

A model towards creating positive Accounting classroom conditions that support successful learning at school

A Petzer

 orcid.org/0000-0002-4679-0189

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Promoter: Prof. M Nel
Co-promoter: Prof. MM Grosser

Graduation ceremony: July 2019
Student number: 12566381

DECLARATION

I, Alviné Petzer, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

I further declare that all information used and quoted has been duly acknowledge by complete reference.

A handwritten signature in black ink, reading 'Petzer' in a cursive script, with 'A. Petzer' written in a simpler, printed font directly beneath it.

Signature

16/11/2018

Date

DEDICATION

I dedicate this thesis to my husband, Hannes Petzer and my two lovely daughters, Johané and Hannelie Petzer, who offered me unconditional love and support throughout the course of this study. I also dedicate this work to my mother, Alwine Naudé, who supported me all the way since the beginning of my studies. Without your love, care, guidance and prayers I would never have made it this far.

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ABSTRACT

Studies have shown that the standard (based on pass rates) of Accounting at all levels (schooling and further education and training [FET]), as well as the number of learners taking this subject, has been on the decline despite the high demand for careers in Accounting. The learning environment, which is mainly under control of the teacher, have the potential to positively influence both the way in which learners approach their learning of Accounting and the learning outcomes they achieve in this subject. In this study, the classroom conditions that Accounting teachers create for their learners have been investigated as the teacher essentially can have a major impact on learners' experiencing academic failure or success. Since competent and well-qualified accountants are critical for the world of business it is essential to look into the classroom-related factors that could lay the foundation for building knowledge, skills and dispositions when they pursue their training as accountants.

I worked within an explanatory mixed method design, by conducting a quantitative phase and followed up on the findings with a qualitative phase. The qualitative phase was implemented for the purposes of explaining the initial results in more depth, and to explore the factors identified as significant in the quantitative phase. The first quantitative phase was a descriptive survey research study with a heterogeneous group of learners (N=576) and teachers (N=12) from public secondary schools in the Vaal Triangle Area of Gauteng, South Africa. A Likert-scale questionnaire was used for this with the opportunity to add comments. In the qualitative phase, I made use of semi-structured individual interviews with learners (N=13) and teachers (N=6) as well as observations in the Accounting classroom to gain more in depth understanding of the learning conditions in the Accounting classroom.

The main contribution that this study aims to have, and for which it has the potential, was to explore Accounting classroom conditions to create a model for teachers in Accounting to enable them to create more positive learning conditions for all learners in the Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants. This study could also make a scholarly contribution in that no such study has been conducted in the South African context

Keywords: Accounting, classroom conditions, successful learning, positive education, teaching accounting, learning accounting

OPSOMMING

Studies toon dat die standaard (gebaseer op die slaagsyfer) van Rekeningkunde op alle vlakke (skool en verdere onderwys en opleiding [VOO]), sowel as die hoeveelheid leerders wat hierdie vak neem, besig is om te kwyn ten spyte van die hoë aanvraag vir loopbane in Rekeningkunde. Die klaskameromgewing, wat meestal onder die beheer van die onderwyser is, het die potensiaal om beide die manier waarop leerders die aanleer van Rekeningkunde benader, sowel as die leeruitkomste wat hulle in hierdie vak bereik, positief te beïnvloed. In hierdie studie is die leeromstandighede wat Rekeningkunde-onderwysers vir hul leerders skep ondersoek omdat die onderwyser in wese 'n groot invloed op leerders se ervaring van akademiese mislukking of sukses het. Omdat bekwame en goedgekwalifiseerde rekeningkundiges krities vir die sakewêreld is, is dit noodsaaklik om na die klaskamerverwante faktore te kyk wat die grondslag kan lê vir die ontwikkeling van kennis, vaardighede en houdings waarop voortgebou kan word tydens hulle opleiding as rekeningkundiges. Ek het gebruik gemaak van die verduidelikende gemengde metode-ontwerp, deur 'n kwantitatiewe fase te onderneem en die bevindinge met 'n kwalitatiewe fase op te volg. Die kwalitatiewe fase is geïmplementeer om die aanvanklike resultate in meer diepte te verduidelik en om die faktore wat in die kwantitatiewe fase as beduidend geïdentifiseer is, te verken. Die eerste kwantitatiewe fase was 'n deskriptiewe opname navorsingstudie met 'n heterogene groep leerders (N=576) en onderwysers (N=12) van openbare sekondêre skole in die Vaaldriehoekarea van Gauteng, Suid-Afrika. 'n Likertskaalvraelys, met die geleentheid om kommentaar by te voeg, is hiervoor gebruik. In die kwalitatiewe fase het ek gebruik gemaak van semi-gestruktureerde onderhoude met leerders (N=13) en onderwysers (N=6), sowel as waarnemings in die Rekeningkunde klaskamer, om sodoende 'n in-diepte begrip van die leeromstandighede in die Rekeningkunde klaskamer te verkry. Die hoofbydrae wat hierdie studie poog om te lewer, en waarvoor dit die potensiaal het, was om die leeromstandighede in die Rekeningkunde klaskamer te verken om sodoende 'n model vir onderwysers in Rekeningkunde te skep, wat hulle in staat sal stel om meer positiewe toestande vir alle leerders in die Rekeningkunde klaskamer te verseker en ook om te verseker dat hul onderrig effektief is in die lewering van bekwame en goedgekwalifiseerde rekeningkundiges. Hierdie studie kan ook 'n akademiese bydrae lewer omdat geen studie van hierdie aard nog in die Suid-Afrikaanse konteks onderneem is nie.

Sleuteltermes: Rekeningkunde, leeromstandighede, suksesvolle leer, positiewe onderrig

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LIST OF ABBREVIATIONS

AAA	American Accounting Association
ACCA	Association of Chartered Certified Accountants
AECC	Accounting Education Change Commission
AICPA	American Institute of Certified Public Accountants
CA	Chartered Accountants
CAPS	Curriculum and Assessment Policy Statement
CHE	Council of Higher Education
CRA	Centre for Risk Analysis
CTA	Certificate in the Theory of Accounting
DBE	Department of Basic Education
FET	Further Education and Training
GAAP	Generally accepted accounting principles (US)
IAAER	International Association for Accounting Education & Research
IAESB	International Accounting Education Standards Board
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standards
IRR	South African Institute of Race Relations
NCS	National Curriculum Standards
OECD	Organisation for Economic Co-operation and Development
PwC	PricewaterhouseCoopers
SAICA	South African Institute for Chartered Accountants

CHAPTER ONE

INTRODUCTION, PROBLEM STATEMENT AND RATIONALE OF THE STUDY

1.1 Introduction and Rationale

Successful learning is dependent on several factors but most vital is the engagement of the learner with the environment, i.e. a psychological connection with the setting in which the learning takes place. This engagement by the learner is affected by motivation and perception of relevance, which in turn are affected by the learners' previous experiences, preferred learning styles and most importantly, by the context and environment in which the learning takes place (Harvey & Jacobs, 2009). According to Knoop (2011) good mentors (in this case i.e. teachers) create a context in which development is supported. In his model "How good comes from good in education", he indicates that if some specific beneficial event is present in the learning environment of the school, learners will be inclined to learn more, as well as contribute to the greater good of learning (Knoop, 2011). Research has shown that learner well-being enhances learning and academic performance (Waters, 2015). This is linked to the fundamental goal of positive education, to promote well-being or positive mental health within the school community, helping learners to understand key ideas and concepts, engaging learners meaningfully in assessment and reflection, and learners applying the skills and mind-sets for thriving in their lives (Norrish, Williams, O'Connor, & Robinson, 2013). Positive education will enable all participants of a school community to succeed and prosper (Noble & McGrath, 2015). In South Africa, specific concerns have arisen around low learner performance, underqualified teachers in the classrooms, teacher absenteeism, the academic quality of school graduates and numerous effectiveness challenges in terms of teaching and learning (Eloff, 2013). According to Diener and Chan (2011), strong meaningful social relationships can have a positive impact on learners working towards goals and to help them achieve these goals and perform better. These aspects of positive feelings and relationships in the classrooms can definitely support Accounting learners in the classrooms to experience success.

Of the many school factors that have an impact on learners' academic achievement, teachers and teaching practices have been found to be very influential (Harvey & Jacobs, 2009). Since teachers' attitude (shown by tone of voice, comments, enthusiasm and interest in the subject) affect learners directly and indirectly they have a central role in establishing a supportive classroom environment (Dent & Harden, 2001). According to a study by Jacobs and Harvey (2010), teachers and teaching practices have been found very influential on the factors having an impact on students' academic achievement and performance.

According to Schunk (2004), the teacher should not always be at the centre of instruction and environments should rather be designed in such a way that learners have an active role in their learning – mentally, physically, socially, and emotionally. Fisher (2005) affirms that teachers are the primary source to create invitations and opportunities for learners to think critically. How learners respond to these opportunities will depend in a large way on the attitudes and the teaching methods and strategies that the teacher adopts. According to Jackling (2005), the elements of the learning environment, which are under control of the teacher, have the potential to influence positively both the way in which learners approach their learning of Accounting and the learning outcomes they achieve in this subject. In this study, the conditions that Accounting teachers create for their learners will be investigated since, as mentioned before, the teacher essentially can have a principal impact on learners experiencing failure or success.

Accounting is a complex and abstract subject in which financial information is used to show business complexity (Wilson, 2014). Broadbent (2002) argues that Accounting is an activity that typically involves identifying, collecting, describing, recording, processing and communicating information about the economic events of an entity, in financial terms, to groups and individuals who have a need or right to the information. This is usually assumed to be for decision making purposes and also to contribute to the social welfare of the nation. Accountants must analyse financial transactions, decide how to properly record them in financial accounts and apply generally accepted accounting principles (GAAP) when preparing financial statements and reports. This demands certain skills. According to the American Institute of Certified Public Accountants (AICPA) Accounting does not only

require technical knowledge such as keeping book of accounts, calculating profits and so on, but also needs “broader based skills and competencies, which include critical thinking, communication, teamwork, ethical awareness, technological competence and independent thinking” (Jayaprakash, 2005, p. 1). When being taught, Accounting, learners (school level) and students (higher education level) should be prepared to communicate effectively in both written and oral communication, think critically, make hard decisions related to the business world, and also gain competent technical skills (Kermis & Kermis, 2010).

In reference to Accounting the AICPA (1999, p. 656) defines strategic critical thinking as expecting accountants to have the skills to “communicate the vision, strategy, goals, and culture of organizations to others”, but also be able to identify relevant facts, evaluate judgment, and interpret the objectives. They need to follow a clear, ethical, and logical path when performing their work and communicating their thoughts to peers and clients. Thus, accountants must be competent in critical thinking to be effective in their work, especially in a competitive business environment (Freeley & Steinberg, 2000).

Since critical thinking skills are essential to become a competent accountant (Camp & Schnader, 2010), developing learners in Accounting’s critical thinking abilities is essential. The development of critical thinking skills will become evident as learners carefully persist in problem solving, work to make their oral and written products more precise and accurate, consider others’ point of view, generate questions and explore other options and consequences of their actions (Mangieri & Collins, 2004). Through their enthusiastic presentation of alternative ideas, concepts, and interpretative frameworks, teachers can serve as powerful motivators for critical thinking. According to Collins and Mangieri (1992), as well as Borich (2004), to help a learner think critically requires a teacher to perform several unique teaching functions, namely to provide information about when and how to use mental strategies for learning and explicitly illustrate how to use these strategies to think through solutions to real-world problems, which is particularly applicable to the teaching of Accounting. In South African schools, Accounting is regarded as a “horror” subject as learners are performing very poorly in the subject. Buckhaults and Fisher (2011) claim that the standard of Accounting at all levels has been on the decline for years, despite the high demand for careers in Accounting. According to the National Diagnostic

Report on learner performance (2018), in 2017 only 103 427 learners wrote the Grade 12 Accounting examination, of which only 68 318 learners managed to achieve 30% and above, amounting to 66.1% of all learners participating in that specific examination. These results affirm that schools and particular Accounting educators, as well as teacher education programmes, are faced with challenges to improve these pass rates. It is critical to prepare Accounting learners adequately to acquire the needed skills at school level, since this is where core foundations are formed, for further studies in Accounting and the world of work. For an accountant to be able to obtain a position in the top Accounting firms as well as becoming a Chartered Accountant (CA) in South Africa, learners need to obtain high marks in the subject Accounting (Botha, 2014). It is therefore important to look at the pass rates of Accounting on school level. This will be discussed in detail in the Chapter 2. Consequently, class conditions must be created by teachers in such a way that learners are motivated and able to think critically, persist and work accurately in Accounting (Jacobs & Harvey, 2010; Darwin, 2011, Costa & Kallick, 2009). This requires a classroom without anxiety where learners do not experience constant failure and negative feedback (Ameen, Guffey, & Jackson, 2002).

This was one of the reasons motivating me to investigate why Accounting seems to remain a challenging subject for learners at school level and why so few learners continue with the subject. Based on research conducted by Buckhaults and Fisher (2011) the Accounting classroom seems to create anxiety for educators as well as learners. Furthermore, Borja (2003) found that many learners new to Accounting view the subject as difficult. Phillips and Graeff (2014) noticed that learners seem to have a rigid negative idea about the difficulty of Accounting, which colour their experience of the subject with fear and worry, resulting in anxiety and a lack of motivation. In addition, a large number of learners appear to not see the relevance of Accounting to their personal lives and thus minimise their efforts by simply memorising enough material to merely pass the exam. It is therefore essential that Accounting educators create positive learning environments (Phillips & Graeff, 2014), in order for learners to achieve optimally in the subject. However, as a consequence of not feeling able to teach the subject many teachers also experience anxiety. Ameen et al. (2002) and Borja (2003) postulate that a main contributor to these feelings of anxiety can

be as a result of not employing an effective teaching approach and they affirm that these feelings of anxiety can be reduced if the Accounting educator comes to class well prepared and fully understandable of the content to be presented. This will ensure effective teaching that will enable Accounting educators to introduce new methods, theories, and philosophies into the curriculum, which will then encourage learners to view Accounting as an interesting subject in which they will want to enrol and succeed. It is also essential to acknowledge that reducing anxiety would potentially enhance successful learning and motivate learners to become Accounting experts.

