which knowledge is acquired and understood, beliefs and attitudes are formed, decisions are made and problems are solved (Sigelman & Rider, 2009: 187). A cognitive perspective is the aspect of the curriculum that focuses on the acquisition of knowledge (Ebert & Culyer, 2014: 152).

Ladson-Billings (1995: 481) summarize how teachers thought about knowledge – the curriculum or content they taught – and the assessment of that knowledge. Teachers' conceptions or beliefs about knowledge are as follows:

- Knowledge is not static; it is shared, recycled, and constructed.
- Knowledge should be viewed critically.
- Teachers should be passionate about knowledge and learning.
- Teachers should scaffold, or build bridges, to facilitate learning.
- Assessment should be multifaceted, incorporating multiple forms of excellence.

According to Ball & Bass (2000: 95), three problems stand out in developing and using knowledge in practice. One problem concerns identifying the content knowledge that matters for teaching, a second regards understanding ways in which such knowledge needs to be held and a third centres on what it takes to learn to use such knowledge in practice.

Cognitive psychology (Shuell, 1986: 414) is concerned with various mental activities (such as perception, thinking, knowledge representation, and memory) related to human information processing and problem solving: it represents the mainstream theories of thinking in both psychology and education. The emphasis today in the field of cognitive psychology is no longer on behaviour alone but on the mental

processes and knowledge structures that can be inferred from behavioural indices responsible for various types of human behaviour. Fletcher (2006: 5) asserts that in cognitive psychology, a substantial body of empirical findings from research into human learning, memory, perception, and cognition has led to the view that cognitive processes are constructive and regenerative. Research suggests that these processes involve an "analysis by synthesis" activity in which the information received by sensory receptors (e.g., eyes and ears) is filtered and reassembled as cues that are used to construct an executable simulation of "reality"—the world as we perceive it. Instruction, then, does not involve the wholesale transmission of information from teachers to students but rather the transmission of cues that students use to construct, verify, and modify their models of the world.

Lauder and Brown (2006: 35) state that skills are socially constructed. McGrath (2004: 2) states that it is clear that a skill is a notion that has limited meaning only without reference to knowledge, values and attitudes. Cognitive skills include, according to Freeman and Bell (2010: 21), the mental skills that are used in the process of acquiring knowledge. These skills include reasoning, perception and intuition. They are defined by the skill dimension: ability to integrate, synthesize, interpret, analyses, evaluate, judge and transform.

2.13 Cognition: Different theories

Tang (2011: 36) found that the instructional applicability of Jean Piaget and Benjamin Bloom's theories and educational principles are in developing knowledge. Piaget's learning theory on cognitive and constructivist development has had a major impact on education. While Piaget's theory is geared towards knowledge acquisition for children, his much inspired insights on the nature of children and their cognitive growth are useful and can be applied to adults in higher learning. What essentially matters in cognitive growth 'is not the age at which skills develop but the sequence in which they develop and how they continue to evolve' (Burman, 2008: 162).

Piaget, well-known Swedish biologist and psychologist, identified four stages of cognitive development. According to Piaget, the formal-operational level is the

highest level of thinking and involves the most complex cognitive structures. At the formal-operational level, which starts at the age of 11 years, students are able to think abstractly and solve problems without being in the situation requiring a solution (Louw & Edwards, 1998: 356, 460–464, 482). The concrete- operational level comes just before the formal-operational level and Jones and Davidson (1995: 165) state that it '...develops between the ages 7 years and 11 years and is limited to the relatively concrete realities of the world. During this age, children are generally unable to consider abstract concepts that depart from that reality'. These researchers state that the transition from concrete-operational reasoning to formal-operational reasoning is usually not completed by the age that students attend university.

Bloom's Taxonomy was primarily designed for assessing academic education; but it is relevant to all types of learning. Bloom believed that education should focus on 'mastery' of subjects and the promotion of higher forms of thinking, rather than utilitarian approaches to transfer of facts (Chapman, 2006). Wilson (2014: 37) argues that in the cognitive domain, Bloom's educational objectives deal with the recall or recognition of knowledge, on the one hand, and the development of intellectual abilities and skills, on the other. This domain comprises the teaching/learning cycle in which knowledge is transmitted, received, and used.

Bloom's taxonomy assesses educational objectives by levels with cognitive examples (Wilson, 2014: 36):

Table 2.4: Bloom's taxonomy assesses educational objectives by levels 1-6 with cognitive examples

Level 1: Knowledge (Recall)	Knowledge of specifics; knowledge of ways and means of dealing with specifics; knowledge of the universals and abstractions in the field
Level 2: Comprehension	Translation, interpretation and extrapolation
Level 3: Application	The educational implications of objectives in the application category
Level 4: Analysis	Analysis of elements, relations and organizational principles
Level 5: Synthesis	Production of a unique communication; production of a plan, or proposed set of operations; derivation of a set of abstract relations
Level 6: Evaluation	Judgements in terms of internal evidence and of external criteria

According to Bloom, knowledge involves the recall of several elements: specific information and universal truths; methods and processes for doing something: and a specific pattern, structure, or setting. Measuring knowledge involves recalling relevant or necessary material. The knowledge objective primarily involves the processes of remembering and relating to assist the process of remembering. The recall of specific information, such as terminology and specific facts, takes place on the basic level of learning. Recalling definitions and reciting specific dates, rules, standards, events, persons, or places are examples of a knowledge of specifics. Although it represents a low grade of abstraction, this material provides the foundation on which higher levels of learning are built. The focal point of this category of the taxonomy is the knowledge of principles, generalizations, theories and structures. This area includes knowledge: of major schemes and patterns by which phenomena and ideas are organized, and of Accounting principles and the circumstances and conditions by which they are supported (Wilson, 2014: 37).

In Bloom's taxonomy, intellectual abilities and skills refer to organized models of operation and generalized techniques for dealing with materials and problems. In some cases, knowledge of a particular area will satisfy the issues raised by a situation. Other problems may require specialized or technical information at a higher level within the discipline. The abilities and skills objectives emphasize the processes of organizing and reorganizing information and material in order to achieve a particular purpose. Listed in ascending order, the intellectual abilities and skills covered by their objectives are: comprehension, application, analysis, synthesis, and evaluation (Wilson, 2014: 37).

Comprehension represents the lowest level of understanding. Knowing the information that is being communicated and being able to use it in some way are the processes central to this objective. Application represents using information and ideas to solve a problem in a particular way. Under application, principles and theories of a discipline must be remembered and applied. Analysis is the level of learning at which the characteristics and elements of a situation or problem are broken down, principles and techniques are applied, and the elements are reorganized for a stated purpose. At the synthesis level of learning, parts or elements

are pieced together to form a whole. Evaluation refers to making judgements about the importance and appropriateness of materials and methods for a given purpose, as when standards are used to appraise performance (Wilson, 2014: 38).

2.14 Cognitive factors

Cognitive factors that may influence a student's academic performance are those aspects of learning that relate to the mental processes of a person (Joubert, 2010: 32).

2.14.1 Learning styles

It is important to differentiate between learning styles and learning approaches. Biggs (2003: 17) states that people use the term 'learning styles' when they actually mean 'learning approaches'. According to Duff (1997: 263), a learning style is:

- The composite of characteristic cognitive, affective and physiological factors
- which serve as relatively stable indicators of how an individual interacts with and
- responds to the learning environment.

Bentz (1975: 373) suggests there are two ways of presenting generalized forms of Accounting methods and problem-solving strategies to learners. Either the general structure of an Accounting method can be presented to learners in its complete form (reception learning) or learners can be guided in the process of discovering the general structure for themselves (discovery learning). Knowledge exists in the form of a hierarchy. Each level in the hierarchy requires a set of prerequisite or subordinate skills, which constitute a lower-level in the learning hierarchy. Each level in the hierarchy contains knowledge and skills that are prerequisite to some higher-level knowledge and skills. In summary, it may be possible to improve vertical transfer in Accounting by better structuring learning materials to reflect the hierarchy of learning behaviour involved in Accounting and by providing a wide variety of learning experiences to learners.

Results of research by Duff (1997: 263–270) indicate no significant relation between learning styles and academic performance in Accounting.

2.14.2 Learning approaches

A learning approach involves more than the student and depends on the learning situation and teaching context (Joubert, 2010: 36). According to Biggs (2003: 17), students have preferences for a specific approach but the teaching context influences the approach to be used by the student.

According to Joubert (2010: 37), research findings generally have identified two approaches, namely the deep and surface learning approaches. Students who take a deep approach search for meaning in the work that they study and relate their study material to existing experiences and ideas. These students have an intrinsic interest in the learning material and aim at understanding the learning material. Students with a surface approach rely on rote learning and memorization without relating the study material to existing experiences and ideas. These students study the learning material with the aim of passing a test or examination. Sharma (1997: 135) argues that learning conceptions and approaches are relational. The conception that learning is memorization and acquisition of knowledge is consistent with the surface approach. On the other hand, underlying the deep approach to learning is the conception that learning constitutes comprehension and interpretation of reality, forming generalizations to new situations and having the ability to think in the abstract.

An approach to learning is not fixed and stable, because an approach only indicates a tendency of students towards learning (Biggs, 2003: 17). Different teaching contexts and tasks may influence how students react. Many factors in the teaching context and task may influence the research results and therefore it is difficult to predict student performance on the basis of the tendency towards a specific learning approach alone (Joubert, 2010: 38). Learning is a process whereby the student not only discovers the answers relating to problems but importantly, the reasoning: why particular answers are correct for particular problems. Learning is a process of

discovering the underlying, fundamental elements of a problem: bringing those elements together to arrive at a solution. The aim of learning is to have a greater knowledge of the subject matter. In regard to Accounting, learning means an understanding of how things are done practically and why they are done in that particular way. Learning should mean that the learner learns to think for her/himself and thus is able to evaluate Accounting theory as well as practice. Learning is the acquisition of knowledge and experience in areas of interest. The objective is to gain insight into the subject matter; to expand and develop individual knowledge and experience (Sharma, 1997: 134).

2.14.3 Language proficiency

Proficiency in English for students who have languages other than English as their first language needs to be considered when investigating student performance. In South Africa many students study in English, a language which is not their first language (Joubert, 2010: 38).

Eiselen and Geyser (2003: 128) find that students who are at risk of failing first-year Accounting have difficulty expressing themselves: their vocabulary in the language of instruction is not as good as students who perform well in Accounting. Koh and Kriel (2005: 218–229) performed a study at the University of Port Elizabeth, South Africa: they investigated whether language barriers cause non-completion of first-year Accounting. They found that students who have difficulty solving Accounting problems experienced these problems because they had '...ineffective reading skills and strategies, a lack of knowledge, or inability to apply knowledge in order to solve a problem'. This problem was experienced by students who studied Accounting in English as their first language as well as students studying it in their second- or third language. Koh and Kriel (2005: 227) further stated that 'these problems could not be attributed directly to difficulties with English caused by poor proficiency in the language, or their ability to decode the language; the essential problem may be an under-developed discipline-based cognitive and conceptual framework'. They stated that to develop the students' reading ability would help only some students; the development of students' problem-solving skills should be addressed.

2.14.4 Academic achievement

2.14.4.1 Previous academic performance

Academic achievement (success) is accomplished by someone who understands a specific academic practice or discipline, can maintain that discipline and make a contribution towards the development of that discipline (Müller, 2013: 50). Academic success has become the order of the day at most Higher Education institutions (HEI's) particularly at the under-graduate level where admission is based on high school results. Although the schooling system has been blamed for poor student preparations at the high school level, it has been assumed that this poor preparation influences academic progress as students continue these studies at HEI's. The question of poor performance at universities is largely attributed to inadequate schooling by most, if not all. HEI's in some countries require students to write entrance tests to be admitted into the career qualification of their choice (Selesho, 2013: 372).

According to Mkhize (2015: 29), another frequently cited reason for the high failure and dropout rate is the discrepancy between grade 12 results and academic performance at the university. This disjunction means the National Senior Certificate examinations (NSC) have been found to be a poor predictor of first-year academic success at the university. Admission to South African universities is based on students' performance in NSC examinations which are national and common for all students in their final year of high school. The view of NSC being a poor predictor for success at the university has kindled a debate about whether it is an appropriate sole entry requirement for university. Strategies to complement NSC as an entry requirement to university have been initiated to resolve the high dropout rate of students. The final reason cited is the disadvantaged schooling of the majority of black children. Township schools lack educational resources which renders black high school graduates ill-prepared to cope with the transition from high school to university and to cope with the new academic demands.

Universities worldwide rely heavily on entrance scores when admitting students to their institutions. Many national and international studies have researched the university entrance score, or students' average Grade 12 score in the prediction of university, and specifically Accounting, performance. These studies found a significant relation between previous academic performance and academic success generally, specifically in Accounting (Joubert, 2010: 41).

According to Müller (2013: 106), final school results as an example of an achievement test, are expected to correlate with success in HE, because "a student needs to have some mastery of knowledge and skills offered in previous education to be able to profit from subsequent education" (Altink, 1987: 2). This is true for students with high scores, but it cannot be true for students who did not receive quality education while they were at school. Since many students in South Africa do not receive quality education, the use of Grade 12 results for the purpose of selection, evaluation or prediction of success is questioned by a number of authors.

When making admission decisions, the under preparedness of students necessitates that their potential cognitive abilities should be assessed rather than their current abilities. The use of additional tests as part of the selection criteria is an effort to make up for unequal schooling in South Africa (Van der Merwe & de Beer, 2006: 547). Using these tests is not an ultimate solution either. The quality of schooling influences performance in these tests. Attending HE is about building on previous education but if the foundations are poor, later construction will fail. South Africa's education system is failing generations of children (Müller, 2013: 113).

2.14.4.2 Prior Accounting knowledge

In Accounting, learning builds cumulatively, moving from the simple to the more complex: not by linear course of remembering but by creating organized clusters of related ideas (schemas). Ericsson (2005: 236) argues that the large body of chunks/patterns and associated knowledge are acquired piecemeal accruing slowly as a direct consequence of increasing amounts of experience. The crucial factor leading to continued improvement and attainment of expert performance is the

engagement in special practice activities that allow performers to improve specific aspects of their performance with problem solving and through repetitions with feedback. Prior knowledge provides cues that help the learner recognize what needs encoding and how the material is related to other knowledge. Prior knowledge impacts on the nature and volume of schemas developed. Learners with low prior knowledge, with missing or poorly developed schemas, are less able to subsume the new ideas into their knowledge network, diminishing learning. As a result, low prior knowledge leads to more disorientation and weaker conceptual understanding when new (more complex) material is presented (Sargent, 2013: 583).

In a study (Van Romburgh, 2014: 40), lecturers were asked in their questionnaires to provide additional comments or suggestions regarding Accounting at high school level. Some lecturers felt that students are being coached at school to pass Grade 12 examinations, instead of being taught to think critically and logically about concepts. School Accounting should focus on basic concepts, for example, the Accounting equation and identifying differences between the elements of financial statements: students should be taught why they are processing a particular transaction. One lecturer commented that high school teachers do not keep up with changes in the subject and that a great deal of lecturing time is spent on 'un-teaching' concepts taught to students at school. Lecturers commented that students do not understand how journal entries affect financial statements.

Rowlands (1988: 18) finds that students with previous exposure to Accounting performed better in the initial stages of the introductory Financial Accounting course at university than those without this prior exposure. However, this advantage was eroded during the year, to the extent that by the end of the first-year, there was no significant difference between performances in the final examination of these two groups of students. These findings were reconsidered by a subsequent study. Van Rensburg, Penn and Haiden (1998: 98) find that students who had prior exposure to Accounting at school performed slightly better than those who had their introduction to Accounting for the first time at university level. However, they caution that only 4% of the variance in performance in first-year Accounting is to be explained by this prior exposure to Accounting. Based on their results, there is therefore not a strong

relation between Accounting at school and successful performance in first-year Accounting.

Joubert (2010: 44) states that it is clear that little consensus exists as to whether or not previous knowledge of Accounting has an influence on performance in first-year Accounting.

2.14.4.3 The influence of Mathematics

A further factor that has been researched regarding achievement in Accounting is the influence of mathematical ability (Joubert, 2010: 44). Latief (2005: 57) is of the opinion that for all subjects where calculation and abstract thinking is required, mathematics should be made a prerequisite.

Jacobs (2010: 65) postulates that the fact that learners are no longer required to perform formal proofs in either Algebra or Geometry weakens performance in first-year Mathematics. The fact that fewer algebraic skills and insight are required creates problems with insight into Mathematical methodology and problem-solving. Students experiencing difficulty with Mathematics exhibit weaknesses in thinking skills and problem-solving.

Studies conducted by Engelbrecht, Harding and Phiri (2009: 289) emphasise a major difference between the level of school Mathematics and experience at Higher Education level. Although students performed relatively well in Grade 12, they were not prepared for the level of competence required at university. Volmink, CEO of Umalusi (February 2010), makes it clear that the NCS might guarantee admission to universities but does not ensure success at tertiary level. NCS only serves as the end of a school phase.

Jacobs (2010: 66) is of the opinion that mathematical orientation and preparation for potential students to enter into Higher Education starts from the first day at school. Exposure to teachers, parents and peers develops and moulds the attitude, self-efficacy and a specific learning culture towards any discipline, especially

Mathematics. The Higher Education sector admits these students to institutions, assumes that they come prepared, and that "…it is somebody else's job to bridge the gap or provide remediation for the students" (Strydom, 1997:14). Another perception is that students should adjust to the course: the content and methodology have been the same for the past few years and will be sufficient for the immediate challenge.

Jacobs (2010: 93) points out that in South Africa, the complex language policy has led to poor English which is needed, in many cases, for university education. Inability to read and write English well increases under-preparedness in Mathematics: the majority of students learn Mathematics via the medium of English, and not in their mother tongue. Mathematics is fundamental to other subjects. If a student's English is weak, his/her Mathematics is likely to suffer and both these shortcomings transfer to subjects such as Physics, Chemistry and Accounting which are based on Mathematical knowledge and skills.

2.14.4.4 Average of other subjects

McIlroy (2003:1-2) states that university students are expected to apply a number of skills, capabilities, attitudes and qualities intelligently and in ways that will benefit them in their studies and future employment. Students are required not only to be literate, numerate and have computer competency but to acquire and exhibit capabilities, attitudes and qualities necessary for inclusion in the modern world. It is clear that if a student's average score for all subjects is good, performance in Accounting will also be good (Joubert, 2010: 45).

According to Joubert (2010: 47) the only cognitive factor that shows a positive relation to performance in Accounting nationally and internationally is cognitive ability. With regard to learning styles, learning approaches, previous Accounting and previous mathematics exposure, the results are inconclusive. Joubert (2010: 41) states that national research into the influence of previous academic performance on Accounting performance was inconclusive, while international research found a significant relation between previous academic performance and academic success generally, and specifically in Accounting (Eskew & Faley, 1988; Gist *et al.,* 1996;

Turner *et al.*, 1997; Jackling & Anderson, 1998; Rego & Sousa, 1999; Huysamen, 2000; Kahn & Nauta, 2001; Smith & Naylor, 2001; Van Eeden *et al.*, 2001; Lourens & Smit, 2003; Tickell & Smyrnios, 2005; Barnes, 2006). The reason for the inconclusive results in South Africa may be that students who come from previously disadvantaged schools had the potential to perform well academically were denied opportunities that could have enabled them to perform well at school. Once these students start attending university, they have the same opportunities as all other students and are then able to perform well and attain success in Accounting.

2.15 Cognitive preparation for Accounting studies

Shuell (1986: 429) explains the implications of learning for education:

> Changes in the way we think about learning and what we know about the way learning occurs have important implications for those situations in which we want to facilitate changes in what people know and/or do. In education, for example, corresponding changes are occurring in the way we think about teaching. Since learning is an active process, the teacher's task necessarily involves more than the mere dissemination of information. Rather, if students are to learn desired outcomes in a reasonably effective manner, then the teacher's fundamental task is to get students to engage in learning activities that are likely to result in their achieving these outcomes, taking into account factors such as prior knowledge, the context in which the material is presented, and the realization that students' interpretation and understanding of new information depend on the availability of appropriate schemata. Without taking away from the important role played by the teacher, it is helpful to remember that what the student does is actually more important in determining what is learned than what the teacher does.

According to Lewis (2006: 50) the RNCS from 2000 aims to provide for a stronger base from which to enable the development of a high level of skills and knowledge by all. The RNCS does so by specifying the combination of minimum knowledge and skills to be achieved by learners in each grade and setting high, achievable standards in all the Learning Areas. The NCS (CAPS) for FET Grades 10 – 12 recommends that learners emerging from the FET Band should have access to, and succeed in, lifelong education and training of good quality; demonstrate an ability to think logically and analytically, as well as holistically and laterally; and be able to transfer skills from familiar to unfamiliar situations.

Lundblad and Wilson (2007: 23) state that Accounting firms demand that graduates not only perform traditional Accounting tasks, but process information critically:

identify Accounting issues, research and document the relevant Accounting literature, and communicate findings effectively. The learning outcomes for Accounting in HE according to Freeman and Bell (2010: 10) state that graduates in Accounting will be able to:

- Exercise judgment under supervision to solve routine Accounting problems in straightforward contexts using social, ethical, economic, regulatory and global perspectives.
- Integrate theoretical and technical Accounting knowledge which includes a selection of auditing and assurance, finance, economics, quantitative methods, information systems, commercial law, corporation law and taxation law.
- Critically apply theoretical and technical Accounting knowledge and skills to solve routine Accounting problems.
- Justify and communicate Accounting advice and ideas in straightforward collaborative contexts involving both accountants and non-accountants.
- Reflect on performance feedback to identify and stimulate learning opportunities and self-improvement.

2.16 Summary

The chapter provides a perspective of curriculum, curriculum theories, curriculum in general and the CAPS Accounting curriculum. To answer the research questions, a curriculum evaluation needs to be completed: the study was contextually situated within the broad curriculum theories developed by Bernstein which included the three-message system. The curriculum reforms, comments and critiques have been discussed in detail. There were many difficulties in implementing the CAPS Accounting curriculum: the content knowledge of Accounting teachers was often weak, teaching methodology poor, classes were too large, there was little or no support from school management and/or subject advisers, previous Accounting knowledge was thin, learners lacked commitment and their attitude and time-management at many schools was irregular. The school has a duty to prepare

learners for tertiary studies in terms of skills (critical thinking, listening, reading and time-management) that are developed at school to achieve success at tertiary level. HE has a role to play in meeting the learning needs of the individual and the needs of society by providing the labour market with the necessary competencies to ensure economic growth. The theoretical framework of this study primarily draws on the work of Conley who found that HE readiness is a multi-faceted concept comprising numerous variables both internal and external to the school environment. The gap in HE readiness reflects the difference between skills and knowledge that students gain in high school versus what HE requires. Studies about transition nationally and internationally were discussed.

The definition and theories of cognition were discussed and the cognitive preparation for HE Accounting studies was reviewed from the work of Bloom. There are cognitive factors that may obstruct a student's success: haphazard learning styles or approaches, lack of language proficiency, low academic performance previously, little Accounting or Mathematics knowledge. Cognitive preparation for Accounting studies includes a high level of skills and knowledge: learners need to identify and solve problems and make decisions using critical and creative thinking.

The literature review provides a broad perspective of curriculum in general, the CAPS Accounting curriculum, HE and the transition from school to HE and the cognitive preparation for Accounting studies. The next chapter presents the research design and methodology.

CHAPTER 3
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter focuses on research design and methodology. A detailed overview is provided of the research design followed by a review of quantitative and qualitative research methodology. The population and sampling and data collection instruments are then presented. The final section of this chapter provides a discussion of the data analysis, validity and reliability and ethical consideration issues related to the study.

3.2 Background of the researcher

The researcher has been a teacher for 22 and a half years and taught EMS and Accounting from grades 8 - 12. She is currently an Accounting subject advisor for grades 8 – 12. It is important to ascertain whether or not the Accounting school curriculum (CAPS) cognitively prepares learners for tertiary studies. Were the curriculum changes and/or reform over the past 10 years relevant or constructive?

3.3 Purpose of the research

The purpose of this study is to determine to what extent NCS (Grades 10 -12) cognitively prepares Accounting learners for first-year studies in the NHC in Accountancy and Financial Information Systems at a selected UoT.

3.4 Research design

A research design is the road map for research: it is used to answer research questions as validly, objectively, accurately and economically as possible (Kumar, 2014: 123). According to Thomas, (2011: 96) a research design is chosen once the nature of the research question is clear. Many different approaches are acceptable but it is important to remember that the choice of any particular approach is made between fundamentally different ways of viewing the world and equally different

methods of discovering knowledge. These different ‘takes’ on discovery are not necessarily in opposition to one another: they can complement each other.

Research methods in education (and other social sciences) are often divided into two main types: quantitative and qualitative methods (Muijs, 2011: 1). A mixed quantitative and qualitative approach has been adopted for this project: it is referred to by Trochim (2006: 1) as a “mixed approach”. Two simplifying definitions according to Punch (2009: 3) are that quantitative research is empirical research: data are in the form of numbers while qualitative research is empirical research where data are not in the form of numbers. These simplified definitions are useful for getting started in research but they do not fully explain finer distinctions between the terms quantitative and qualitative. Thus full definitions of the terms ‘quantitative research’ and ‘qualitative research’ include:

- a way of thinking about the social reality being studied, at way of approaching it and conceptualizing it;
- the designs and methods used to represent that way of thinking, and to collect data;
- the data themselves – numbers signify quantitative research: non-numbers (mostly words) denote for qualitative research (Punch, 2009:4)

According to Basit (2010: 17) a combination of quantitative and qualitative methodologies is increasingly favoured by educational researchers. The reason is that this mixed method enables the researcher to include a large number of subjects who convey their brief views through a questionnaire. This technique can be complemented by the collection of qualitative data to examine a few instances more closely through semi-structured interviews or unstructured observation.

The quantitative approach of this study entailed questionnaires to first-year Accounting students at a selected UoT. The qualitative approach entailed document analyses of the Accounting FET curriculum and the curriculum of the National Higher Certificate, analysis of the NSC Accounting examination of 2014, analysis of the

National Certificate in Accounting (March assessment) and interviews with lecturers at a selected UoT.

Secondary data analysis means the researcher analyses data which has already been collected, usually by someone else (Arthur, Waring, Coe and Hedges, 2012: 125). The quantitative approach (questionnaires) is preferred for this project because it enhances primary data, document analysis, interviews and secondary data (qualitative).

3.5 Research methods

Research methods are tools to collect data (Dawson, 2009: 27). Data collection processes include questionnaires, semi-structured interviews and document analysis.

3.5.1 Population and sampling

The population refers to the group relevant to the researcher's study and for whom the findings of the study could be generalized (Fraenkel and Wallen, 2008: 91). According to Oppenheim (1992: 38), the term 'sample' is used to indicate a smaller group which is usually, though not always, representative of a population. Gorard (2003: 57) maintains:

> The main reason that samples are used is to save time and money for the researcher. Sampling is a useful shortcut, leading to results that can be almost as accurate as those for a full census of the population being studied, but a fraction of the cost…A second reason for using a sample is that many methods of formal data analysis are based explicitly on sampling theory. Most notably, all the statistical tests of significance…assume that the data was collected from a sample drawn independently and randomly from a previously defined population.

The population consists of students registered for the NHC in Accountancy and Financial Information Systems and who study Financial Accounting 1 at a selected South African UoT as well as all lecturers at this UoT involved in Financial Accounting 1.

To provide an accurate estimate of the characteristics of a population, a sampling procedure should provide a sample which resembles the population profile as closely as possible (Vockell, 1983: 119). There are two methods of sampling, namely probability samples and non-probability samples (Cohen and Manion, 1989: 101). Probability sampling requires the precise specification of the sampling frame that is the intended scope of generalisation (Arther et al. 2012: 29). Non-probability sample designs do not follow the theory of probability in the choice of elements from the sampling population (Kumar, 2011: 206). The sample consists of students and lecturers in the sample affiliated with one selected UoT. Two types of sampling were used in this study, namely judgemental or purposive and convenience sampling. Purposive sampling was used for this investigation because the primary consideration in this sampling design was personal judgement about who may provide the best information to achieve the objectives of the study and who are best able or willing to share it. Convenience sampling means, according to Bertram and Christiansen (2014: 61), choosing a sample which is easy for the researcher to reach and is not random: it is driven by a particular purpose. The researcher needs to consider the extent to which it is important that the sample represents the whole population in question, if it is to be a valid sample. The researcher needs to be clear what it is that is being represented: in order to set the parameter characteristics of the wider population or the sample frame clearly and correctly (Cohen, Manion & Morrison, 2003: 98). Students and lecturers are selected at a UoT because, in the researcher's opinion, they can provide the best information to answer the research questions: it was easy for the researcher to reach the subjects.

This study included first-year National Higher Certificate Accounting and Financial Information Systems students in the Business Faculty at two campuses of a selected University of Technology, namely CPUT in Cape Town and Wellington. 290 questionnaires were distributed to first-year Accounting students studying the National Higher Certificate in Accountancy and Financial Information Systems at a selected UoT. In addition, 4 lecturers involved in this programme formed part of the sample. Data was collected from one class at Wellington campus and four of eight classes at Cape Town campus. The percentage of students who participated in the study was 53,4 %, and the percentage of lecturers was 59,6 %.

3.6 Data collection instruments

Irrespective of the method of data collection, qualitative or quantitative, the information is called ‘raw data’ or simply ‘data’. The processing of data includes all operations undertaken from collection to analysis either manually or by computer (Kumar, 2014: 329). The researcher’s role in this particular project was to collect and analyse data with the main aim of creating understanding. According to Maree & Van Der Westhuizen (2009: 37) some of the typical functions of the researcher are:

- developing a measuring instrument (questionnaire)
- preparing and structuring interviews
- preparing interview records and schedules
- conducting interviews
- analysing data (often in conjunction with statisticians and external coders)

Harris & Brown (2010: 1) focus on comparing structured questionnaires with semi-structured interviews. In a structured questionnaire, participants respond to prompts by selecting from predetermined answers (e.g., Likert scales, multiple choice responses); such data are typically analysed quantitatively. In a semi-structured interview, interviewers begin with a small set of open-ended questions but spend considerable time probing participant responses, encouraging them to provide detail and clarification; such data are generally analysed qualitatively.

3.6.1 Questionnaires

A questionnaire can be defined as a group of written questions used to gather information from respondents, and is regarded as one of the most standard tools for gathering data in the social sciences (Kasimjee, 1999: 293). Two important aspects of questionnaire design are the structure of the questions and decisions on the types of response formats for each question. Broadly speaking, survey questions can be classified into three structures: closed, open-ended and contingency questions. Closed (or multiple choice) questions ask the respondent to choose, among a possible set of answers, the response that most closely represents his/her viewpoint.

The respondent is usually asked to tick or circle the chosen answer. The main advantage of closed questions is:

- respondents are restricted to a finite (and therefore more manageable) set of responses,
- questions are easy and quick to answer,
- questionnaires have response categories that are easy to code, and
- such questions permit the inclusion of more variables in a research study because the format enables the respondent to answer more questions in the same time required to answer fewer open-ended questions (Siniscalco & Auriat, 2005: 22).

The questionnaire (appendix E) in this study was completed at the beginning of the students' first-year. The questionnaires were all in English, although the respondents were not all first language English speakers. It was necessary to determine what the student's Grade 12 Accounting National Examination mark was in order to compare that mark with the outcome of the questionnaire at the end of the first term's mark (March). In that regard the student number was required. The questionnaire consisted of two sections: Section A and Section B. Section A seeks personal information and Section B consists of multiple choice questions with one correct answer to the question. Section A questions gathered biographical information, for example gender, year that the respondent matriculated, province, school and mark obtained in the Grade 12 NSC Accounting examination.

Section B contained multiple choice questions to ascertain the learners' levels of Accounting competence as set out in the CAPS for the FET Band. The ten questions covered the Grade 12 Accounting curriculum and represented all levels of Bloom's taxonomy in alignment with the CAPS guidelines, which were considered when constructing the questionnaire.

The first three questions tested basic thinking skills (e.g. factual recall, low-level comprehension and application). The following four questions examined moderately high thinking skills (e.g. more advanced application, interpretation and low-level

analysis). The last three questions probed higher order thinking skills (e.g. advanced analytical skills, evaluation and creative problem solving).

Section B, Question One tests an accounting concept, namely GAAP. Question Two is about adjustments: understanding and making provision for bad debts. Question Three tests knowledge of VAT: whether a student can do VAT calculations. Question Four tests the application of stock systems, in particular the weighted average method. Question Five tests application of Cash Budgets, calculation of cash from debtors. Question Six tests calculation of the bank balance in the Bank reconciliation statement. Question Seven tests cost accounting, in particular, the calculation of fixed costs. Question Eight concerns calculation of fixed assets and forms part of the higher thinking skills, namely analyses (productive). Questions Nine and Ten concern opinions, analysis and interpretations of financial statements of companies and evaluation of financial indicators of companies.

3.6.1.1 Pilot study

When designing a research study, it is often useful to conduct a short, preliminary study in order to examine different potential ways of carrying out that research. Such a preliminary study is termed a pilot study. Such studies are often used to evaluate a draft questionnaire or interview schedule in order to refine the structure and explore the way potential respondents react to a study, or enable a researcher to practise the techniques they intend to be employed in the actual research (Oliver, 2010: 97). In order to enhance the validity and reliability of the research, a pilot study is often conducted (Basit, 2010: 71). A pilot test determines whether questionnaire items possess the desired qualities of measurement and discriminability (Tuckman, 1978: 225). Pilot questionnaires were tested at the beginning of the 2015 academic year, using education Accounting students from the selected Uot’s Mowbray campus who did not participate in the study but were comparable to the eventual respondents.

3.6.2 Semi-structured interviews

A questionnaire is sometimes referred to by Wiersma (1985: 142) as a written, self-administered interview. By the same token an interview could be considered an oral questionnaire. An interview has the advantage of being a flexible measurement device. The items of an interview usually are open-ended questions to which the individual can offer a fairly free response. Vockell (1983: 82) asserts that the advantage of the open-ended format over the structured format is that the respondent takes the initiative in deciding what answer to supply. Conducting an interview requires the listener to have qualities such as empathy, understanding, sympathy and patience (Altricher, Feldman, Posch and Somekh, 2008: 104).

A qualitative interview is used when researchers wish to ask one or more participants general, open-ended questions and record their answers. The researcher then transcribes the data for analysis (Creswell, 2012: 217). In qualitative research, open-ended questions allow participants to voice their experiences unconstrained by perspectives of the researcher or past research findings. An open-ended response to a question allows the participant to create options for responding. Gillham (2008: 41) points out that in a semi-structured interview the main questions are ‘open’ – the topic and kind of answer are prompted by the researcher but the actual answers depend on the interviewee.

Interviews in qualitative research have both advantages and disadvantages. Some advantages are that they provide useful information when you cannot directly observe participants: they permit participants to disclose detailed personal information. Compared to the observer, the interviewer has better control over the types of information received, because the interviewer can ask specific questions to elicit such information. Some disadvantages are that interviews provide information which is “filtered” through the views of the interviewers. As with observations, interview data may be deceptive and provide the perspective the interviewee wants the researcher to hear. Another disadvantage is that the presence of the researcher may affect how the interviewee responds (Creswell, 2012: 218).

A semi-structured interview is the most favoured type of interview in educational research. The researcher formulates various questions that he/she will ask in the interview. The researcher is prepared to pose a number of supplementary questions that could be asked during the interview. Supplementary questions are linked to interviewees' responses to earlier, pre-formulated questions for the purpose of achieving a more elaborate, in-depth assessment (Basit, 2010: 103). The definition of a semi-structured life-world interview is a planned and flexible interview with the purpose of obtaining descriptions of the life world of the interviewee with respect to interpreting the meaning of the described phenomena (Kvale, 2009: 149). According to Arthur et al. (2012: 172) participants are asked about related matters and encouraged to relate their experiences, share feelings or thoughts, and reflect on decisions and events. From their narratives, it is possible to analyse the information and answer the set research question.

A semi-structured interview schedule, consisting of a list of open-ended questions based on the topic being researched, was used to collect data in this study. This made it possible to ask all participants, such as lecturers of Accounting 1 at a selected UoT, the same core questions with the opportunity to ask follow-up or probing questions built on initial responses received (Brenner, 2006:362). Semi-structured schedules offer the value of using fixed questions, as in a structured interview, while allowing enough flexibility for the interviewee to speak freely about any topic raised during the interview (Wahyuni, 2012:74). Another strength of using semi-structured interviews is that it allows questions to be explained or re-phrased where respondents were unclear about the wording. Common steps in interviewing across the methodological range are that interviews should be recorded and transcribed so that there is a solid database for analysis (Flick, 2014: 237).

In the initial stages of data collection, appointments were scheduled with lecturers involved in the National Higher Certificate in Accounting at the UoT. A brief background of the research project was provided (see appendix A, request for lecturer participation in research letter and appendix B, lecturers' consent form). All interviews were completed at times convenient to participants. All of the interviews took between 45– 60 minutes to complete. Interviews were audio-recorded and

transcribed; each manually coded and then analyzed to reveal data obtained from interviews. Recording interviews was useful to check that verbatim quotations of the participants were accurate (Bell, 1987: 75)

In this study, four semi-structured interviews were conducted with lecturers involved with the National Higher Certificate in Accountancy and Financial Information Systems at a selected UoT. Semi-structured interviews were used because the interviewer designed prepared questions (See appendix C), for example how long the lecturer had been teaching Financial Accounting 1, challenges of teaching Financial Accounting to first-year students and strategies to overcome these challenges. At the end of each interview, lecturers were asked for any further opinions, comments or questions. Interviews were conducted at Wellington campus and Cape Town campus during May 2015 and the interviews were recorded.

The overall purpose of the questions was to define lecturers' perceptions of the cognitive preparation of NCS (Grades 10 -12) Accounting learners and the expectations of Higher Education Institutions.

3.6.3 Document analysis

Documents are a significant yet much neglected resource for research in education. A range of primary documents is available for researchers to examine and evaluate (Arthur et al., 2012: 213). Gathering data from documents represents an entirely different proposition from gathering data from individuals (Thomas, 2011: 170). Documents represent a specific version of realities constructed for specific purposes and should be seen as a way of contextualizing information (Flick, 2014: 357). The purpose of document analysis according to Flick (2014: 357) is that it should be seen as a way of contextualizing information. Rather than using them as "information containers", they should be seen and analysed as methodologically created communicative turns in constructing versions of events.

The documents analysed were the CAPS (FET) grades 10 - 12 Accounting curriculum, Grade 12 NSC Accounting examination of 2014, the National Higher

Certificate Accountancy curriculum (Financial Accounting I) and the Financial Accounting I question paper and memorandum, first semester formal assessment of 2015.

The CAPS (FET) grade 10 – 12 Accounting curriculum was compared with both the Grade 12 NSC Accounting examination in 2014 and the National Higher Certificate Accountancy curriculum (Financial Accounting 1). The purpose of the first comparison of the Accounting curriculum CAPS (FET) with the Grade 12 NSC Accounting examination (2014) was to investigate whether the matriculation examination question paper functioned according to the weightings and cognitive levels required by the policy guidelines of CAPS . The purpose of the second comparison of the CAPS (FET) Accounting curriculum with the NHC Accounting curriculum was to determine the similarities and differences between both curricula to identify possible shortcomings and determine how well norms and standards were being maintained.

According to the Diagnostic Report (Department of Basic Education, 2014: 8), new CAPS content was included in the 2014 NSC Accounting examination paper and is illustrated in the table below.

Table 3.5: New CAPS content of 30 marks included in November 2014 NSC paper:

Q2.2	Reconciliation to creditors' statement	16 marks
Q3.1	Repurchase of shares: Balance Sheet	6 marks
Q4.2	Repurchase of shares: Cash Flow Statement	3 marks
Q4.7	Repurchase of shares in context of shareholding	5 marks

See appendix F for the NSC Accounting examination and memorandum of November 2014.

The purpose of the National Senior Certificate (NSC) Accounting examination is to measure learner achievement. Additionally, the NSC provides the opportunity to present valuable diagnostic information that should provide useful feedback to improve teaching and learning. This diagnostic analysis of the NSC examination data

identifies weaknesses and strengths in learning and teaching and provides concrete feedback to the system. The education sector is then expected to be responsive in its planning and intervention design to address weaknesses and enhance strengths: thus leading to improved learner outcomes in subsequent years. The National Diagnostic Report on Learner Performance is based on qualitative data from subject reports which have been compiled by the chief markers, internal moderators and subject specialists during the marking process in the 2014 NSC examination (Department of Basic Education, 2014: 12).

Appendix G contains general suggestions by the Department of Basic Education (2014: 9) for teachers to build good practices into their work plan for the year.

Comparative evaluation (Carl, 2009: 151) comprises the comparison of one or more of the databases, rationales, curriculum anticipations, resources, events, outcomes and results of two or more different curricula which broadly serve the same purpose and which are therefore comparable. The functions of comparative evaluation may be distinguished as follows: determination of standards (achievability), identification of possible shortcomings and maintenance of comparable norms and standards.

The March Financial Accounting I semester one formative assessment is analysed according to Bloom's taxonomy and the Grade 12 CAPS curriculum (see appendix H). The aim of analyzing the Financial Accounting 1 question paper and memorandum (first semester) formal assessment of 2015 was to ascertain how this assessment compares with the CAPS (FET) curriculum and the Grade 12 NSC Accounting examination of 2014 (see appendix F).

3.7 Data analysis

Bogdan and Biklen (1998: 157) describe data analysis as the process of systematically searching and arranging data or information collected in order to increase understanding of information and to present such information to others. Hitchcock and Hughes (1994: 73) describe data analysis as an attempt to organize data systematically and to provide explicit details of what the case is; to explain why

the case evolved in a specific way. Data obtained from interviews and questionnaires (often called protocols) are not necessarily usable in the exact form in which they are collected but often have to be converted to a different form for analysis (Tuckman, 1978: 239).

There are several constructive stages of data analysis as proposed by Altricher, Feldman, Posch and Somekh (2008:122): (a) the first stage is to read through the data and to remember the events that surrounded the data, for example interviews that were conducted; (b) sorting and grouping the facts; (c) presenting data that makes sense to the reader and (d) drawing appropriate conclusions to make a meaningful contribution to literature. Research questions, conceptual frameworks and methods used in a study can facilitate the process of reducing data (Simons, 2009:120). To execute the process of reducing data, the researcher chooses data that is vital to the study and coded, categorized and established themes from the data (Simons, 2009:120). Analysis of quantitative data appears first, followed by the qualitative data.

3.7.1 Questionnaires

The questionnaire was completed at the beginning of the students' first-year. First-year students were selected specifically because they experience the effects of school education at university shortly after matriculating. The questionnaire consists of two sections, namely Section A and Section B. Section A seeks biographical information and Section B single answer multiple choice questions to ascertain the learners' levels of Accounting competence as set out in the CAPS (FET). The students' Grade 12 Accounting National Examination marks were required so that a comparison could be made between the Grade 12 marks, outcomes of the questionnaire and the March formal assessment marks.

There are a number of software packages that can be used to analyse quantitative data. The most frequently used software for statistical analyses is the Statistical Package for Social Sciences (SPSS) (Basit, 2010: 179). Muijs (2004: 85) maintains:

> SPSS is probably the most common statistical data analysis software package used in educational research and is available at most institutions of higher education. It is also quite user-friendly and does everything we need it to do.

All responses to the quantitative questions in the questionnaire were captured on Excel spread-sheets for analysis using the statistical software package SPSS (version 23).

According to Siniscalco and Auriat (2005: 79), a codebook should be prepared in order to enter data into a computer. The codebook is a computer-based structure file designed to guide data entry. It contains a field for every piece of information which is to be extracted from the questionnaire – starting from the identification code which allows each respondent in the sample to be uniquely identified. In the codebook, each question/variable is identified by a name and is defined by a number of acceptable codes or by a range of valid values for open-ended questions. Data were encoded. Tuckman (1994: 271) notes that when data is gathered it needs to be categorized into different themes first before it can be analysed. Tuckman (1994: 271) observes that coding is a useful way of analyzing data that comes in words - such as that captured in interviews in this project.

3.7.2 Semi-structured interviews

Once data from interviews have been collected, the next stage involves analysing them, often by some form of coding or scoring. Coding has been defined as the translation of question responses and respondent information to specific categories for the purpose of analysis (Cohen and Manion, 1989: 323). In terms of qualitative data, according to Cohen et al. (2003: 282), data analysis is almost inevitably interpretive; hence data analysis is less than a completely accurate representation (as in the numerical, positivist tradition) but more of a reflexive, reactive interaction between the researcher and the decontextualized data: already interpretations of a social encounter. The tension in data analysis is between maintaining a sense of the holism of the interview and the tendency for analysis to atomize and fragment the data – to separate them into constituent elements, thereby losing the synergy of the whole. In interviews the whole is often greater than the sum of the parts. There are several stages in analysis, for example:

- generating natural units of meaning;
- classifying, categorizing and ordering these units of meaning;
- structuring narratives to describe the interview contents;
- interpreting the interview data

The qualitative comments made by each respondent were summarised to identify the different themes that emerged from them. Verbatim transcription of the semi-structured interviews was completed according to thematic analysis. According to Aronson (1994), thematic analysis entails identifying patterns from transcribed interviews: the researcher identifies all the data which relates to the already classified patterns.

To facilitate analysis of data, a software programme called Atlas.ti was used. Yin (2009:128) emphasizes that using computer-assisted qualitative data analysis software does not analyse the data but merely acts as a tool to assist the researcher with data analysis and identification of themes. Atlas.ti is a qualitative computer software programme that provides enough support to code, retrieve and build theory by connecting codes to develop categories (Henning, Van Rensburg and Smit, 2005:133). Using Atlas.ti, the researcher had to understand that the software programme does not have the ability to comprehend the meaning of words. The strength of the software programme, however, is to structure, retrieve and display activities conducted by the researcher (Henning et al. 2005:137). The following categories could be identified in the responses of the interviews: basic knowledge, critical thinking abilities or skills, life and numeracy skills, language proficiency, lecturers' perception of NHC, the school curriculum and level of communication between tertiary institutions and schools, lecturers' knowledge of school curriculum, match between pass requirements at university and school, lecturers' and university strategies to overcome challenges, systemic university challenges and the challenges of inclusive education.

3.8 Triangulation, Validity and Reliability

Kumar (2014: 386) defines triangulation as the use of the same set of data from multiple sources to best achieve the objectives of a study. Triangulation is based upon the belief that use of the same set of data, collected through different approaches to draw conclusions, and its examination from different perspectives, provides a better understanding of a problem, situation, phenomenon or issue. There are different types of triangulation; data, investigator, theory and methodology. Triangulation is, according to Cohen and Manion (1987: 254), the use of two or more methods of data collection in the study of aspects of human behaviour. The idea of mixed methods research can be said to have developed from the notion of 'triangulation' which expresses the belief that the convergence of evidence stemming from two or more methods can enhance the strength and validity of research findings (Arthur et al., 2012: 147). The two main types of triangulation are, according to Basit (2010: 67), the following:

- Methodological triangulation: The same phenomena are investigated by using two or more methods of data collection such as questionnaires, interviews and documents.
- Sample triangulations: The same issues are examined by interrogating different groups of participants such as students and lecturers.

Validity and reliability need to be considered throughout the research process. The definition of reliability according to Bertram and Christiansen (2014: 186) is the extent to which the test, measure or instrument can be repeated with the same or similar group of respondents, and still produces the same (or very similar) results.

Validity (of measurement) is, according to Punch (2009: 360), a complex term with many meanings, both technical and general. Three important technical aspects are: the validity of a measuring instrument; the validity of a research design (internal validity) and the truth status of a research report. Another definition of reliability (Rosnow & Rosenthal, 2002: 139), in the most general terms, includes consistency,

stability, or dependability. Validity, broadly speaking, refers to whether the measurements measure what they are supposed (or claim) to measure. It is important to distinguish between internal and external validity. A study has internal validity if the outcome of the study is a function of the program or approach being tested rather than the result of other causes not systematically dealt with in the study. Internal validity affects our certainty that the research results can be accepted based on the design of the study. A study has external validity if the results obtained apply in the real world to other similar programs and approaches. External validity affects our ability to credit the research results with generality based on the procedures used (Tuckman, 1978: 4).

Internal validity and credibility, according to Rossouw (2003: 178), relate to the standards of truth value as well as the neutrality of the research. Internal validity and credibility refer to the degree to which findings, and by implication the methods that are used to generate such findings, can be trusted. The methods that have an impact upon internal validity and credibility are the methods of data collection, data analysis and interpretation, as well as the choice of the population and the methods and size of the sample. Because the methods used in quantitative and qualitative methodologies differ, the concept of internal validity is applicable to quantitative research while the concept of credibility is used for qualitative research. During quantitative research researchers maintain a distance between themselves and the respondents. Quantitative researchers aim for objectivity which means that data are collected and analysed in an impartial and unprejudiced way. By contrast, qualitative researchers are subjectively involved with data collection and data analysis: measures need to be taken which ensure that data is impartial and trustworthy. When it comes to evaluating the trustworthiness of qualitative data, the focus falls on data rather than the researcher (Rossouw, 2003: 178)

The validity of the questionnaire as a research tool relates to its appropriateness for measuring what a questionnaire is intended to measure. The validity of the questionnaire cannot be assumed: it has to be established (Mahlangu, 1987: 83). A questionnaire’s reliability proves that a questionnaire is consistent (Mahlangu, 1987: 84).

Rossouw (2003: 182) explains that external validity has to do with generalization of findings from the sample to the target population. Internal validity is a precondition for external validity. Representativeness is the central measure for external validity.

The notions of validity and reliability can be applied to any aspect of this present study because there is a logical link between the research questions, research methods and the use of statistical analysis which demonstrates these links. This investigation is argumentative: questions are asked and data are systematically collected and analysed to answer those questions. Internal validity is about the logic and internal consistency of an argument. The following threats were minimized by choosing an appropriate time scale, selecting a suitable methodology for answering the research questions, using a pertinent sample (which is representative), demonstrating internal and external validity and ensuring reliability in terms of stability. External validity/generalizability is the extent to which conclusions from this investigation can be applied beyond the sample population (Financial Accounting 1 students at a selected UoT) to the whole population (all Financial Accounting 1 students at UoT's) of the study.

The questionnaire was reliable, because the questionnaire was administered under the same or similar conditions to the same or similar population and similar results were obtained. Questionnaires were more economical than interviews in terms of money and time. Pilot questionnaires were distributed to Accounting education students at the Mowbray campus to refine the contents, wording and length as appropriate for the sample being targeted.

Greater validity was obtained to minimize the amount of bias as far as possible: where the sources of bias are the characteristics of the interviewer, the characteristics of the respondent, and the substantive content of the questions. The interview was semi-structured with the same format and questions for each lecturer. Findings of research were shown to lecturers who participated in interviews for confirmation, congruence, validation and approval. These results were qualified, confirmed, or corroborated by lecturers. To ensure validity and reliability, a colleague

who is involved in Accounting education, three students and a lecturer who participated in this study reviewed the first draft of the findings.

Data were recorded fully, using triangulation (methodological and sample) and maintaining accuracy during data analysis.

3.9 Ethical considerations

According to Bless, Higson-Smith & Kagee (2006: 140) the word “ethics” is derived from the Greek word “ethos”, meaning one’s character or disposition. It is related to the term “morality”, derived from the Latin term “mores” meaning one’s manners or character. A moral issue is concerned with whether behaviour is right or wrong, whereas an ethical issue is concerned with whether the behaviour conforms to a code or a set of principles.

Mouton (2004: 238) defines ethics as the conduct of research: determining what is wrong and what is right. Punch (2009: 56) states that a researcher’s ethical responsibilities include the overarching principles of academic integrity and honesty, and respect for other people. In developing a proposal, such responsibilities include thinking through the ethical issues involved in a particular project, knowing and complying with university requirements regarding ethical issues, and writing a proposal (and, ultimately, a dissertation) with ethical issues in mind. The main ethical issue (Punch, 2009: 56) to be considered, and the question central to them is:

- Informed consent: Do subjects have full information about the research, including why and how they have been chosen to participate?

Informed consent was obtained from the UoT and the first-year National Higher Certificate Accounting and Financial Information Systems students as well as the lecturers involved in the programme through a letter and consent form. Students in the sample were briefed about the aim and purpose of the questionnaire and the researcher answered all questions that the students had about the research. The researcher respects the right of any individual to refuse to participate in the study or

to withdraw from participating at any time. Written permission was obtained from students who participated in the study before they were required to complete the questionnaires**.** A covering letter on the cover page of the questionnaire explained the purpose of the research project. See Appendix D for the letter and Appendix E for the questionnaire for the National Higher Certificate Accounting 1 students. Completed questionnaires were stored securely. It is important that procedures for interviews are laid out in writing and are clearly explained to interviewees before interviews proceed. It is expected that interviewees will be supplied with the written version of these procedures.

Another main ethical issue (Punch, 2009: 56) to be considered, and the question central to them is:

- Confidentiality and anonymity: How will the information be safeguarded and the identity of people or institutions be protected? How will anonymity be preserved, for people and institutions?

Students were assured that participation in the research was voluntary and that all data obtained would remain confidential. Students were asked to indicate their student number. Information concerning students and their performance in the first semester was gathered by means of obtaining statistical data from the university after consent was given by the appropriate authorities of the university. Confidentiality is an important concern. Interviewees should not normally be named. Any recorded contribution, in written form, on tape etc., or in notes taken from the interview by the interviewer should be used in accordance with the wishes of the interviewee. If possible, interviewees should give their consent in writing.

All research should be conducted within clearly defined ethical principles to ensure the protection of the participants and the researchers. To gain access via the proper authorities is part of the research process. Permission was granted by the university. To ensure that the ethical criteria would be satisfied, approval for this study was obtained from the Research Ethics Committee.

This project is objective: personal prejudices and preferences do not contaminate the collection and analysis of data. The outcome of the research is impartial and unbiased. Professional judgment and integrity were employed. The study was conducted in an accurate and just way to report findings as comprehensively as possible. All stakeholders were kept fully informed of the progress and results of the study. All data were treated with the utmost confidentiality. Details of other researchers' work, theories, methods and research design were presented as accurately as possible. Throughout the research process, confidentiality was ensured. Neither lecturers nor students were named in this study. Total confidentiality was promised to all in order to make sure that everyone would be honest. See Appendix I for the research ethical clearance and Appendix J for the ethics summary for original research.

3.10 Limitations of the research processes

Not all lecturers involved in Financial Accounting I at a selected UoT at Cape Town and Wellington campuses were willing to participate in the above study. As a result of this partial participation, not all the students filled in a questionnaire and not all lecturers took part in an interview. The percentage of students who participated in the study was 53,4 % and the percentage of lecturers was 59,6 %.

Some students did not fill in their Grade 12 NSC Accounting mark and other students did not write the formal March assessment. Those students' questionnaires were not used in the statistical analysis.

3.11 Summary

In Chapter 3 a description of the research design and methodology used for data collection and analysis was given. A mixed approach quantitative questionnaires and qualitative document analysis and interviews was used for the research design to determine whether NCS (Grades 10 – 12) cognitively prepares students for tertiary studies.

Chapter 4 presents the results and a discussion will follow in Chapter 5.

CHAPTER 4
RESULTS

4.1 Introduction

The results of this research project presented here are based on data collected from document analyses, first-year Accounting students and lecturers at a selected UoT. Themes and categories were identified through analysis of the data that were collected in order to determine to what extent NCS (grades 10 – 12) cognitively prepares first-year students in the NHC in Accountancy and Financial Information Systems at a selected UoT.

Interviews were held at two UoT campuses located in Cape Town and Wellington respectively. Four semi-structured interviews were conducted, four documents were analysed and 290 questionnaires were distributed and 155 questionnaires were analysed of first-year Accounting students studying the NHC at a UoT. Written consent was obtained from lecturers and students before any data were collected and confidentiality was guaranteed. For this reason pseudonyms are used in this study.