Motivation and hard work have also been identified as being almost equally as important as cognitive factors in explaining learners' academic performance (Harrell, Caldwell, & Dotty, 1985). Learners who are highly motivated achieve better grades than their peers. According to Darwin (2011), creating learning conditions where learners are continually motivated should be a constant goal of teachers. This includes making the lessons more meaningful, being sensitive to learners' difficulties and giving regular feedback to learners about their progress. A key aspect in motivating learners to be successful in Accounting, is the effectiveness of the teacher. In particular, it was found that learners who performed better are those who did more in terms of reading ahead, doing homework and participating in class because their teachers were experienced as effective in teaching Accounting (Darwin, 2011). Accounting teachers need to encourage learners to become actively involved in subject matter by going beyond the information given and restructuring it in their own way of thinking. "In this process, the responsibility for learning must be gradually shifted to the learners through practice exercises, question and answer dialogues and discussions that engage them in increasingly complex ways of thinking" (Carter & Hogan, 2013, p.3-4). Relevant to creating positive classroom conditions in order for learners not to experience anxiety and become motivated in selecting as well as to experience success in the subject is developing critical thinking dispositions in Accounting. Two key critical thinking dispositions that have been identified by Costa and Kallick (2009) that could improve results in Accounting is accuracy and persistence. These dispositions should become *Habits of Mind*. Costa and Kallick (2009) define Habits of Mind as being those dispositions that are skilfully and mindfully employed by characteristically successful people, when confronted with problems, the solutions to which are not immediately

apparent. Developing a strong habit of striving for accuracy means, you take control of your goals and work towards them diligently. This includes working with precision and craftsmanship and taking time to review the final product (Costa & Kallick, 2009). Persistence refers to sticking to a task until it is completed which results in becoming an efficient learner. This means that efficient people do not give up easily. They are able to analyse a problem, and develop a system, structure, or strategy to attack a problem (Costa & Kallick, 2009). Bookkeeping in Accounting is an important element of financial reporting and the entire bookkeeping process is based on basic principles and rules, which requires accuracy and precision (Jackling, 2005). This is necessary because it records transactions, which is summarised and organised in the form of financial reports. According to my own experience as a teacher at a school, many learners give up too easily when working through problems in Accounting. They tend not to complete assignments, tasks and homework exercises given by the teacher. They will work on it in the class while there is support from teachers and peers, but when it is sent home to complete, they simply do not persevere. I have also noticed this kind of behaviour during formal tests and examinations. Incomplete papers are submitted with inaccurate calculations resulting in wrong answers. In Accounting where learners are exposed to difficult concepts and calculations, the need for feedback is crucial. When learners engage with feedback through discussion with teachers and peers, it is an opportunity to develop the required skills in Accounting (cf. 2.2.2). Thus, it is crucial for teachers to provide feedback to learners regularly and adequately. Feedback can work best when criteria for success are known to the learner in advance, and where the goal to achieve success in Accounting is clear (DoE, 2008b).

From the above discussion it seems evident that several factors need to be addressed in creating positive learning conditions for learners to experience successful learning in the Accounting classroom. Several studies (e.g. Phillips & Graeff, 2014; Bratten, Milici Gaynor, McDaniel, Montague & Sierra, 2013; Bonner, 1999; Wu, 2008) have investigated the skills needed for being a good accountant but no study as yet could be found on the importance of creating positive learning conditions in order to obtain the required skills successfully. Since competent and well-qualified accountants are critical for the world of business (Ku & Haider, 2012), it is consequently essential to look into the classroom-related factors that can contribute to providing them. This study will therefore attempt to develop a model for

teachers in Accounting to enable them to create more positive conditions for Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants.

1.2 Purpose statement

Based on the above deliberation the purpose of this study was firstly to explore factors that influence positive classroom conditions, which impact on successful learning in the Accounting classroom. Secondly, in order to address these factors, the role of positive education as well as attitudes and skills of teachers and learners in order to create positive classroom conditions necessary for successful learning in Accounting were investigated.

After a search of several databases (Ebsco, Science Direct, etc.), very little literature and research studies could be found on this topic. This study could therefore make a vital theoretical contribution with regard to factors that impact on learning conditions in the Accounting classroom as well as provide a model that could improve the practice of successful learning in the Accounting classroom.

1.3 Research question

The primary research question of this research study was: How can positive classroom conditions be created for learners to experience successful learning in the Accounting classroom? My research was guided by the following secondary research questions:

- What does the teaching and learning of Accounting entail?
- What is understood under positive classroom conditions?
- What constitutes successful learning?
- What kinds of positive classroom conditions are important for an Accounting classroom to ensure successful learning?
- What model can be created to provide guidelines on how positive classroom conditions can be created for successful learning in the Accounting classroom?

1.4. Theoretical paradigm

The researcher acknowledges the fact that the context in which learning takes place can be dynamic and multi-dimensional and that a combination of learning theories should be considered in the instructional design process to provide optimal learning. In this study, however, constructivism will be regarded as the driving force behind the instructional design process in the Accounting classroom for successful learning (Schunk, 2004). Constructivism is an approach in education that asserts that humans are better able to understand the information that they have constructed themselves (Ozgur, 2004). Two pioneers that influenced the constructivism theory are Jean Piaget (1896-1980) and Lev Vygotsky (1896-1934). Piaget's developmental theory of learning and constructivism are based on discovery.

According to his constructivist theory, in order to provide an ideal learning environment, children should be allowed to construct knowledge that is meaningful for them (Piaget,1953). Vygotsky (1978), known for his theory of social constructivism, believes that learning and development is a collaborative activity and that children are cognitively developed in the context of socialisation and education. Constructivist teaching is based on the belief that learning occurs when learners are actively involved in a process of meaning and knowledge construction as opposed to passively receiving information. Learners thus become the makers of meaning and knowledge. This fosters critical thinking, and creates motivated and independent learners, which is an important aspect in the learning of Accounting (Schunk, 2004; Donald, Lazarus, & Lolwana, 2010).

For this particular study in which the focus was to explore factors that influence classroom conditions which impact on successful learning in the Accounting classroom, the assumption made by the researcher emphasizes one of the major assumptions of constructivism, namely that learning is situated in the context where it occurs. This assumption highlights the importance of the context in teaching and learning. For successful learning in Accounting, the classroom conditions should enhance positive attitudes for the development of abilities by engaging learners in activities where cognitive skills, that are needed to be successful in Accounting, are applied and practiced (Schunk,

2004). In the context of this study, the researcher focused on aspects in the questionnaire that linked the assumptions of constructivism to the use of teaching methods and strategies in the Accounting classroom and the role of the teacher and learner in order to have an effect on successful learning in the Accounting classroom. The constructivist approach has also been linked with the application of indirect, independent and interactive teaching methods and strategies during teaching. These methods and their related strategies are regarded as effective to create better classroom conditions that would promote successful learning (Schunk, 2004).

1.5 Defining key concepts

The following central concepts are defined to enhance the understanding of the focus of this study.

Key words: Accounting, classroom conditions, successful learning, positive education, teaching accounting, learning accounting

1.5.1 Accounting

“Accounting focuses on measuring performance and processing and communicating financial information about economic sectors. The discipline ensures that principles such as ethical behaviour, transparency and accountability are adhered to. It deals with the logical, systematic and accurate selection and recording of financial information and transactions, as well as the compilation, analysis, interpretation and communication of financial statements and managerial reports for use by interested parties” (Department of Basic Education [DBE], 2011, p.8). This implies that the subject Accounting deals with the daily recording of financial transactions, determining the financial position of the business and then presenting the financial report to management and other parties involved for informed decision making (American Accounting Association (AAA), 1966, p.1)

1.5.2 Classroom conditions

Classroom climate suggests the creation of a learning environment by the teacher where learners feel safe, supported and intellectually inspired and challenged (Lyke & Young, 2006; Lake, 2009). This is achieved through the choice of teaching methods and strategies as well as teaching and learning activities through which classroom conditions is created that inspires learners to discover things for themselves (Crotty, 2002; Lake, 2009).

1.5.3 Successful learning

According to Grosser (2007), successful learning requires the application of of a range of cognitive and meta-cognitive skills and strategies, as well as thinking dispositions. Successful learners are therefore those learners who meta-cognitively, motivationally and behaviourally self-regulate their learning in order to achieve their goals (Schleifer & Dull, 2009).

Learners who feel they experience success are more likely to be motivated to learn as it will be challenging and frustrating when the teacher goes too fast through the work, or the content is too difficult (Walton, 2010).

1.5.4 Positive education

Positive education is defined as education for both traditional skills and for happiness. The high prevalence worldwide of depression among young people, the small rise in life satisfaction, and the synergy between learning and positive emotion all argue that the skills for happiness should be integrated in teaching (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). Positive education postulates that curriculum opportunities should afford all students the chance to receive support, to develop their strengths and weaknesses in relation to growing positive emotions, becoming engaged in learning, establishing social relationships, discovering meaning in life, and making progress towards achieving goals (Noble & McGrath, 2008; Knoop, 2013; Noble & McGrath 2015).

1.5.5 Teaching Accounting

Teaching is an activity that involves helping learners to gain knowledge, skills and attitudes so that the individual can become responsible citizens capable of earning a good livelihood. Teaching is a system of action intended to produce learning and seen as an action that points learning towards desirable accomplishments by the learner (Madike 2000; Alvey, 2000; Obi, 2005). The teaching of Accounting requires application of creative and demonstrative skills. To produce a desirable learning outcome in Accounting, the teacher must have a clear understanding of what to do at each point of the teaching process. He or she must be proficient, and highly skilled to handle the instructional activities, for there is nothing that is as important to teaching and learning as the quality of the teacher (Ajeyalemi, 2007). In the opinion of Haber (2011), an Accounting teacher is one who possesses sound knowledge of Accounting principles and can plan lessons and ensure efficient delivering of the same. Furthermore, the Accounting teacher must possess the potentials to analyze the requirements, develop appropriate lessons in Accounting, design efficient teaching strategies and assessment methods that can lead to the achievement of objectives.

1.5.6 Learning Accounting

As accountants need to be able to function in a complex and increasingly global environment, it is therefore important that Accounting learners are encouraged to undertake Accounting as a career choice (Nye, Sue, Rounds, & Drasgow, 2012). The aim of the educational process in Accounting is to achieve high quality learning outcomes, including strong technical competencies, a broad understanding of the discipline, the ability to think critically, apply ideas and concepts to problems, and the possession of high communication and other generic skills (Accounting Education Change Commission, 1992).

Learning in Accounting is initiated with a complex problem that often requires students to use thinking skills of a higher order to solve typical Accounting problems (Hansen, 2006).

1.6 Research methodology

1.6.1 Research paradigm

Terre Blanche and Durrheim (2002) refer to a paradigm as a perspective, which delivers a rationale for the research and commits the researcher to specific methods of data-gathering, observations and interpretation. Guba (1990) describes a paradigm or framework as the basic set of convictions that directs the research action.

This study supports research, which is pragmatic, focused on exploring and understanding the research problem in social science research and then uses mixed approaches to obtain knowledge about the problem (Creswell, 2009). Pragmatism can be applied to mixed methods research where the researcher draws conclusions from both quantitative and qualitative methods when they engage in their research (Creswell, 2009).

The pragmatic paradigm seeks holistic and complete information regarding a research problem by making use of multiple methods of data collection and the emphasis is on the research problem to obtain a complete picture (Creswell, 2009, Thomas, 2009, Maree & Van der Westhuizen, 2007).

For the purpose of this study, as researcher I was the instrument of the data-gathering process and through different data collection methods, using closed questionnaires, interviews and observations, I identified and explored factors that influence classroom conditions in an Accounting classroom to discover possible problems in the Accounting classroom. This study, therefore used mixed method research in an attempt to construct a model that could change the classroom practices of Accounting classes to create positive learning conditions.

1.6.2 Research design

Please note that more detailed discussions about the different aspects of the research design will be given in chapter 3.

I used a mixed methods procedure in this study, whereby a sequential explanatory design was incorporated, where the qualitative findings explained the quantitative results. Creswell

(in Maree, 2007, p. 261) defines mixed methods research as “a procedure for collecting, analysing and ‘mixing’ both quantitative and qualitative data at some stage of the research process within a single study to understand a research problem more completely”. Mixed methods research is an approach to review both the qualitative and quantitative procedures. It involves theoretical assumptions, the use of qualitative and quantitative approaches, and then mixing both methods of the research process to understand the research problem better (Ivankova, Creswell, & Plano Clark, 2007; Creswell, 2009).

In this study, I worked within an explanatory mixed method perspective. The explanatory design is classified as one of the mixed methods designs where a researcher started by conducting a quantitative phase and follows up on specific results with a qualitative phase. The qualitative phase is implemented to explain the primary results in more depth, and to explore the factors identified as significant in the quantitative phase.

1.6.3 Strategies of inquiry

1.6.3.1 Quantitative strategy of inquiry

A survey was employed as the quantitative strategy for this research. McMillan and Schumacher (2010, p. 22) define survey research as “the assessment of the current status, opinions, beliefs and attitudes by questionnaires or interviews from a known population”. Surveys are used frequently in educational research to describe attitudes, beliefs, opinions, and other types of information (McMillan & Schumacher, 2010).

A survey to explore the current learning conditions in the Accounting classroom was employed. As part of the quantitative part of the study, a self-structured closed questionnaire with Likert-type scales for the items were distributed to teachers and learners in Accounting. A qualitative component was added to the questions in order to allow the respondents to motivate their answers.

1.6.3.2 Qualitative strategy of inquiry

An interpretive approach, namely phenomenology was employed as the qualitative strategy of inquiry for this study. According to Maree (2010), researchers start out with the assumption that access to reality is only through social structures such as language,

consciousness and shared values. Generally, research studies attempt to understand experiences through the meanings that people assign to them.

During the interviews with Accounting learners and teachers as well as observations in the Accounting class, I became the instrument through which the experiences and opinions of the participants were collected and analysed.

1.6.4 Participant selection

Purposive sampling was used in this study in the selection of the participants. “Purposeful sampling is based on the assumption that the investigator wants to discover, understand and gain insight and therefore must select a sample from which the most must be learned” (Merriam, 1998, p. 61). This is a strategy in which particular settings, persons, or activities are selected deliberately in order to obtain information from participants about their experiences and attitudes regarding the research problem (Maxwell, 2005; Maree, 2007).

The population sample consisted of all Accounting teachers and learners in South Africa. As it was not possible to do a research among all teachers and learners in South Africa, a study sample was chosen. The sample size comprised of all the secondary schools in the Vaal Triangle area of the Gauteng Department of Education, and all the Grade 10, 11, and 12 teachers and learners in the Accounting classes. By using the explanatory design in this study, sampling occurred at two points in the design: in the quantitative and qualitative phase. In the first phase of the research, questionnaires were given to a group of Accounting Grade 10, 11, and 12 learners (n=576) and teachers (n=12) of nine secondary schools in the Vaal Triangle area of the Gauteng Province. After the quantitative data were analysed participants were selected for the interviews. This included learners from each grade (10, 11 and 12). Learners who indicated that they wanted to take part in the qualitative phase voluntarily were also included. However, since the sample of the teachers were small, they were all included. Although the names of learners and teachers were known to me from the questionnaires in phase one, the confidentiality of the sample was crucial and consequently only I knew the names.