4.2 Results from the questionnaires (quantitative data)

Data from questionnaires were analysed using the program SPSS version 23 Statistical Software. Multiple choice questions in Section B of the student questionnaire were set according to Bloom's taxonomy. The first three questions were on levels 1 and 2, namely, knowledge and comprehension, the following four questions were on levels 3 and 4, namely, application and analysis and the last three questions were on levels 5 and 6, namely, synthesis and evaluation. The following aspects of the questionnaires were analysed:

- Mark in final NSC Accounting examination versus year matriculated
- Year matriculated versus score in questionnaire

- Score in questionnaire versus mark in final NSC Accounting examination
- Score in questionnaire versus the Accounting 1 mark in March 2015

The following other aspects were analysed:

- Accounting 1 mark in March 2015 versus the year matriculated
- Mark in final NSC Accounting examination versus the Accounting 1 mark in March 2015

4.2.1 Mark in final NSC Accounting examination versus year matriculated

The following table illustrates at comparison between the NSC Accounting results of students who matriculated in 2014 and prior to 2014. The purpose of this comparison is to determine if there is a difference in results of students who matriculated in 2014 and prior to 2014. A chi-square contingency analysis was used to determine statistical significance. The small number of learners obtaining 0 – 29 % and 80 – 100 % necessitated combining the lowest two intervals and the highest two intervals. The resulting table 4.6 is as follows:

Table 4.6: Mark in final NSC Accounting examination versus year matriculated

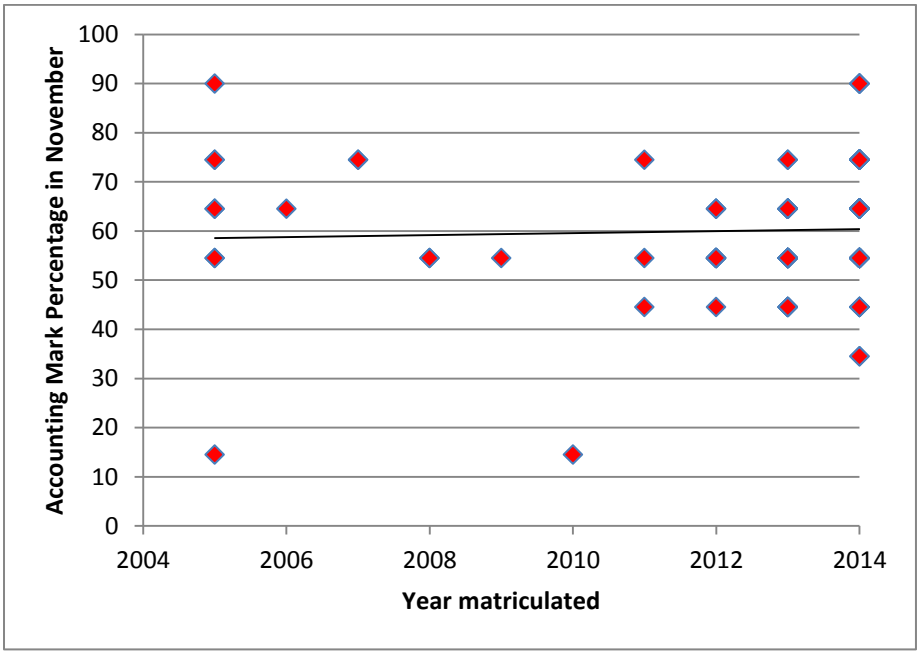
		CAPS NCS (2014)	Pre-CAPS NCS (Before 2014)	Total
NCS Accounting mark interval	0 - 39 %	2	2	4
	40 - 49 %	6	8	14
	50 - 59 %	32	30	62
	60 - 69 %	26	18	44
	70 - 100 %	23	8	31
Total		89	66	155

This question was posed in the questionnaire to determine which year the student completed the NSC Accounting examination. 89 students (54, 55 %) wrote the NSC (CAPS) in 2014, and 66 (45, 45 %) wrote the NSC prior to 2014. Graph 4.1 below

illustrates the performance of students who wrote the NSC Accounting examination prior to 2014 versus students who wrote the NSC Accounting examination in 2014 and were assessed according to CAPS.

The x axis represents the year the student matriculated. On the questionnaire provision was made from 2005 and earlier to 2014. The y axis represents the percentage the student obtained in the NSC Accounting examination.

Graph 4.1: Mark in final NSC Accounting examination versus year matriculated



A chi-square analysis shows no statistically significant difference in the Accounting mark learners obtained in the NSC Accounting examination in 2014 (CAPS) or pre-2014 (pre-CAPS) ($\chi^2 = 5.777$, d.f. = 4, p-value = 0.216).

4.2.2 Year matriculated versus score in questionnaire

Section B of the questionnaire contained multiple choice questions to ascertain students' levels of Accounting competence contained in the Curriculum and Assessment Policy Statement (CAPS) for the Further Education and Training (FET) Band. The ten questions covered the Grade 12 Accounting curriculum and

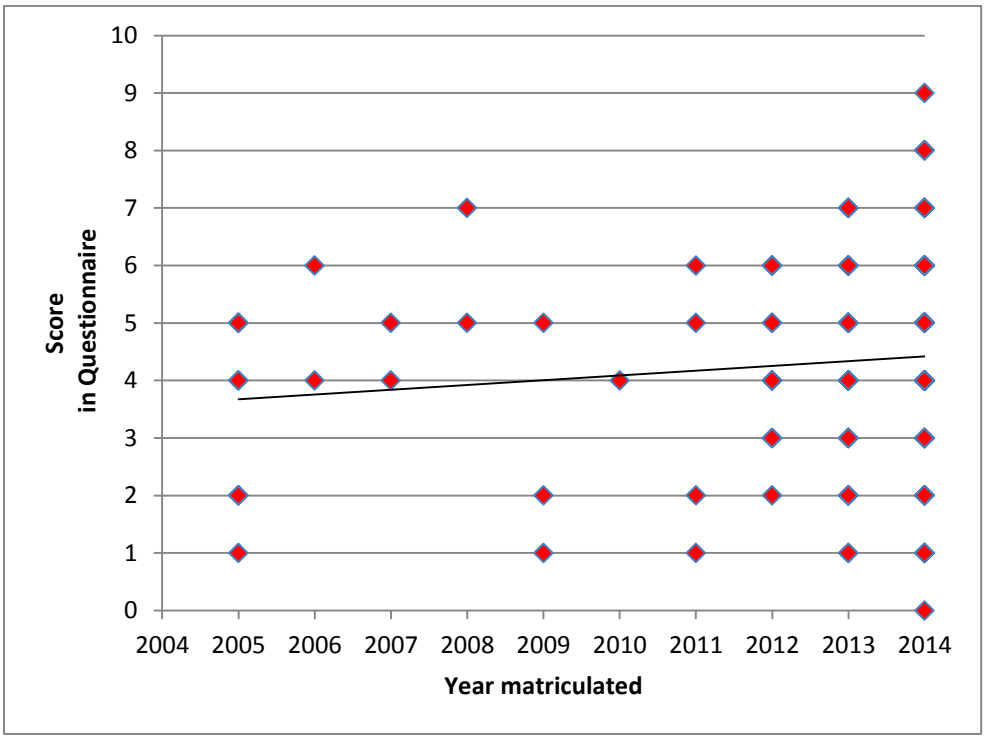
represented all levels of Bloom's taxonomy in alignment with the CAPS guidelines, which were considered when constructing the questionnaire.

The first three questions were basic thinking skills (e.g. factual recall, low-level comprehension and application). The following four questions were moderately high thinking skills (e.g. more advanced application, interpretation and low-level analysis). The last three questions were higher order thinking skills (e.g. advanced analytical skills, evaluation and creative problem solving) (Department of Basic Education, 2011 (a): 44).

The purpose of this questionnaire was amongst others to determine whether the results of the multiple-choice test in the questionnaire differed from students who wrote the NSC in 2014 (CAPS) and those students who wrote the NSC prior to 2014 (pre-CAPS).

In graph 4.2 the x axis represents the year the student matriculated. The y axis represents the total score the student obtained in the questionnaire out of 10.

Graph 4.2: Year matriculated versus score in questionnaire



A Spearman analysis rather than a Pearson analysis was used because the data is not normally distributed and the data values range from 0 to 10. A Spearman correlation analysis of the data shows that there is no statistically significant relation between the year NSC in which the Accounting examination was written and the score obtained in the questionnaire (Spearman r = 0.075, p-value = 0.336).

4.2.3 Score in questionnaire versus mark in final NSC Accounting examination

Table 4.7 illustrates the distribution of students' marks in the NSC Accounting examination (all years) and their scores for the questionnaire:

Table 4.7: Mark in questionnaire versus mark in final NSC Accounting examination

		Questionnaire Test Score										Total
		0	1	2	3	4	5	6	7	8	9	
NSC Mark Class	0 - 29 %	0	0	0	0	1	1	0	0	0	0	2
	30 - 39 %	0	1	0	0	1	1	0	0	0	0	3
	40 – 49 %	0	1	3	2	6	1	1	1	0	0	15
	50 - 59 %	1	7	4	9	15	15	7	4	1	0	63
	60 - 69 %	0	1	4	9	13	7	7	4	1	0	46
	70 - 79 %	0	1	2	1	6	8	5	3	1	0	27
	80 - 100 %	0	0	1	0	0	0	2	0	1	1	5
Total		1	11	14	21	42	33	22	12	4	1	161

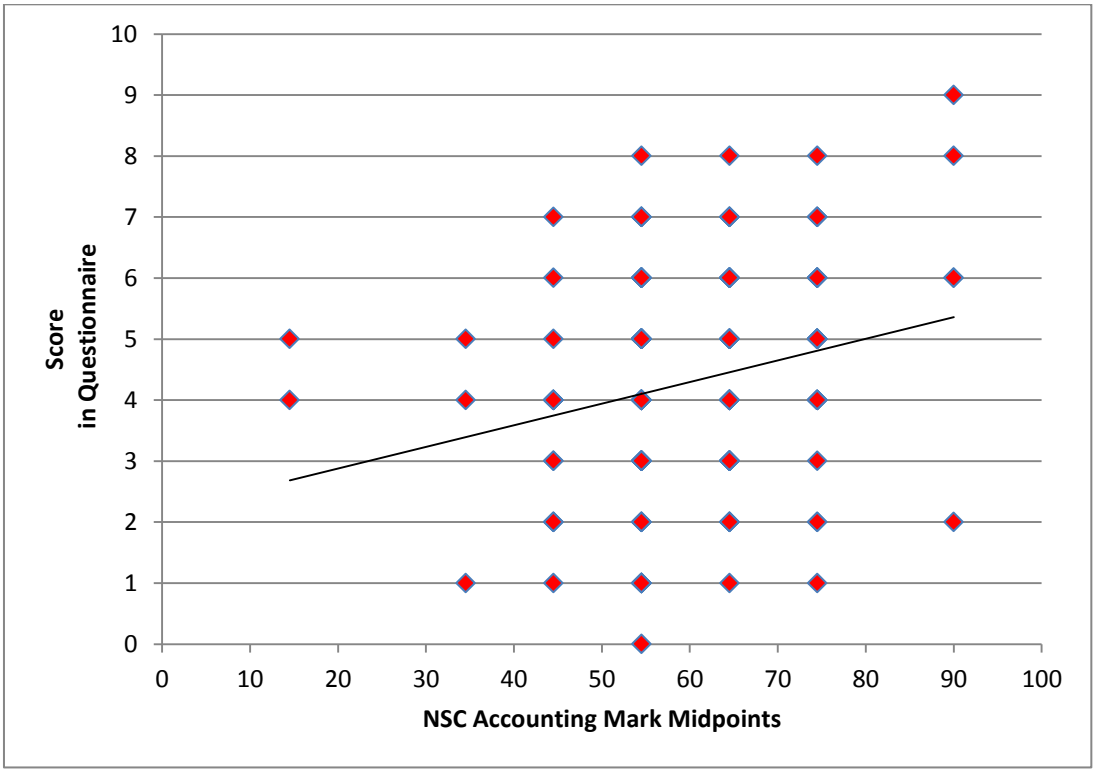
There was a difference between the total number of students whose questionnaires were analysed, namely 161, and the total number of students whose NSC Accounting percentages were obtained, namely 155. The reason for this difference was that there were students who did not write NSC Accounting examination in South Africa but in another country. Therefore the data was not relevant to this study and was not used.

This comparison was made to determine whether or not the student's final result in the NSC Accounting examination reflected a similar result in the questionnaire irrespective of the year in which the student matriculated. Graph 4.3 illustrates the results students achieved in the multiple-choice test in the questionnaire compared to the results they achieved in the NSC Accounting examination.

The x axis represents the percentage the student obtained in the NSC. The mark percentage is at the centre of the mark class. The mark classes are 0 – 29 %, 30 – 39 %, 40- 49 %, 50 – 59 %, 60 – 69 %, 70 – 79 % and 80 – 100 %. The y axis represents the total score the student obtained in the questionnaire out of 10.

The NSC Accounting mark was transferred to the midpoint of each class interval and included in a Spearman correlation analysis to determine the relation between the NSC Accounting mark and the score obtained in the questionnaire.

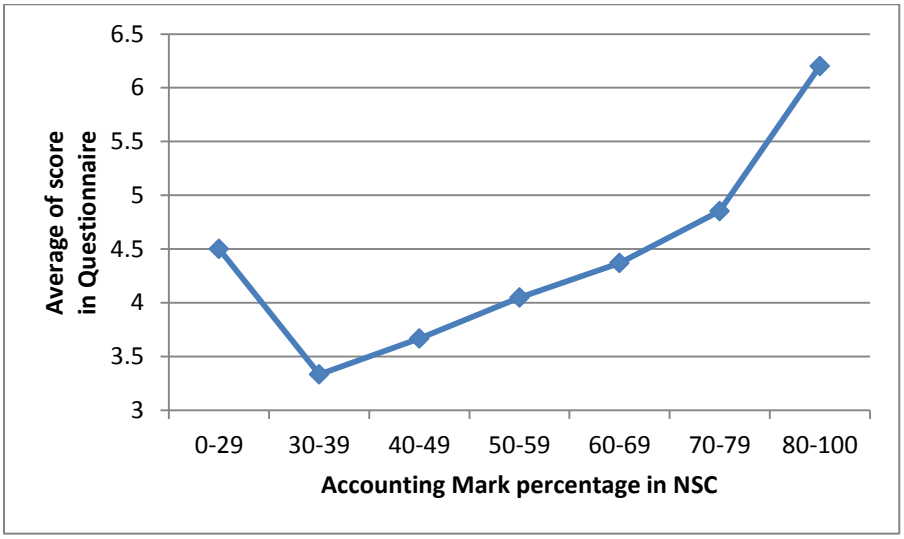
Graph 4.3: Score in questionnaire versus mark in final NSC Accounting examination



This analysis showed that there is a statistically significant relation between the NSC mark and the score obtained in the questionnaire (Spearman r = 0.230, p-value = 0.003).

Graph 4.4 graph shows the average obtained for the questionnaire for the students in each interval of the NSC Accounting class intervals.

Graph 4.4: Average obtained in questionnaire and Accounting Mark percentage in NSC Accounting examination



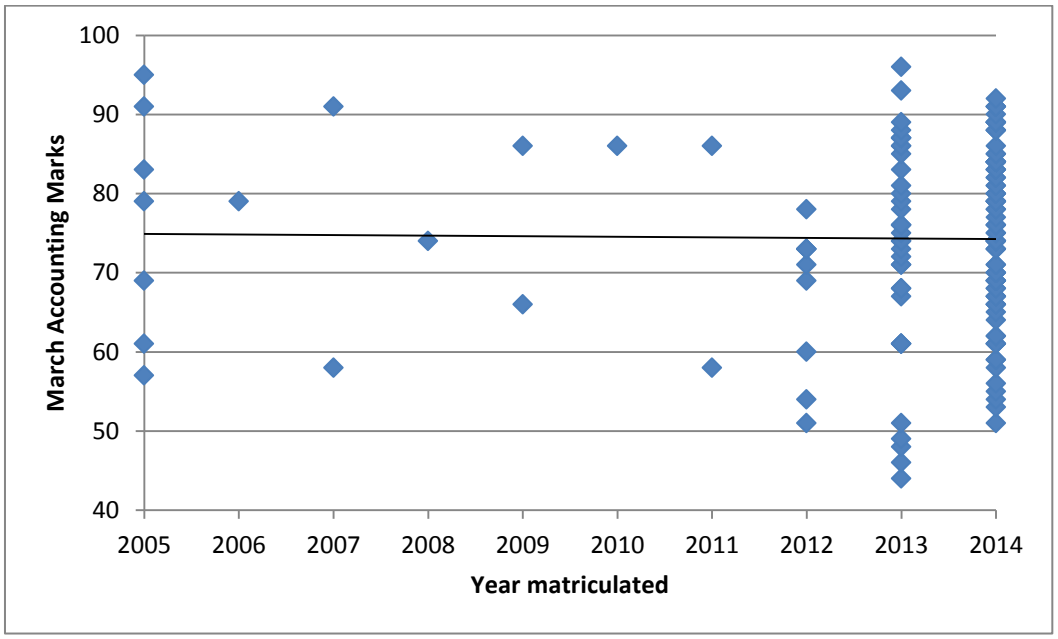
4.2.4 Accounting 1 mark in March 2015 versus the year matriculated

The purpose of this comparison was to determine whether there was a difference in the Accounting 1 mark in March 2015 for students who completed the NSC Accounting examination prior to 2014 (pre-CAPS) versus students who completed the NSC Accounting examination in 2014 (CAPS). Graph 4.5 shows the students' marks obtained in March 2015 versus the year in which they wrote the NCS Accounting examination.

The x axis represents the year in which the student wrote the NSC. The y axis represents the total mark for the March formal assessment of Financial Accounting I. There were 153 students whose March marks could be used because these students wrote the assessment. From that 153, 64 students wrote the NSC Accounting

examination before 2014 (pre-CAPS) and 89 students wrote the NSC Accounting examination in 2014 (CAPS). Of the 66 students who wrote the NSC before 2014 (pre-CAPS), two students did not write the formal assessment in March 2015. The average of the March test of the students who matriculated prior to 2014 was 69,81 % and for the students who matriculated in 2014 the average of the March test was 72,61 %.

Graph 4.5: Accounting 1 mark in March 2015 versus the year matriculated



A t-test showed that there is no statistically significant difference in the March formal assessment results of Financial Accounting 1 between the students who wrote the NSC before 2014 (pre-CAPS) and in 2014 (CAPS) (t-value = 0.925, d.f. = 151, p-value = 0.356).

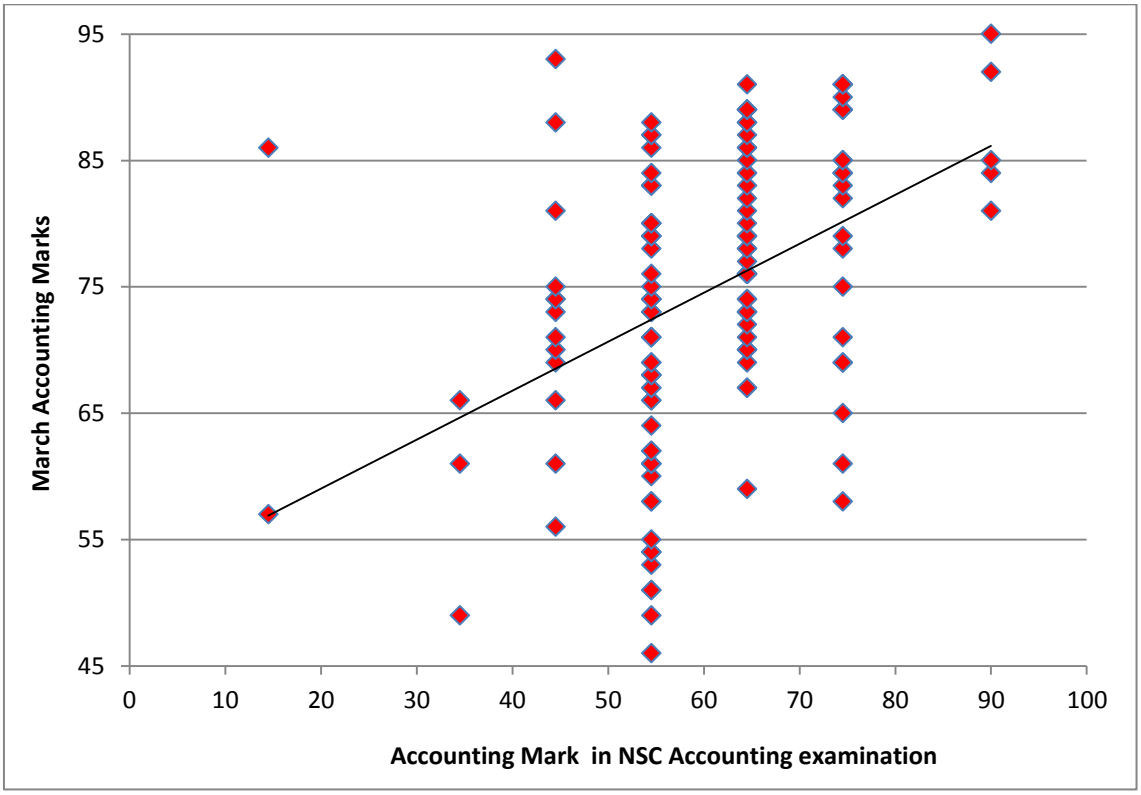
4.2.5 Mark in the NSC Accounting examination versus the Accounting 1 mark in March 2015

This comparison was posed to determine whether students' final result in the NSC examination reflected a similar result in the March formal assessment irrespective of the year the student matriculated. Graph 4.6 illustrates the results students achieved

in the March formal assessment compared to the results they achieved in the final NSC Accounting examination.

The x axis represents the percentage the student obtained in the NSC Accounting examination. The y axis represents the total mark the student obtained in the March formal assessment of Financial Accounting 1.

Graph 4.6: Mark in final NSC Accounting examination versus the Accounting 1 mark in March 2015



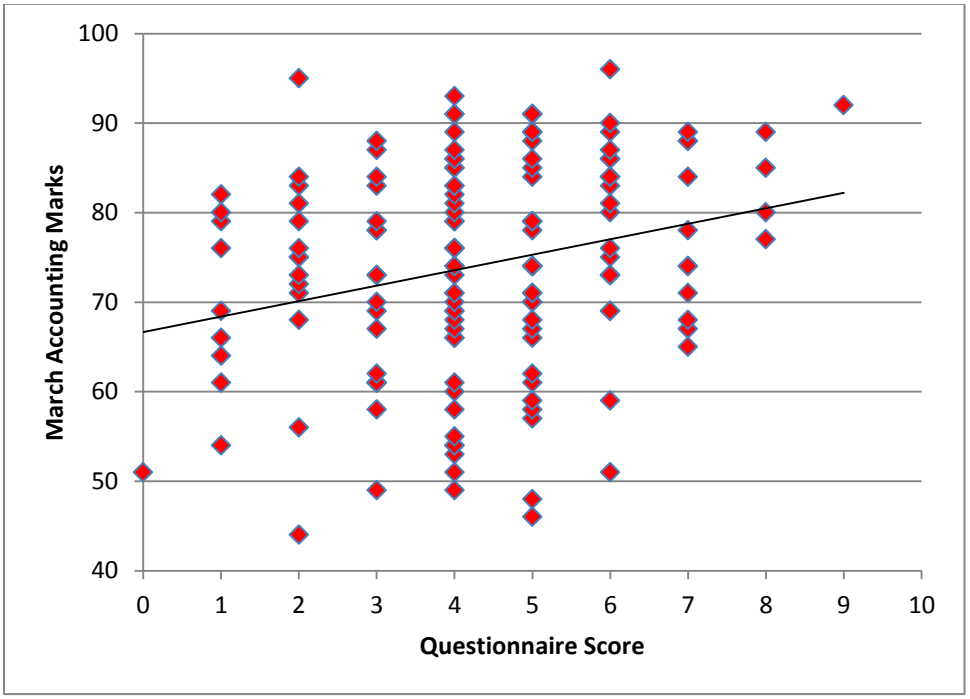
A Spearman correlation analysis shows a statistically significant relation between the NSC Accounting mark and the March formal Financial Accounting 1 assessment (Spearman r = 0.425, p-value < 0.001).

4.2.6 The score in the questionnaire versus the Accounting 1 mark in March 2015

This comparison was posed to determine whether a student's results in the questionnaire reflected a similar result in the formal March assessment irrespective of the year the student matriculated. Graph 4.7 illustrates the results students achieved in the multiple-choice test in the questionnaire compared to the results they achieved in the March formal assessment.

The x axis represents the total mark the student obtained in the questionnaire out of 10. The y axis represents the total mark the student obtained in the March formal assessment of Financial Accounting I.

Graph 4.7: The score in the questionnaire versus the Accounting 1 mark in March 2015



There is a statistically significant relation between the questionnaire and the March formal assessment (Spearman r = 0.226, p-value = 0.004).

A univariate analysis of variance showed that the gender, year in which the student matriculated or province where the student matriculated, had little effect on the March results. The marks the students obtained in their NSC examination and the year the students wrote the NSC were not affected by whether they wrote CAPS or not.

There is a statistically significant relation between the mark obtained in the NSC examination and the score in the questionnaire and the mark in March. If the mark is low in November, it is low in the questionnaire and in March. If the mark is high in the NSC, it is high in the questionnaire and in March.

4.3 Results of semi-structured interviews (qualitative data)

Semi-structured interviews were conducted with lecturers at two campuses of a selected UoT: Cape Town and Wellington campuses of CPUT. These interviews were analysed and are presented according to themes and categories elicited by the researcher. Pseudonyms were used for ethical reasons. Table 4.8 below illustrates the respondents' pseudonyms used during the semi-structured interviews.

Table 4.8: Pseudonyms of lecturers at a UOT

Semi-structured Interview 1	Semi-structured Interview 2	Semi-structured Interview 3	Semi-structured Interview 4
Mr Jacobs	Mrs Louw	Mrs Wicomb	Mr Engelbrecht

The overall purpose of the questions was to ascertain lecturers' perceptions of the cognitive preparation of NCS (grades 10 – 12) Accounting learners and expectations of Higher Education Institutions. Three themes were identified to determine whether the NCS cognitively prepares students for tertiary studies. Theme one reflected the challenges of teaching Accounting to first-year students; theme two provided lecturers' and university strategies to overcome these challenges and theme three reflected the lecturers' perception and knowledge about schools and tertiary institutions. Each theme is discussed in detail.

Table 4.9 provides a summary of themes and categories as identified from the transcribed semi-structured interviews recorded during the research. The findings are discussed and interpreted according to the table.

Table 4.9: Schematic summary of identified themes and categories

4.3.1	**THEME 1: CHALLENGES OF TEACHING ACCOUNTING TO FIRST-YEAR STUDENTS**
4.3.1.1	Basic knowledge
4.3.1.2	Critical thinking abilities or skills
4.3.1.3	Life skills
4.3.1.4	Numeracy skills
4.3.1.5	Language proficiency
4.3.1.6	Inclusive education
4.3.1.7	University systemic challenges
4.3.1.8	Discrepancy between pass requirements between school and university
4.3.2	**LECTURERS' AND UNIVERSITY STRATEGIES TO OVERCOME THESE CHALLENGES**
4.3.2.1	Lecturers' strategies to overcome challenges
4.3.2.2	University strategies to overcome challenges
4.3.3	**LECTURERS' PERCEPTIONS AND KNOWLEDGE ABOUT SCHOOLS AND TERTIARY INSTITUTIONS**
4.3.3.1	Lecturers' perception of school curriculum
4.3.3.2	Lecturers' perception of NHC curriculum
4.3.3.3	Lecturers' perception of level of communication between schools and tertiary institutions
4.3.3.4	Lecturers' knowledge of school curriculum

4.3.1 Theme 1: Challenges of teaching Accounting to first-year students

One of the questions to the lecturers in the semi-structured interview was what challenges they encounter teaching Accounting to first-year students in general. Eight categories were identified in this theme. The first six categories are about the challenges the lecturers' experience of teaching the students, while the last two categories are more systemic challenges.

4.3.1.1 Basic knowledge

One of the NCS's (CAPS) principles is to maintain high levels of knowledge and thinking skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high. In Accounting, learning builds cumulatively, moving from the simple to the more complex. To be able to engage in Accounting applications, it is necessary to understand basic Accounting concepts and terminology. Mr Jacobs believed that the students' quality in respect of basic Accounting knowledge deteriorates year after year because their foundation (of Accounting) was not as solid as that of students in previous years. Mr Jacobs stated:

> Nowadays, when Accounting is lectured, the bare basics (what should have been taught at high school) must be reintroduced in a lecture before the lecturer can introduce new work.

Adding to this, Mrs Louw asserted that there is a lack of basic content knowledge of Accounting to do the next level and claimed, "You cannot go into technical Accounting if you don't know your basics like for example to post from the journal to the ledger". Mrs Wicomb mentioned another challenge: some of the students did not have Accounting as a subject in Grade 12, or did it in grade 9 or it was not the student's first choice. The challenge for the lecturer is to understand where each student is on the curriculum. Mr Engelbrecht mentioned that, "If the students have an Accounting background it is easier for them than students who have not an Accounting background".

4.3.1.2 Critical thinking abilities or skills

Freire is best known for his warnings against the "banking" concept of education, in which the student was viewed as an empty account to be filled by the teacher. Freire (1970: 77) notes:

> It transforms students into receiving objects. It attempts to control thinking and action, leads men and women to adjust to the world, and inhibits their creative power.

There should be an active and critical learning approach, instead of a rote and uncritical learning of given information. The following guidelines should be considered when constructing examinations according to NCS (CAPS). In Accounting, approximately 10 % of all examinations should address problem-solving questions using critical and creative thinking. These problem-solving questions should cover a range of cognitive skills (lower, middle and higher order to cater for all in their context. For example, 'surface' problem-solving questions might involve recall or comprehension skills on familiar information while 'deep' problem-solving questions should generally involve creative solutions in new and unfamiliar scenarios falling within the ambit of the Accounting curriculum. While ratio and analysis can form interesting problem-solving questions, the topic of problem solving goes a lot further and should be integrated into all aspects of the curriculum so that the learners/students develop the skills to apply the knowledge acquired.

Mrs Louw referring to the critical thinking abilities and skills, stated that, generally speaking, students lack critical thinking abilities/skills. She expressed the following sentiment:

> The students are comfortable to do repetitive tasks, you teach them a certain concept and do an example, and then the students expect that the same example must be in the paper. The students are not comfortable to apply the same concept in a different way.

Historically, NSC examination papers (from 2011 to 2014), contained the same type of questions as the previous year's paper, the marks were good and everybody passed, but she asked the question: "Do they really understand the basic Accounting, or did the students only study the previous year's paper?"

Another topic Mrs Wicomb talked about, was levels of learning. The typical first-year student is used to memory recall and spoon-feeding from school ("banking" in Freire's terms). The lecturer explained Bloom's taxonomy at the lowest level is memory recall and to reach the next level requires understanding and then application. Mrs Wicomb said. "The student must be able to get from the one level to the next level."

4.3.1.3 Life skills

Mrs Wicomb and Mr Engelbrecht expressed the view that first-year students need to accustom themselves to a university (they do not know what tertiary studies are all about), must learn how to learn, to do time-management, and need to learn how to study. Mrs Wicomb explains it as follow:

> The environment from where these students come from differs from the environment they come into from an academic development perspective, social integration, emotional maturity and support perspective.

All the lecturers agreed that the perception of HE readiness is that it is all about intellectual readiness and how the student is prepared at school, but it entails many more aspects.

According to the lecturers, factors which hinder success are:

- Late registration
- Peer pressure
- Accounting not being the first choice
- Lack of the correct information
- Lack of finances for transport, books, etc.
- Lack of clarity of the differences between being on Extended Curriculum Program (ECP) and Mainstream
- Loneliness
- Laziness
- Not attending classes or not being on time for classes (punctuality)
- Social media distraction
- Procrastination
- Shyness to ask questions
- Family pressure and circumstances
- Hygiene

4.3.1.4 Numeracy skills

Accounting requires the use of mathematical or calculation skills and it is evident that students lacking these skills are severely disadvantaged when it comes to earning marks for even the most basic application of these mathematical skills.

Mrs Louw stated, concerning numeracy skills of the students, that:

> First there are a lot of mathematical skills that students need in order to do Accounting, for example basic solving of equations; students are struggling with basic mathematical calculations.

Adding to this, Mr Jacobs claimed, “That some of the students are not able to do very simple calculations, e.g. what is 10 % of R5 000?”

4.3.1.5 Language proficiency

According to Mrs Louw, many of the students from abroad and even some from South Africa and English is not their first language. She stated:

> Language and the Accounting wording are important in papers and how you interpret the questions, because students do not understand basic English, therefore it is very difficult to understand and interpret Accounting.

Furthermore, Mrs Wicomb averred:

> Prepositions play a major role in Accounting. When you use prepositions for example from, to and by, the significance of prepositions must be explained. There is a lack of understanding of these prepositions by the students. The language is a problem, the students must read properly.

4.3.1.6 Inclusive education

The NCS (CAPS) Grades R – 12 is sensitive to issues of diversity such as poverty, inequality, race, gender, language, age, disability and other factors. Inclusivity should become a central part of the organisation and can occur only if all role players have a

sound understanding of how to recognise and address barriers to learning, and how to plan for diversity.

Mrs Wicomb stated:

> Eyesight is a bigger problem than what the lecturers think. If the students cannot see, they cannot learn properly. I don't know which of the students have learning disabilities. For the students that cannot see properly, I arrange the first two rows in front of the class.

4.3.1.7 University systemic challenges

Mrs Louw and Wicomb argued that the most serious systemic challenges at university level were the late registration of students and the long registration process that continued for a long time until the last week of the first term. This weakness resulted in some of the classes starting very late and some students only having a week or two of classes before the assessment period started. Mrs Louw claimed:

> It is a tricky situation, because you cannot entertain those students, but you cannot leave them as well. You cannot encourage students to register late, by extending the test date. That is a challenge at institutional level.

All the lecturers interviewed indicated that there were some students who did not write the March formal assessment: one of the reasons could be that they did not feel prepared. This was a major frustration because the basic concepts and the foundational theory of Accounting were taught in that first few weeks. Another challenge of this late registration was that the students were confused about their groups and timetables to follow and as a result missed some of the classes which had an effect on the lecturers.

4.3.1.8 Discrepancy between pass requirement between school and university

All the lecturers in the four semi-structured interviews stated that the pass mark for first-year Accounting is 50 %. The final mark consists of four formal assessments of 20 % each and class tests throughout the year counting 20 %. To pass Accounting in

Grade 12, the learner has to achieve only 30 %. An interesting observation was made by Mrs Wicomb who declared that:

> First-years need to understand emotionally and intellectually that 30 % does not mean passing (which is the requirements for grade 12), they come from the mentality that it is, but 50 % means passing at university.

4.3.2 Theme 2: Lecturers' and university strategies to overcome these challenges

My fourth question to lecturers required them to give examples of strategies to overcome these challenges. These strategies are divided between lecturers' and university strategies.

4.3.2.1 Lecturers' strategies to overcome these challenges

On a personal level, Mr Jacobs tried to understand and relate to his students, instead of simply lecturing them. Where applicable, he helps students identify and put back the missing bricks in their Accounting foundation and after the Accounting foundation is restored he said, "The house can be built on their foundation accordingly".

Another strategy according to Mrs Wicomb to overcome the challenges of a lack of content knowledge is to explain topics in various ways. To give an example she stated:

> I explain the accounting equation and then explain the Balance Sheet according to the accounting equation; extra exercises are available for students. If students need individual consultation, they are also welcome to come to me.

Mr Engelbrecht overcomes the language barrier by using the following strategy. He said:

> The student must give the problem in writing for me". Lecturers give each student a booklet with exercises and old examination papers that the student can practise what was done in class, the idea is that the student must understand how to do the exercises and not memorise what is on the memo.

4.3.2.2 University strategies to overcome challenges

There are a few new strategies that the university implemented in 2015 according to Mrs Louw. She claimed:

> The March formal assessment was used as a bench mark, to determine whether the student understands the basic concepts of Accounting. All students that have not achieved 60 % or higher, were identified as at risk students. These students were required to attend a boot camp on Friday afternoons during the second term. It was not compulsory, but students were strongly advised to attend these classes. At these classes, the lecturer went back to the first term's work, the basic concepts. If the student does not know the basic concepts, the student will have a backlog. The students registered late could also attend these classes.

The University of Cape Town has short Accounting videos available on line about the basic concepts of Accounting in Xhosa, Zulu and English. These videos form part of the tutorials and of the class tests to overcome language barriers and assist students to build their foundation of Accounting knowledge.

Mrs Wicomb explained the difference between mainstream and ECP (Extended Curriculum Program):

> The difference between mainstream and ECP students are the mainstream students will do seven subjects in the first-year and the ECP students will do four and would do in their second year another three subjects. Technically, when these students go into their third year, they start their mainstream second year. These students are called at risk students and do their first-year over two years.

There are mentors for the first-year students to assist them in recruiting from the previous year and it was from this year that the mentors were available from the first week of class. There is a tutor class on a Saturday and it is well attended. It is important that the tutors have the appropriate personalities and value systems to help the lecturer. Mrs Wicomb said, "The tutors must help the students build their confidence and competence".

4.3.3 Theme 3: Lecturers' perception and knowledge about schools and tertiary institutions

One of the interview questions posed to the lecturers was: "In your opinion does the school curriculum (NCS) adequately prepare first-year students for your programme?" Four categories were identified: the lecturers' perception of the school curriculum and tertiary studies (NHC), level of communication between schools and tertiary institutions and the lecturers' knowledge of the school curriculum.

4.3.3.1 Lecturers' perception of the school curriculum

To determine whether the NCS (grades 10 – 12) prepare students for accounting studies at a UoT, it is important to take the lecturers' perceptions of the school curriculum into account.

Mr Jacobs stated:

> In one school 70-% doesn't mean the same as 70- % in another school- it is highly subjective and based on the quality of teaching received. My opinion is yes, on paper NCS most probably adequately prepares students for their first-year of studies at a tertiary institution, but what would be interesting to see is how the actual teaching of high school learners (CAPS in practice) prepares first-year students: 1) Is the manner in which CAPS is implemented adequate?
> And 2) Are all topics in CAPS covered by teachers in high school? As mentioned, on paper the CAPS prepares students for their first-year of studies at a tertiary institution, but the extent to which CAPS is implemented is another question.

Mrs Wicomb mentioned that students came from a wide range of schools, provinces and colleges:

> A problem is the spoon-feeding of the learners at school; to what extent are authentic (real life) examples used, to bring the practice and theory together? CAPS is supposed to prepare the student for the first-year, but the problem is with the implementation of the curriculum, the teachers are not trained and schooled for CAPS who must implement the curriculum.

Mrs Louw perception of the school curriculum is as follows:

> The lecturer does not know what happens from school to university if cost accounting was part of the curriculum. Theoretical the school curriculum (CAPS) is efficient, but at which

> school did they matriculate, many students came from rural areas, it is speculation, but the interviewee suspects that this also have an influence.

Mr Engelbrecht stated that there is a gap between high school and tertiary studies:

> We need to go back to basics. If the foundation at school was not good, the programme won't fit them.To help the first-years to adapt to tertiary studies, they take the students and tell them how to study.

Mrs Wicomb explained the school curriculum is part of a systemic and holistic issue. Her explaination was:

> The high school teachers must understand the impact of CAPS and the implementation and execution of CAPS and the impact further down the line to the value system, each one must understand what they do and how it have an impact on the next person in the delivery. Each one must have an understanding and a consciousness of the impact of how I am doing it, surely the person will change it or that is what we hope for.

In summary, lecturers' perception of the school curriculum is that in theory the NCS prepares accounting students for tertiary studies. In practice the lecturers' concerns are about the implementation of the curriculum, the teachers' training to implement the curriculum, which school do the students come from and the impact of the implementation of the NCS for tertiary studies.

4.3.3.2 Lecturers' perception of NHC

To determine if the NCS (grades 10 – 12) prepares students for Accounting studies at a UoT, it is important to take the lecturers' perception of the school curriculum as well as the NHC qualification into account.

Mrs Louw's perception is that the university does not draw the top Accounting students for this qualification. She said:

> The top Accounting students go to universities that have a SAICA accredited programme, students that study B Accounting and become Chartered accountants. You do not often get your eighty percent or ninety percent accounting learner at UoT. Either the university has foreign students that have no accounting background or students that although the CAPS curriculum was efficient, students that did not necessarily perform well at school.

4.3.3.3 Lecturers' perception of level of communication between schools and tertiary institutions

There has to be communication between schools and tertiary institutions, because one of the purposes of schools is to provide learners access to higher education.
In a report Mrs Wicomb read she highlights her point in this excerpt:

> Only 10 % of coloured and African students have access to university, theoretically it means the cream of the crop, 50 % never graduate, and only 5 % actually get through. She asked "What are we building?" We must look at it in a systemic perspective; it is a cog in a value chain. The chain starts at pre-primary school, then primary school, high school and then HE. We want graduates which have the right attributes to go into society that they can become economically active and that they can pay tax. You must plant positive seeds of opportunities, inspiration and encouragement.

The lecturers indicated that there is a lack of communication between schools and tertiary institutions. The lecturers lack participation in schools and the schools' teachers have little participation in tertiary institutions. If schools and universities do not communicate and work together to achieve the graduates with the right attributes, a true change or improvement may never be achieved.

4.3.3.4 Lecturers' knowledge of the school curriculum

Mr Jacobs felt that he lacks school curriculum knowledge (especially CAPS) but, based on the quality of the students in his class, he suggests there are students who are on par with the expected standard (specifically in relation to the admission requirements and based on the expected prior knowledge which should be in place according to the African Qualifications Authority (SAQA): other students are not on par with the expected standard.

He stated:

> For students that have a 70 % and above average, you would expect that the student knows 70 % and above of the work, but is not the case everywhere.

The lecturers agreed that there is a gap between the knowledge of the lecturers about the school curriculum and teachers at school level who do not have knowledge about the NHC curriculum or tertiary studies in general.

4.4 Results of document analysis

Numerous documents were analysed to determine whether Accounting learners are cognitively prepared for the National Higher Certificate Accounting studies at a University of Technology. To answer the research questions, the following documents were analysed:

- CAPS (FET) grade 10 – 12 Accounting curriculum
- Grade 12 NSC Accounting examination of 2014
- National Higher Certificate Accountancy curriculum, Financial Accounting I
- Financial Accounting I question paper and memorandum, first semester formal assessment

4.4.1 CAPS (FET) grade 10 – 12 Accounting curriculum

The CAPS (FET) grade 10 – 12 Accounting curriculum was compared with both the Grade 12 NSC Accounting examination in 2014 and the National Higher Certificate Accountancy curriculum, (Financial Accounting 1). The purpose of the first comparison between the Accounting curriculum CAPS (FET) and the Grade 12 NSC Accounting examination (2014) was to investigate whether the matric examination question paper was aligned with the weightings and cognitive levels required by the policy guidelines of CAPS. The purpose of the second comparison of the CAPS (FET) Accounting curriculum with the NHC Accounting curriculum was to determine the similarities and differences between both curricula: to identify possible shortcomings and the maintenance of norms and standards.

4.4.2 Grade 12 NSC Accounting examination of 2014

The purpose of the analysis of this document is to investigate whether the NSC examination question paper was aligned according to the weightings and cognitive levels as required by the policy guidelines of CAPS.

An in-depth analysis of the NSC Accounting examination of November 2014 with the weighting of the topics of the CAPS curriculum and according to Bloom's taxonomy was provided by the internal moderator of the Western Cape Education Department. The following table illustrates the weighting of the CAPS Accounting curriculum with the mark-allocation of the NSC Accounting examination of November 2014.

Table 4.10: Weighting of the CAPS Accounting curriculum with the mark allocation of the NSC examination (November 2014)

Accounting CAPS – NOV 2014							
		Q1	Q2	Q3	Q4	Q5	Q6
	TOTAL: 300	**35**	**30**	**65**	**75**	**40**	**55**
	Field 1: Financial Accounting						
12.1.1	Concepts- companies						
12.1.2	Concepts-GAAP & IFRS						
12.1.3	Companies ledger accounts						
12.1.4	Accounting equation – companies						
12.1.5	Final accounts – companies						
12.1.6.	Financial statements – IS –companies						
12.1.7	Financial statements – BS & notes			46			
12.1.8	Cash flow statement – companies				31		
12.1.9	Analysis and interpretation of FS			15	32	14	
12.1.10	Analyse published FS & audit report						
12.1.11	Close corporation-background only						
12.1.12	Interpret reconciliations:		16				
*12.1.13	VAT calculations	11					

Accounting CAPS – NOV 2014							
		Q1	Q2	Q3	Q4	Q5	Q6
	TOTAL: 300	**35**	**30**	**65**	**75**	**40**	**55**
	Field 2: Managerial Accounting						
12.2.1	Manufacturing concepts						
12.2.2	Production cost statement						34
12.2.3	Analysis & interpretation of unit costs						9
12.2.4	Projected IS –sole trader & company						
12.2.5.	Cash budget – sole trader					26	
12.2.5	Cash budget – company						
	Field 3: Managing resources						
12.3.1	Interpret & report of assets	1			12		
12.3.2	Valuation of inventories	16					
12.3.2	Periodic & perpetual inventory systems	1					
12.3.3.	Professional bodies & Code of conduct			4			
12.3.4	Internal control	6	10				12
12.3.5	Ethical behavior		4				
12.3.6	Legislation governing companies						

Table 4.11 is a comparison of the weighting of the CAPS curriculum within the three main topics compared with the NSC examination of 2014.

Table 4.11: Weighting of CAPS mark allocation versus actual weighting of NSC examination of 2014

Details of three main topics	Weighting of mark allocation according to CAPS curriculum	Actual weighting of NSC examination question paper of 2014	Actual mark allocation of NSC examination question paper of 2014 (total 300 marks)
Financial Accounting	50 % – 60 %	55 %	165 marks
Managerial Accounting	20 % – 25 %	23 %	69 marks
Managing Resources	20 % - 25 %	22 %	66 marks

According to the results of the above table, the NSC examination of 2014 adhered to the policy guidelines as stipulated in CAPS.

According to CAPS (Department of Basic Education, 2011(a): 44) the cognitive levels if you refer to Bloom's taxonomy are: Remembering, Understanding, Applying, Analysing, Evaluating and Creating (see Table 2.4) .

Table 4.12 analyses the NSC Accounting examination (2014) according to Bloom's taxonomy.

Table 4.12: NSC Accounting examination (November 2014) according to Bloom's taxonomy

ACCOUNTING CAPS: NOVEMBER 2014 ADOPTED BLOOM'S TAXONOMY										
Q	**Marks**	**Topic**	**Remember**	**Understand (comprehend)**	**Apply (recall)**	**Apply (process)**	**Analyse (understand)**	**Analyse (productive)**	**Evaluate**	**Create**
1.1	4	Concepts	4							
1.2	9	VAT			2	7				
1.3.1	4	Carriage			4					
1.3.2	8	Stock value			2	6				
1.3.3	6	Change		4				2		
1.3.4	4	Calculations						4		
	35									
2.1	4	Creditors		4						
2.2	16	Creditors			2	14				
2.3.1	4	Fraud		4						
2.3.2	6	Fraud		2					6	
	30									
3.1.1	9	Note Capital			3	6				
3.1.2	11	Note RI			3	8				
3.2	26	BS			12	14				

ACCOUNTING CAPS: NOVEMBER 2014 ADOPTED BLOOM'S TAXONOMY										
Q	**Marks**	**Topic**	**Remember**	**Understand (comprehend)**	**Apply (recall)**	**Apply (process)**	**Analyse (understand)**	**Analyse (productive)**	**Evaluate**	**Create**
3.3	5	ROSHE					1	4		
3.4	4	Assess div							4	
3.5	6	Interpret							6	
3.6	4	Ethics		4						
	65									
4.1	12	Figures			2	10				
4.2	31	CFS			16	15				
4.3	4	Assess							4	
4.4.1	3	NAV					1	2		
4.4.2	3	Ratios					1	2		
4.5	9	Comment							9	
4.6	8	Comment							8	
4.7	5	Calculations							5	
	75									
5.1	4	Budget		4						
5.2	9	Creditors			1	8				

ACCOUNTING CAPS: NOVEMBER 2014 ADOPTED BLOOM'S TAXONOMY										
Q	**Marks**	**Topic**	**Remember**	**Understand (comprehend)**	**Apply (recall)**	**Apply (process)**	**Analyse (understand)**	**Analyse (productive)**	**Evaluate**	**Create**
5.3.1	3	Calculations					1	2		
5.3.2	3	Calculations					1	2		
5.3.3	3	Calculations					1	2		
5.3.4	4	Calculations					1	3		
5.4.1	6	Stock period					1	3	2	
5.4.2	4	Calculations					4			
5.4.3	4	Comment							4	
	40									
6.1.1	5	Calculations			1	4				
6.1.2	19	Prepare note			8	11				
6.1.3	10	Prepare PCS			7	3				
6.2.1	12	Problems								12
6.2.2	4	Calculations						4		
6.2.3	5	Effect							5	
	55									
	300	**TOTALS**	4	22	63	106	12	30	51	12

ACCOUNTING CAPS: NOVEMBER 2014 ADOPTED BLOOM'S TAXONOMY										
Q	**Marks**	**Topic**	**Remember**	**Understand (comprehend)**	**Apply (recall)**	**Apply (process)**	**Analyse (understand)**	**Analyse (productive)**	**Evaluate**	**Create**
		%	1 %	7 %	21 %	35 %	4 %	10 %	17 %	4 %
		TARGET	30 %	40 %	30 %					

Table 4.13 is a comparison of the cognitive requirements of the grade 12 NSC examination paper of 2014 that are required by the CAPS policy.

Table 4.13: Weighting of percentages allocated to Bloom's taxonomy (CAPS) versus actual weighting percentages of Bloom's taxonomy in NSC examination of 2014

Bloom's taxonomy Levels of cognitive thinking	Weighting of percentages allocated to Bloom's taxonomy levels of cognitive thinking specified by CAPS curriculum	Actual weighting of percentages allocated to Bloom's taxonomy levels of cognitive thinking in the NSC question paper of 2014	Actual mark allocation of NSC question paper of 2014 (total 300 marks)
Basic thinking skills (Remember, understand, apply-recall)	30 %	29,7 %	89 marks
Moderately high thinking skills (Apply-process, analyse-understand)	40 %	39,3 %	118 marks
Higher order thinking skills (Analyse – productive, evaluate, create)	30 %	31 %	93 marks

According to the results of the above table, the NSC Accounting examination (2014) adhered to the policy guidelines for cognitive levels as stipulated in CAPS.

A comparison between the NCS and the NSC Accounting examination (2014) was made to investigate whether the NSC examination question paper assessed according to the weightings and cognitive levels as required by the policy guidelines of CAPS. The NSC reflects the NCS in an attempt to cognitive prepares students for tertiary studies.

The following table illustrates the overall achievement in Accounting from 2011 – 2014 and revealed the number of learners who wrote the NSC from 2011 to 2014.

Table 4.14: Overall achievement in NSC Accounting from 2011 to 2014.

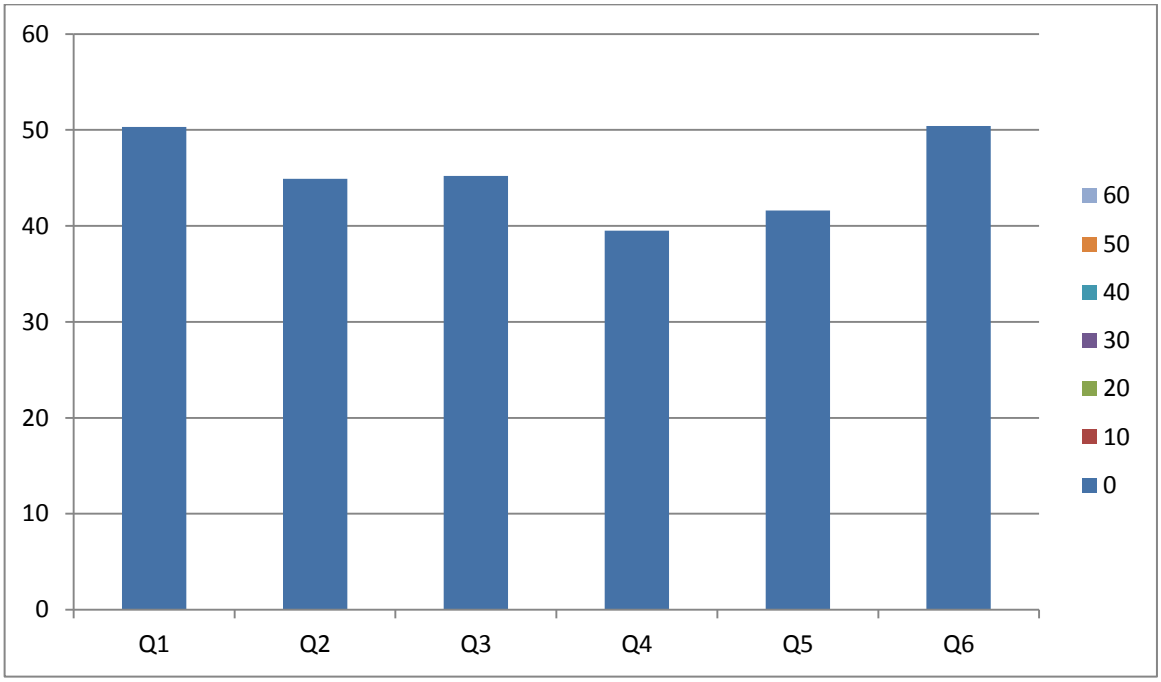
Year	No wrote	No achieved at 30 % and above	% achieved at 30 % and above	No achieved at 40 % and above	% achieved at 40 % and above
2011	137 903	84 972	61,6	49 368	35,8
2012	134 978	88 508	65,6	57 621	42,7
2013	145 427	95 520	65,7	60 311	41,5
2014	125 987	85 681	68,0	55 837	44,3

The number of candidates decreased with 11 916 learners. The percentage of learners who achieved a percentage of 30 % and above increased with 6,4 % from 61, 6 % in 2011 to 68 % in 2014. The percentage learners who achieved a percentage of 40 % and above increased with 8,5 % from 35,8 % in 2011 to 44,3 % in 2014.

According to the Diagnostic Report (Department of Basic Education, 2014: 11) the graph 4.8 was based on data from a random sample of candidates.

Graph 4.8 indicates the average marks per question obtained, expressed as a percentage. While the graph might not accurately reflect national averages, it is useful in assessing the relative degrees of challenge of each question as experienced by learners. The x axis represents the questions of the NCS Accounting examination of 2014 and the y axis represents the average percentage obtained for each question.

Graph 4.8: The average marks per question of the NSC (2014) Accounting examination expressed as a percentage



Q1: VAT, inventory and ethics

Q2: Creditors' reconciliation and internal control

Q3: Financial statements: Balance Sheet, interpretation and ethics

Q4: Fixed assets, Cash flow Statement, interpretation and corporate governance

Q5: Cash Budget and internal control

Q6: Manufacturing

It is clear from the graph that performance of learners in all questions was at 50 % and below. The worst answered question was Q4 (Q4: Fixed assets, Cash flow Statement, interpretation and corporate governance, Q5: Cash Budget and internal control, Q6: Manufacturing where candidates scored an average of 39,5 %, and the question in which they scored the highest are Q6.

In the National Senior Certificate Examination Diagnostic Report (Department of Basic Education, 2014: 8) the general comments of the Accounting learner performance are as follows:

(a) New CAPS content to the extent of 30 marks was included in the 2014 NSC Accounting examination paper.

(b) The Diagnostic Reports of 2012 and 2013 highlighted weaknesses and proposed strategies that should be taken into account to assist learners to be adequately prepared for the NSC Accounting examination. It is important because CAPS is implemented in 2014 for the first time. It is apparent that in certain centres these resources have not been used to prepare learners. This could be due to a lack of finances to cover the costs of reproducing the past papers, or a lack of willingness on the part of teachers and/or learners to engage with these resources.

(c) There was in some centres evidence that teachers had seriously considered the contents of previous Diagnostic Reports on Accounting. This fact, together with the interventions by the Provincial Education Departments (PEDs) to assist learners, has ensured progress in many centres. Although the overall raw scores reflected improvement in the quality of learners' responses, it is disappointing to note that learners several centres did not perform better compared to 2013.

(d) The vast majority of learners engaged with every question, at least in part. There were few centres where candidates ignored entire questions. Vital skills that distinguish the successful learner from the less able learner include the ability to address the specific requirements of each sub-question, to focus specifically on the information that is relevant to answer each sub-question, and to use the allocated time more effectively.

(e) Topics such as fixed assets, interpretation of financial information, identification of figures for inclusion in a Cash Flow Statement, and analysis of a Cash Budget, continue to present a major challenge for candidates in many centres.

(f) The poor quality of answers in many centres indicates that problems still exist in the teaching and learning process. It is a concern that many learners presented completely inappropriate responses to certain middle-challenge or easy questions involving basic applications, as evidenced by superfluous and misplaced items.

(g) Many of the easy sub-questions covered basic knowledge essential for enabling learners to engage with the more complex aspects of each topic. The continued

failure of weaker learners in some centres to answer these questions indicates that basic concepts are not properly covered and that basic formats of financial statements or ledger accounts are not regularly or effectively reinforced.

(h) General factors that contribute to learners not achieving better results in 2014:

- **Inability to deal successfully with certain calculations:** Accounting examination papers contain a number of arithmetical calculations. Many learners did not understand the logic of the calculations required (positive/negative signs, percentages and ratios).
- **Inability to read the requirements of questions accurately:** This was evident in several sub-questions where learners' responses were not in line with the specific requirements.
- **Inability to identify relevant information:** Weaker learners appear to have been disadvantaged by being unable to identify relevant information strategically without inspecting every figure or item of information given.

4.4.3 National Higher Certificate Accountancy curriculum, Financial Accounting I

The objective of comparing the CAPS (FET) Accounting curriculum with the National Higher Certificate Accounting curriculum is to investigate to what extent the CAPS curriculum potentially prepares the student to study Financial Accounting I of the NHC at a UoT. Table 4.15 shows similarities of the CAPS (FET) Accounting curriculum and the curriculum of the NHC in Accountancy and Financial Information Systems. The information is gathered from CAPS (FET), and a UoT, Faculty of Business, NHC subject guide.