Three secondary schools in the Vaal Triangle area were chosen for the observations. They represented different socio-economic areas where learning resources are more easily available to limited availability. This provided a better representation of how learning conditions are created in different contexts.

1.6.4.1 Pilot study sample

The pilot study sample consisted of all the BEd students who have Accounting as a major subject at a specific university. Two learners from each grade in the FET phase (Grade 10, 11, and 12) at a school were also used for the pilot sample during the quantitative phase of this study. These students did not form part of the main study. The Accounting students are studying to become Accounting educators and therefore contributed positively to this study by judging the effectiveness of the questionnaire. The pilot study provided valuable data and no changes were made to the questionnaire after the pilot study was conducted because the questionnaire for learners complied with reliability criteria (cf. 4.2.1.1).

1.6.5 Data collection methods

As I worked within a sequential mixed method perspective, the data collection procedures in the explanatory design involved first collecting quantitative data, analysing the data and using the results to inform the follow-up qualitative data collection (Creswell & Plano Clark, 2011). In this design, the quantitative and qualitative data collections were related to each other and not independent.

1.6.5.1 Quantitative data collection method

The quantitative data collection method was used first in order to investigate the experiences, perceptions and views of Grade 10, 11, and 12 Accounting learners and teachers in relation to learning conditions in the Accounting classroom. A self-structured Likert-scale questionnaire was used. A qualitative component where respondents were allowed to motivate their answers was also part of this questionnaire. This enabled the researcher to gain richer data. The content of these questions was determined by the literature review.

1.6.5.1.1 Questionnaire

A questionnaire is a convenient tool to use for collecting responses from a large number of people relatively quickly. As such, questionnaires may be seen as a useful method of obtaining quantitative data (Burton & Bartlett, 2005).

In the context of this study, the researcher wished to obtain information from the sample regarding their opinions and experiences of learning conditions in the Accounting classroom. A self-constructed Likert-scale questionnaire was used with a qualitative component providing an opportunity for respondents to motivate their answers. The questions had four options, thereby avoiding a neutral response. The constructs that were measured by this questionnaire will be discussed later in the study (cf. 3.6.1.1).

1.6.5.2 Qualitative data collection methods

Qualitative research is based on a natural approach that seeks to understand real-life situations of participants. Consequently, data gathering techniques, like interviews and observations are mainly used in the data collection methods (Maree, 2010).

1.6.5.2.1 Individual interviews

According to Creswell (2005), an individual interview is a way of determining what people think, by looking at their experiences, knowledge, opinions and beliefs. These interviews were conducted face-to-face with the participants. An individual interview is viewed by Greeff (2005) as an attempt to understand the world from the participant's point of view, to unfold the meaning of people's experiences and to uncover their lived world prior to scientific explanations. The benefit of using interviews as a data collection method is that feedback is provided immediately. In this study, the interviews were semi-structured, based on data gathered from the questionnaires in the first phase. In order to gather more data, the researcher attempted to gain a deeper understanding of the participant's perceptions, perspectives and understanding (Leedy & Ormrod, 2001) of learning conditions in the Accounting classroom. Individual interviews were conducted with selected teachers and learners in the second phase of the data collection procedure. The interviews were audio recorded and transcribed verbatim.

1.6.5.2.2 Observations

As another qualitative data collection method, observations were done to enable the researcher to gain a deeper insight and understanding of the phenomenon being observed (Maree, 2007). Observations done in the qualitative phase are those in which the researcher takes field notes about the behaviour and activities of individuals and records, in an unstructured or semi-structured way, all the activities observed in a specific place (Creswell, 2009). Therefore, I made use of observations in the Accounting classroom to gain more in-depth understanding of the learning conditions in the Accounting classroom. The data acquired from the questionnaires and the interviews, as well as the literature review, were used to compile criteria for categories of behaviour observed.

1.7 Provisional data collection process

In mixed methods research, the data collection procedure consists of several elements. Data collection involves several organised steps. In mixed methods research, the data collection needs to proceed along the two phases, namely quantitative and qualitative (Creswell & Plano Clark, 2011).

The researcher of this study kept the possibility of adjustment, development and change in mind when she formulated a plan to collect the data. The following steps were included in the data collection process.

Step 1. Conducted a thorough literature review in order to inform the questionnaires, interview schedule as well as the observations.

Step 2. A structured Likert-scale questionnaire with a qualitative component was compiled.

Step 3. Ethical approval was obtained from the Gauteng Department of Basic Education, as well as the specific university's ethical committee (cf. Addendum M, Addendum N).

Step 4. Conducted a pilot study with all the students (N=39) doing their BEd degree with Accounting as their major subject at a specific university, as well as some Grade 10, 11, and 12 Accounting learners (N=6). This helped to determine if the questions set in the

questionnaire were appropriate. I gave the teacher questionnaire to a few Accounting teachers and some of my colleagues to read through the questions.

Step 5. Gained permission from the gatekeepers of the schools, i.e. the school principals. I contacted the principals of the schools. Requested permission to do research with teacher and learners in the Accounting classrooms from the Department of Education.

Step 6. Information about the goal of the study as well as information about the procedure of the study were given to each respondent. They were requested to sign an informed consent letter. It was also explained to them that it is required that their names were written on the questionnaires in order to contact them for further voluntary participation in the qualitative phase. They were assured that their names will only be known to the researcher.

Step 7. Conducted the quantitative phase with Grade 10, 11, and 12 learners and teachers in secondary schools in the Vaal Triangle area of the Gauteng Department of Education. They completed the questionnaire.

Step 8. The data from the questionnaires was analysed using statistical approaches.

Step 9. The findings obtained from the questionnaires were used to develop the questions posed in the interviews in the second phase of the data collection process.

Step 10. Selected participants were contacted to take part in the interviews and requested to sign an informed consent form. Appointments for the interviews were made with each school.

Step 11. The interviews to explore the experience and views of the participants were conducted, which were audio recorded. The interviews as recorded, using an audio recorder, were transcribed verbatim during this step.

Step 12. Observations were done in three Accounting classrooms at the selected schools where the researcher took observational notes of the learning conditions in the Accounting classroom.

Step 13. The data from the interviews and the observations were analysed, using the constant comparative analysis. Data collection and analysis are a simultaneous process in qualitative research (Merriam, 2009).

Step 14. The findings of both the phases were presented.

Step 15. The findings of all the phases of the research were interpreted and discussed

1.8 Role of the researcher

In mixed method research the explanatory design is implemented in two separate phases (Creswell & Plano Clark, 2011). In the first phase, the role of the researcher involves recruitment of the participants, designing questionnaires and collecting and analysing the quantitative data. To further understand and explain the quantitative results, the researcher implements a second, qualitative phase after completing the quantitative phase (Creswell & Plano Clark, 2011). The researcher identified participants for the interviews.

It was important that the correct steps were taken to gain entry to the setting and secure permission to study the participants or the situation (Creswell 2009). In the qualitative phase the researcher was very closely involved in the data collection process, especially during the observations and the interviews, I was the instrument conducting the interviews and observed behaviours in the Accounting classrooms. According to Creswell (2014), a researcher has to consider a variety of ethical and personal matters that could compromise the collection of trustworthy data. Some of these issues relate to social and cultural experiences, status, race, gender, assumptions, and sensitive ethical and personal matters. I was constantly aware of these issues to uphold objectivity and avoid biasness.

1.9 Data analysis and interpretation

Data analysis in mixed methods research consists of separately analysing the quantitative data using quantitative methods, and analysing the qualitative data using qualitative methods (Creswell & Plano Clark, 2011).

1.9.1 Quantitative data analysis

In the quantitative phase, the raw data was converted into a more useful form for data analysis. This was done by means of scoring the data by allocating numeric values to each response, cleaning data entry errors from the database and creating special variables that will be needed. (Creswell & Plano Clark, 2011). Recording and computing were completed with statistical computer programs, such the Statistical Program for the Social Sciences (SPSS) (Creswell & Plano Clark, 2011). I consulted with the statistician to select the most appropriate statistical procedures for this study. A descriptive and inferential statistical procedure was followed during the data analysis of the questionnaires in this study. Descriptive and inferential statistics can be divided into two ways of representing or describing the data. They are graphical ways and numerical ways (Maree, 2010). The purpose of most research is to use the findings from the sample data to generalise or draw conclusions about the population. This is called statistical inference, a field that relies on the probability theory (Maree, 2010).

1.9.2 Qualitative data analysis

For the qualitative data analysis, preparing the data means organising the document or visual data for review or transcribing text for interviews and observations into word processing files for analysis (Creswell & Plano Clark, 2011). Once the qualitative analyses were complete, mixed methods interpretation was done and involved looking across the quantitative results and the qualitative findings reviewing how the data addressed the mixed method question in the study.

The qualitative data in this study came from interviews and observations. After the interviews were transcribed, a content analysis was done on the data collected from the transcribed interviews (Merriam, 2009). Secondly, data was analysed using the constant comparative method of data analysis. It involved comparing one segment of data with another to determine similarities and differences (Merriam, 2009). In this study, I analysed the data from the interviews with teachers and learners and then compared that data with the observations done in the classrooms of the same participants.

1.10 Quality criteria

In mixed methods research where there are both quantitative and qualitative data, specific types of validity checks were done for both strands (Creswell & Plano Clark, 2011).

1.10.1 Reliability

Leedy and Ormrod (2005, p. 93) describe the reliability of a data collection instrument as “the extent to which it yields consistent results when the characteristic being measured hasn’t changed”. An instrument, a Likert-scale questionnaire in the case of this study, is reliable if it accurately reflects the true score of the aspects under investigation. Quantitative reliability means that scores received from participants are consistent and stable over time. The reliability of the questionnaire was checked through statistical procedures of internal consistency of the scores (Creswell & Plano Clark, 2011).

1.10.2 Validity

Validity in mixed methods research uses strategies that address potential issues in data collection, data analysis and the interpretations that might compromise the integration of the quantitative and qualitative strands of the study and the conclusions drawn from the combination (Creswell & Plano Clark, 2011). In this study, questionnaires were used as part of the quantitative part of the study. A pilot study was also done with a group of students from the university and some Grade 10, 11, and 12 learners, who did not form part of the sample in order to determine the reliability and validity of the questionnaire. Cronbach alpha coefficients and inter-item correlations were calculated to determine the reliability of the questionnaire items. With regard to validity, face, content, criterion, and construct validity were considered in this study and are discussed in detail later in the study (Pietersen & Maree, 2007) (cf. 3.10.2.1).

1.10.3 Credibility and trustworthiness

As multiple data collection methods were used in the qualitative phase, such as observation and interviews, trustworthiness could be determined (Maree, 2007). To ensure validity for this part of the study, member checking was done by means of asking the

participants if the transcriptions, data and interpretations were true reflections. In addition, a colleague with a PhD and experience in mixed methods research was requested to assist with this. In the qualitative phase of the study, I was the data gathering instrument (Maree, 2007). When qualitative researchers speak of research “validity and reliability” they usually refer to research that is credible and trustworthy. Credibility raises a question of accuracy of the findings in the qualitative research according to Lincoln and Gube (1985, p. 290-301).

I had to bring about trust in the accuracy of the findings which were derived from the research methods. Lincoln and Gube (1985) state that a way to ensure value and truth in the findings is by exploring experiences that participants lived through. A thorough and accurate description of the data collection process contributed to the credibility in this study (De Vos, Strydom, Fouché & Delport, 2002) (cf. 5.4). All findings correlated with the literature. I also maintained an unbiased and neutral position in terms of previous knowledge and judgements towards the subject under study (Van der Merwe, 1997).

1.10.4 Transferability and dependability

Teddlie and Tashakkori (2003) view the possibility of transferring the research findings into another context as the original to express the validity of the findings. The question in relation to the transferability of the research will, therefore, be whether the findings would be the same if the research was conducted with another group of people in a different context (De Vos et al., 2011). Since this was a small-scale study, transferability can only be determined when the study is repeated in different contexts. “Dependability refers to the degree to which the reader can be convinced that the findings did indeed occur as they say they did” (Durrheim & Wassenaar, 2002, p. 64). The pilot study, member checking and constant consultation with the promoters assisted in establishing dependability.

1.11 Ethical considerations

Ethical issues, such as providing reciprocity to participants for their willingness to provide data, handling sensitive information and disclosing the purposes of the research, apply to both quantitative and qualitative research (Creswell & Plano Clark, 2011). Hitchcock and

Hughes (1995) view ethical considerations as important concerns about values or convictions and personal views in research. My responsibility and ethical code of conduct towards the participants were very important in this study, not only in terms of permission from participants to participate in the study, but also in terms of the kind of behaviour I demonstrated towards them (Hatch, 2002).

The way in which informed consent from participants was approached, as well as obtaining permission for conducting the study, will be discussed next.

1.11.1 Informed consent

An important aspect to consider during both the quantitative and qualitative phases of this study, was presenting accurate ethical behaviour towards the participants (Louw & Edwards, 1998). I gave a detailed description to the learners and teachers of what were expected of them during the research process (Hatch, 2002). A basic ethical consideration in the planning of this research was whether the research can harm the participants or community members in any way. For me, gathering informed consent from the respondents in the first quantitative phase and the participants in the second qualitative phase was an important first step in presenting accurate ethical behaviour.

Information about the aim of the study, and the quantitative and qualitative procedures of the study were communicated to all learners and teachers before the sessions started. According to Leedy and Ormrod (2001), any research study should respect the respondents'/participants' right to privacy. Included in the discussion with participants, were an agreement with each learner and teacher that any information would be managed with privacy, confidentiality and that no names or personal information would be disclosed. Participants were also informed that their participation was voluntary and that they would have the option to withdraw if they would choose to do so. They all signed a consent form as proof that they understood the procedure and expectations and as confirmation of their voluntary participation in the research study. No participant was, therefore, treated unfairly or included in the study under false pretences.

The consent form also allowed me to know their personal contact details if they were willing to participate in the interviews during the qualitative phase of the study, therefore the confidentiality of the study was crucial. The names of the participants were not exposed in the study when the results were reported in the thesis.

1.11.2 Confidentiality

Confidentiality indicates the use of information in a confidential manner and can be viewed as maintaining the privacy, which refers to agreements between persons that limit other's access to private information (De Vos et al., 2011).

I ensured that the information collected in both the quantitative and qualitative phases were handled confidentially and that the collection of the data did not invade on the time and privacy of the participants. They were assured that all information would not be made available to anyone except me and my promoters.

1.11.3 Anonymity

To ensure the privacy of participants, the information collected from them should be treated anonymously and anonymity implies that no one should be able to identify any person afterwards (De Vos et al., 2011). The identities of the learners and teachers remained anonymous throughout the study, with the exception of the participants for the interviews in the qualitative phase of the study. I assured the participants that the interviews recorded will not reveal their names. Each participant was allocated a number in the interview coding and analysis.