Table 4.15: Similarities between subject content of CAPS (FET) Accounting curriculum and the curriculum of Accountancy and FIS in the National Higher Certificate

CAPS (FET) CURRICULUM (GRADES 10 – 12)	NATIONAL HIGHER CERTIFICATE: ACCOUNTANCY AND FIS
Accounting in context	**Accounting in context**
Purpose of Accounting	Purpose of Accounting
Decision-making usefulness	Decision-making usefulness
Stakeholders	Stakeholders
Business Organisations	Business Organisations
Main elements of financial reporting	Main elements of financial reporting
Double entry and the practice of Accounting	**Double entry and the practice of Accounting**
The Accounting equation	The Accounting equation
Conceptual framework	**Conceptual framework**
Users of Financial Statements	Users of Financial Statements
The Trial Balance	**The Trial Balance**
Preparation, Pre-payments and Accruals	Preparation, Pre-payments and Accruals
Closing entries	Closing entries
Basic Financial Statements	**Basic Financial Statements**
Income Statement	Income Statement
Balance Sheet	Balance Sheet
Income Tax & VAT	**Income Tax & VAT**
Inventory: Periodic & Perpetual	**Inventory: Periodic & Perpetual**
Reconciliations	**Reconciliations**
Bank, Debtors and Creditors	Bank, Debtors and Creditors
Non-profit Entities: Clubs	**Non-profit Entities:** Clubs
Close Corporations & Partnerships	**Close Corporations & Partnerships**
Differences	Differences

Table 4.16 will indicate differences between the FET Accounting curriculum and the curriculum of the National Higher Certificate.

Table 4.16: Differences between subject content of CAPS (FET) Accounting curriculum and the curriculum of Accountancy and FIS in the National Higher Certificate

CAPS (FET) CURRICULUM (GRADES 10 – 12)	NATIONAL HIGHER CERTIFICATE: ACCOUNTANCY AND FIS
Conceptual framework	**Conceptual framework**
Measurement at initial recognition	Measurement at initial recognition
Alternative bases of measurement	Alternative bases of measurement
historic cost	historic cost fair value recoverable amount
Non-profit Entities	**Non-profit Entities**
Sport clubs	Sport clubs
Statement of Receipts and Payments	Statement of Receipts and Payments
	Statement of Income & Expenditure
	Prepare Financial Statements from incomplete records
Close Corporations	**Close Corporations**
Differences between CC and other businesses	Differences between CC and other businesses
	Record transactions, financial statements
	Relationship between members and CC
	Members' Interest, Rights & Obligations
	Financial reporting & its regulations
	Conversion between CC, Partnership
Cost Accounting	
Basic concepts	
Calculation of costs in a manufacturing environment	
Ledger accounts	
Production Cost Statement	
Budgeting	
GAAP principles	
Ethics and Internal control	

The two tables above (Table 4.15 and Table 4.16) show that there is a correspondence of topics covered in the CAPS (FET) curriculum and the NHC in Accountancy and FIS curriculum. The results undertaken that at tertiary level more in-depth studies are done in particular topics such as clubs and close corporations as illustrated in Table 4.16.

4.4.4 Financial Accounting I question paper and memorandum, first semester formal assessment (March)

The aim of analysing the Financial Accounting I question paper and memorandum, first semester formal assessment (Appendix H) was to ascertain how this assessment compares with the CAPS (FET) curriculum.

Table 4.17 illustrates the types of questions and the cognitive levels of the first semester (March 2015) formative assessment according to Bloom's taxonomy and the analysis was completed by the assessor and the internal moderator.

Table 4.17: Analysis of question paper, first semester formal assessment (March 2015)

Types of questions used in this assessment task	% Weighting across task
Recall of subject knowledge	14%
Selective recall of subject knowledge for a particular context out of many possible contexts	-
Application of knowledge to familiar problems	59%
Application of knowledge to unfamiliar problems	27%
Synthesis of relevant subject knowledge and applying it to a specific context	-
Critical analysis, forwarding own ideas taking into account subject knowledge and procedures	-

The purpose of the analysis of the CAPS (FET) curriculum with the March formative assessment was to determine to what extent there are similarities or differences in the content of the CAPS (FET) and the NHC curriculum to prepare students for tertiary studies. How does the March 2015 formative assessment compare with the CAPS (FET) Accounting curriculum?

Table 4.18 compares the first formal semester assessment (March) with the CAPS (FET) Accounting curriculum.

Table 4.18: A comparison of the Financial Accounting I formative assessment of the first semester (March 2015) with the CAPS (FET) Accounting curriculum.

NHC: ACCOUNTANCY AND FIS I	NHC: ACCOUNTANCY AND FIS I	CAPS (FET)
Question 1	Source documents	Grade 10: Bookkeeping of a sole trader: Source documents
	General journal	Grade 10: Bookkeeping of a sole trader: General Journal
	Adjustments	Grade 10: Financial Accounting of a sole trader
Question 2	Adjustments in the General Journal and General Ledger	Grade11: Bookkeeping of a partnership: Year-end adjustments
Question 3	Statement of profit and loss	Grade 10: Financial Accounting of a sole trader- preparation of financial statements, namely Income Statement.
	Changes in equity	Grade 10: Financial statements and notes. Balance Sheet: Capital note
	Statement of financial position	Grade 10: Financial statements: Balance Sheet
Question 4	Multiple choice questions	
4.1 & 4.2	Definition of a liability, asset	Grade 10: Informal or indigenous bookkeeping systems: concepts
4.3	Owner contributes money	Grade 10: Financial Accounting of a sole trader. Definitions and explanation of Accounting concepts and Accounting equation
4.4 & 4.6	Users of financial	Grade 10: Financial statements

NHC: ACCOUNTANCY AND FIS I	NHC: ACCOUNTANCY AND FIS I	CAPS (FET)
	statements	
4.5	Definition of accrued expenses	Grade 10: Year-end adjustments
4.7	Accounting cycle	Grade 10: Accounting cycle
4.8 & 4.9	Recognition criteria of an asset	Grade 10: GAAP principles
4.10	Accrual Accounting	Grade 10: GAAP principles

Given the above results, it was revealed that the topics tested in the formal assessment of March 2015 were covered mainly in the NCS Accounting curriculum. As stated previously in Chapter 1, the National Higher Certificate in Accountancy and FIS is a bridging course to prepare students to do a diploma, therefore the NCS (Grades 10 – 12) cognitively prepares learners to study the NHC in Accountancy and FIS.

4.5 Summary of results

This chapter presents results of the research in terms of the document analysis, questionnaires and semi-structured interviews.

Based on the results in this chapter, the discussion, conclusions and recommendations on the cognitive preparation of NCS Accounting students for tertiary studies are presented in Chapter Five.

CHAPTER 5
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study is to determine to what extent NCS (Grades 10 -12) cognitively prepares Accounting learners for first-year studies in the NHC at a selected UoT. The results of this research are presented in detail in Chapter Four. In this chapter, the findings, conclusions and recommendations are presented, and the limitations of the study discussed.

5.2 Summary of research

The research aimed first to determine to what extent the NCS (Grades 10 – 12) Accounting curriculum cognitively prepares learners for first-year NHC at a selected UoT. Second, the research aimed to determine whether there is a difference in the extent to which NCS (Grades 10 -12) Accounting curriculum (pre-2014) and CAPS (2014) cognitively prepare learners for first-year NHC at a selected UoT.

To achieve the aims of this research, a quantitative approach (questionnaires) and qualitative approach (document analysis and interviews) were utilized as appropriate methods to address the research questions. The study included first-year National Higher Certificate Accounting and Financial Information Systems (FIS) students in the Business Faculty at two campuses of a selected UoT, namely Cape Town and Wellington. In addition, lecturers involved in this programme formed part of the sample. The focus was on one class at Wellington campus and four classes at Cape Town campus. Four documents, CAPS (FET) Accounting curriculum, Grade 12 NSC Accounting examination of 2014, National Higher Certificate Accountancy curriculum and Financial Accounting I first semester formal assessment of March 2015 were analysed in an attempt to determine whether NCS Accounting learners are cognitively prepared for NHC studies at a UoT.

The questionnaires were completed at the beginning of the students' first-year. Each questionnaire consisted of two sections: Section A and Section B. Section A sought personal information and Section B contained multiple choice questions with one correct answer to ascertain learners' Accounting competence as set out in CAPS for the FET Band. It was necessary to determine what the students' Grade 12 Accounting National Examination marks were, and to compare those marks with the outcome of the questionnaire and the end of the first semester marks (March 2015). In that regard, the student number was required. The overall purpose of the questions of the semi-structured interviews was to establish lecturers' perceptions of NCS (Grades 10 – 12) Accounting learners' cognitive preparation and the expectations of Higher Education Institutions, specifically the qualification of the NHC at a selected UoT.

5.3 Discussion of results

After data from the questionnaires were analysed, the following conclusions were drawn:

- There is no statistically significant difference in the Accounting marks learners obtained in the NSC Accounting examination in 2014 (CAPS) or pre-2014 (pre-CAPS).
- There is no statistically significant difference in the March formal assessment results between students who wrote the NSC before 2014 (pre-CAPS) and in 2014 (CAPS).
- There is no statistically significant relation between the year in which the NSC examination was written and the score obtained in the questionnaire.

As stated earlier, one of the aims of the study was to find out whether learners who were trained according to the CAPS curriculum are better prepared to study Financial Accounting 1 at tertiary level as opposed to students not trained according to CAPS. There is therefore no evidence that CAPS (2014) prepares learners better for tertiary studies than students who were not trained according to CAPS (students who wrote NSC prior to 2014).

Results further show that:

- There is a statistically significant relation between the mark obtained in the NSC examination and the score in the questionnaire.
- There is a statistically significant relation between the mark obtained in the NSC examination and the mark in March. If the mark is low in November, it is generally low in the questionnaire and in March. If the mark is high in November, it is generally high in the questionnaire and in March.

After the results of the semi-structured interviews were analysed, the following themes were discussed according to Chapter Four. Theme One comprised the challenges of teaching Accounting to first-year students; theme Two comprised lecturers' and university strategies to overcome these challenges and theme Three included lecturers' perception and knowledge of schools and tertiary institutions. The themes relate to the first research question of whether the NCS (Grades 10 – 12) cognitively prepares Accounting learners for tertiary studies. The findings are discussed according to the themes documented in Chapter four.

The first theme focuses on the challenges of teaching Accounting of first-year students. The literature reviewed and the data collected indicate that there are challenges for the lecturer, student and the tertiary institution. The first challenge was students' lack of basic knowledge. The lack of basic Accounting knowledge originates from EMS (Grades 8 and 9) and it accumulated in the following phase (grades 10 – 12) (Assain and Lumade, 2012: 257). Teachers could ensure that learners understand and can explain basic concepts and terminology before engaging in Accounting applications in each topic. These concepts should be introduced on a gradual basis at appropriate points when covering the Economic & Management Sciences curriculum in the GET Band to ensure that learners develop confidence in basic Financial Accounting before progressing to Grade 10. The basic Accounting equation, namely Assets = Owner's equity + Liabilities (A = O + L), is the foundation of the subject Accounting and could be the starting point of teaching Accounting in the Senior Phase. Bloom's taxonomy showed that the first level is acquisition of knowledge and more specifically, recall of data, information, facts and

concepts. The most vital concepts are those contained in the expanded Accounting equation: Assets + Expenses + Drawings = Capital + Income + Liabilities. The process of conceptualizing and understanding the above goes much further than simply the rote-learning of definitions. It is necessary for learners to appreciate the difference between different types of assets, different types of liabilities and different types of activities, i.e. current and non-current assets; current and noncurrent liabilities, and operating, financing and investing activities. This learning skill enables students to prepare and interpret different financial statements more effectively (Department of Basic Education, 2014: 9). If the learner possesses basic Accounting knowledge in Grades 8 and 9, he/she should be able to move from knowledge to comprehension, application, analysis, synthesis and evaluation in grades 10 to 12. According to Umalusi (2014: 66) the criteria set out in the CAPS is lacking in terms of skills and competencies where the emphasis is on calculating and recording with no mention of interpretation and evaluation. Analysis, evaluation and creative problem-solving are important skills required by the assessment criteria to the extent of 30% at the higher order level, but which are not being developed during the normal teaching time allocated. This concern can be applied to numerous topics in the curricula, and it is not in the learner's interest to only start developing these skills in Grade 12, prior to final assessment.

Umalusi (2014: 65) found omissions at exit level are the research skill needs to developed further over the entire FET Phase, but many of the teachers teach to the NCS examination and might not allocate enough time to independent research. The evaluation team also noted that the CAPS document is not up to date with regard to current developments in the profession concerning the correct use of the terminology and the Accounting curriculum needs to be seen as a living document, and as such should be updated every year as opposed to be reviewed periodically. The knowledge, values and skills that the Grade 12 learner leaves with should be relevant and current for tertiary studies and the world of work.

The cognitive progressions from grade 10 – 12 (CAPS) Accounting curriculum fall within the following topics (VAT, Cost Accounting, Budgeting, fixed assets, reconciliation and inventory systems) which start in Grade 10 with the basic concepts, in Grade 11 with calculations and in Grade 12 with analysis, interpretation

and reporting. It is not possible to go to the next level, if the basics are not mastered. Thorough consolidation in Grade 10 has to be achieved in order to be able to progress to Grades 11 and 12 and to be able to progress from knowledge (level 1 of Bloom's taxonomy) to evaluation (level 6 of Bloom's taxonomy). The CAPS (FET) Band covers grade 10 to grade 12 and therefore 20% of an examination paper may contain content from previous grades pertinent to Grade 12 content (Department of Basic Education, 2012: 44). According to Umalusi (2014: 66) the spread of cognitive levels detailed in the CAPS is appropriate. However, much will depend on the expertise of the teacher in developing higher order thinking skills in their learners.
As expressed in the concern above, assessment in Grades 10 and 11 and the internal assessments in Grade 12 might not adhere to the cognitive levels ultimately specified in the Grade 12 CAPS. This will be to the detriment of the learner's final Grade 12 mark.

Due to a rote and uncritical learning of information (banking), instead of an active and critical learning approach, there is a lack of critical thinking abilities or skills. According to CAPS, approximately 10% of all examinations should address problem-solving questions using critical and creative thinking such as solving real-life problems within the context of the Accounting curriculum. These problem-solving questions should cover a range of cognitive skills (lower, middle and higher order) to cater for all learners but within the context of the learners. For example, '*surface*' problem-solving questions have to involve recall or comprehension skills on familiar information while '*deep'* problem-solving questions generally involve creative solutions in new and unfamiliar scenarios falling within the ambit of the Accounting curriculum (Department of Basic Education, 2011(a): 44). While ratio and analysis can form interesting problem-solving questions, the topic of problem solving goes a lot further and should be integrated into all aspects of the curriculum so that the learners develop the skills to apply the knowledge acquired (Department of Basic Education, 2011(a): 44). Teachers play a crucial role in fostering a learner's independent thought and critical thinking. Teachers should be thoroughly prepared when entering the classroom and able to integrate real-life scenarios that are relevant to the subject (Rayoo, 2012: 25). In Accounting there should be an understanding of how things are done practically and why they are done in that

specific way. Learners/students need to think for themselves and be able to evaluate Accounting theory as well as practice. The teacher should promote critical thinking, through the use of relevant questioning.

Data and literature (Frick, 2008: 21; Kokemuller, 2014; Conley, 2007(a): 12; Byrd and MacDonald, 2005: 26 and Lemmens, 2010: 276) highlight factors that influence success in HE. Lack of life skills of first-year students determines whether students are going to be successful or not. The difference in the academic atmosphere of the school and university, lack of academic background, study methods and emphasis on self-study were noted as hindrances to first-year success. Life skills such as balancing the responsibilities of being an independent adult with the benefits of freedom from parents and home rules are critical.

In discussing numeracy and literacy skills, the education system as a whole has to be considered: each phase is like a link in the education chain. The DBE (Department of Basic Education, 2011(b): 2) officially groups grades into two “bands” called General Education and Training (GET), which includes grade 0 plus grades 1 to 9, and Further Education and Training (FET), including grades 10-12 as well as non-higher education vocational training facilities. The GET is subdivided further into “phases” called the Foundation Phase (grade 0 plus grade 1 to 3), the Intermediate Phase (grades 4 to 6), and the Senior Phase (grades 7 to 9). There should be an urgency to promote literacy and numeracy skills in each phase. Each phase has to achieve all the outcomes necessary to progress to the following phase. In Grade 12 it is too late to correct a lack of numeracy and literacy skills: it has to be implemented from Grade 0 and critical thinking should be implemented from the Foundation Phase. For Accounting, mathematical ability and knowledge and skills are acquired and therefore abstract thinking is required (Jacobs, 2010: 66 and Oosthuizen, 2014: 192).

Another factor that needs to be discussed to determine HE success is language proficiency. From the data and literature (Joubert, 2010: 38; Eiselen and Geyser, 2003: 128; and Koh and Kriel, 2005: 227) it was indicated that language plays an immense role in student performance and success. In S.A. many students study in

English which is not their first language: as a result poor reading skills/strategies and an inability to apply knowledge hamper HE success (Schreuder, 2014: 167).

An education system should be a system that gives equal opportunities and quality education to all (Department of Basic Education, 2011: 4). An inclusive education and training system recognises and respect differences (physical, emotional and social) among all learners and students (Loreman, Deppeler & Harvey, 2005: 2). To achieve an inclusive education system that gives all people equal opportunities, all role players and every level of education should be involved to make inclusive education work.

While it is true that academically capable and financially needy students often receive bursaries or other financial support, they often cannot register on time, due to the fact that they do not receive their registration payments on time. This late registration has practical implications. For example a student falls behind with the work and this lapse affects the specific student, the other students in the class and the lecturers.

According to data and literature (Fisher and Scott, 2011: 10; and Bangser, 2008: 9), the discrepancy between higher education's expectations of Grade 12 graduates and what is delivered year on year is increasing. The low throughput rates in universities suggest that schooling does not meet the requirements of HE (Speckman and Mandew, 2014: 77). To pass Accounting in Grade 12, the learner has to achieve 30 %. To pass first-year Accounting, the student needs to achieve 50 %. There is thus a discrepancy between the pass requirement at schools and universities.

The second theme focuses on the lecturers' and university strategies to overcome these above challenges. The lecturers tried to address the challenge of low prior Accounting knowledge by explaining the basic concepts and Accounting topics on various ways and by giving exercises, activities and previous examination papers. To overcome the language barrier, lecturers encourage students to ask questions verbally or in writing.

The university strategies to overcome these challenges include tutor classes on weekends, videos and the ECP. The March formal assessment was used as a bench mark to determine whether the student attained the necessary basic understanding of Accounting. Students who have not achieved 60 % or higher were identified as at risk students. The university gave these at risk students extra classes over weekends to make up shortfalls in basic Accounting knowledge. The university made Accounting videos available to assist students in overcoming language barriers and build their foundation of Accounting knowledge. ECP was an initiative of universities to provide support to “underprepared” students who lacked the skills, conceptual background and the language proficiency necessary to succeed at tertiary level. ECP have sought to provide an alternative curriculum geared to the needs of talented students who have not been served well by existing mainstream curricula. This is the only intervention thus far that has been designed to offer a systemic solution to the systemic problem of the articulation gap.

The third theme constituted lecturers’ perception and knowledge of the school curriculum and the NHC curriculum as well as lecturers’ perceptions of the level of communication between schools and tertiary institutions. Lecturer perception of the school curriculum was that theoretically NCS prepares learners adequately for their first-year of studies at a tertiary institution but that the implementation of the NCS was imperfect. The following aspects were a concern regarding the implementation of the NCS:

- The training of teachers and the quality of teaching which have an impact on learning.
- The content knowledge of teachers and the methodology of teachers (that must be more innovative and interactive), how to enable learners to understand Accounting and to realise the value of the subject
- Are all the topics covered at school? Does the teacher update, read and do research about Accounting?
- Has the teacher the ability to bring the practice and theory together, by integrating real-life scenarios relevant to Accounting into the classroom?
- Can the teacher develop the learners’ problem-solving skills, analytical

thinking skills, critical thinking skills and the ability to interpret financial information?

It was evident that there was a lack of school curriculum knowledge amongst lecturers. Lecturers' perception of the NHC curriculum was that the student would have a certificate after the second year and then can proceed in the third year with the diploma. Data from questionnaires and interviews revealed that although the NCS curriculum was efficient to prepare learners cognitively for tertiary studies, learners who did not perform well at school did not perform well at university. There was a gap between the knowledge of lecturers about the school curriculum and teacher' knowledge about HE studies in general. There is a lack of communication between schools and tertiary institutions. There must be communication between schools and tertiary institutions as well as participation to ensure that HE needs are met and that universities give feedback to schools which has an effect on the quality of first-year students entering tertiary education (Van Romburgh: 2014: 42).

The results of the document analysis reveal that Grade 12 NSC Accounting examinations of 2014 adhered to policy guidelines as well as cognitive requirements stipulated in the CAPS (FET) Accounting curriculum. The cognitive requirements were drawn up by the guidelines of CAPS and only refer to Bloom's taxonomy. Comparison between the CAPS (FET) Accounting curriculum and the curriculum of the NHC showed that there was a correspondence between topics covered in the CAPS (FET) curriculum and the NHC curriculum. At tertiary level, there are more in-depth studies in particular topics such as clubs and close corporations. The result of comparing the CAPS (FET) Accounting curriculum with the NHC Accounting curriculum was that the curricula were aligned and the CAPS curriculum cognitively prepares the student to study Financial Accounting 1 at a UoT. The comparison of the Financial Accounting 1 question paper and memorandum (March 2015) with the CAPS (FET) curriculum and the Grade 12 NSC Accounting examination of 2014 showed that the CAPS (FET) adequately prepares students for the NHC at a UoT. The topics tested in the March 2015 formal assessment were covered in the Grade 10 – 12 CAPS (FET) curriculum. There is no statistically significant evidence that CAPS (2014) prepares learners better for tertiary studies than students not trained

according to CAPS (students that wrote NSC prior to 2014). The results of the questionnaires, semi-structured interviews and document analysis reveal that NCS adequately prepares Accounting learners cognitively for studies at a UoT.

5.4 Limitations of the study

Although various factors (for example personal, financial, emotional, social environment, health and wellness, life skills and decision-making abilities of the student) were acknowledged in this study that can either contribute to academic success, or could act as potential risk factors leading to drop out and/or failure, this study focused on learners' cognitive preparedness for HE Accounting studies at a UoT. The participating students' cognitive levels were not measured according to low, middle and higher order but according to final marks of the NCS, the questionnaire and the March formal assessment. The reason a final mark was used is because the researcher had no access to students' NSC Accounting examination. The researcher acknowledges that it was a small sample of students and that cognitive levels (according to CAPS and refers to Bloom's taxonomy) were only measured using the NSC results, a questionnaire and the March formal assessment results.

The research study involved first-year Accounting students only during 2015. The researcher could have come to more informed conclusions if the study had taken place over a sustained period of three to five years.

Another limitation of the study was that one qualification only, namely the NHC at a UoT was investigated. The views of the lecturers cannot be generalised to reflect views of lecturers of all tertiary institutions and all qualifications. Nevertheless the outcome should be meaningful to stakeholders in the sector, not only to this particular institution. This study is not intended to be generalised as a finding that would necessarily apply elsewhere. Outcomes of similar studies at other tertiary institutions can, however, be compared for results and trends. Outcomes of this study could therefore be used to provide useful information to other institutions and other

degree or diploma programmes. The academic community can use the data obtained from this study to replicate the study at other tertiary institutions.

5.5 Recommendations

Although little difference was found in the extent to which NCS (Grades 10 -12) Accounting curriculum (pre-2014) and CAPS (2014) cognitively prepares learners for first-year NHC at a selected UoT, useful information was obtained through this study. The following recommendations could be made, based on the findings of this study.

5.5.1 Educational environment

Universities and the DBE need to work together to overcome problems facing education: both entities need to ensure that students are better prepared to enter university. The DBE should be made aware of the requirements of universities regarding content of specific subjects, such as Accounting, and how to effectively implement these requirements into the school curriculum. Implementing these suggestions might be a strenuous and expensive procedure initially, but the benefits will be substantial: the country should then have better qualified students entering university and the Accounting profession. This improvement can, in turn, have a positive effect on the country's economy (Van Romburgh, 2014: 42).

School teachers should be aware of the skills valuable in achieving success as a first-year student. The gap in HE readiness reflects the difference between the skills and knowledge that students gain in high school versus the skills and knowledge that HE requires.

A clear difference was demonstrated by this study between the ways high school teachers and HE perceived readiness levels. Without a collaborative effort by both sides, this impasse or failure of communication may not be overcome easily: a true change or improvement may not be realized for some time. Attending HE is about building on previous education: the foundations have to be solid. Education works

most effectively and efficiently when the aspirations, preparedness, motivations and activities of participants match those of providers (Reed & Justice, 2014: 41).

The DBE and universities could schedule meetings for various subject groups to ensure these needs are being met: to guarantee that universities give feedback to the DBE on whether the changes implemented are making a difference to first-year students who enter university. An intervention by universities to assist schools (teachers and learners) could possibly provide a short-term solution.

As stated earlier, one purpose of this study was to determine whether learners who were trained according to CAPS curriculum are better prepared for studying Accounting at tertiary level as opposed to students who were not trained according to CAPS. There is no evidence that the CAPS prepare learners cognitively better for tertiary studies than students who were not trained according to CAPS. In theory, CAPS does prepare Accounting learners for tertiary studies. However, with the analyses of the NSC results, there is little discernible improvement in the learners' preparation which indicates that a grave shortcoming exists educationally in implementation of the curriculum.

According to Carl (2009: 39), curriculum implementation is that phase during which relevant design is applied in practice and is referred to as macro- and micro-implementation (Carl, 2009: 136). Macro-implementation is the application of policy and curriculum initiatives which have been determined at national level by curriculum authorities. Micro-implementation in practice means that core syllabi are implemented at school and classroom level by subject teachers. Teacher participation and initiatives are normally high at this level because through their implementation, they make their own mark on the development of a syllabus (through syllabus interpretation, subject curriculation and lesson curriculation). Factors that can have an influence on the effective implementation of the curriculum are: the role of government, the principal, the school board and the community (parental involvement), staff development and participation, teachers' qualification, teaching methodology, content and pedagogical knowledge, assessments, classroom management, resources, class sizes and socio-economic circumstances.

Du Plessis and Gerber (2012: 83) emphasise problems within the education system, including the on-going changes and amendments to curricula, the type of teacher training, inadequate support to teachers, teaching time compared to other activities and the availability of learning and teaching materials such as text books. The DBE needs to realize the fact that reforms are highly complex and that there is no simple solution to guarantee successful implementation: the DBE should provide necessary support for teachers.

In order to avoid curriculum change every few years, the DBE should thoroughly research education systems of other countries. In adopting aspects from these systems, resources available to the majority of South Africans and the dynamics of its people should be considered. The facilities available at rural schools are not comparable to those at ex-model C schools and urban schools. The Government needs to increase funding for the education sector in order for the improvement of the infrastructure of previously disadvantaged schools. Educational transformation will not work without adequate resources.

Teachers should be consulted about what is functional in the classroom when considering curriculum change (Department of Basic Education, 2015: 31). The DBE should involve teachers in the changes that are implemented in order for teachers to take ownership of the changes and to be able to manage the implementation of a new curriculum if they are considered as integral parts of the change process. The DBE should provide schools with the necessary resources for successful implementation of a new curriculum. These resources could include textbooks for every learner, smaller teacher pupil ratio, well stocked libraries, and computers. The DBE has to draw on experience from the previous curriculum changes to avoid the same mistakes with regard to educator training (Du Plessis and Gerber, 2012: 83).

Aims of the curriculum end up becoming aims of the examination and many teachers actually teach to the NSC examination without allocating enough time to the development of the skill of independent research (Chinyani, Kadodo & Madingwe, 2013: 65). It is important to retain basic content knowledge: too many cognitive aspects of schooling have been lost through excessive emphasis on outcomes

(Müller, 2000: 12). The development of the higher order skills present in the curriculum, such as analysis, evaluation and creative problem solving is not guaranteed: so much of the success of imparting higher skills thinking depends on the individual teacher and not on the fixed curriculum (Grussendorf et al. 2014: 63). What happens in the classroom, while shaped by the class background of learners, has a profound influence on learners' learning and has an effect on the future chances of learners in life (Schreuder, 2014: 147). Many of the problems observed in South African classrooms are caused by poor knowledge resources of teachers (Taylor, 2011: 16). This deficit of knowledge has implications for the change in the kind of training and support teachers will need in order to meet these new challenges.

When teachers are required to change their roles and classroom practices, they may need to change previously held attitudes and beliefs before they can successfully implement the required changes. If teachers reflect on curriculum reform in South African education and understand the important role they play, it will contribute to successful implementation (Carl, 2009: 199).