An ethical application was submitted to the Faculty of Human Sciences Research Committee of the North-West University in February 2017 (cf. Addendum M, cf. Addendum N). The application was approved, allowing me to conduct the research.

1.11.4 Permission for the study

Louw and Edwards (1998) explain that the purpose of obtaining voluntary consent for participation in any research project is to ensure that no participants will be harmed, either physically or psychologically. Hatch (2002) views the signed documents in which

participants give informed consent to participate in the research as the most important in a qualitative study. I obtained permission from the Gauteng Department of Education before approaching the principals of the various schools where the research was conducted to obtain permission to involve the learners and teachers in the research. The participants were assured that only myself, the promoter and the Statistical Consultation Services had access to the data. The protection of participants' interests was ensured in this way.

1.12 Possible contribution of the study

The main contribution of this study was to explore Accounting classroom learning conditions in order to eventually create a model for Accounting teachers on how to incorporate more positive learning conditions in their classrooms. The ultimate goal of such a model is to provide guidelines towards enhancing successful teaching and learning, that could lay the foundation for the training of competent and well-qualified accountants. Furthermore, no other study like this one could be found in the South African context and it could therefore be regarded as a valuable contribution to the field of teaching Accounting.

1.13 Possible challenges of the study

Some of the possible challenges of this study were to get access to the classroom environment of the schools. Consent and permission had to be specific and were confirmed in writing. Teachers and learners had limited time to conduct interviews, which was challenging. I made sure of time tables at schools and structured the interviews around those days and times. Teachers' reluctance to participate in the study was also a challenge, as some teachers refused to be part of the study because of their limited time. Teachers were informed that the study was conducted with the least amount of intrusion in the day-to-day teaching and learning in the classroom. Observations formed part of the study, and some learners felt uncomfortable to participate in class discussions because of the stranger in their classroom.

1.14 Chapter division

Chapter 1: Introduction, statement of the problem and rationale for the study

Chapter 2: Factors influencing successful learning and classroom conditions in the Accounting classroom

Chapter 3: Research methodology

Chapter 4: Data analysis and interpretation

Chapter 5: A model towards creating positive Accounting classroom conditions for successful learning

Chapter 6: Conclusions, limitations and recommendations

CHAPTER TWO
LITERATURE REVIEW
FACTORS INFLUENCING SUCCESSFUL LEARNING AND CLASSROOM CONDITIONS
IN THE ACCOUNTING CLASSROOM

2.1 Introduction

There are several factors that influence conditions for successful learning in the Accounting classroom as evidenced in numerous studies (e.g. Phillips & Graeff, 2014; Bratten et al., 2013; Bonner, 1999; Wu, 2008). These studies have investigated the skills needed for being a good accountant, but no study as yet could be found on the importance of creating positive learning conditions in order to develop successful, competent and well-qualified accountants who are critical for the world of business (Ku & Haider, 2012). It is consequently essential to look into the classroom-related factors that can contribute to providing Accounting learners with the necessary skills and learning conditions for successful learning. In this chapter, a literature review will be presented exploring theoretical frameworks applicable to the study, as well as clarifying relevant concepts. Factors influencing classroom learning conditions, as identified in the literature, will be addressed and the following issues pertaining to the Accounting education scenario in South Africa will be discussed:

- The subject Accounting and the requirements and skills needed
- Learning: a concept clarification
- Learning theories
- Successful learning a concept clarification
- Factors influencing successful learning
- Positive education as an approach for successful learning
- Factors influencing classroom conditions for successful learning, like teachers' understanding of knowledge, critical thinking and dispositions, effective teaching and learning strategies, learning activities, motivation, emotions, assessment and feedback.

2.2 The subject Accounting

2.2.1 Description

A broad definition of Accounting that has stood the test of time is the one provided by the American Accounting Association (AAA, 1966, p.1): “The process of identifying, measuring and communicating economic information to permit informed judgments and decisions by users of the information”. This implies that the subject Accounting deals with the daily recording of financial transactions, determining the financial position of the business and then presenting the financial report to management and other parties involved for informed decision making. This afore-mentioned process comprises three phases: to identify economic events relevant to business; to count and measure; and to communicate the collected information in a combined way to interested users of financial information (AAA, 1966). This means that all financial transactions need to be calculated and recorded, then analysed and interpreted, and finally presented in financial statements. The Curriculum and Assessment Policy Statement (CAPS) for Accounting describes the subject as a discipline focusing on: “measuring performance, processing and communicating financial information about economic sectors. It therefore deals with the logical, systematic and accurate selection and recording of financial information and transactions, as well as the compilation, analysis, interpretation and communication of financial statements and managerial reports for use by different organisations in the world of business” (DBE, 2011, p.8-9).

The subject further encompasses knowledge, skills and values on financial, managerial and auditing fields to prepare learners for a variety of career opportunities in Accounting (DBE, 2011). Gilberto, Silvia, and Edgard (2012) assert that Accounting should be taught with the goal of developing the ability to interpret rules and principles and to analyse and make judgements of financial information that is linked to the International Accounting standards, which are reliable standards for financial reporting and are the primary source of generally accepted accounting principles (GAAP) and the International Financial Reporting Standards (IFRS) as the Accounting standards to be used by publicly accountable enterprises. Generally accepted accounting principles (GAAP) refer to a common set of accounting principles, standards and procedures that companies must follow when they

compile their financial statements and improves the clarity of the communication of financial information. Whereas IFRS is a principle-based framework where there is the potential for different interpretations of similar transactions, which could lead to extensive disclosures in the financial statements (Himick, Brivot & Henri, 2016).

2.2.2 Required skills

As Accounting is a complex and abstract field in which financial information is used to build and sustain a successful business (Wilson, 2014), it requires specific technical skills. These skills include: being able to analyse financial transactions; deciding how to properly record these transactions in financial accounts; and applying GAAP, as discussed previously (cf. 2.2.1), when preparing financial statements and reports. In addition, accountants who do tax preparation and prepare management accounting reports must also have the knowledge and skills to analyse financial records and calculate and control the management for various revenues (income) and expenses. However, trainers in the field of Accounting realised that only teaching the afore-mentioned technical skills is not sufficient to develop a successful accountant. It is also necessary to address broader based skills and competencies, which include critical thinking, oral and written communication, teamwork, ethical awareness, technological competence, decision making and independent thinking (Kermis & Kermis, 2010; Jayaprakash, 2005).

Accountants working according to IFRS (cf. 2.2.1) need technical training, but their biggest challenge may also be mastering the soft skills such as judgment, critical thinking and analysis, integrity and openness, as well as how to make transparent disclosures (Leone, 2008). These skills are seen as important as accountants need to be competent and effective in their work because they need to be competent in critical thinking skills (cf. 2.5.2), where they can process, analyse, and interpret financial information in different economic sectors and communicate it to relevant managers who need to make informed decisions. Another critical skill for accountants that employers seem to value for personal development of accountants is emotional intelligence, which addresses more of the personal competencies like, communication skills, interpersonal skills and teamwork (Kermis & Kermis, 2011). For accountants to be capable and successful in their work they need to constantly develop and improve themselves, but also be able to adapt to changes

that happen in their personal lives. This needs emotional intelligence to attain a more productive work-life balance (Sjoberg, 2001).

Research on the Accounting profession has found that the most successful accountants are both technically and emotionally competent. This means that they are able to record, analyse and interpret financial transactions, but also have work ethic, are able to work independently, have patience, can show empathy and build relationships with colleagues (Akers & Porter, 2003; Goleman et al., 2002; Kermis & Kermis, 2010; Turner, 2004). Therefore, Accounting education must attempt to develop emotional intelligence of learners in addition to technical skills. However, there seems to be little evidence that the development of emotional intelligence is addressed in the education of Accounting learners (Bay & McKeage, 2006).

Based on the above discussion, developers of the recent South African school curriculum realised that the Accounting curriculum should not only focus on the mastery of formulas and procedures, but also on an understanding of the interpretation of financial information and the broader implications on businesses (Kermis & Kermis, 2010). Nqwenya (2014) consequently declares that the newly developed curriculum (i.e. Curriculum and Assessment Policy Statements [CAPS]) impacted on the way the subject was traditionally taught and assessed where the emphasis was mainly on gaining only technical knowledge and skills (Nqwenya, 2014). The new curriculum gives expression to the knowledge, skills and values worth learning in South African schools and aims to ensure that learners acquire and apply knowledge and skills in ways that are meaningful to their own lives (DBE, 2011). Furthermore, the curriculum encourages an active and critical approach to learning, rather than rote learning of given facts (DBE, 2011). Accounting as a subject also needs to ensure that learners become lifelong, independent learners by developing their thinking skills (Nqwenya, 2014; Noe, 2000). Bui and Porter (2010) summarised these skills as functional competencies (e.g. technical accounting expertise), broad business competencies (e.g. general business skills) and personal competencies (e.g. communication, leadership and interpersonal skills). The Accounting Curriculum and Assessment Policy Statements [CAPS] focusses on developing critical, logical, and analytical abilities and thought processes to enable learners to apply skills to current and

new situations and developing the ability to identify and solve problems in the context of the various fields of Accounting (DBE,2011). The curriculum also motivates learners to relate skills, knowledge and values to real-world situations in order to ensure the balance between theory and practice, to enter the world of work and to encourage self-development. Furthermore, it demonstrates to learners how to present and/or communicate financial information effectively and to organise and manage their own finances and activities responsibly and effectively (DBE, 2011). However, there seems to be no clear indication that the development of emotional intelligence is addressed in the curriculum of Accounting.

2.2.3 The current scenario in South African Accounting education

The worldwide recession and economic failure in 2001 have placed the focus on the importance of good Accounting education and specifically the education of auditors. (Buckhaults & Fisher, 2011; Fouché, 2013). Auditing education is the education system itself, and how this system succeeds or fails to provide students with the auditing knowledge and skills they need to become future auditors in the South African chartered accountancy profession. (Botha, 2014). In 2003, PricewaterhouseCoopers (PwC, 2003) already noted that these are challenging times for the Accounting profession because of the important role it plays in rebuilding the public trust in accountants and auditors as they provide reports to stakeholders about the economic activities and condition of their businesses and more recently researchers still confirm this statement (Buckhaults & Fisher, 2011; Fouché, 2013).

In South Africa, the education of chartered accountants (CA) is mainly governed by the South African Institute for Chartered Accountants (SAICA), South Africa's regulating body for chartered accountants. To follow a career as a chartered accountant (CA), one needs to enrol for a B.Com Accounting degree or an equivalent accredited undergraduate qualification at a SAICA-accredited university, followed by a Certificate in the Theory of Accounting (CTA) (Botha, 2014). These academic studies cover the basic fields of accounting, auditing, taxation and financial management. According to the 2017 annual report of PwC, it seems that they are making progress in attracting and developing talented CAs from diverse settings as part of their transformation process (PwC, 2017). For an

accountant to be able to obtain a position in the top Accounting firms as well as becoming a Chartered Accountant (CA) in South Africa, learners need to obtain high marks in the subject Accounting (Botha, 2014). It is therefore important to look at the pass rates of Accounting on school level. To present a trend of pass rates the past ten years' results will be discussed as well as the effect these pass rates have on careers in Accounting.

2.2.3.1 Pass rates

In the South African education system, the matric exams and pass rates are often used as a barometer to measure the performance of the country's education system (Fengu, 2017). This barometer is aimed at assisting the Department of Basic Education to identify schools that are performing well or are underperforming. It is therefore designed to serve a threefold purpose: to assess the current state of development of critical skills in learners; to show progress of learners results over time; and to enable benchmarking of the matric pass rates with different provinces in the country or other similar regions elsewhere in the world (Mushongera, 2017). The DBE (2013) sees this kind of benchmarking as an on-going process of evaluation of the school system, as well as promoting public confidence in the credibility and value of the National Senior Certificate qualification in South Africa. In terms of the National Development Plan's benchmarking process, used by the DBE, seven critical subjects' (Accounting, Mathematics, Physical Sciences, Life Sciences, Geography, History, Mathematical Literacy and English First Additional Language) results are used and Accounting is seen as one of the critical subjects. The purpose of this is that these critical subjects can be explicitly used to assess learners' critical thinking and problem-solving skills, which are important skills that learners need to demonstrate for interpretation and critical writing in examination papers, as well as for the application of the subject (DBE, 2013). However, Jansen-Thomas (2017) feels that any education system that uses matric pass rates alone as a barometer of the well-being of the education system is being dishonest. This means that not only the through-put pass rate with the number of matriculants who passed should be calculated, but also the number of learners who actually reached matric and not just the number of learners who wrote the exam. An education specialist, Jansen (2014), argue that the government "wrongly, but conveniently" use the matric results as "a barometer of the state of the school system" when all other

data reveal that the education system has been stagnating and failing. According to the Council of Higher Education (CHE), “poor academic preparation at school” is the “dominant learning-related reason” for poor university performance, but there is “no prospect” that the schooling sector will be able to produce the numbers of adequately prepared matriculants that higher education requires in the future (CHE, 2013, p.16).

The focus of this next section is to look specifically at the pass rates of the subject Accounting over the past decade. Buckhaults and Fisher (2011) postulate that the standard (pass rates) of Accounting at all levels (schooling and further education and training [FET]) has been on the decline for years, despite the high demand for careers in Accounting. This means that the matric results as well as the pass rates of the university students in Accounting is decreasing and more concern has been expressed that the number of learners taking this subject has also declined (DBE, 2013).

Table 2.1 demonstrates the average pass marks in Accounting in South Africa from 2008-2014 and seems to affirm the aforementioned assumptions. According to the latest information published by the South African Institute of Race Relations (IRR) and Centre for Risk Analysis (CRA) (2015), the data revealed the following pass rates of Grade 12 learners for the subject Accounting in South Africa from 2008-2014.

Table 2.1: Grade 12 pass rates for Accounting, 2008-2014 (actual numbers)

YEAR	LEARNERS WHO WROTE	FAIL 0-29%	PASS 30-49%	PASS 50-69%	PASS 70-100%
2008	176 366	68 176 (38.7%)	77 366 (43.9%)	22 818 (12.9%)	7 922 (4.5%)
2009	174 420	67 046 (38.4%)	75 283 (43.2%)	23 686 (13.6%)	4 312 (2.5%)
2010	160 991	57 629 (35.8%)	73 742 (45.8%)	20 714 (12.9%)	8 906 (5.5%)
2011	137 903	50 731 (36.8%)	59 799 (43.4%)	23 603 (17.1%)	9 313 (6.8%)
2012	134 978	46 461 (34.4%)	53 139 (39.4%)	23 096 (17.1%)	12 256 (9.1%)
2013	145 427	49 905 (34.3%)	57 783 (39.7%)	23 603 (16.2%)	14 125 (9.7%)
2014	125 987	40 300 (31.9%)	51 335 (40.7%)	22 271 (17.7%)	12 068 (9.6%)

Source: Department of Basic Education – email communication, 12 February 2015)

From Table 2.1 it is clear that there was a decrease in the numbers of learners who wrote the subject Accounting in the NCS examinations. Furthermore, the data reveals that from 2008 until 2014 many learners failed the subject with a percentage below 30%. This is a concern for many learners who have Accounting as a subject, as the minimum requirement for a bachelor's degree is a NCS with 30% in the language of learning and teaching, but 50% in the subject Accounting for entrance to study further in the financial field. These results affirm that schools, and particularly Accounting educators, as well as teacher education programmes, are faced with challenges to improve these pass rates (DoE, 2015).

Table 2.2 provides important data relating to Accounting pass rates in South Africa over the past five years. The number of candidates who wrote the Accounting examination in 2017 decreased by 25 426 candidates in comparison to the 128 853 learners in 2016. In 2017, there was also a decline in the performance of candidates as indicated by 66,1% of candidates achieving at the 30% level, with 42,6% achieving at the 40% level, where the pass rate for over 40% was 44.9% of the 128 853 learners who wrote in 2016 (DoE, 2017).

Table 2.2: Overall achievement rates in Accounting achievement (2014-2017)

YEAR	No of learners who wrote	No achieved at 30% and above	%	No achieved at 30% and above	%
2014	125 987	85 681	68.0%	55 837	44.3%
2015	140 474	83 746	59.6%	50 906	36.2%
2016	128 853	89 507	69.5%	57 914	44.9%
2017	103 427	68 318	66.1%	44 041	42.6%

Source: Department of Basic Education (2017 - National Senior Certificate - examination report)

An analysis of achievement above the 40% level reveals there was a decline in the levels of performance considered important for financial-oriented programmes at university for further qualifications in Accounting. However, the fact that 66.1% of the 103 427 learners

who wrote in 2017 only achieved a mark above 30% is concerning and that figure is also higher than in 2015 which was 59.6% of the 140 474 learners who wrote Accounting (DBE, 2017). This indicates that more learners in Accounting are performing poorer and below the level that universities require for a degree in Accounting.

However, from an examination report of the Department of Basic Education (DBE, 2017), over the past four years there has been a noticeable improvement in the performance of candidates in certain aspects of the curriculum that were previously regarded as challenging, particularly the calculation and interpretation of financial indicators (DBE, 2017). Still, the performance of the 2017 group was generally very poor according to the National Diagnostic Report (DBE, 2017). In 2017, there seemed to be a significant increase in the number of weaker performing learners in Accounting even though the learners had access to extensive resource material, such as textbooks, past question papers and examination guidelines, which the Department of Education provided, which they could have utilised to assist them (Motshekga, 2018).

According to Stegmann and Malan (2016), Accounting, specifically in the Auditors and CA programmes, has been taught very successfully on tertiary level at their specific university in South Africa. After an intensive review done by SAICA (2009) of the Accounting programmes at the university, a new teaching and learning strategy, which entails self-directed learning, was adopted by the university that places more emphasis on students having to take responsibility for their own learning. The core assumptions of self-directed learning are active engagement in learning, involving a planned series of activities whereby students actively construct their own knowledge and skills (SAICA, 2009). This review was prompted by the release of a competency framework by the South African Institute of Chartered Accountants (SAICA) in 2009 that outlines the competencies expected of a Chartered Accountant (CA) when they enter the world of work (cf. 2.2.2). However, the Grade 12 results as indicated in table 2.1. and 2.2. show that there continues to be a problem with educating well-prepared learners for Accounting in Higher Education and further professional careers. This was one of the reasons that motivated me to investigate why Accounting seems to remain a challenging subject for learners at school level and why

so few learners continue with the subject. In the next section, the focus will be on learning and learning theories to lay the foundation for successful learning.

2.3 Learning

2.3.1 Learning: clarifying the concept

Since the central focus of this research is on learning in Accounting, it is important to define the concept of learning first. Learning has been defined in numerous ways by many different theorists, researchers and educational practitioners. Watkins, Carnell and Lodge (2007) summarised everyday conceptions of learning as gaining more knowledge, memorising and reproducing, applying facts or procedures, understanding, seeing something in a different way and changing a person as a result of learning. Naturally much research has been done over the years on finding a scientific description of learning, and what it entails, which is reflected in the discussion on learning theories (cf. 2.3.2). However, although a universal agreement on any single definition seems to be non-existent, many definitions employ common elements. Nevertheless, for the purpose of this study Pritchard's (2014) definition of learning is viewed as appropriate. He defines learning as the acquisition of knowledge, gained through study, teaching and instruction or experience from a wide range of sources, such as the teacher, textbooks, the environment and their peers, but emphasizes that learning is about understanding and in which we all participate (Pritchard, 2014). Furthermore, in the context of this study, learning can also be viewed within a functional scope where in the process of gaining knowledge behaviour is changed, shaped or controlled as a result of an experience (De Houwer, Barnes-Holmes & Moors, 2013; Pritchard, 2014). Hewitt (2008) affirms that learning is a complex concept and activity and that teachers and learners should recognize the importance of the social and emotional elements of learning, in addition to cognitive aspects of learning, thinking and problem solving. Our understanding of learning should therefore not be limited to only formal or conscious forms of learning, but need to take informal learning forms, like implicit learning, reactive learning and deliberative learning, also into account (Eraut, 2000). According to Eraut (2000) this means:

- *Implicit learning*. There is no conscious knowledge of what has been learned. This implies that there is no intention to learn and also no awareness of learning at the time it takes place. The learner will implicitly link memories of the past with the current experience.
- *Reactive learning* is seen as being spontaneous in its development and unplanned. The learners are aware of it, but the level of intentionality will vary. There will be a spontaneous reflection on past episodes, communications, events or experiences and the learner will recognise learning opportunities. Its expression in explicit form could also be difficult without setting aside time for more reaction, when it becomes deliberative.
- *Deliberative learning* takes place in a planned context and is the most open of informal learning to conscious reflection with planned learning goals. The learner will review past actions and engage in decision-making, problem-solving and planned informal learning. Hargreaves (2005) believes that deliberative learning appears to be the leading approach to a curriculum where a teacher defines learning objectives in their planning and then design complex activities to be taught by them which they then believe will encourage learning. Learning how to learn is regarded by educationists as critical, in order to encourage learners to take responsibility for their own learning and achievement, i.e. self-regulated learning (Crick, Stringher, & Ren, 2014). Self-regulated learning is essential in a complex, unpredictable world where learners are overloaded with information and is therefore a competence needed for success in the 21st century conditions of risk and uncertainty (Crick et al., 2014). Wang, Shannon and Ross (2013) maintain that the term “self-regulated learning” is the learner's ability to independently and actively engage in the learning process. Zimmerman (1989) emphasises that the relationship between self-regulated learning and academic achievement has been theorised under the social cognitive view which asserts that self-regulated learning is acquired through interaction between self-observation, self-judgement, and self-reactions. This means that the learner is constantly doing self-reflection and experiencing everything through his/her own views.

More importantly, this view postulates that learning is not merely a fixed trait but can be influenced and improved with the aim of achieving successful academic outcomes (Zimmerman, 1989).

The above definitions demonstrate that learning is a complex concept, but can be summarised in the following way: It entails the process of how knowledge is acquired through teaching experiences in a specific environment, using resources and study methods, but where recognition should also be given to the emotional elements of learning (including relationships), as well as the cognitive aspects of learning where thinking and problem-solving skills are developed (De Houwer, Barnes-Holmes & Moors, 2013; Pritchard, 2014; Hewitt, 2008).

The way learning is defined and what is believed about the way learning occurs have important implications for how teachers approach teaching and learning in the Accounting classroom (Ertmer & Newby, 2013). Learning theories generally provide strategies and techniques for facilitating learning, as well as create a foundation for the planning and designing of learning activities (Ertmer & Newby, 2013). Consequently, it is important to elaborate on these learning theories in the next section in an attempt to provide a thorough understanding of learning.

2.3.2 Learning theories

Theories are seen as conceptual frameworks or systems of ideas that explain but also go beyond the facts (Donald, Lazarus, & Lolwana, 2010). The understanding of learning has been influenced by theories dating as far back as 500 BC and the Greek philosophers Plato and Aristotle. Plato (1970) argued that the truth and knowledge were natural and that people had an intrinsic desire to do what they did, meaning that people will learn better if they are motivated and are interested in what they learn, whereas Aristotle's view (1985) was that knowledge is something that is taught.

Although learning theories typically are divided into two categories, namely, behavioural and cognitive, a third category, constructive learning will also be discussed because of its recent emphasis in the instructional design literature (Ertmer & Newby, 2013).

2.3.2.1 Behaviourism

Behaviourists believed that the behaviouristic approach can be regarded as one of the most influential theories of learning because of its broad universal scientific basis that is evidenced on behavioural changes in humans (Jordan, Carlile, & Stack, 2008). Behaviourism can therefore be described as a theory of human learning that focuses on the behaviour of the learner and the change in behaviour that occurs when learning takes place (Woollard, 2010). In this theory learning is consequently compared with changes in either the behaviour or the observable performance of the learner and learning is accomplished when the learner replies with the correct answer. Learning can therefore occur when the learner is characterised as being reactive to specific conditions of the environment (Ertmer & Newby, 2013). Within the behaviouristic approach Tolman (1955) outlined his theory of *latent learning* in which he asserted that people build cognitive maps of their environment from past experiences. The key principle of latent learning is that learning is seen as the potential to perform, whereas the actual performance is the expression of the potential, which means that the teacher must create an environment in the classroom for the learners to express their potential through their performances.

To apply models of behaviourism in the classroom, it is necessary to have clear ideas of the behaviours to be encouraged and reinforced. These behaviours could either be related to general behaviour (good or bad) or be more educational content-related (e.g. spellings and tables) (Ertmer & Newby, 2013). It is also important to establish the nature of the reinforcement that will lead to an understanding of the behaviour and further to the intellectual development of the learners (Pritchard, 2014), meaning that the teacher must plan what will be done in a task and how support, informative feedback, or rewards will enhance the learning. This can be facilitated through pre-assessment of the learners to determine at what point to begin the instruction as well as to determine which tasks are most effective for a particular learner (Ertmer & Newby, 2013). However, it is generally agreed that these behavioural principles cannot adequately explain the acquisition of higher level skills or those that require a greater depth of processing, for example problem-solving and critical thinking (Schunk, 2004). The principle of behaviourism is more focused on the learner obtaining knowledge through responses to conditions in the environment

and the application of learned knowledge in new ways or situations (Ertmer & Newby, 2013). Nevertheless, behaviourism remained the basis of teaching and learning until psychologists such as Snelbecker (1983), Bednar, Cunningham, Duffy and Perry (1991) argued that thinking and learning was a developmental cognitive process in which individuals create, rather than receive knowledge (Bates, 2016). This gave rise to the movement known as cognitivism which is discussed in the next section.

2.3.2.2 Cognitivism

The cognitivist theory grew out of dissatisfaction with the behaviourist approach, which the cognitivists felt was too focused on achieving a specific outcome and not on developing the individual's potential (Bates, 2016). Snelbecker (1983) asserts that psychologists and educators should focus on more complex cognitive processes, such as thinking, problem solving, language development, concept formation and information processing instead of being concerned with only observable behaviour. Cognitivism therefore involves the study of mental processes, such as sensation, perception, attention, encoding and memory that behaviourists were reluctant to study. The emphasis in cognitivism is based on the belief that learning results from organising and processing information effectively and that if educators understand how learners process information, they can design learning experiences that optimise this processing of information (Jordan et al., 2008). Information is consequently actively processed inside the mind of the person and behaviour modification takes place by searching for the relationships that exist between the various bits of information. This means that learning is a process of gathering all relevant pieces of information together until they begin to form a complete picture (Bates, 2016).

Piaget (1953), a pioneer in the theory of cognitivism, believed that in the process of cognitive development people are actively engaged in an ongoing process of adaption. This means that people adjust and familiarise themselves to new situations by continually organising and re-organising information and experiences as they receive it. Gradually, this process creates a better understanding of a person's experiences in the world and the way he understands it, which means that people learn more from themselves by experiencing and doing things for themselves (Donald et al., 2010). According to Piaget's theory on cognitive development (Piaget, 1953), people are constantly confronted with new

information from their physical and social environments. Piaget asserted that people react differently to learning according to their stage of cognitive development and that teachers should take an active, mentoring role towards their learners' learning styles and the different ways in which they respond to classroom situations. He also proposed that for successful learning to take place, learners should be encouraged to learn from peers, must be allowed to learn from mistakes, and that the focus should be on the process of learning, as well as the outcome. More importantly he emphasised that teachers should respect each learner's interests, abilities and limits (Piaget, 1953). Influenced by Piaget, Bruner (1964) emphasises the role of the teacher, language and instruction. He asserted that different processes were used by learners in problem solving, that these vary from person to person, and that social interaction lay at the root of good learning. In order to develop learners' problem-solving skills, Bruner (2009) suggested that the teacher's role is not to impart information by rote learning, but instead to facilitate the learning process by designing sessions that help the individual to discover the relationship between bits of information. Bruner adopted Piaget's ideas about active learning to form the basis of his principles of instruction and discovery learning (Jordan et al., 2008) and he believed that learning is goal-directed and driven by curiosity. Bruner (2009) maintained that giving the individual the essential information they need to solve a problem, but not organising it for them, is a critical aspect of discovery learning.

A theory central to cognition includes social cognition and can be defined as the set of mental processes required to understand, generate, and regulate social behaviour (Beer & Ochsner, 2006). It includes emotion attribution, detection, or decoding of the mental states of others based on immediately available observable information. Emotion attribution can be understood in terms of three related processes, namely the identification of emotionally relevant information in the environment, the generation of emotional experiences and responses to it, and the regulation of these emotional experiences and responses (Phillips, Drevets, Rauch, & Lane, 2003). A key component of social cognition is the ability to understand the thoughts and feelings of other people, also known as mentalisation (Frith & Frith, 2003), and this links with the social constructivism theory, where the social and cultural aspects of people are seen as an important factor in the process of learning through mediation. While Piaget was concerned mainly with how cognitive development

takes place from inside a person's mind and Bruner highlighted the role of the teacher, language and instruction, another influential pioneer of cognitive development namely, Vygotsky, provided some different but equally important insights into the process of cognitive development. He asserted that cognitive development takes place through social interaction and consequently generated the theory of social constructivism (Donald et al., 2010). The next section focusses on social constructivism.