5.5.2 Research

Although various factors can either contribute to academic success, or could act as potential risk factors leading to drop out and/or failure, this study focused on learners' cognitive preparedness for HE Accounting studies at a UoT. The participating students' cognitive levels were not measured according to low, middle and higher order, but a final mark in the NCS, a final score of the questionnaire and final mark of the March formal assessment. The research study was restricted to first-year Accounting students during 2015. The researcher could have come to more informed conclusions if the study had taken place over a period of three to five years.

Another limitation of the study was that only one qualification, namely the NHC at a UoT was investigated. A study should be undertaken into curriculum implementation and a comparison can be made between CAPS implementation and implications at rural, suburban and urban schools. The research can include views of all

stakeholders involved in CAPS and implementation of CAPS. A study involving departmental officials, facilitators and teachers on support for implementation will provide insights into the training of teachers for curriculum implementation.

5.6 Conclusion

In summary, results of the questionnaires, semi-structured interviews and document analysis revealed that NCS adequately prepares the Accounting learners cognitively for tertiary studies.

Data revealed that the NCS (Grades 10 – 12) Accounting curriculum (formal or intended curriculum) adequately prepares the learner cognitively for the NHC in Accountancy and FIS at a selected UoT.

The results in Chapter Four and Chapter Two concur overall in Chapter Five. Findings presented in Chapter Four and the discussion in Chapter Five answer the research questions in this study.

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APPENDIX A: REQUEST FOR LECTURER PARTICIPATION IN RESEARCH: LETTER

Cape Peninsula University of Technology

Mowbray campus

March 2015

Dear lecturer

PARTICIPATION IN RESEARCH

I am currently a M.Ed. student at Cape Peninsula University of Technology Faculty of Education. My thesis is titled: Cognitive preparation of NCS (Grades 10 – 12) Accounting learners for tertiary studies.

The purpose of this study is to determine to what extent NCS (Grades 10 – 12) cognitively prepares Accounting learners for first-year National Higher Certificate in Accounting and Financial Information Systems at a selected University of Technology.

The study will include the first-year National Higher Certificate Accounting students in the Business Faculty at two campuses of a selected University of Technology, namely Cape Town and Wellington. In addition lecturers involved in the first-year of this programme will also form part of the sample.

The quantitative approach will entail questionnaires to the first-year Accounting students and the qualitative approach will entail document analyses of the Accounting CAPS (FET) grade 10 – 12 curriculum and the curriculum of the National Higher Certificate Accountancy curriculum, Financial Accounting 1, analysis of the NSC Accounting examination of 2014, Financial Accounting 1 question paper and memorandum, first semester formal assessment and interviews with the lecturers at the University of Technology.

Given the context of this study, could you kindly inform me if you would be willing to participate. If you are in agreement, your participation in this study will be strictly voluntary, although your participation will significantly contribute to the quality of the study. As participant you reserve the right to withdraw consent at any stage during the research process should you wish to do so.

The coordinator of Financial Accounting I, pledges her support to the study. She will give you the questionnaires for the students. **The questionnaires must be completed in one of your periods and it will take more or less 30 minutes to complete. The questionnaire will consist of two sections, namely Section A and Section B. Section A will seek personal information and Section B will consist of multiple choice questions with one correct answer.**

The latter aims to ascertain learners' Accounting competence as envisioned in the Curriculum and Assessment Policy Statement (CAPS) for the Further Education and Training Band. The questionnaire also asks for the student's Grade 12 Accounting National Examination mark so that I can compare that mark with the outcome of the questionnaire and the student's mark the end of the first term (March). For this purpose the student number is required.

Another method of my data collection is the interviews with you, the lecturer. That will occur in May and it should take no more than 30 minutes of your time.

I include the consent forms for students and lecturers and also possible questions for the interview with you.

Your participation and support are very much appreciated.

Yours sincerely

Antoinette Venter (212285963)

0823046675

Prof C F Vermeulen (co-supervisor)

021 680 1534

APPENDIX B: LECTURERS' CONSENT FORM

Title of the thesis: Cognitive preparation of NCS (Grades 10 -12) Accounting learners for tertiary studies.

I agree to participate in a study being conducted by Antoinette Venter. I have made this decision based on the information provided to me by her. I understand that my participation is voluntary and that I may withdraw this consent at any time. I agree to provide information to the researcher on the understanding that my name will not be used without my permission. The information will only be used for this research and for publications that might arise from this research project. A summary of the research findings will be made available to me on request.

I agree/do not agree to the interview being recorded [audio/visual].

I understand that I have the right to ask for the recording equipment to be turned off at any time during the interview. All information will be treated with strict confidentiality and my name will not be reflected in the thesis nor will it be discussed with anyone.

I agree to participate in this study under the conditions set above.

Name of respondent: ……..

Signature: ……..

Date: …….

Name of researcher: A. VENTER

Signature: …… **……**

Date: …….

APPENDIX C: QUESTIONS FOR THE INTERVIEWS: LECTURERS TEACHING FINANCIAL ACCOUNTING 1 AT A UoT

Semi-structured interview schedule

1. How long have you been teaching?
2. How long have you been teaching this Accounting at UoT?
3. What challenges do you encounter teaching Accounting to first-year students in 2015?
4. What type of strategies do you implement to overcome these challenges?
5. In your opinion does the school curriculum (NCS) adequately prepare first-year students for your programme?
6. What is the pass rate for first-year Accounting?
7. Do you have any questions for me?
8. Do you have any general comments?

APPENDIX D: NATIONAL HIGHER CERTIFICATE ACCOUNTING 1 STUDENT AT A UNIVERSITY OF TECHNOLOGY: LETTER

March 2015

To: National Higher Certificate Accounting 1 students at University of Technology

A few minutes of your time would be greatly appreciated to respond to the enclosed questionnaire.

The questionnaire forms part of a research study, of which the purpose is to determine to what extent NCS (Grades 10 – 12) cognitively prepares Accounting learners for their first-year National Higher Certificate in Accounting and Financial Information Systems at a selected University of Technology.

The study will include first-year National Higher Certificate Accounting students in the Business Faculty of a University of Technology. at Wellington and Cape Town Campuses. You will not be identified by name. Your student number will be required to compare the March mark with the questionnaire and your Grade 12 examination mark. All information provided by you will be treated as strictly confidential.

The questionnaire should only take 30 minutes to complete. Your participation is very much appreciated.

Yours sincerely

Antoinette Venter

212285963

Prof C F Vermeulen (co-supervisor)

021 680 1534

APPENDIX E: QUESTIONNAIRE FOR THE NATIONAL HIGHER CERTIFICATE ACCOUNTING 1 STUDENTS

The questionnaire is part of a M.Ed. study to determine how NCS (Grades 10 – 12) cognitively prepares Accounting learners for their first-year National Higher Certificate at a selected University of Technology.

Do not put your name on the survey.

Section A: This section of the questionnaire seeks personal information. Please respond to each question by placing a tick in the correct response box where appropriate, or by providing the answer.

A1: What is your gender? Female [1.] Male [2.]

A2: What is your student number?

A3: Which campus do you attend?

1. Wellington	2. Cape Town

A4: In what year and province did you matriculate?

Year			**Province**		
1.	2005 and earlier		1.	Northern Cape	
2.	2006		2.	Eastern Cape	
3.	2007		3.	Free State	
4.	2008		4.	Western Cape	
5.	2009		5.	Limpopo	
6.	2010		6.	North West	
7.	2011		7.	KwaZulu Natal	
8.	2012		8.	Mpumalanga	
9.	2013		9.	Gauteng	
10.	2014		10.	Foreign country	

A5: Did you write the National Senior Certificate Accounting examination?

Yes	1.
No	2.

If your answer is **yes**, what mark did you obtain for the Grade 12 Accounting National Senior Certificate examination?

0 – 29 %	
30 – 39 %	
40 – 49 %	
50 – 59 %	
60 – 69 %	
70 – 79 %	
80 – 100 %	

A6: If you matriculated in another country than South Africa, did you write an Accounting examination in your final year at school?

Yes	1.
No	2.

If yes, what mark did you obtain?

0 – 29 %	
30 – 39 %	
40 – 49 %	
50 – 59 %	
60 – 69 %	
70 – 79 %	
80 – 100 %	

Section B: This section consists out of 10 multiple choice questions. Choose the most appropriate answer to each question and **make a cross (x) on the separate answer sheet provided.**

B1: The acronym GAAP stands for:

(a) General Association of Auditors and Professional Accountants

(b) Government Auditing and Accounting Practices

(c) Generally Accepted Accounting Practices

(d) Gambling Anonymous Association for Punters

B2: The following extract was from the Pre-adjustment trial balance of Makadamai Traders on 30 June 2014:

	Debit	Credit
Balance Sheet section		
Debtors Control	17 900	
Provision for Bad Debts		1 030
Nominal accounts		
Bad debts	1 310	

Adjustments to be taken into account on 30 June 2014 to answer the following question:

1. Write off T Muza's debt of R480 as irrecoverable.
2. Adjust provision for bad debts to 5 % of debtor's outstanding debt on 30 June 2014.

The adjustment to provision for bad debt will have the following effect on the Accounting equation:

(a) +R135 Assets and +R135 Owner's Equity

(b) -R135 Assets and +R135 Owner's Equity

(c) +R159 Assets and +R159 Owner's Equity

(d) -R159 Assets and +R159 Owner's Equity

B3: The following information was extracted from a registered VAT vendor for the month May 2014.

- Credit sales (VAT inclusive) R405 270
- Cash sales (VAT inclusive) R188 670
- Trading stock purchased on credit (exclusive of VAT) R198 000
- Furniture bought for on credit (VAT inclusive) R 11 400

The amount of Input VAT for the month is:

(a) R29 120

(b) R43 624

(c) R43 820

(d) R72 940

B4: Lizzy, the owner of C & L Baggs, sells one type of shopping bags to customers. Lizzy uses the weighted average method of valuing her stock.

Information on Lizzy's purchases and sales over the last 3 months.

	Number of bags	**Unit price**	**Total**
		R	R
Opening stock (1 February 2014)	40	11	440
Total purchases:	80		1152
February 2014	28	13	364
March 2014	32	14	488
April 2014	20	17	340
Sales of bags February – April 2014	92	24	2 208

The value of closing stock on 30 April 2014 is:

(a) R476

(b) R361

(c) R371,46

(d) R530,80

B5: The following extracts appeared in the Cash Budget of Pioneer Traders:

	January	**February**
Cash receipts		

Cash sales	160 000	
Cash from debtors	206 682	(a)

Additional information:

- 40 % of all sales are for cash
- 95 % of all debtors settle their account one month later less 7,5 % discount.
- The balance of the debtors is written off as bad debts.

The missing figure (a) on the Cash Budget is:

(a) R228 000

(b) R210 900

(c) R222 000

(d) R256 000

B6: The following information appears in the Bank Reconciliation Statement on 30 April 2014.

	R
Unfavourable balance as per bank statement	64 900,00
Outstanding deposit (28 April 2014)	31 380,00
Outstanding cheques	
No 2225 (20 April 2014)	2 000,00
No 2282 (26 April 2014)	9 000,00
No 2223 (30 April 2014)	4 500,00
No 2226 (31 May 2014)	4 400,00

The balance as per bank account is (indicate if favourable or unfavourable)

(a) R84 800 favourable

(b) R53 420 unfavourable

(c) R49 020 unfavourable

(d) R64 900 unfavourable

B7: The following information was extracted from the books of Lucky Dube Manufacturers for the year ended 28 February 2014.

	Type of cost	2014 Per unit based on 4 700 units	2013 Per unit based on 4 200 units
Sales revenue		260,00	285,00
Administration cost	Fixed	33,80	37,82
Direct labour cost	Variable	66,00	52,00
Factory overhead cost	Fixed	42,80	53,50
Selling & distribution cost	Variable	35,00	18,40
Direct material cost	Variable	77,50	80,00

The total fixed costs for 2014 are:

(a) R360 020

(b) R201 160

(c) R 42 300

(d) R158 860

B8: The following information was extracted from the financial statements on 30 June 2014. The Accounting period is from 1 July 2013 to 30 June 2014.

	30 June 2014	**30 June 2013**
Depreciation	362 500	215 000
Tangible assets	4 787 500	4 325 000
Net profit after tax	825 000	935 000

Calculate the figure that will appear in the Cash Flow Statement for fixed assets purchased (Note: fixed assets with a carrying value of R105 000 were sold during the year).

(a) R782 500

(b) R205 000

(c) R825 000

(d) R930 000

Use the following information to answer Question B9 and B10.

Andre Limited and Marius Limited are two relatively new companies quoted on the Johannesburg Securities Exchange. Both deal in upmarket leisurewear. A friend of yours, Thando Ndevu, wants to buy shares in one of them. He has studied their latest results and presents you with the following financial indicators of the two companies. Both companies have the same number of shares in issue.

FINANCIAL INDICATORS – 28 FEBRUARY 2014

	ANDRE LIMITED	**MARIUS LIMITED**
Market price per share on the JSE	750 cents	885 cents
Net asset value per share	609 cents	939 cents
Earnings per share	410 cents	176 cents
Dividends per share	240 cents	185 cents
% return on shareholders' equity	21,3 %	11,2 %
% return on total capital employed	32,6 %	13,6 %
% interest rate on loans	12 %	12 %
Debt-equity ratio	0,3 : 1	4,5 : 1
Current ratio	4,2 : 1	1,5 : 1
Acid test ratio	2,8 : 1	0,9 : 1
Period for which enough stock is on hand	150 days	88 days
Average debtors' collection period	52 days	25 days

Thando asks for your advice on her opinion of the two companies.

B9: Thando is of the opinion that Andre Limited is handling its working capital effectively and is in a better liquidity position than Marius Limited as it has more cash, debtors and stock. Quote THREE financial indicators to explain to him why these are satisfactory/unsatisfactory.

(a) Satisfactory: current ratio, debtor's collection period and acid test ratio

(b) Unsatisfactory: current ratio, acid-test ratio and stock on hand

(c) Unsatisfactory: Debt-equity ratio, current ratio and debtor's collection period

(d) Satisfactory: current ratio, acid-test ratio and stock on hand

B10: Thando thinks that Marius Limited has borrowed more money than Andre Limited and that this was possibly a good idea. Is he right? Was it a good idea? Quote ONE financial indicator to explain your opinion.

(a) He is right. Marius Ltd borrowed more than Andre Ltd, but it was a good idea as the company is very highly geared, the debt-equity ratio.

(b) He is wrong. Marius Ltd borrowed less than Andre Ltd, but it was a good idea as the company is very highly geared, the interest rate.

(c) He is right. Marius Ltd borrowed more than Andre Ltd, but it was not a good idea as the company is very highly geared, the debt-equity ratio.

(d) He is right. Marius borrowed more than Andre Ltd, but it was not a good idea as the company is very low geared, return on shareholders equity.

Thank you for taking the time to complete this questionnaire. Your effort is much appreciated.

SECTION B: ANSWER SHEET:

STUDENT NUMBER

1	a	b	C	d
2	a	b	C	d
3	a	b	C	d
4	a	b	C	d
5	a	b	C	d
6	a	b	C	d
7	a	b	C	d
8	a	b	C	d
9	a	b	C	d
10	a	b	C	D

basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

ACCOUNTING

NOVEMBER 2014

MARKS: 300

TIME: 3 hours

This question paper consists of 17 pages and an answer book of 19 pages.

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully and follow them precisely.

1. Answer ALL the questions.
2. A special ANSWER BOOK is provided in which to answer ALL the questions.
3. Show workings in order to achieve part-marks.
4. You may use a non-programmable calculator.
5. You may use a dark pencil or blue/black ink to answer the questions.
6. Use the information in the table below as a guide when answering the question paper. Try NOT to deviate from it.

QUESTION 1: VAT, INVENTORY AND ETHICS (35 marks; 20 minutes)

1.1 CONCEPTS

REQUIRED:

1.1.1 What do the letters *VAT* stand for? (1)

1.1.2 What rate of VAT is charged on necessities such as brown bread, milk and fresh vegetables? (1)

1.1.3 What do the letters *FIFO* stand for? (1)

1.1.4 Write down the missing word:

The stock system which involves the recording of the cost of sales for every sales transaction is the … inventory system. (1)

1.2 VAT: SEBENZA TRADERS

The business accounts for VAT on a two-monthly basis.

REQUIRED:

Calculate the final amount payable to SARS on 31 July 2014 (you may prepare a VAT Control Account to assist in your calculations).

(9)

INFORMATION:

	INCLUDING VAT	EXCLUDING VAT	VAT AMOUNT
Balance owed by SARS on 1 July 2014			R11 200
Cash and credit sales invoices	R1 026 000	R900 000	R126 000
Purchase of trading stock	R627 000	R550 000	R77 000
Defective stock returned to suppliers	R2 223	R1 950	R273
Discount allowed to debtors for prompt payment		R47 800	**?**
New office computer bought on credit	R10 830		**?**

1.3 **INVENTORY VALUATION: SMART UNIFORMS**

You are provided with information relating to Smart Uniforms for June 2014. The business is owned by Harry Mavuso. They buy and sell school blazers. The business uses the weighted-average method for stock valuation and the periodic inventory system.

REQUIRED:

1.3.1 the total amount paid for carriage on the purchases on 11 June 2014. (4)

1.3.2 Calculate the value of the closing stock on 30 June 2014 using the weighted-average method. (8)

1.3.3 Harry is considering a change in the method of valuing stock. The value of closing stock using the FIFO method will be R20 850 higher than the value using the weighted-average method.

- Explain the effect that this will have on the gross profit. (2)
- Give ONE valid reason **for** and ONE valid reason **against** changing the stock valuation method. (4)

1.3.4 Harry is concerned about the control of his stock of blazers. He has sold 2 900 blazers during the year. Give a calculation to support his concern. (4)

INFORMATION:

A. Inventory balances:

Date	No. of units	Price per unit	Total cost
1 June 2014	410	R190	R77 900
30 June 2014	580	**?**	**?**

B. Purchases during the month:

Date	No. of units	Price per unit	Carriage on purchases	Total cost
11 June 2014	1 600	R215	**?**	R352 600
18 June 2014	1 210	R240	Nil	R290 400
26 June 2014	470	R265	R3 300	R127 850
Total purchases	3 280			R770 850
Returns from 18 June purchases	5			R1 200

35

QUESTION 2: CREDITORS' RECONCILIATION AND INTERNAL CONTROL (30 marks; 20 minutes)

KZ Stores purchase goods on credit from Valley Ltd.

REQUIRED:

2.1 The bookkeeper, Litzie, says it is not necessary for her to prepare a Creditors' Reconciliation Statement because the creditors send monthly statements to the business anyway. What would you say to her? State TWO points. (4)

2.2 Use the table in the ANSWER BOOK to indicate how the relevant balances will change when preparing the creditors' reconciliation. Indicate the figure as well as a **+** for increase and a **–** for decrease. The first transaction (Information A) has been done for you. (16)

INFORMATION:

The following balances are provided:

In the account of Valley Ltd in the Creditors' Ledger of KZ Stores on 30 September 2014:	R112 820	Credit
On the statement received from Valley Ltd on 25 September 2014:	R182 150	Debit

The following errors and omissions were discovered during an investigation:

A. A payment by KZ Stores of R9 000 was omitted from the Creditors' Ledger and the statement.

B. An invoice for goods bought for R87 500 was reflected on the statement from Valley Ltd but was not recorded by KZ Stores.

C. An invoice for R28 000 received from Valley Ltd was recorded correctly by KZ Stores. The statement of account reflects it as R20 800.

D. KZ Stores had correctly recorded discount of R1 400 for early payment of their account. This has not been reflected on the statement from Valley Ltd.

E. The statement reflects interest of R630 on the overdue account. Valley Ltd acknowledged that an error had been made and promised to reverse the entry in the October 2014 statement.

F. A debit note for R2 100 issued to Value CC was incorrectly recorded in the account of Valley Ltd by KZ Stores.

G. A credit note for R5 250 received from Valley Ltd for goods returned was incorrectly recorded as an invoice by KZ Stores.

H. Goods purchased from Valley Ltd on 30 September 2014 for R4 600 were recorded by KZ Stores. The statement from Valley Ltd is dated 25 September 2014.

(6)

Refer to Information B:

2.3 As the internal auditor of KZ Stores, you have detected that only R50 000 of these goods were entered into the stock records by the storeman. The remaining goods were ordered privately by J van Wyk, an employee in charge of creditors.

2.3.1 Explain what action should be taken against J van Wyk. State TWO points. (4)

2.3.2 What must the business do to prevent a similar incident in future?

30

QUESTION 3: BALANCE SHEET, INTERPRETATION AND ETHICS (65 marks; 40 minutes)

You are presented with information from the records of Vijay Limited. The financial year-end is 28 February 2014.

REQUIRED:

3.1 Prepare the following notes to the Balance Sheet:

3.1.1 Share capital (9)

3.1.2 Retained income (11)

3.2 Prepare the Balance Sheet (Statement of Financial Position) on 28 February 2014. Where notes are not required, show ALL workings in brackets. (26)

3.3 Calculate the return on average shareholders' equity for 2014. (5)

3.4 From 2013 to 2014 the directors made a deliberate decision to change the policy on the distribution of profits in the form of dividends. Comment on this change. Quote financial indicators or figures to support your answer. (4)

3.5 Comment on whether the shareholders should be satisfied with the percentage return and the market price of their shares. Quote TWO relevant financial indicators (actual figures/ratios/percentages) and their trends. Give an additional comment in each case. (6)

3.6 The external auditors, Hassan and Jacob, have employed Janet to work on the audit of Vijay Ltd. Janet owns 10 000 shares in Vijay Ltd. Explain why this is a problem and give a valid solution. (4)

INFORMATION:

A. The authorised share capital consists of 750 000 ordinary shares. On 1 March 2013, only 60% of the shares were in issue.

B. The following amounts were extracted from the records:

	28 Feb. 2014	28 Feb. 2013
Ordinary share capital	**?**	3 215 000
Retained income	**?**	322 500
Total ordinary shareholders' equity	**?**	3 537 500
Fixed assets (carrying value)	**?**	
Fixed deposit: Sam Bank	650 000	
Loan: William Bank	482 600	
Inventories	275 400	
Debtors' Control	243 500	
Creditors' Control	62 460	
Cash in the bank and petty cash	336 600	
Income received in advance (Rent)	12 120	
Prepaid expenses (Insurance)	7 600	
Provisional income tax payments	299 980	
Interim dividends paid on 31 Aug. 2014	270 000	

C. On 1 November 2013, the company issued a further 80 000 shares at R9,50 per share.

D. On 28 February 2014, the directors decided to repurchase 75 000 ordinary shares from the estate of a shareholder who had died. This shareholder had originally purchased his shares on the JSE at various times and at different prices. A repurchase price of R10,40 was accepted as being a fair price.

E. On 27 February 2014, a final dividend of 40 cents per share was declared. All shares, including the new shares issued and repurchased, qualify for final dividends.

F. The loan statement from William Bank received on 28 February 2014 reflected interest capitalised at R81 400. This was not recorded in the books. The business expects to settle 20% of the outstanding balance in the next financial year.

G. After all the above adjustments were taken into account the net profit before tax was calculated to be R1 161 000. The income tax is calculated at 30% of net income before tax.

H

Financial indicators on 28 February:	2014	2013
Earnings per share (EPS)	170 cents	82 cents
Dividends per share (DPS)	100 cents	82 cents
Net asset value (NAV)	846 cents	786 cents
Return on shareholders' equity (ROSHE)	**?**	18,3%

I

Additional information:	2014	2013
Market price of Vijay Ltd shares on JSE	1 032 cents	1 060 cents
Interest rate on alternative investments	9%	9%

65

QUESTION 4: FIXED ASSETS, CASH FLOW STATEMENT: INTERPRETATION AND CORPORATE GOVERNANCE (75 marks; 45 minutes)

You are provided with information relating to Meteor Supermarkets Limited, a public company. The financial year-end is 28 February 2014.

REQUIRED:

4.1 **Refer to Information E:**

Calculate the missing amounts (indicated by **a**, **b** and **c**) in the Fixed/Tangible

Asset Note for the year ended 28 February 2014.
(12)

4.2 Complete the Cash Flow Statement for the year ended 28 February 2014. Some of the details and figures have been entered in the ANSWER BOOK. Show workings in brackets.
(31)

4.3 At the AGM, a shareholder stated that the Cash Flow Statement reflects poor decisions by the directors.

Explain TWO points, with relevant figures, to support his opinion. (4)

4.4 Calculate the following financial indicators for the financial year ended 28 February 2014:

4.4.1 Net asset value per share (3)

4.4.2 Debt-equity ratio (3)

4.5 Comment on the liquidity position of the company. Quote THREE relevant financial indicators (actual figures/ratios/percentages) and their trends. (9)

4.6 The directors decided to increase the loan during the current financial year.

Quote TWO financial indicators (actual figures/ratios/percentages) that are relevant to their decision. Explain why this was a good decision, or not. (8)

4.7 The Bakker family owns 740 000 shares in this company. Explain the effect that the repurchase of shares on 31 December 2013 had on their control of the company. Give a calculation(s) to support your answer. (5)

INFORMATION:

A. Extract from the Income Statement for the year ended 28 February 2014:

Interest on loan (all capitalised)	88 500
Net profit before tax	1 575 000
Income tax	441 000

B. Extract from the Balance Sheet as at:

	28 Feb. 2014	28 Feb. 2013
Current assets	**3 337 300**	**4 641 000**
Inventories	818 200	641 000
Trade debtors	2 377 600	1 512 000
SARS: Income tax	128 000	-
Cash and cash equivalents	13 500	2 488 000
Shareholders' equity	**8 839 000**	**7 400 000**
Ordinary share capital	8 700 000	6 600 000
Retained income	139 000	800 000
Mortgage loan: Excel Bank (interest rate: 12,5% p.a.)	**908 000**	**508 000**
Current liabilities	**2 063 700**	**1 302 000**
Trade creditors	678 700	700 000
Shareholders for dividends	870 000	480 000
Bank overdraft	515 000	-
SARS: Income tax	-	122 000

C. Shareholders' register:

DATE	DETAILS
1 March 2013	1 200 000 shares in issue
31 March 2013	300 000 shares issued at R8 each
31 December 2013	The company bought back 50 000 shares from a dissatisfied shareholder, S Smit, at R9,50 each. The average price of all shares issued to date was R6 per share.
28 February 2014	1 450 000 shares in issue

D. Dividends for the financial year ending 28 February 2014:

Interim dividends paid on 31 August 2013	R750 000
Final dividends declared on 28 February 2014	R870 000

E. Fixed/Tangible assets:

	LAND AND BUILDINGS	VEHICLES
Carrying value at the beginning of the financial year	**2 689 000**	**1 880 000**
Cost	2 689 000	3 250 000
Accumulated depreciation	-	(1 370 000)
Movements		
Additions at cost	**A**	330 000
Disposals at carrying value	-	**B**
Depreciation	-	**C**
Carrying value at the end of the financial year	**6 740 000**	
Cost	6 740 000	3 440 000
Accumulated depreciation	-	

Additional information in respect of fixed/tangible assets:

(i) A vehicle was sold for cash at its carrying value on 31 May 2013. The following extract of the vehicle sold was taken from the Fixed Assets Register:

Cost price: R140 Date purchased: 1 March
Rate of depreciation: 20% p.a. on the diminishing-balance

FINANCIAL YEAR END	DEPRECIATION	ACCUMULATE DEPRECIATION
28 February 2013	28 000	28 000
31 May 2013	5 600	33 600

(ii) A new vehicle, costing R330 000, was purchased and paid for by cheque on 1 January 2014.

(iii) Vehicles are depreciated at 20% p.a. on the diminishing balance method.

(iv) New premises (land and buildings) were acquired during the financial year.

E. Financial indicators:

	28 Feb. 2014	28 Feb. 2013
Debt-equity ratio	**?**	0,1 : 1
Net asset value per share (NAV)	**?**	617 cents
Current ratio	1,6 : 1	3,6 : 1
Acid-test ratio	1,2 : 1	3,1 : 1
Stock turnover rate	6,8 times p.a.	5,1 times p.a.
Debtors' collection period	40 days	35 days
% return on average capital employed	18,8%	16,4%

75

QUESTION 5: CASH BUDGET AND INTERNAL CONTROL (40 marks; 25 minutes)

You are provided with information relating to Martin's Health Shop. The business sells a health drink which has a shelf life of two months. The financial year of the business ends on 30 September 2014. The newly appointed bookkeeper prepared a budget for the three months ended 31 December 2014. The Cash Budget he presented is not completely correct.

REQUIRED:

5.1 **Refer to Information C:**

List FOUR items that should not have been placed in this Cash Budget. (4)

5.2 Complete the Creditors' Payment Schedule for the period October to December 2014 by calculating the amounts indicated by an asterisk (*). (9)

5.3 With reference to the prepared budget, calculate the following:

5.3.1 The total sales for September 2014 (3)
5.3.2 The percentage increase in rent income in December 2014 (3)
5.3.3 The salaries and wages amount for December 2014 (3)
5.3.4 The rate of interest on the loan (4)

5.4 Answer the following questions.

5.4.1 Calculate the period for which enough stock is on hand (in days) on 30 September 2014. Explain whether this is appropriate for the business. (6)

5.4.2 Calculate the mark-up percentage achieved for the year ended 30 September 2014. (4)

5.4.3 Comment on whether or not the change in the mark-up percentage has benefited the business. Give a calculation(s) to support your opinion. (4)

INFORMATION:

A. Figures extracted from the financial statements on 30 September 2013 and 2014:

	2014	**2013**
Sales	1 780 600	1 680 000
Cost of sales	1 228 000	**?**
Mark-up %	**?**	60%

B. It is business policy to maintain a stock base of R250 000 every month. Stock sold each month is replaced in the same month.

C. CASH BUDGET PREPARED BY THE BOOKKEEPER FOR THE PERIOD ENDED 31 DECEMBER 2014:

CASH RECEIPTS	OCTOBER	NOVEMBER	DECEMBER
Cash sales	238 000	212 500	221 000
Receipts from debtors	40 500	42 000	37 500
Loan: Mali Bank	-	-	150 000
Discount received	1 350	1 400	1 400
Rent income	8 000	8 000	9 000
	287 850	263 900	418 900
CASH PAYMENTS			
Total cost of sales	185 000	170 000	175 000
Cash purchases of trading stock	111 000	102 000	105 000
Bad debts	400	400	400
Salaries and wages	46 000	46 000	**5.3.3**
Interest on loan	-	-	1 125
Depreciation on equipment	8 200	8 200	8 200
Sundry cash expenses	18 000	18 900	**?**
	368 600	345 500	358 500
Cash surplus/deficit	(80 750)	(81 600)	60 400
Bank (opening balance)	45 000	(35 750)	(117 350)
Bank (closing balance)	(35 750)	(117 350)	(56 950)

D. Credit sales amounts to 15% of total sales. Debtors are expected to pay in full in the month following the month of sales.

E. 40% of all the trading stock was purchased on credit.

F. Creditors allow 60 days credit, but payments made within the month of purchase receive 5% discount. Based on past experience, the business pays as follows:

- 10% within the month of purchase
- 75% in the month following the month of purchase
- 15% in the second month following the month of purchase

G. The loan will be received on 1 December 2014.

H. The union negotiated an 8,5% increase in salaries and wages. This will only be effective from 1 December 2014.

40

QUESTION 6: MANUFACTURING (55 marks; 30 minutes)

6.1 **BRIAN'S BRELLIES**

Brian Jonas is the owner of Brian's Brellies, a business that manufactures umbrellas. The financial year ends on 31 July 2014.

REQUIRED:

6.1.1 **Refer to Information C:** Calculate the direct labour cost. (5)

6.1.2 **Refer to Information D:** Prepare the correct note for factory overhead cost. (19)

6.1.3 Prepare the Production Cost Statement for the year ended 31 July 2014. (10)

INFORMATION:

A:

STOCK BALANCES	31 JULY 2014	1 AUGUST 2013
Raw material stock	R124 400	R98 780
Work-in-process stock	R42 600	R37 600
Indirect material	R3 600	R4 400

B. Raw material issued to the factory for production: R623 700

C. Three workers are employed in production. They each work 1 920 hours normal time per year at R95 per hour. In December 2013, each factory worker received a bonus of 12% of his annual earnings.

D. The bookkeeper presented the following factory overhead cost calculation:

Sundry factory expenses	30 975
Indirect material	52 200
Rent expense	117 000
Advertising	10 500
Insurance	16 640
Salary of factory foreman	97 150
Water and electricity	20 010
TOTAL	**344 475**

The following errors were noticed:

- Stocks of factory indirect materials were not taken into account in calculating indirect materials used.
- The amount for rent expense is the total amount paid. Rent should be split between the factory, sales and administration sections in the ratio of 5 : 2 : 1.
- The amount for insurance is the total amount paid. This includes the August 2014 premium. Only 75% of this expense relates to the factory. There was no increase in monthly premiums.
- The factory foreman was on paid leave in July 2014. His salary for July 2014 was not processed. The factory foreman received a R900 monthly increase in his salary with effect from 1 June 2014.
- 60% of the water and electricity cost was allocated to the factory whereas it should have been 80%.

6.2 BEN'S CATERING

Ben Khulamo owns a small business that produces pies and doughnuts which he supplies to local school tuck shops. Where comments/explanations are required below, quote figures, unit costs or financial indicators to support your opinions.

REQUIRED:

6.2.1 Identify ONE unit cost for doughnuts and TWO unit costs for pies that were major problems in 2014, considering that the inflation rate was 5%. For each unit cost identified, give a possible cause of the

problem and give advice on how to rectify it. (12)

6.2.2 Ben feels that he can produce and sell more doughnuts. Calculate the number of extra doughnuts he must produce and sell to make an additional profit of R15 000. Assume that the unit costs and selling price for 2014 remain unchanged. (4)

6.2.3 Ben is concerned about the financial performance of his business and the fact that a new competitor has opened in the area.

- Name the product which has been negatively affected by the new competitor.
- Comment on how this would have affected the net profit on this product.

INFORMATION	DOUGHNUTS		PIES	
	2014	2013	2014	2013
Total units produced & sold	55 000 units	51 000 units	35 000 units	44 000 units
Break-even point (units)	21 667 units	24 074 units	38 095 units	18 519 units
Ben's selling price per unit	R8,00	R7,00	R12,50	R12,00
Selling price of competitor	R8,60	-	R12,50	-
VARIABLE COSTS PER UNIT	**R5,00**	**R4,30**	**R8,30**	**R5,85**
Direct material cost per unit	R1,95	R2,05	R5,05	R2,20
Direct labour cost per unit	R1,90	R1,55	R2,20	R2,60
Selling & distribution cost per unit	R1,15	R0,70	R1,05	R1,05
FIXED COSTS PER UNIT	**R1,18**	**R1,27**	**R4,57**	**R3,64**
Factory overhead cost per unit	R0,67	R0,78	R3,38	R2,50
Administration cost per unit	R0,51	R0,49	R1,19	R1,14

55

TOTAL: 300

basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE

GRADE 12

ACCOUNTING

NOVEMBER 2014

MEMORANDUM

MARKS: 300

MARKING PRINCIPLES:

1. Penalties for foreign items are applied only if the candidate is not losing marks elsewhere in the question for that item (no penalty for misplaced item). No double penalty applied.
2. Penalties for placement or poor presentation (e.g. details) are applied only if the candidate is earning marks on the figures for that item.
3. Full marks for correct answer. If answer incorrect, mark the workings provided.
4. If a pre-adjustment figure is shown as a final figure, allocate the part-mark for the working for that figure (not the method mark for the answer).
5. Unless otherwise indicated, the positive or negative effect of any figure must be considered to award the mark. If no + or – sign or bracket is provided, assume that the figure is positive.
6. Where indicated, part-marks may be awarded to differentiate between differing qualities of answers from candidates.
7. This memorandum is not for public distribution, as certain items might imply incorrect treatment. The adjustments made are due to nuances in certain questions.
8. Where penalties are applied, the marks for that section of the question cannot be a final negative.
9. Where method marks are awarded for operation, the marker must inspect the reasonableness of the answer before awarding the mark.
10. In awarding method marks, ensure that candidates do not get full marks for any item that is incorrect at least in part.
11. Be aware of candidates who provide valid alternatives beyond the marking guideline.
12. Codes: f = foreign item; p = placement/presentation.

This memorandum consists of 19 pages.

QUESTION 1

1.1

1.1.1	Value-added tax	✓
1.1.2	0% Zero-rated	✓
1.1.3	First In First Out	✓
1.1.4	Perpetual/Continuous	✓

4

1.2 **Calculate the final amount payable to SARS on 31 July 2014.**

Mark one line only – choose method to benefit candidate any one part correct

– 11 200✓ + 126 000✓ – 77 000✓ + 273✓ – 6 692✓✓ – 1 330✓✓ = 30 051☑

OR

11 200✓ – 126 000✓ + 77 000✓ – 273✓ + 6 692✓✓ + 1 330✓✓ = –30 051☑

Mark one account only – choose account to benefit candidate

VAT Control (could be Input & Output)	
✓ 11 200	✓ 126 000
*✓ 77 000	✓ 273
✓✓ 6 692	
*✓✓ 1 330	
☑ 30 051	any one part correct

Accept negative figures or brackets on opposite sides

77 000 + 1330 = 78 330 3 marks 77 000 – 273 = 76 727 2 marks

77 000 + 1 330 – 273 = 78 057 4 marks 126 000 – 6 692 = 119 308 3 marks

9

1.3 **1.3.1** **Calculate the total amount paid for carriage on the purchases on 11 June 2014.**

(1 600 x 215) 2 marks

R352 600 ✓– 344 000 ✓✓ = 8 600 ☑ operation any one part correct

4

1.3.2 **Calculate the value of the closing stock on 30 June 2014 using the weighted-average method.**

769 650 (2 marks) (352 600 + 290 400 + 127 850) 1 mark

$$\frac{77\,900\checkmark + 770\,850\checkmark - 1\,200\checkmark}{410\checkmark + 3\,280\checkmark - 5\checkmark} \times 580\checkmark$$

3 690 or 3 275 (2 marks) (1 600 + 1 210 + 470) 1 mark

$\frac{847\,550}{3\,685}$ 3 marks x 580 1 mark

3 marks

= R133 400 ☑ operation any one part correct

8

1.3.3 **Explain the effect that this will have on the gross profit.**

Gross profit will increase ✓✓ (by R20 850)

ONE valid reason for changing the stock valuation method:

✓✓ Award part-marks for partial answers

- FIFO is a more suitable or accurate or realistic method of valuing stock of blazers.
- Blazers are discrete units where cost is easily identified.
- FIFO is more suitable or accurate or realistic because stock is valued at the most current / changing prices.

ONE valid reason against changing the stock valuation method:

✓✓ Award part-marks for partial answers

- It is unethical / fraudulent / wrong / to manipulate financial records.
- Will lead to an increase in tax.
- Inconsistency / It is important that financial records are consistent from one year to the next (comparability).
- Over a period of time there is no difference in the total gross profit earned.

6

1.3.4 **Harry is concerned about the control of his stock of blazers. He has sold 2 900 blazers during the year. Give a calculation to support his concern.**

Be alert to other methods e.g. solve for x

Mark one line only – choose method to benefit candidate

✓ ✓ ✓ ☑ operation any one part correct

(410 + 3 280 – 5) – 580 – 2 900 = 205

3 685 1 mark 3 105 2 marks

OR

(–410 – 3 280 + 5) + 580 + 2 900 = –205

4

TOTAL MARKS
35

QUESTION 2

2.1 **The bookkeeper, Litzie, says it is not necessary for her to prepare a Creditors' Reconciliation Statement because the creditors send monthly statements to the business anyway. What would you say to her? State TWO points.**

Any TWO valid points ✓✓ ✓✓ Must be 2 separate points;
Award part-marks for incomplete answers

Expected responses:

- The statement could contain errors.
- This is an internal control measure.
- This will lead to detection of errors/omissions/fraud.
- To compare/check/reconcile the account to the statement.
- To ensure VAT return is correct / to assist in doing the VAT return.

4

2.2

No.	Creditors' Ledger of KZ Stores	Statement of account received from Valley Ltd
Balance	**112 820**	**182 150**
A	**– 9 000**	**– 9 000**
B	✓✓ + 87 500	
C		✓✓+ 7 200
D		✓✓ - 1 400
E		✓✓ - 630
F	✓✓ + 2 100	
G	✓ - 5 250 ✓ - 5 250 - 10 500 (2 marks)	
H		✓✓+ 4 600
	182 920 ☑*	182 920 ☑*

16

2.3 2.3.1 **Explain what action should be taken against J van Wyk. State TWO points.**

Any two valid points ✓✓ ✓✓ Must be 2 separate points; Cannot conflict with each other

Award part-marks for incomplete answers

- Must be subjected to a disciplinary hearing
- Open a criminal case at SAPS
- Redeploy pending decision / suspend pending decision (on outcome of the hearing/case)
- Require employee to refund/repay employer for the costs/deduct from salary/take legal action for repayment
- Dismiss him as this is gross misconduct

Do not accept warning as a valid point for 2 marks unless candidate also mentions repayment as a point – in context of R37 500 fraud, warning alone is not sufficient

4

2.3.2 **What must the business do to prevent a similar incident in future? Explain THREE points.**

Any THREE valid points ✓✓ ✓✓ ✓✓ Must be 3 separate points;

For 2 marks:

- Division of duties so that each person serves as a check on another / get someone else to authorise these transactions.
- Rotate duties so that employees do not have permanent control over an aspect of the business.
- Conduct internal audits / check documents to detect the fraud and errors.
- Physical stock control (to records) / check stock on hand to stock records.
- When goods are received, the receiving officer must check the stock received to the invoice and order form.
- Inform suppliers of the procedure for delivering goods to the business and do not deviate from this.

6

TOTAL MARKS
30

QUESTION 3

3.1 3.1.1 SHARE CAPITAL

AUTHORISED SHARE CAPITAL

750 000 ordinary shares

ISSUED SHARE CAPITAL

450 000 ✓	**Ordinary shares in issue on 1 March 2013**	3 215 000	✓
80 000	**Ordinary shares issued during the year**	760 000	✓✓
(75 000)	**Ordinary shares re-purchased (average price of** R7,50✓**)**	operation (562 500)	✓☑
5 000 more than opening figure 455 000 ☑	**Ordinary shares in issue on 28 February 2014**	Operation; one part correct OR shares x avg price used 3 412 500	☑

9

3.1.2 RETAINED INCOME

Balance on 1 March 2013	**322 500**	
Net profit after tax	812 700	✓✓
Shares repurchased operation one part correct and in brackets 75 000✓ x 2,90☑ if R10,40-avg price above; must be at ≥R0,01 per share	(217 500) 217 500 2 marks Zero 0 marks	☑
Ordinary share dividends operation one part correct and in brackets	(482 000)	☑
Interim dividends / Paid	270 000	✓
Final dividends / Declared 530 000☑ see 3.1.1 x 40 cents ✓	one part correct 212 000	☑
Balance on 28 February 2014 operation	435 700	☑

11

Foreign entries -1 (-2 max)

3.2 VIJAY LIMITED

BALANCE SHEET (STATEMENT OF FINANCIAL POSITION) ON 28 FEBRUARY 2014

ASSETS			
Non-current assets	operation (total assets – current assets)	3 884 000 ☑	2
Fixed assets	operation	3 234 000 ☑	
Financial asset: Fixed deposit		**650 000**	
Current assets	operation	863 100 ☑	5
Inventories		**275 400**	
Trade and other receivables (243 500 ✓ + 7 600 ✓)		251 100 ✓	
Cash and cash equivalents		**336 600**	
TOTAL ASSETS	transfer total equities and liabilities	4 747 100 ☑	
EQUITY AND LIABILITIES			
Shareholders' equity	operation	3 848 200 ☑	3
Ordinary share capital	see 3.1.1	3 412 500 ☑	
Retained income	see 3.1.2	435 700 ☑	
Non-current liabilities		451 200	4
Loan : William Bank (482 600 ✓+ 81 400 ✓ – 112 800 ✓) OR (482 600 + 81 400) x 80%	one part correct	451 200 ☑	

Current liabilities operation		447 700 ☑	12
Trade and other payables (62 460✓+ 12 120✓) one part correct		74 580 ☑	
Shareholders for dividends **OR** 482 000 #		Refer 3.1.2 212 000 ☑☑	
SARS : Income Tax (348 300 ✓ – 299 980 ✓ must be deducted under CL)		48 320 ✓	
Current portion of loan check that loan has been reduced by this		112 800 ☑☑	
TOTAL EQUITY AND LIABILITIES operation		4 747 100 ☑	
			26

Foreign entries -1 (max -2)

Presentation / Placement / Incorrect or incomplete details -1 (max -2)

3.3 **Calculate the return on average shareholders' equity for 2014.**

812 700 ☑ see 3.1.2 x 100 = 22,0% ☑ operation, %, one part correct

½ ✓ (3 537 500✓+ 3 848 200☑) see 3.2

3 692 850 3 marks

5

3.4 **From 2013 to 2014 the directors made a deliberate decision to change the policy on the distribution of profits in the form of dividends. Comment on this change. Quote financial indicators or figures to support your answer.**

They paid out 100% (all) ✓ of their earnings in 2013 compared to 59% ✓✓ of their earnings (100÷170 cents) in 2014. The business is retaining funds for future expansions / development / support equalising dividends in future / to improve NAV. ✓

OR

They did not retain any earnings in 2013 (1 mark). In 2014 they retained 70 cents (41%) of EPS (2 marks). The business is retaining funds for future expansions / development / support equalising dividends in future / to improve NAV. (1 mark).

4

3.5 **Comment on whether the shareholders should be satisfied with the percentage return and the market price of their shares. Quote TWO relevant financial indicators (actual figures/ratios/percentages) and their trends. Give an additional comment in each case.**

Indicators ✓ ✓ Trends & figures ☑ ✓ Extra comment ✓ ✓

ROSHE (1 mark):

Increased from 18,3% to 22% (1 method mark) / by 3,7% points. (see 3.3)

This exceeds the return on alternative investments (of 9%). (1 mark)

6

Must mention NAV as the indicator; Allocate 1 mark for trend of either the NAV or market price

NAV (1 mark) is 846 cents

NAV increased by 60 cents (from 786c to 846c)

Market price decreased by 28 cents (from 1060c to 1032c)

The market price exceeds the NAV (1 mark) / investors are prepared to pay extra for the shares.

3.6 **The external auditors, Hassan and Jacob, have employed Janet to work on the audit of Vijay Ltd. Janet owns 10 000 shares in Vijay Ltd.**

Explain why this is a problem.✓✓ Any one valid reason; part-marks for partial answers

- It is a conflict of interest/unethical.
- She could influence the results in a positive or negative way.
- Overlooking issues/insider information.
- She could be biased / not independent.
- Could put the validity / credibility of the audit at risk.

Give a valid solution. ✓✓ Any one valid reason; part-marks for partial answers

- She should sell the shares if she wants to continue working on the audit.
- She must be removed from this audit / she recuses herself from the audit / she takes on other projects within this audit firm.
- She must disclose her vested interest and ensure that her employers / review committee make a decision on her participation in the audit.

4

TOTAL MARKS
65

QUESTION 4

4.1 Calculate the missing amounts (indicated by a, b and c) in the Fixed/Tangible Asset Note for the year ended 28 February 2014.

NO.	WORKINGS	AMOUNT
a	6 740 000 – 2 689 000 no part marks	4 051 000 ✓✓
b	140 000 – 33 600 no part marks	106 400 ✓✓
c	✓✓ ✓✓ ✓ ✓ ✓ 5 600 + 11 000 + 20% x (3 110 000 – 1 342 000) 353 600 (3 marks) **OR**: 2 marks 1 mark 1 mark 1 mark 1 mark 1 mark 5 600 + 20% x [(1 768 000 x 10/12) + (2 098 000 x 4/12)] 294 667 + 69 933	one part correct ☑ 370 200

12

4.2

METEOR SUPERMARKETS LTD	
CASH FLOW STATEMENT FOR YEAR ENDED 28 FEBRUARY 2014	
Cash flow from operating activities	(1 039 900) ☑ Operation#
Cash generated from operations	**969 600**
Interest paid	**(88 500)**
✓ Taxation 441 000 ✓ + 122 000 ✓ + 128 000 ✓ Details & correctly placed 563 000 (2 marks) OR –441 000 – 122 000 – 128 000	(691 000) ☑ 691 000: 3 marks Operation; one part correct & brackets
✓ Dividends 480 000 ✓ + 750 000 ✓✓ Details & correctly placed 480 000 + 1 620 000 – 870 000 OR – 480 000 – 1620 000 + 870 000 1 mark 1 mark 1 mark	(1 230 000) ☑ 1 230 000: 3marks Operation one part correct & brackets

Cash flow from investing activities		(4 274 600)	☑ Operation#
✓ Purchase of fixed assets 4 051 000☑ + 330 000✓ Details & correctly placed see 4.1 a		(4 381 000) 4 381 000: 2 marks	☑ Operation one part correct & brackets
✓ Proceeds from disposal of fixed assets Details & correctly placed		106 400	☑ See 4.1b & no brackets
Cash flow from financing activities		2 325 000	☑ Operation#
✓ Proceeds from the sale of shares Details & correctly placed		2 400 000✓ 2 400 000: 1 mark	✓ correct & no brackets
✓ Share buy-back 50 000 x R9,50 Details & correctly placed		(475 000✓) 475 000: 1 mark	✓ correct & brackets
✓ Change in loan Details & correctly placed		400 000✓ 400 000: 1 mark	✓ correct & no brackets
Net change in cash and cash equivalents		(2 989 500)	☑ Operation
Cash and cash equivalents at beginning of year		**2 488 000**	
Cash and cash equivalents at end of year		(501 500)	✓☑*

31

* Operation from top **OR** R13 500 **OR** (R515 000)

Valid alternative details acceptable # Operation one part correct in the sub-section (figures/details)

4.3 **At the AGM, a shareholder stated that the Cash Flow Statement reflects poor decisions by the directors. Explain TWO points, with relevant figures, to support his opinion.**

Any TWO valid answers: Explanation ✓ ✓ Figures ✓ ✓

- Dividends of R1 230 000 (see 4.2) cause a negative figure for cash retained from operating activities.
- Fixed assets bought are very high (R4 381 000) (see 4.2) which leads to a bank overdraft.
- The directors allowed a large bank overdraft of R515 000 or R501 500 to result from high payments for dividends/fixed assets.
- The buy-back of shares (R475 000) (see 4.2) reduced cash resources / reduced capital base of the company.
- The vehicle was sold at book value (R106 400) (see 4.2) and was only 1½ years old.

4

4.4 **4.4.1** **Calculate the net asset value per share for 2014.**

8 839 000 ✓ x 100

1 450 000 ✓ 1

= 610 cents ☑ one part correct; R or c or 609,6 cents or R6,10

3

4.4.2 **Calculate the debt-equity ratio for 2014.**

908 000 ✓: 8 839 000 ✓

= 0,1 : 1 ☑ one part correct; must be x:1

3

4.5 **Comment on the liquidity position of the company. Quote THREE relevant financial indicators (actual figures/ratios/percentages) and their trends.**

Any THREE valid financial indicators:

Name of financial indicator ✓ ✓ ✓

Figure and trend ✓ ✓ ✓

- Current ratio: 3,6 : 1 → 1,6 : 1 / decreased to 1,6 : 1
- Acid test ratio: 3,1 : 1 → 1,2 : 1 / decreased to 1,2 : 1
- Stock turnover rate: 5,1 → 6,8 times p.a./ increased to 6,8 times
- Debtors' collection period: 35 → 40 days / increased to 40 days

General comment: For 3 marks (need only mention 3 indicators):

The liquidity has generally improved. The current ratio and acid-test ratio were too high in 2013. They are now much more efficient in 2014. The stock is now being sold more quickly which will generate greater profit. However the debtors are paying slightly more slowly – this trend must be rectified next year.

✓ ✓ ✓

One valid point per indicator **OR** 3 marks for overall comment:

Excellent answer = 3 marks; Good = 2; Poor =1; Incorrect =0

Increases/decreases are not a comment – these are trends

Comment would be on improvement or not / efficiency

Expected responses for 1 mark each:

- The current ratio improved / was possibly too high in 2013 / cash was too high / current assets do not earn any return / they may be more efficient in 2014.
- The acid test ratio improved / is more efficient in 2014 / cash is lower
- The stock turnover rate has improved / stock increased but is being sold more quickly / assists liquidity and is appropriate for a supermarket.
- The debtors are paying more slowly / this trend must be rectified / normal credit terms 30 days.

9

4.6 **The directors decided to increase the loan during the current financial year. Quote TWO financial indicators (actual figures/ ratios/percentages) that are relevant to their decision. Explain why this was a good decision, or not.**

ROTCE ✓

- This is 18,8% ✓

DEBT/EQUITY RATIO ✓

- This is 0,1 : 1 (see 4.4.2) ☑

Explanation: Depends on calculation above

- Positively geared as ROTCE is higher than interest rate ✓✓
- Low financial risk / Not making much use of loans (it relies more on funds from internal sources) ✓✓

8

4.7 **The Bakker family owns 740 000 shares in this company. Explain the effect that the repurchase of shares on 31 December 2013 had on their control of the company. Give a calculation(s) to support your answer.**

Before the repurchase the family's shareholding was:

✓ Both figures ✓

$\frac{740\,000}{1\,500\,000} \times \frac{100}{1} = 49{,}3\%$

After the repurchase the family's shareholding is:

✓ Both figures ✓

$\frac{740\,000}{1\,450\,000} \times \frac{100}{1} = 51{,}0\%$

(**Note**: Shareholding increased by 1,7%; this is correct for 4 marks)

The family is now the majority shareholder. ✓

5

For 3 marks:

They owned less than half the shares in issue before the repurchase (1 mark) but now own more than half the shares in issue (1 mark). The family is now the majority shareholder (1 mark).

For 3 marks:

They owned 740 000 of 1,5m shares before the repurchase (1 mark), and they owned 740 000 of 1,45m shares after the repurchase (1 mark). The family is now the majority shareholder (1 mark).

TOTAL MARKS
75

QUESTION 5

5.1 **List FOUR items that should not have been placed in this Cash Budget.**

Discount received ✓

Bad debts ✓

Cost of sales ✓

Depreciation ✓

-1 for each superfluous additional item if four marks are earned

4

5.2 CREDITORS' PAYMENT SCHEDULE

MONTH	CREDIT PURCHASES	OCTOBER	NOVEMBER	DECEMBER
August	**64 000**	**9 600**		
September	**67 200**	**50 400**	**10 080**	
October	**74 000**	**7 030**	**55 500**	✓✓ 11 100
November	**68 000**		**6 460**	✓✓ 51 000
December	70 000✓✓		If x 10% x 95%	✓☑ 6 650
operation one part correct		**67 030**	**72 040**	☑ 68 750

9

5.3 5.3.1 **Calculate the total sales for September 2014.**

$\frac{40\ 500\ ✓ \times 100}{15\ ✓}$ = 270 000 ☑ operation one part correct

3

5.3.2 **Calculate the percentage increase in rent income in December 2014.**

1 000 ✓ x 100

8 000 ✓ 1

= 12,5% ☑ operation one part correct; accept 12,5

3

5.3.3 **Calculate the salaries and wages amount for December 2014.**

46 000 ✓ x 108,5% ✓ = 49 910 ☑ operation one part correct

OR

46 000 + 3 910 = 49 910

1 mark 1 mark 1 method mark

3

5.3.4 **Calculate the rate of interest on the loan.**

1 125 ✓ x 100 x 12✓ = 9% ☑ operation one part correct; accept 9

150 000 ✓

150 000 x Rate x 1 = 1 125 Rate = 9%

1 100 12

4

5.4.1 **Calculate the period for which enough stock is on hand (in days) on 30 September 2014.**

250 000 ✓ x 365 ✓ = 74,3 or 74 days ☑ operation one part correct;

1 228 000 ✓ accept 74,3 or 74

Explain whether this is appropriate for the business. ✓✓

Responses will depend on answer above

Must compare period above to shelf life (unless his answer above is less than 2 months)

Any valid comment, e.g.

- (Not appropriate) – period of stock on hand exceeds the shelf life.
- (Not appropriate) – it exceeds shelf life, the business will be left with stock that cannot be sold / will have to destroyed the stock.
- (Not appropriate) – loss of profits as stock has exceeded its shelf life.

6

5.4.2 **Calculate the mark-up percentage achieved for the year ended 30 September 2014.**

552 600 two marks

1 780 600 ✓ – 1 228 000 ✓ x 100

1 228 000 ✓ 1

= 45% ☑ operation one part correct, accept 45

4

5.4.3 **Comment on whether or not the change in the mark-up percentage has benefited the business. Give a calculation(s) to support your opinion.**

Answer for FOUR marks:

This resulted in a decrease in gross profit ✓.