2.3.2.3 Social constructivism

Social constructivism is a learning theory that emphasises the collaborative nature of learning and the importance of cultural and social context in which skills will be learned and applied (Bates, 2016). The main pioneer of the social constructivism theory was Lev Vygotsky who declared that it is not possible to separate learning from the learners' cultural and social context. Based on this postulation Vygotsky (1978) emphasised that meaning is actively constructed in learners' lives by social and cultural interactions and learning can therefore not merely be passed on, but always needs to be reconstructed (Donald et al., 2010). Mediation is the process through which the child takes possession of the cognitive tools such as planning, problem-solving and reasoning with guidance from another person, like the teacher, to construct knowledge (Donald et al., 2010). A key to understanding mediation is Vygotsky's concept of the Zone of Proximal Development (ZPD) where learners can, with help from adults or children who are more advanced, master concepts and ideas that they cannot understand on their own yet. In this zone cognitive structures are thus still in the process of maturing, but which can only mature under the guidance of or in collaboration with others (Vygotsky, 1978). Learning and the construction of knowledge occurs while using spoken and written words and learners can advance within the ZPD by mediation (Lemke, 2001; Wertsch, 1991). ZPD is conceptualised as the distance between a person's cognitive development level as determined by independent learning, and the level of potential cognitive development as determined through collaboration with peers. This model has two developmental levels (Vygotsky, 1978, p.86):

- The level of actual development – this refers to the point the learner has already reached and can problem-solve independently.

- The level of potential development (ZPD) – this is the point where the learner is capable of reaching the outcomes under the guidance of teachers or in collaboration with peers.

Having defined ZPD as the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Karimi-Aghdam, 2016), it is maintained that the ZPD characterizes the mental growth that needs to be develop. To ensure development in the ZPD, the guidance that the learners receive must involve a process whereby two learners who begin a task with different understandings arrive at a common view about the problem. This can be applied in the Accounting classroom by giving the learners a problem-solving exercise, where they must work with their peers collaboratively to solve the problem or calculate the correct amounts.

Vygotsky (1978) also developed the concept of scaffolding to describe the teacher's role in engaging with learners and supporting their cognitive development. The main principles underpinning scaffolding are: building interest in the subject and engaging with learners; breaking the given task into smaller sub-tasks; keeping the individual or group focused on completing the tasks; and modelling positive ways of completing the tasks (Vygotsky, 1978). Thus, scaffolding focuses on adjusting the support offered during a teaching session to fit the child's current level of performance. This technique requires strategies and structures for certain areas of knowledge where these structures are removed as learners understand concepts. This also captures the form of teaching interaction that occurs as individuals work on tasks (Bates, 2016).

Two other pioneers besides Vygotsky who contributed to the theory of social constructivism is Piaget (2001) and Bruner (1957). Piaget focused strongly on learning that occurs within developmental stages and declared that an individual can process only particular types of information at certain ages or stages (Piaget, 2001) (cf. 2.3.2.2). Conversely, for Bruner (1957) the impact of culture on learning is important and states that certain aspects like knowledge, calculations, procedures of any content or principle can be taught to any child at any stage of their development. According to Bruner (1957), the outcome of cognitive

development is the ability to think. He asserted that the intelligent mind creates from experience a type of procedure that enable one to go beyond the data to new and possibly creative expectations (Bruner, 1957). Thus, children as they grow must acquire a way of representing the things that are constant in their environment. So, to Bruner, important outcomes of learning include not just the concepts, categories, and problem-solving procedures invented previously by the culture, but also the ability to discover and develop these things for oneself. Bruner (1957) believed that learners need to be encouraged to discover new things and be creative. Learning must therefore be a process of discovery where learners build their own knowledge, using their existing knowledge, as well as communicating with their teachers at the same time. Bruner (1957) therefore declared that learning is an active, social process in which learners construct new ideas or concepts based on their current knowledge. Consequently, curriculums need to be designed in such a way that one content knowledge builds upon the other. Bruner (1957) provides the following principles of constructivistic learning:

- Instruction must be concerned with the experiences and contexts that make the learner willing and able to learn (readiness). Learners need to relate to their own situations and experiences to feel motivated to learn new things.
- Instruction must be structured so that it can be easily understood by the learner (spiral organisation). Teachers need to explain and demonstrate the new knowledge in an understandable manner.
- Instruction should be designed to fill in the gaps (going beyond the information given). Opportunities must be created in the classrooms for learners to think critically and creatively for better understanding.

It is important to understand that there is no single set of recommendations as to how to incorporate a constructivistic approach to learning into the classroom as each of the above-mentioned major theorists has specific recommendations and they do not always agree with each other (Lutz & Huitt, 2004). However, the common thread that runs throughout a constructivistic approach is that the development of meaning is more important than the

acquisition of a large set of knowledge or skills that are easily forgotten (Black & McClintock, 1995).

In the context of this study where the focus is on successful learning, an effective classroom can be seen as interactive, where teachers and learners are having discussions about new knowledge and is dependent on using constructivist strategies, tools and practices, thus supporting cognitive and constructivist theories of learning. According to Powell and Cody (2009), there are two major types of constructivism in the classroom namely: cognitive or individual constructivism depending on Piaget's theory; and social constructivism depending on Vygotsky's theory. There are however similarities between the two types which include the use of inquiry-based teaching methods where learners create new concepts that build on existing knowledge that are relevant and meaningful. Differences between the two types include the opinion on language development theory where thinking comes before language for cognitive constructivism and language leads to thinking for the theory of social constructivism. Understanding constructivist tools and strategies as mentioned before, can help teachers to develop specific learning methods such as discovery learning, and social interactive activities to develop peer co-operation (Powell & Cody, 2009).

One of the most important considerations to be made in designing instruction in the Accounting classroom from the constructivistic perspective, is to consider the viewpoint of another philosophical founder of this approach, John Dewey, who promoted the value of personal experience in learning (Lutz & Huitt, 2004). Dewey's view suggested that the purpose of education and schooling should be to prepare the learner to live in a democratic society and therefore education should not be separated from life itself and must enable the individual to relate the behaviour to their experiences (Dewey, 1963, 1963; Bates, 2016). The context and environment of the individual can consequently not be set apart from their learning (Dewey, 1963).

Since a central focus of cognitivism is on a person's sense of own being, Dewey (1997) also asserted that learners should be encouraged to have a personal interest in the subject matter, by designing experiences that lead to independent learning and also creating

opportunities for social involvement. Shotter (1991) affirms that social involvement in learning is important because we develop as an individual person and knowing ourselves and the ways in which to behave depend on the kind of social relationships we have.

In the context of the above discussion it is obvious that learning in the Accounting classroom should not exclusively rely on a behaviourist approach to teaching that e focuss on repetition and rote memorisation of information only. As a result, Dewey (1997) proposed a method of "directed living", because he believed that education is important not only for gaining knowledge but also for learning how to live. Learners should therefore engage in real-world, practical learning in which they can demonstrate their knowledge through creativity, collaboration and interaction. This would also develop opportunities to think for themselves and articulate their thoughts. Constructivism can also be classified under three propositions (Dewey, 1997):

- *Interactions with the environment.* How we learn cannot be separated from what we learn. The variety of experiences lead to full understanding.
- *Problem-based learning.* The problem provides the learner with a goal, or purpose, for learning. Dewey believed that when the learning goal presents a problem, it leads to and organises learning.
- *A social environment is critical for individual learning.* Collaborative groups are vital, allowing us to learn alternate views and challenge our own views.

I acknowledge the fact that the context in which learning takes place can be dynamic and multi-dimensional and that a combination of learning theories should be considered in the instructional design process to provide optimal learning. Without discounting other learning theories, such as behaviourism, in this study, cognitivism and social constructivism will be regarded as the driving forces behind the instructional design process for positive Accounting classroom conditions for successful learning. The focus of instruction in the Accounting classroom should shift from teaching to learning, from passive transfer of facts and routines to the active application of ideas to problems. As mentioned before, Accounting is a subject that should be taught with the goal of developing the ability to

interpret rules and principles and to analyse and make judgments of financial information that is linked to the international Accounting standards (cf. 2.2.2). Both the cognitivists and constructivists view the learner as being actively involved in the learning process where the learners must process, analyse, and interpret the given information. As the focus of this study is on creating classroom conditions for successful learning, attention will be drawn in the next discussion to the concept of successful learning, as well as the factors influencing successful learning in the classroom.

2.4 Successful learning

2.4.1 Successful learning: a concept clarification

Success does not necessarily imply effectiveness (Mihalicz, 2014). While it makes sense that effective learners are more likely to be successful, it may not always be the case, as success does not presume effectiveness (Watkins et al., 2007). The focus of this study is on successful learning, but as the subject Accounting is very much dependent on effectiveness, it is important to integrate the concept of effective learning in the discussion. The word “success” is defined as a positive result of an effort or the achievement of positive results in a specific subject (Jankalova, 2013). In the Standards for Test Construction (APA, 1999), achievement is basically viewed as the competence a person has demonstrated in a subject. However, achievement is the result of many intellectual and non-intellectual inputs influenced by many factors, both individual and contextual (Li et al., 2010) (of which some will be discussed in more detail underneath). This can include learners’ interests in learning specific subject matter, their beliefs about intelligence, the strategies they use, their approaches to studying, learners’ relationship with teachers, their desire to seek challenges, their ability to control and regulate conflicting situations, and their academic performance (Dweck, 1999; Zimmerman, 1997; Larson & Rusk, 2011; Woolley & Grogan-Kaylor, 2006).

In this study, the emphasis will be on the term “academic success” as defined by York, Gibson, and Rankin (2015). They (York et al., 2015, p.4) define academic success as “an unstructured concept that broadly incorporates issues, such as academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired

knowledge, skills and competencies, persistence to complete tasks successfully, attainment of various educational outcomes and post-university performance”.

Effectiveness on the other hand is defined in terms of being able to produce a desired result through a combination of direct and delegated output (Mihalicz, 2014), meaning that a person will be effective if they achieve the outcomes. The difference between success and effectiveness is that when something is effective it produces a result through a combination of direct and delegated output, using resources (Mihalicz, 2014). York et al. (2015) argue that academic success refers specifically to the acquisition of specific knowledge and skills demonstrated through the completion of academic courses.

The main focus of this study was to create a model to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom. In this study, successful learning is seen as the outcome or as the result of the process of learning, where effective learning will contribute to this process, as if the process was managed effectively and a successful result or outcome will be possible. In an attempt to clarify the relation between the two concepts (successful learning and effective learning), a discussion will follow in the next section about these concepts and how they are seen by different researchers

2.4.1.1 Successful learning

According to Grosser (2007), successful learning requires among others, the execution of a range of cognitive and meta-cognitive skills and strategies. That said, successful learners are those who meta-cognitively, motivationally and behaviourally self-regulate their learning in order to achieve their goals and to be successful (Schleifer & Dull, 2009). Successful learning is usually measured by testing how far the desired learning outcomes of any programme have been achieved using specific criteria and through analysing what makes learners want to learn and how they perceived the value of the processes and outcomes of learning (Broadfoot, 2008).

Walton (2010) asserts that those learners who experience success are more likely to be motivated to learn as it is discouraging and frustrating when the pace of work is too fast, or

the work is too difficult. With regard to motivation of learners, successful learning is also linked to learner achievement and the emphasis should be on learning from a wider perspective including the effects of the classroom experience and individual roles within. Having a sense of learning successfully, making progress and being in control of that learning are not necessarily reflected in the kind of learning outputs which schooling demands (Coyle, 2013) as the emphasis seems to be more on formal measurement. However, measuring learner attainment provides only part of the picture of success, as not all aspects of successful learning can be measured by formal testing alone (Coyle, 2013).

2.4.1.2 Effective learning

Coyle (2013) asserts that effective learning is usually measured by testing how far the desired learning outcomes of any curriculum have been achieved using specific criteria. According to Watkins et al. (2007), effective learning is an activity of construction handled with others and driven by the learner as well as the monitoring and review of the effectiveness of approaches and strategies for the goals and context. They also summarise the main features of an effective learner, which is an active and skilled learner who takes responsibility in collaboration with their teachers and peers for their learning, understands their own way of learning, and monitors and reflects on their learning. Clarke & Braun (2013) describes the learning intentions of any lesson as being what the outcome of the learning looks like and argues that good learning intentions are those that make it clear to the learner what's expected of them so that they know exactly where and when to invest effort, strategies and thinking. However, effective learning will take place best when students have opportunities to express ideas and get feedback from their teachers and peers (Coyle, 2013). A basic understanding of processes of learning is essential for teachers who intend to develop activities that will have the potential to lead to effective learning in classrooms (Watkins et al., 2007).

Mcness, Broadfoot and Osborn (2003) affirm that effective teachers are extremely important to maintain a creative learning environment and keep inspiring learners to work hard. However, they ask the following question: Is there a way of telling how much of a learners' success should be attributed to teacher effectiveness? With this distinction made between successful and effective learning, Mcness, Broadfoot and Osborn (2003)

investigated teachers' concerns about workloads and the tension between the requirements of government and the needs of the learners. They highlighted the impact of government policies focused on teacher and learner performance of what is centrally measured or analysed as "effective learning". This means that the government demands for the delivery of performance from teachers and learners and also created a policy (i.e. CAPS) which expects from teachers to be more effective in the interest of accountability, while ignoring the teachers' commitment to the other aspects of teaching, for example quality of learning and to enhance the ability of learners to engage with the necessary skills for lifelong learning (DBE, 2011). It is therefore necessary to look at factors influencing successful learning, which will be discussed in detail in the next section.

2.4.2 Factors influencing successful learning

Successful learning is influenced by numerous factors but most important is the engagement of the learner with the environment, for example, an emotional connection with the surroundings in which the learning takes place. This engagement by the learner is affected by motivation and the learner's perceptions, which in turn are marked by the learners' previous experiences, preferred learning styles and most importantly, by the context and environment in which the learning takes place (Harvey & Jacobs, 2009). Of the many school factors that have an impact on learners' academic achievement, teachers and teaching practices have been found to be very prominent (Harvey & Jacobs, 2009). Since teachers' attitudes (shown by tone of voice, comments, enthusiasm and interest in the subject), affect learners directly and indirectly they have a central role in establishing a supportive classroom environment (Dent & Harden, 2001). Dweck and Cohen (2016) assert that there are many reasons why learners differ in their academic performance. This can include cognitive ability, home environment, or teacher and school quality. Yet even when these factors are accounted for, there still seems to be a wide variation in learners' performances (Dweck & Cohen, 2016). Both psychological and physiological factors play a role in learning and may affect the learning process and influence successful learning (Centre for Neurosciences and Learning, 2017). A distinction between these psychological and physiological factors will be made next.

2.4.2.1 Psychological factors

Psychological factors can be divided into intellectual, mental and emotional factors (OECD, 2017).

Intellectual factor: Success in school is generally regarded as closely related to the level of the intellect (Mondal, 2010). It is largely believed by educationists that learners with low intelligence often encounter serious difficulty in mastering schoolwork. The natural capability of an individual is therefore seen as of primary importance in determining the effectiveness of the learning process (Organisation for Economic Co-operation and Development (OECD), 2017). For example, many learners attribute failure to insufficient intelligence rather than to their effort or the learning strategies they are using, particularly when learning challenging subjects or facing difficult school changes (Hong & Lin-Siegler, 2012). Research has also shown that when learners believe that their intellectual abilities can be developed, they are more likely to take on challenges, utilise sustained effort, and learn from errors and setbacks (Blackwell, Trzesniewski, & Dweck, 2007; Moser, Schroder, Heeter, Moran, & Lee, 2011). This, in turn, they believe can lead to greater academic achievement (Blackwell et al., 2007).

Mental factors: Within mental factors, attitude is viewed as the main influence of successful learning (Burden, 2016). Attitudes are usually seen as reasonably stable forms containing cognitive, affective and behavioural elements (Bizer et. al. 2003). It is important not to confuse attitudes with emotions and it is important for teachers to understand and to deal with the emotions experienced by learners (Pekrun & Linnenbrink-Garcia, 2014). Attitudes play a major role in the mental composition and general behaviour of the individual and therefore have an effect on the development of a personality, as well as on the willingness to progress in school (OECD, 2017).

Emotional factors: Emotions have a critical influence on successful learning (Sylwester, 1994) and more importantly it has been found to be directly related to motivation (cf. 2.5.5), which is needed for academic success (OECD, 2017). For example, if for some reason a learner lacks motivation to work hard in a subject because maybe he fails to see the value, dislikes it, struggles to understand it or do not like the teacher and then struggles to

progress it can result in a negative emotional state (OECD, 2017). Emotion has a substantial influence on the cognitive processes in humans, including perception, attention, learning, memory, reasoning and problem-solving (Tyng, Amin, Saad & Malik, 2017). Research has shown that learners experience many emotions during lessons, while studying and when writing tests and examinations (Pekrun & Linnenbrink-Garcia, 2014). Zimmerman (1997) states that if you feel negative about a performance, it is likely that you will feel even less positive the next time you undertake a task, which you previously found too difficult. Or contrariwise if there are strong motivation to do well in the subject, it results in a positive emotional state (Zimmerman, 1997). Some studies further report that positive emotions facilitate learning and contribute to academic achievement, being mediated by the levels of self-motivation and satisfaction with learning resources (Um et. al, 2012).

2.4.2.2 Physiological factors

Physiological factors can be divided into learning, physical, social, environmental factors and teacher personality (OECD, 2017).

Learning factors: Successful learning depends on whether, and how well or how much the learning experiences bring into play the brain's inner resources and the rules of how the brain learns (Smilksteit, 2003). People's brains, across age, gender, race, culture and individual differences, are some internal factors that learn by the same physiological process (Smilksteit, 2003). Other factors that lead to a lack of mastery of what has been taught, incorrect study methods, and limitation of background knowledge may also affect the learning process of any learner (OECD, 2017). Furthermore, if the teacher proceeds too fast and does not constantly follow-up on the learners' understanding of what is being taught, the learner can develop shortcomings in his/her understanding and knowledge which could interfere with the successful learning progress (Walraven, 2000).

Physical factors: Factors such as ill health, delayed physical development, under-, or malnutrition, sensory and physical impairments can have a negative impact on the ability to learn (OECD, 2017).

Social factors: Contextual factors such as religion, values, norms and culture influence people's daily lives and also their behaviour (Gifford & Nilsson, 2014). Thus, in classrooms,

where learners from different social backgrounds learn together, and a constructive, collaborative learning atmosphere is created can result in a positive learning environment (OECD, 2017). Conversely, if unhealthy competition between learners is encouraged and this effects in a rating system of good and poor performing cohorts a stressful and negative learning environment can arise. This can also be directly related to a complex mind-set of positive or negative motivation to learn. As a consequence, it has been found that some learners are in a continuous state of unhappiness because of their fear of being victims of the disapproval of their teachers and classmates. (OECD, 2017).

Teacher's personality: A teacher's personality refers to the inner-qualities of a teacher, which are reflected in their expression of values, beliefs, behaviour, and attitude (Sronge, Tucker & Hindman, 2004). The teacher as an individual personality is an important element in the learning environment and can have a significant impact on the academic failures and success of the learner. For example, the way in which the teacher's personality interacts with the personalities of the learners in the classroom can determine which kind of academic behaviour develops from the learning situation (OECD, 2017). Some of the key personal qualities associated with a good teacher personality include, being caring, fair and respectful, having positive attitude towards the teaching profession, participating in social interactions with learners, being sincere, and practicing reflective teaching (Sronge, Tucker & Hindman, 2004). Importantly, the value of a teacher is not only in the consistent performance of routine tasks, but in the power to lead and to inspire learners through the influence of a good moral personality and example which is being set. Thus, effective teaching and learning are greatly influenced by the personality of the teacher, which should be evident in the love for learners, sympathy for their interests, being tolerant, and having a capacity for understanding when learners struggle in their learning (OECD, 2017). The teacher must therefore recognise that his /her presence during all teaching and learning activities in the classroom is directly affecting the behaviour of the learners (Garrison & Cleveland-Innes, 2005).

Environmental factors: The physical conditions needed for learning is also a factor that affects the effectiveness of learning in either a positive or negative manner. This includes the classroom (e.g. quality of light, airflow and furniture), adequate availability and quality

of textbooks, teaching equipment, school supplies, and other instructional materials. (OECD, 2017). How the learners perceive the classroom environment plays an important role in their performance (Chang & Beilock, 2016), where the environmental concern is also associated with the choice of activities chosen for learning (Gifford & Nilsson, 2014).

This study focuses strongly on positive classroom conditions for successful learning. In the next section, positive education and its role in creating positive classroom conditions will be discussed in detail to highlight the importance of this in successful learning.

2.4.3 Positive education as an approach for successful learning

The field of psychology has traditionally focused mostly on the study of psychopathology and how to eliminate it (Khaw & Kern, 2015). The relatively new field of positive psychology complements this approach by providing the conditions and processes that contribute to flourishing or optimal functioning of people, groups and institutions (Gable & Haidt 2005). Positive psychology has three fundamental concerns: positive emotions, positive individual traits, and positive institutions (Donaldson, Dollwet, & Rao, 2015). Understanding positive emotions involves the study of contentment with the past, happiness in the present, and hope for the future. The positive individual traits consist of the analysis of strengths and individual has, such as the capacity for love and work, courage, compassion, resilience, creativity, curiosity, integrity, self-knowledge, moderation, self-control, and wisdom. Finally, understanding positive institutions requires the study of the strengths that promote better communities, such as justice, responsibility, civility, parenting, nurturance, work ethic, leadership, teamwork, purpose, and tolerance (Donaldson, Dollwet, & Rao, 2015).

The field of positive psychology was originally founded in happiness and positive emotion, as empirical studies conducted during the last decades, has changed the understanding of well-being (Diener, Lucas & Scollon, 2009). Research shows that well-being and related constructs such as life satisfaction, happiness and enthusiasm have several positive effects on health, success, education and other important life outcomes (Diener & Chan, 2011; Diener & Tay, 2012).

Advances in neuroscience and psychology research show that learning is greatly affected by well-being in that it enhances learning and academic performance (Waters, 2015). Therefore, schools should be developmental settings in young peoples' lives where they can develop the key skills and competencies needed to be academically successful (Hamilton & Hamilton, 2009). This requires for schools to provide stable environments in order to promote well-being (Bond et al., 2007; Short & Talley, 1997; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). According to Seligman (2011), some elements of well-being are meaning and purpose. Meaning refers to one's purposeful existence in the world, while purpose is related to feeling a sense of accomplishment and success. In school contexts, Noble and McGrath (2008, p. 129) claim that, "learners have a sense of 'meaning' when what they do have impact on others beyond themselves. They have a sense of 'purpose' when they pursue worthwhile goals". Education should therefore be about accomplishment and a pathway into the real-life world of work (Adler, 2005). In order to achieve this, both the skills of well-being and the skills of achievement must be taught (Hamilton & Hamilton, 2009).

Capitalising on schools' potential to promote well-being, positive education is a recently developed paradigm that refers to the application of positive psychology in educational contexts (Green, Oades, & Robinson, 2011). There have been philosophers at various times and with diverse theoretical orientations ranging from Aristotle (1985), to Noddings (2003), and Brighouse (2006) who consider well-being and happiness to be fundamental educational goals (Kristjansson, 2012). Thus, education should not be a negative and boring experience to learners and teachers as learning marked by negativity is counterproductive in that it distracts learners away from learning and boring learning is highly ineffective (Knoop, 2013). Education needs to be a positive and inspiring experience (Knoop, 2013; Seligman et al., 2009). Positive education is defined by Seligman et al. (2009) as education for both traditional skills and for happiness. They argue that the high existence of depression among young people, the small rise in life satisfaction, and the interaction between learning and positive emotions are important factors to consider which necessitates that skills for happiness should be integrated in teaching. According to Knoop (2011), good mentors (teachers) create a context in which development of learning is supported (Knoop, 2011). In his model "How good comes from good in education", he

indicates that if some specific favourable experience is present in the learning environment of the school, learners will be motivated to learn more, as well as contribute to better learning (Knoop, 2011). Furthermore, Positive Education can be seen in different ways but generally, it is about the application of psychological knowledge that focusses on individual strengths, well-being, social relations, and leadership (Knoop, 2013). A school is an excellent location for well-being initiatives because children and adolescents spend much of their time in school (Hofferth & Sandberg, 2001). Learners' day-to-day interactions and experiences with peers, teachers and coaches are vital to their well-being. In addition, most parents and educators see the promotion of well-being and character as an important aspect of schooling (Cohen, 2006). Seligman (2011) further defines positive education as traditional education focused on academic skill development, complemented by approaches that nurture well-being and promote good mental health. In addition, the significant and transformative contribution that effective teaching and educational theories bring to the process of applying principles of positive psychology in educational contexts should also be acknowledged (Seligman, 2011).

The fundamental goal of positive education is to promote flourishing or positive mental health within the school community, helping learners to understand key ideas and concepts positive education, engaging them meaningfully in exploration and reflection, and helping them to apply the skills and mind-sets for flourishing in their lives (Norrish, Williams, O'Connor, & Robinson, 2013). Positive education seeks to combine principles of positive psychology with best-practice teaching and with educational standards to promote optimal development and flourishing in school environments (Norrish et al., 2013; Michalos, 2017). Consequently, interest in positive education continues to grow and the important role played by schools in fostering well-being is recognised. Furthermore, the link between well-being and academic success is emphasised by Norrish et al. (2013). To understand the well-being of people better, it is essential to look into some elements of well-being. In 2011, the leading positive psychologist Martin Seligman proposed a model to identify the important elements of well-being. His PERMA well-being model, identified five essential elements of well-being: positive emotions, engagement, relationships, meaning, and accomplishment.

Positive emotions: People who frequently experience and express positive emotions like happiness, pleasure and comfort tend to be more resilient (Fredrickson & Tugade, 2004), more socially connected (Mauss et al., 2011), and more likely to function better, meaning that they have increased feelings of empowerment, self-confidence and self-esteem (Fredrickson & Losada, 2005).

Engagement: Engagement refers to a deep psychological connection (e.g., being interested and engaged) to a particular cause, activity or organisation. Engagement is an important concept in education. In the short-term, learner engagement in learning is a good predictor of academic outcomes. In the long term, it predicts patterns of attendance, academic resilience and school completion (Jimerson et al. 2003). Thus, there is a link between learner engagement, achievement and well-being which emphasises that the more learners are actively engaged and achieving in learning, the greater their sense of well-being (Noble and McGrath, 2008; Zins et al., 2004).

Relationships: One of the greatest topics across educational research is the significant role that positive school-based peer relationships play in the life of children and adolescents (Gristy, 2012). Such relationships can make a positive contribution to a person's sense of belonging, engagement, motivation and achievement (Martin & Dowson, 2009).

Meaning: Meaning refers to having a sense of purpose and direction in life and feeling connected to something larger than the self. People who claim that they have more meaningful lives often also report being fairly happy and satisfied with their lives as a whole, although a meaningful life is not necessarily a happy one (Baumeister, Vohs, Aaker, & Garbinsky, 2013).

Accomplishment: Across many cultures, making progress towards one's goals and achieving excellent results can lead to both external recognition and a personal sense of accomplishment. Accomplishment is also subject to personal ambition, drive, and personality differences (Seligman, 2011). For example, a mother who raises a beautiful, compassionate family might see her life as extremely successful, whereas her husband may define success as achieving a promotion at work (Butler & Kern, 2014). Moreover, this model has been applied to the field of education. For example, Noble and McGrath (2008)

developed a positive educational practices framework that adapted the PERMA well-being model to learners' well-being in school settings. The PROSPER (Positivity, Relationships, Outcomes, Strengths, Purpose, Engagement, and Resilience) framework of Noble and McGrath (2015) has several similarities to Seligman's (2011) PERMA model of well-being, but specifically includes two additional significant components: strengths and resilience.

Strengths: A focus on strengths in schools encourages the valuing of the different strengths of learners, staff and the whole school community collectively. It also promotes the provision of opportunities for everyone to identify, use and further develop their strengths through curriculum opportunities and school-based activities (Noble & McGrath, 2015). Taking a strengths-based approach with students, teachers and the whole school community in the curriculum and planning means, that learners identify, explore and apply their own character and strongest abilities during the lessons in classroom, in extra-curricular and leadership activities. The teachers, for example make use of task differentiation based on learners' character & ability strengths, using different strategies to teach and giving them different activities to do.

Resilience: All learners face difficulty at one time or another. Resilience has been defined as "the ability to persist, cope adaptively and bounce back after encountering change, challenges, setback, disappointments, or difficult situations and to recover to a reasonable level of well-being" (McGrath & Noble, 2011). It is also seen as the capacity to respond adaptively to difficult circumstances and still succeed (Noble & McGrath, 2015). McGrath and Noble (2011), view resilience as a crucial aspect for academic achievement in school and in life, as it develops important thinking skills which is needed for success.

Positive education is then finally defined within the PROSPER context as the integration of the fundamental principles of positive psychology with the structures, practices and programs that enhance both well-being and academic achievement. Therefore, the ultimate aim of positive education is to enable all participants of a school community to succeed and flourish (Noble & McGrath, 2015). In South Africa, specific concerns have arose around low learner performance, underqualified teachers in the classrooms, teacher absenteeism, the academic quality of school graduates and numerous effectiveness challenges in terms of

teaching and learning (Eloff, 2013). Positive education can play an important role to address these concerns. According to Borkar (2016), positive education in schools is recognised by learners who experience mainly high levels of subjective well-being in the form of positive emotions and attitudes towards school. These schools engage in the process of helping learners acquire core competencies to recognise and manage emotions, set and achieve positive goals, appreciate the viewpoints of others, establish and maintain positive relationships, make responsible decisions and handle interpersonal situations constructively (Borkar, 2016). Furthermore, in school contexts, Noble and McGrath (2008) refer to how schools help learners experience positive feelings such as belonging to their school, safety from bullying and violence, satisfaction and pride through experiencing and celebrating success, excitement and enjoyment by participating in fun activities or special games and optimism about their success. In addition, positive relationships with peers and teachers help learners to experience support and acceptance, and feel connected to school. Constructive relationships between teacher and learners can also motivate learners to achieve and behave according to a school's culture, contributing to a positive school culture (Noble & McGrath, 2008). According to Diener (2011), strong meaningful social relationships with their teachers can have a positive impact on learners working towards goals and to help them achieve these goals. These aspects of positive feelings and relationships in the classrooms can most probably support Accounting learners in the classrooms to achieve successful learning.