GP for 2013 = R1 680 000 x 60/160 = R630 000 ✓✓
GP for 2014 = R1 780 600 – R1 228 000 = R552 600 ✓

OR

GP decreased (1 mark) by R77 400 (3 marks)

OR

GP decreased (1 mark) by 12,29% (3 marks) Accept 12,3%

4

TOTAL MARKS
40

QUESTION 6

6.1 BRIAN'S BRELLIES

6.1.1 **Calculate the direct labour cost.**

Normal time:	1 920✓ x R95✓ = 182 400 x 3✓	547 200	
Bonus:	547 200 x 12% if 12% of figure above	65 664	☑
	one part correct	612 864	☑

3 x (182 400 + 21 888) = 612 864

1 mark 2 marks 1 mark 1 mark

5

6.1.2 FACTORY OVERHEAD COST

Sundry factory expenses		**30 975**	
Indirect material	(52 200 ✓ + 4 400 ✓ – 3 600 ✓)	53 000	✓
Rent expense	(117 000 x $^{5}/_{8}$)	73 125	✓✓
Insurance	(16 640 ✓– 1 280✓) x 75% ✓	11 520	☑*
Salary of factory foreman	(97 150✓ + 8 750✓ + 900✓)	106 800	☑*
	9 650: 2 marks		
Water and electricity	(20 010 ✓ ÷ 60 ✓ x 80 ✓)	26 680	☑*
	33 350 x 80/100		
	*Cannot get full marks per line if answer is incorrect		
TOTAL	***operation (one part correct)**	302 100	☑*

19

-1 for foreign items (advertising)

6.1.3 PRODUCTION COST STATEMENT FOR THE YEAR ENDED 31 JULY 2014

Direct material cost		**623 700**	
#✓Direct labour cost	see 6.1.1	612 864	☑
Prime cost	operation	1 236 564	☑
#✓Factory overhead cost	see 6.1.2	302 100	☑
Total production cost	operation	1 538 664	☑
Work in process (1 August 2013)		37 600	✓
		1 576 264	
Work in process (31 July 2014)		(42 600)	✓
Cost of production of finished goods	operation (must be subtracted)	1 533 664	✓☑

10

Mark awarded for placement & description

6.2 BEN'S CATERING

6.2.1 Identify ONE unit cost for doughnuts and TWO unit costs for pies that were major problems in 2014, considering that the inflation rate was 5%.

Identify cost ✓ ✓ ✓ Figures ✓ ✓ ✓ Problem ✓ ✓ ✓ Valid advice ✓ ✓ ✓

Trends not necessary

ONE unit cost for doughnuts (Quote figures.)	Problem and advice Both must be specific, not general FC & VC & general expenses
Variable costs now R5,00 / R4,30 → R5,00 (16,3%) **OR** Direct labour cost now R1,90 / R1,55 → R1,90 (+ 23%) **OR** Selling & distribution cost now R1,15 R0,70 → R1,15 (+ 64%) Do not accept Administration cost	Must mention either DLC or S&DC **Possible cause of the problem:** Workers are not operating efficiently/Wages increased/More overtime **Advice:** Assess the efficiency of workers/Offer incentives/Time and motion studies/Restrict overtime/Train workers to be more efficient/Improve supervision **OR** **Possible cause of the problem:** Salespersons not efficient/Transport costs increased/Bad debts/Theft of fuel/Increase in fuel prices **Advice:** Offer commission on sales/Look for cheaper forms of transport/Training/ Plan trips better

TWO unit costs for pies (Quote figures.)	Problem and advice Both must be specific, not general FC & VC
Direct material cost now R5.05 / R2,20 → R5,05 (+ 130%)	Must cover DMC **Possible cause of the problem:** Lack of expertise of workers/Poor quality raw materials/Increased raw materials cost/Theft of raw materials/Wastage **Advice:** Investigate causes of wastage/Look for a cheaper supplier/Better quality of raw material/Better training/Improve security
Factory overhead cost now R3,38 R2,50 → R3,38 (+ 35%) Do not accept Administration cost	Must cover FOHC **Possible cause of the problem:** Low production increased fixed cost per unit/Increase in certain costs, e.g. rent **Advice:** Increase units produced to reduce unit cost/Advertise the product better/Diversify the range/Economise on expenses, e.g. rent/water/ electricity

6.2.2 **Calculate the number of extra doughnuts he must produce and sell to make an additional profit of R15 000. Assume that the unit costs and selling price for 2014 remain unchanged.**

If candidates use alternative methods, search for key figures to earn marks

15 000 ✓/ 3,00 ✓✓

= 5 000 extra units ☑

one part correct

OR

FC = 55 000 x R1,18

= R64 900 1 mark

To cover = R64 900 + **15 000**

= R79 900 2 marks

Units needed = R79 900 / **R3**

= 26 633

BEP = 21 667

Extra needed = **4 966** 1 mark

(difference due to rounding off)

OR

FC Exis NP Extra NP

64 900 + 100 100 + 15 000

(R8 – R5) **R3,00** Contrib

(2 marks)

= **60 000** to be made (1 mark)

– 55 000 currently made

= 5 000 units extra (1 method mark)

OR

Sales 55 000 x R8 = R440 000

COS 55 000 x R5 = R275 000

GP = R165 000

Target = **R180 000** (1 mark)

÷ Contribution **R3,00** (2 marks)

= 60 000 units

Making 55 000

Additional = **5 000 units** (1 method mark)

4

6.2.3 **Name the product which has been negatively affected by the new competitor.**

Pies ✓

Comment on how this would have affected the net profit on this product.

✓✓ Sales & production decreased (44 000 → 35 000 units) / Ben has had to limit his price (to R12,50) / Reduction in price led to decrease in contribution (R6,15 → R4,20)

✓ Production is less than BEP

✓ This means that a loss will be made on the pies.

5

TOTAL MARKS
55

TOTAL: 300

APPENDIX G – GENERAL SUGGESIONS AND PRACTICES FOR IMPROVEMENT OF CAPS (FET) ACCOUNTING

(a) Use of past NSC papers: Every learner should have access to past examination papers. With the introduction of CAPS in 2014, it will be necessary for teachers to adapt parts of certain questions so that they can be used for revision purposes. Questions that include par value of shares and share premium will have to be altered and adapted. To comply with CAPS, teachers should ensure that learners have sufficient practice with questions involving repurchase (buy-back) of shares, and cash budgets and projected income statements in the context of companies (i.e. not simply in the context of sole traders). Teachers should also answer these papers themselves so as to improve their own confidence in their ability to deal with each topic.

(b) Basic concepts and the Accounting equation: Teachers should ensure that learners understand and can explain the essential basic concepts and terminology before engaging in Accounting applications in each topic. These concepts should also be introduced on a gradual basis at appropriate points when covering the Economic & Management Sciences curriculum in the FET Band to ensure that learners develop confidence in basic Financial Accounting before progressing to Grade 10. Learners undertaking Accounting in Grade 10 without this foundation will require additional assistance from their teachers to ensure progress in Accounting in the FET Band.

(i) The most vital concepts are those contained in the expanded Accounting equation: Assets + Expenses + Drawings = Capital + Income + Liabilities. The process of conceptualizing and understanding the above goes much further than simply the rote-learning of definitions.
(ii) It is also necessary for learners to appreciate the difference between different types of assets, different types of liabilities and different types of activities, i.e. current and non-current assets; current and noncurrent liabilities, and operating, financing and investing activities. This will enable them to prepare and interpret the different financial statements more effectively.

(c) Revision of relevant content of Grades 10 and 11: 20% of an examination paper may contain content from previous grades that is pertinent to Grade 12 content. Vital aspects that must be consistently reinforced in the Grade 12 teaching programme include disposal of fixed assets, cash budgets, projected income statements, cost Accounting and reconciliation statements (i.e. bank, debtors and creditors). The above topics must be revised and

reinforced within the Grade 12 syllabus. The tight time frames in Grade 12 do not allow for complete re-teaching of these topics. Consolidation tasks on these topics are advised for weaker learners at the end of Grade 11, even after examinations have been written.

(d) Memorising and understanding basic formats: Teachers should ensure that the basic formats of financial statements and ledger accounts are fully understood by learners.

(e) Internal control and ethical issues: Teachers should teach not only the logic and the process of each Accounting application in the curriculum, but also the internal control measures and ethical considerations that are relevant to each application. These aspects must be integrated into the teaching of the relevant topics. Furthermore, as these issues are integrated in different topics in examination questions, integration in the teaching of the different topics should result in more effective understanding of these issues.

(f) Enhancing learners' skills of accurately interpreting specific sub-questions and using information that is relevant: When using past examination questions or papers as revision, teachers are advised to actually read and interpret the requirements with their classes and to teach learners how to use their prior knowledge of the topic in efficiently identifying the information that is relevant to each sub-question. Accounting examination papers necessarily contain all the financial information relevant to each question. Tables are often used to reduce the amount of verbal reading. Learners must understand that there is a logical manner in which this information is set out, using sub-headings and tables.

(g) Time-management: Learners must be trained in the art of managing their time and to adhere to the suggested time allocations provided in the paper. The mark allocation and the spaces provided in the answer book are also good indicators of the amount of information needed.

(h) Comments and explanations: Teachers need to train learners to express themselves clearly and simply where comments or explanations are required. In Accounting, the use of bullet points and short, concise sentences is acceptable. Language proficiency and learners' ability to express them clearly and precisely should no longer be seen as an obstacle to presenting correct responses.

(i) The importance of formative testing: Teachers should ensure that they build up the confidence of learners in all topics through the use of short, informal formative tests. It is

more effective if learners mark these formative tests themselves for immediate feedback and for an appreciation of how marks for easy parts of an examination question can be obtained. This will also force learners to take ownership of the learning process. The ‘confidence-booster’ easy sections in each of the questions in the NSC Accounting papers can be used as formative tests that may be self-marked by learners. Formative tests can also be used to great effect in introducing the new sub-topics in CAPS, e.g. repurchase (buy-back) of shares and reconciliation with creditors’ statements (Department of Basic Education, 2014: 10).

APPENDIX H – UNIVERSITY OF TECHNOLOGY, FACULTY OF BUSINESS, FORMATIVE ASSESSMENT: SEMESTER ONE COURSE: NHC ACCOUNTANCY AND FINANCIAL INFORMATION SYSTEMS, UNIVERSITY OF TECHNOLOGY

FACULTY OF BUSINESS
FORMATIVE ASSESSMENT: SEMESTER ONE
COURSE: *NHC: ACCOUNTANCY* *NHC: FINANCIAL INFORMATION SYSTEMS*

SPECIAL INSTRUCTIONS

- Please answer all questions asked.
- Please submit both question paper and answer sheet at the end of the session.
- Please answer all questions in blue or black ink.
- Please note that pencil work will not be marked.

REQUIREMENTS

Question paper, answer sheet, calculator, blue pen or black pen

DO NOT TURN THE PAGE BEFORE THE STARTING TIME

FINANCIAL ACCOUNTING I (FULL-TIME)

QUESTION 1 (use template) **[10 MARKS]**

Account for the following transactions (1.1 – 1.4) in the ***general journal*** of Lee Consulting for October 2014. Lee Consulting is not registered for VAT. No narrations are required.

1.1

IN-080

Lee Consulting
Tel: (000) 123-4567
Fax: (000) 123-7654

VAT REG. No.:
12345678

Your Ref:_ _BJT

Acc. No.:_ _BJT001

Date: 21 / 10 / 2014

Invoice to :
BJT

Deliver to :
43 Carlile Street
Cape Town
4532

Code	Description	Quantity (hours)	Unit Price	Amount Excl.
1	***Repairs to IT server***	***16***	***125.00***	***2000.00***
				2000.00
Terms:_ _ _ _

30/10/2014 |	**MONEY BANK**	00-11-28-34
To: ***Makro*** |	Registered Bank Cape Town	
|		***30/10/ 2014***
For: ***Settling account*** |	Pay ***Makro (creditor)***	or ~~Bearer~~
|	The sum of ***One thousand two hundred rand***	**R 1 200**
R 1 200 |	-	_ _***J Mollon***_ _
|		for **Lee Consulting**
126 |	126 " 1234567890 "	

1.3

Lee Consulting
Tel: (000) 123-4567
Fax: (000) 123-7654

CASH RECEIPT **Rc-876**

15/10/2014

Received from : ***Cash***			
Rand : ***Five hundred & six***			
Cents : **Zero**		**506**	**00**
For : ***IT services***	**VAT**	**00**	**00**
		506	**00**

With Thanks

_ _*Signature*_ _

1.4

Rent-a-Building
Tel: (000) 123-1122
Fax: (000) 123-1123

Tax Invoice / Statement I3459

VAT REG. No.:
77889900

Acc. No.: LC001

Invoice to :
Lee Consulting
987 Service Street
Cape Town
1234

Date: 30/10/2014

Code	Description	Sq. Metre	Unit Price	Amount Excl.
	Rent : October 2014	***300***	***25.00***	***7 500.00***
			TOTAL excl.	***7 500.00***
Terms:_ _			VAT 14%	***1 050.00***
Signature:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _			***TOTAL incl***	***8 550.00***

QUESTION 2 (use template) **[31 MARKS]**

Sport Training, is a sole proprietor, owned by Mike Cricket. Mike is a sports trainer and provides coaching services in various sports at schools in and around Cape Town. The accountant of Sport Training has accounted for all transactions for the year ended 31 December 2014, but some adjustments still need to be recorded in the books of the business. An extract of the trail balance is given below:

Pre-adjustment Trail Balance as at 31 December 2014		
Account	**Debit**	**Credit**
Equipment	107 000	
Accumulated depreciation – equipment		65 000
Capital contributions		250 000
Drawings	34 000	
Rent income		198 250
Water and electricity expense	78 000	
Telephone expense	85 000	
Consumables expense / Consumables used	13 760	

(all balances and totals above are before any of the adjustments have been accounted for)

Adjustments:

A) Sport Training owns various pieces of equipment. The equipment is used during coaching sessions throughout the year. Depreciation for the year of R8 400 needs to be accounted for (calculated at 7.85% on the straight line method).

B) Consumables on hand at year end, R2 500.

C) The water and electricity account for December 2014 has not been received as of yet; no payment has yet been made. The water and electricity bill for the month is estimated at R4 000.

D) The amount which appears in the pre-adjustment trial balance for rent income includes an amount which was received on 25 December 2014 for January 2015's rent.

E) The owner's personal telephone bill is included in the telephone expenses for Sport Training. It is estimated that 12% of the total telephone expense was for the personal account of Mike.

REQUIRED:

2.1) Record the above adjustments in the general journal of Sport Training.

[10]

[21]

2.2) Post all journal entries, along with account balances, to the applicable general ledger accounts and calculate balances and totals as at 31 December 2014.

QUESTION 3 (use template) **[19 MARKS]**

The following Accounting equation worksheet was prepared for Brilliant Services for the year ending 31 December 2014.

	ASSETS				LIABILITIES		EQUITY	
No.	Motor vehicles	Petty Cash	Bank	Trade Receivables	Loan (long term)	Trade Payables	Amount	Details
Balance 1/1/2014	**80 000**	**900**	**34 768**	**6 540**	**45 000**	**16 700**	**60 508**	Capital balance
1				55 000			55 000	Services income
2	15 000		12 000				27 000	Capital
3			(6 700)			(6 700)		
4			(10 780)		(10 000)		(780)	Interest expense
5			(4 000)				(4 000)	Drawings
6						2 000	(2 000)	Repairs/Maintenance
7			1 000	(1 000)				
8			(20 000)				(20 000)	Salaries
9			45 000				45 000	Services income
10			(23 000)				(23 000)	Water and electricity
11	(5 000)						(5 000)	Depreciation
Balance 31/12/2014	**90 000**	**900**	**28 288**	**60 540**	**35 000**	**12 000**	**132 728**	

REQUIRED:

Use the Accounting equation work sheet to prepare the:

3.1) Statement of profit and loss (statement of comprehensive income) [7]
3.2) Statement of changes in equity [5]
3.3) Statement of financial position [7]

QUESTION 4 (use template) [10 MARKS]

For each question, select the most correct option every time:

4.1) The definition of a liability states: Liability is a …

A) Past obligation, due to a present event which will lead to an inflow of future economic benefits.

B) Present obligation, due to a past event which will lead to an outflow of future economic benefits.

C) Present obligation, due to a present event which will lead to an outflow of future economic benefits.

D) Present obligation, due to a past event which will lead to an inflow of future economic benefits.

4.2) The definition of an asset refers to the term “resource”. From the list below, choose the most suitable option that represents a resource:

A) Creditors.
B) Loans.
C) Debtors.
D) Drawings.
E) None of the above.

4.3) Indicate whether the following statement is true or false: “When the owner contributes additional money (of 60 000) towards his/her particular business, the owner’s equity will decrease by R60 000”.

A) True.
B) False.

4.4) The users of financial statements need financial information in order to…

A) Keep track of their investments.
B) Borrow money from the entity.
C) Make sure the entity is making a profit.
D) Make financial decisions.
4.5) Accrued expenses can be classified as an asset.

A) True.

B) False.

C) Only under certain circumstances.

4.6) The statement of financial position shows which one of the following? Chose only the most correct answer:
A) It shows the snap shot of the overall financial performance of the business at the particular point in time.

B) It shows the picture of the overall financial performance for the year end.

C) It shows a snap shot of the overall financial position of the business at a particular point in time.

D) It shows the picture of the owner's overall financial position for the year.

4.7) Based on the Accounting process, after accounts have been posted to the general journal, the next step is to complete the …

A) Trial Balance.
B) Chart of accounts.

C) General Ledger.

D) Accounting Equation Worksheet.

4.8) The recognition criteria of an asset must be met before an asset…..:

A) Can be written in the general journal and other Accounting records.
B) Has a value.
C) Can be deemed to be a resource.
D) Can lead to inflow of future economic benefits.
4.9) In order for an asset to be shown in the books of a business, it should have …

A) A present obligation and a past event.

B) A past event and a future inflow of economic benefits.

C) A cost or value that is reliably measurable.

D) A probability of a future outflow of economic benefits.

4.10) Accrual Accounting holds relevancy to …

A) The booking of transactions in as soon as cash is received.

B) The booking of transactions as soon as they take place.

C) The booking of transactions when they are accrued.

D) None of the above.

FINANCIAL ACCOUNTING 1 MARCH TEST FT: MEMORANDUM

QUESTION 1 **[10 MARKS]**

	Lee Consulting **General Journal for October 2014**	**DR**	**CR**
1.1	Trade receivables	2 000 ✓	
	Service income ✓½		2 000 ✓
1.2	Trade payables ✓½	1 200 ✓	
	Bank		1 200 ✓
1.3	Bank	506 ✓	
	Service income ✓½		506 ✓
1.4	Rent expense ✓½	8 550 ✓	
	Trade payables		8 550 ✓

QUESTION 2 **[31 MARKS]**

2.1) [10 MARKS]

	Sport Training **General Journal for the year ending December 2014**	**DR**	**CR**
A	Depreciation (107 000 – 65 000)*20% ½✓	8 400½✓	
	Accumulated Depreciation: Equipment ½✓		8 400 ½✓
B	Consumables – inventory ½✓	2 500½✓	
	Consumables expense / Consumables used ½✓		2 500½✓
C	Water and electricity expense ½✓	4 000 ½✓	
	Accrued expenses / Expenses payable ½✓		4 000 ½✓
D	Rent income (198 250/13) ½✓	15 250 ½✓	
	Income received in advance / Pre-received income ½✓		15 250 ½✓
E	Drawings (85 000*12%) ½✓	10 200 ½✓	
	Telephone expense ½✓		10 200 ½✓

2.2) [21 MARKS]

Sport Training: General Ledger

EQUIPMENT

2014 DEC	31	Balance	107 000 ½✓			Balance c/d	107 000
			107 000				107 000
2015 JAN	1	Balance b/d	107 000				

ACCUMULATED DEPRECIATION: EQUIPMENT

2014 DEC	31	Balance c/d	73 400	2014 DEC	31	Balance	65 000½✓
					31	Depreciation	8 400 ✓
			73 400				73 400
				2015 JAN	1	Balance b/d	73 400 ✓

DRAWINGS

2014 DEC	31	Balance	34 000½✓	2014 DEC	31	Balance c/d	44 200
	31	Telephone expense	10 200 ✓				
			44 200				44 200
2015 JAN	1	Balance b/d	44 200 ✓				

RENT INCOME

2014 DEC	31	Income received in advance	15 250✓	2014 DEC	31	Total / Balance	198 250 ½✓
		Total / Balance c/d	183 000				
			198 250				198 250
					31	Total/Balance	183 000 ✓

WATER AND ELECTRICITY EXPENSE

2014 DEC	31	Total / Balance	78 000½✓	2014 DEC	31	Total / Balance	82 000
		Accrued expenses	4 000 ✓				
			82 000				82 000
2014 DEC	31	Total / Balance	82 000✓				

TELEPHONE EXPENSE

2014 DEC	31	Total / Balance	85 000½✓	2014 DEC	31	Drawings	10 200✓
						Total / Balance	74 800
			85 000				85 000
2014 DEC	31	Total / Balance	74 800✓				

CONSUMABLES EXPENSE

2014 DEC	31	Total / Balance	13 760 ½✓	2014 DEC	31	Consumables – inventory	2 500 ✓
					31	Total / Balance	11 260
			13 760				13 760
2014 DEC	31	Total / Balance	11 260✓				

CONSUMABLES INVENTORY (ON HAND)

		Consumables expense / Consumables used	2 500 ✓	2014 DEC	31	Balance c/d	2 500
			2 500				2 500
2015 JAN	1	Balance b/d	2 500½✓				

ACCRUED EXPENSES

2014 DEC	31	Balance c/d	4 000	2014 DEC	31	Water and electricity expense	4 000 ✓
			4 000				4 000
				2015 JAN	1	Balance b/d	4 000½✓

INCOME RECEIVED IN ADVANCE

2014 DEC	31	Balance c/d	15 250	2014 DEC	31	Rent income	15 250✓
			15 250				15 250
				2015 JAN	1	Balance	15 250½✓

DEPRECIATION

2014 DEC	31	Accumulated depreciation: Equipment	8 400 ✓				
		Total	8 400				

QUESTION 3 **[19 MARKS]**

3.1) [7 MARKS]

BRILLIANT SERVICES

STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED31 DECEMBER 2014

	R	
Income	100 000	
Service income (55 000 + 45 000)	100 000	✓
Expenses	(50 000)	
Repairs and maintenance	(2 000)	✓
Salaries	(20 000)	✓
Depreciation	(5 000)	✓
Water and electricity	(23 000)	✓
Interest expense	(780)	✓
Profit for the year	**49 220**	✓*

3.2) [5 MARKS]

BRILLIANT SERVICES

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED31 DECEMBER 2014

	R	
Balance as at 1 January 2014	60 508	✓
Capital Contributions	27 000	✓
Drawings	(4 000)	✓
Profit for the year	49 220	✓*
Balance as at 31 December 2014	132 728	✓*

* - mark with error

3.3) [7 MARKS]

BRILLIANT SERVICES

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2014

ASSETS	**R**	
NON-CURRENT ASSETS	**90 000**	
Motor Vehicles	90 000	✓
CURRENT ASSETS	**67 728**	
Bank	28 288	✓
Petty Cash	900	✓
Trade and other receivables	60 540	✓
	179 728	
EQUITY & LIABILITIES		
EQUITY	**132 728**	✓*
NON-CURRENT LIABILITIES	**35 000**	
Loan	35 000	✓
CURRENT LIABILITIES	**12 000**	
Trade and other payables	12 000	✓
	179 728	

* - mark with error

QUESTION 4 **[10 MARKS]**

Write your choice in the block provided, for example 1. C

4.1	**B** ✓
4.2	**C** ✓
4.3	**B** ✓
4.4	**D** ✓
4.5	**B** ✓
4.6	**C** ✓
4.7	**C** ✓
4.8	**A** ✓
4.9	**C** ✓
4.10	**B** ✓

APPENDIX I: RESEARCH ETHICAL CLEARANCE

FACULTY OF EDUCATION ETHICS FOR ORIGINAL RESEARCH

This form is to be completed by the student, member of staff and other researchers intending to undertake research in the Faculty. It is to be completed for any piece of research the aim of which is to make an original contribution to the public body of knowledge.

For students this type of work will also have educational goals and will be linked to gaining credit - it is the type of work that will be the basis for a Masters/Doctoral thesis or any research project for which ethical clearance is deemed necessary:

Name(s) of applicant	Antoinette Venter
Project Title	Cognitive preparation of NCS (Grades 10 - 12) Accounting learners for tertiary studies.
Is this a staff research project?	No
Degree	M Ed
Supervisor(s)	Prof Vermeulen Dr Dos Reis
Funding sources	

Questions for Consideration in the Summary

(i) How will you recruit participants? Is there any possibility that participants might feel coerced to take part and if so how can you manage this issue?

(ii) How will participants be made aware of what is involved in the research [prior to, during and after data collection]?

(iii) How will you ensure that participants really do understand their rights?

(iv) Attach your instrument for data collection (if applicable).

(v) Is there a risk of harm to participants, to the participants' community, to the researcher/s, to the research community or to the University? If so how will these risks be managed?

(vi) What plans do you have for managing the confidentiality and anonymity of participants in this study?

(vii) Are there any potential conflicts of interest for you in undertaking this study?

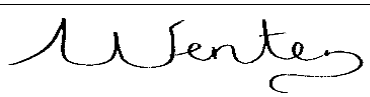
(viii) How will the findings be used on completion of the study?

(ix) Does this work raise any other ethical issues and if so, how will you manage these?

Attached: Information sheet □□Consent form □x Questionnaire x□□Other (Specify)

(x) What training or experience do you bring to the project or will enable you to recognize and manage the potential ethical issues?			
Research Checklist:		**Ye**	**No**
1:	Does the study involve participants who are unable to give informed consent? Examples include children, people with learning disabilities, or your own		*
2:	Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? Examples include students at school, members of self-help groups, residents of nursing homes — anyone who is under		*
3:	Will it be necessary for participants to participate in the study without their knowledge and consent at the time — for example, covert observation of people in		*
4:	Will the study with the research subject involve discussion of sensitive topics? Examples would include questions on sexual activity or drug use.		*
5:	Will the study involve invasive, intrusive, or potentially harmful procedures of any kind (e.g. drugs, placebos or other substances to be administered to the study		*
6:	Will the study involve prolonged or repetitive testing on sentient subjects?		*
7:	Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?		*

8:	Does your research involve environmental studies which could be contentious or use materials or processes that could damage the environment? Particularly the		*

Signatures: Researcher/Applicant:		Supervisor/Senior investigator (if applicable):
Date:	11 July 2014	Date: 11 July 2014

Please note that in signing this form, supervisors are indicating that they are satisfied that the ethical issues raised by this work have been adequately identified and that the proposal includes appropriate plans for their effective management.

Education Faculty Ethics Committee comments:

EFEC unconditionally grants ethical clearance for the study titled "The cognitive preparation of				
NCS (Grades 10 – 12) Accounting learners for tertiary studies"				
The certificate is valid for 2 years from the date of issue.				
Approved			**Chairperson:**	**Date: 12/2/2015**
Approval Certificate/Reference: EFEC 1-11/2014				

APPENDIX J: SUMMARY: ETHICS FOR ORIGINAL RESEARCH: FACULTY OF EDUCATION

All research should be conducted within clearly defined ethical principles to ensure the protection of the participants and the researchers. To ensure that the ethical criteria will be satisfied, approval for this study will be obtained from the Research Ethics Committee. The participants in the study will be the first-year Accounting students and lecturers at a selected University of Technology.

To gain access via the proper authorities is part of the research process. I will gain permission from the university. A quantitative and qualitative approach for the research design will be taken. The quantitative approach will entail questionnaires to the first-year Accounting students and the qualitative approach will entail document analyses and interviews with the lecturers.

Students in the sample will be brief about the purpose of the questionnaire and the researcher will answer all questions that the students have about the research. The researcher respected the right of any individual to refuse to participate in the study or to withdraw from participating at any time. Written permission will be obtained from the students who participate in the study before they are required to complete the questionnaires. Students are assuring that participation in the research is voluntary and that all data obtained will remain confidential. No use is making of identifying particulars, but students have to indicate their student number.

Information on students and their performance in the first semester will be gathering by means of obtaining statistical data from the university after consent will be given by the appropriate authorities of the university.

It is important that procedures for interviews are laid out in writing, and are clearly explained to interviewees before interviews proceed. It is expected that interviewees will be supplied with the written version of these procedures. Confidentiality is an important concern. Interviewees should not normally be named. Any recorded contribution, in written form, on tape etc., or in notes taken from the interview by the interviewer, should be used in accordance with the wishes of the interviewee. If possible, interviewees should give their consent in writing.

In this investigation I shall attempt to maintain objectivity and integrity and to employ professional judgment. The aspiration is to approach the study in an accurate and just way and to report findings as comprehensively as possible. All stakeholders will be kept fully informed of the progress and results of the study. All data will be treated with the utmost confidentiality. Details of other researchers' work, theories, methods and research design will be present as accurately as possible. Throughout the research process confidentiality is ensured. Neither the lecturers or students are named in this study; total confidentiality is promise to all in order to make sure that everyone will be honest.