From the above discussion, it seems possible that learner well-being can enhance learning and academic performance. Therefore, the link between well-being and academic success should be emphasised in the classrooms and feelings of accomplishment and success should be promoted by the teachers. Furthermore, with regard to well-being of learners, successful learning is also linked to learner achievement which requires, having a sense of learning successfully, making progress, achieving success and being in control of one's own learning. Consequently, to create these experiences, some factors that may affect the classroom conditions and influence successful learning need to be explored, which will be addressed next.

2.5 Factors influencing classroom conditions in the Accounting classroom for successful learning

The focus of this research is on creating positive Accounting classroom conditions to ensure that successful learning takes place. This section will explore what this means.

Classroom conditions indicate the creation of a learning environment by the teacher where learners feel safe, nurtured and intellectually stimulated and challenged (Lyke & Young, 2006; Lake, 2009). This can be done through choosing the most effective teaching methods and strategies, as well as teaching and learning activities through which an intellectual environment that inspires learners to explore on their own, is created (Crotty, 2002; Lake, 2009). This requires that effective teaching takes place. Effective teaching in the classroom requires a lot of understanding of a subject's basic concepts, as well as an ability to make connections among the topics (McCoy, 2011).

One of the main objectives of Accounting education is to prepare learners for a successful professional life and this goal can be achieved by teachers using their knowledge, identifying core skills and formulating strategies to develop well-equipped learners (Mcvay, Murphy, & Yoon, 2008).

2.5.1 Teachers' understanding of knowledge

The focus of education in recent years are not only on improving learner outcomes, but is also about improving the quality of the teaching workforce (Guerriero, 2016). This includes the issue of teachers understanding the content knowledge as this can have an impact on the quality learning. This necessitates that teachers in Accounting education not only stay current with new teaching methodologies to develop learner competencies, but also stay in touch with new curriculum changes and new content knowledge in the subject. By continuously gaining new knowledge effective teaching and learning can be ascertained which leads to improving teacher quality (Calderhead, 1991). This is important as the quality of teaching can determine progress in learner achievement. Another indicator of teacher quality is the pedagogical knowledge (PK) of teachers (Voss, Kunter, & Baumert, 2011). Pedagogical knowledge involves understanding the process of teaching and learning, the concept of knowledge, as well as the way teachers' knowledge is

implemented in the classroom (Guerriero, 2016). Guerriero (2016) describes pedagogical content knowledge (PCK) as the knowledge which integrates the content knowledge of a specific subject and the pedagogical knowledge for teaching that particular subject. The pedagogical knowledge of teachers therefore includes all the required cognitive and expert knowledge of teachers for creating effective teaching and learning environments for all learners (Voss et al., 2011). Calderhead (1991) views teaching as a knowledge-rich profession with teachers as learning specialists. This means as professionals in their field, teachers are expected to process and evaluate new knowledge relevant for their core professional practice and to regularly update their knowledge base to improve their practice and to meet new teaching demands.

Subject-content knowledge (SCK) is a very important aspect that a teacher requires in his preparation in order to ensure successful learning in the classroom (Nqwenya, 2014). This includes, according to Kilpatrick (2001), knowledge of facts, concepts, procedures and the relationships among them, as well as the knowledge of the subject as a discipline. Furthermore, Ball, Hill and Bass (2005) state that teachers' subject knowledge is important for developing instructional materials in a productive way, as well as for assessing learners' progress. Consequently, when teachers lack the subject knowledge and are unsure how the content is structured, they tend to teach it as a scattering of isolated facts and struggle to explain and represent topics in ways that make sense to learners (Jones & Moreland, 2005).

In Accounting classrooms, teachers must have a solid knowledge base of content, as well as teaching strategies in order to reduce the difficulties faced by Accounting learners in the further education and training (FET) schools. This is important as Gorski (2009) reports that teachers seem to struggle in the Accounting classroom with subject content knowledge, pedagogical content knowledge, Accounting knowledge for teaching and Accounting classroom practice (Gorski, 2009). It is therefore necessary to understand these types of knowledge to enable an understanding of the Accounting classroom practice:

Subject Content knowledge (SCK): Shulman (1987) argues that content knowledge (subject matter knowledge) includes knowledge of the subject and its organising structures. The Accounting curriculum continues to change in response to rapidly changing market demands (Conradie, Ludwig & Moyce, 2007) and to address international Accounting standards. This requires that learners are trained to interpret international, as well as national, rules and principles and being able to analyse it (Gilberto et al., 2012). As a result of these continued changes new topics enter the curriculum regularly and the relative emphasis among topics also advances. Consequently, it is important to keep up to date with subject content knowledge.

Pedagogical content knowledge (PCK): Depaepe, Verschaffel and Kelchtermans (2013) assert that pedagogical content knowledge includes an understanding of what makes the learning of specific topics easy or difficult. Teaching Accounting is not about just having a set of general pedagogical strategies, it is about developing a complex and contextualised set of knowledge to apply to specific problems of practice (Abell, 2008). However, in many Accounting classrooms, it seems that the main aim of teachers is primarily to complete the content of the lesson and to work through the curriculum, not necessarily the process of teaching as such (Nilsson, 2008). Thus, how to teach Accounting to ensure that successful learning takes place for all learners seem to be not a priority in most of these classrooms.

Accounting knowledge for teaching: The Accounting knowledge that is required by the CAPS includes the skills and values that relate to the fields of financial Accounting, managerial Accounting and auditing (DoE, 2011). Although the subject is divided into three fields, the curriculum emphasises the importance of teaching it holistically as these fields are interrelated and should be integrated to strengthen the development of conceptual understanding (DoE, 2008). The integration of knowledge takes place through learning and assessment activities which must enable learners to connect knowledge from different parts of the same subject (DoE, 2008). However, Accounting knowledge for teaching goes beyond content and pedagogical content knowledge since the skill of applying knowledge in practice is essential (Hill, Ball, & Schilling, 2008). It is therefore important to focus on the Accounting knowledge that must be acquired, but also the application and practice of the knowledge using different skills (such as critical-thinking, communicating, mathematical,

collecting, analysing, interpreting, and organising skills) (DoE, 2008). Practical tasks are consequently important, because teaching involves showing learners how to solve problems, answering learners' questions and checking their work, which also demands that the teacher understands the content of the Accounting curriculum in order to interpret it for learners (Hill et al., 2008). This requires teaching methods that promote active participation of learners in their learning (cf. 2.3.2.2; cf. 2.3.2.3) which can be achieved through teaching methods such as case-study analysis, individual and group projects, problem-based presentations, problem-solving and real-life scenarios, role play, discussions and simulations (Fortin & Legault, 2010; Farrell & Farrell, 2008; Ballantine & Larres, 2007). This kind of active learning requires the development of critical thinking skills and dispositions which will be discussed in the next section.

2.5.2 Developing critical thinking skills and dispositions

Pertinent to creating positive classroom conditions in order for learners not to experience anxiety and become motivated and to experience success in the subject is the development of skills and dispositions to think critically in Accounting. Facione (2013) asserts that critical thinking requires a wide range of cognitive skills that include interpretation, analysis, evaluation, inference, explanation, and self-regulation. With reference to Accounting, the American Institute of Certified Public Accountants (AICPA) 1999, p. 656) defines strategic critical thinking as expecting accountants to have the skills to "communicate to others the vision, strategy, goals, and culture of organizations."

Accountants therefore, require strategic thinking, but also critical thinking elements that focus on the ability to identify strengths, weaknesses, opportunities, and threats involved in a situation, research a variety of data from different sources that can be used in analysing the problem to assist with decision making and apply knowledge from one situation to another (Camp & Schnader, 2010). Furthermore, Accountants must be able to identify relevant facts, evaluate judgment, and interpret information. They also need to follow a clear, ethical, and logical path when performing their work and communicating their thoughts to peers and clients. Thus, Accountants must be competent in critical thinking to be effective in their work, especially in a competitive business environment (Freeley &

Steinberg, 2000). Consequently, it is evident that critical thinking skills are important for Accounting professionals and must therefore be developed in the school classroom.

A generic problem among Accounting learners, according to Mladenovic (2000), is that they focus more on the “how” of Accounting (procedures, rules, regulations, etc.) rather than the “why” (governmental regulations, political factors, etc.). In Accounting education, a common experience for learners are to perceive inaccurately that Accounting is focused only on the numeric, i.e., gathering and recording figures. However, it is essential that learners are able to move from the “how” to the “why” stage of thinking, (Finleya & Waymire, 2012, p. 36). The development of critical thinking skills will become evident as they deliberate and persevere in their problem solving, work to make their oral and written products more precise and accurate, consider others’ point of view, generate questions and explore the alternatives and consequences of their actions (Mangieri & Collins, 2004). When teachers present alternative ideas, concepts, and interpretative frameworks, they can serve as powerful motivators for critical thinking. However, Francisco, Kelly and Parham (2003, p. 28) declare that the focus of schools’ and universities’ Accounting courses has been on the mastery of the Accounting curriculum, with little time spent helping learners to develop the necessary skills in “analytical thinking, decision making, and communication”. In terms of the Accounting content and structure of the 2017 Grade 12 final examination paper, a detailed analysis of the question paper revealed that 34% of the Accounting exam paper was not challenging (DBE, 2017). It was reported that this paper did not meet the target regarding cognitive demand and level of thinking as set out in CAPS for Accounting (DBE, 2017). There was a tendency to use more lower-order cognitive questions rather than high order questions that called for application (DBE, 2017). According to Collins and Mangieri (1992) as well as Borich (2004, p. 370), “to help a learner think critically requires a teacher to perform several unique teaching functions, namely: to provide information about when and how to use mental strategies for learning and explicitly illustrate how to use these strategies to think through solutions to real-world problems, which is particularly applicable to the teaching of Accounting”.

Case and Wright (1997) suggest that there is an assumption that learners naturally know how to think critically, and all that teachers have to do is give them the opportunity.

They argue instead that learners need to be taught to organise five types of resources in order to think critically which include the following. They need to:

- have enough background information about the topic they are addressing;
- know what criteria to apply in evaluating alternatives;
- understand key critical thinking concepts to communicate about the problem.
- be able to use a variety of thinking strategies, such as reframing, using metaphors, adopting multiple perspectives, and employing graphic tools to organise ideas.
- develop the necessary habits of mind for critical thinking, including open and fair mindedness, independent thinking, an inquiring mind, respect for high quality, and intellectual discipline (Case & Wright, 1997).

Two key critical thinking dispositions that have been identified by Costa and Kallick (2009) that, according to me, could improve results in Accounting are accuracy and persistence. These dispositions should become *Habits of Mind*. Costa and Kallick (2009) define Habits of Mind as being those dispositions that are skilfully and mindfully employed by characteristically successful people, when confronted with problems, the solutions to which are not immediately apparent. Developing a strong habit of striving for accuracy means, you take control of your goals and work towards them attentively. This includes working with precision and expertise and taking time to review the final product (Costa & Kallick, 2009). Persistence refers to sticking to a task until it is completed which results in becoming an efficient learner. This means that efficient people do not give up easily, are able to analyse a problem, and develop a system, structure, or strategy to attack a problem (Costa & Kallick, 2009).

Bookkeeping is an important element of financial reporting in Accounting and requires accuracy and precision. This is necessary because it records transactions and stores data, which is summarised and organised later in the form of financial reports. The entire bookkeeping process is based on a simple but essential equation (the “Accounting equation”) and is subject to a standard, commonly accepted process, which requires precision (Jackling, 2005). According to my own experience as a teacher at a school, many learners give up too easily when working through problems in Accounting. They tend not to

complete assignments, tasks and homework exercises given by the teacher. They will work on it in the class while there is support from teachers and peers, but when work is sent home to complete they simply do not persevere. I have also noticed this kind of behaviour during formal tests and examinations. Incomplete papers are handed in with inaccurate calculations resulting in wrong answers. Therefore, I believe for learners in Accounting to be successful in their learning and for achievement of outcomes, persistence to complete all the tasks and activities and working accurately are crucial aspects to focus on.

2.5.3 Effective teaching and learning strategies

Fisher (2005) affirms that teachers are the primary source to create invitations and opportunities for learners to think critically. How learners respond to these opportunities will depend primarily on the attitudes and the teaching methods and strategies that the teacher adopts. How teachers teach and learners learn as well as some other factors, including, mental, physical, social and emotional factors (cf. 2.4.2) have a strong influence on learner outcomes. According to Hattie (2009), several interventions related to teaching and learning, such as providing formative evaluation and feedback, mutual teaching and metacognitive strategies, have a significant impact on learner performance. However, Schunk (2004) asserts that effective teaching means that the teacher should not always be at the centre of instruction and that environments should rather be designed in such a way that learners play an active role in their learning (cf. 2.3.2.2; cf.2.3.2.3), which confirms a social cognitive and constructivist approach to learning, across subject fields. However, research done by Qhosola (2016), highlighted the fact that teachers seem to have a lack of fostering active learning in the Accounting classroom. The study found that teachers are failing to engage learners optimally through teaching methods that would nurture deeper knowledge. Developing deeper knowledge requires learning to be an outcome of interactive learning. In other words, learners should be able to construct their own knowledge through participation and teachers should provide opportunities for interaction to take place. Yet, the study found that teachers usually preferred methods of teaching that were restricting interaction, resulting in learners mostly being passive observers and becoming intrinsically demotivated (Qhosola, 2016). Qhosola (2016) affirms that predominantly teacher-centred methods of teaching are widely used, where memorisation

with the focus on the examination is common; the textbook is still the primary source of instruction; and content is mainly theoretical to which learners struggle to relate in a way which is meaningful to their lives.

Furthermore, to help learners learn the more complex and analytical skills they need for the 21st century, teachers must be able to teach in ways that develop higher-order thinking and performance (Darling-Hammond & Richardson, 2009). With regard to what makes teaching effective, Ramsden (1992) declares that is undoubtedly a complicated matter and there is no indication of one 'best way'. He organizes essential knowledge into principles, which he relates to learners' experiences. However, O'Neill (2014) believes it is important for all teachers to firstly have a clear understanding of the Department of Education's position in relation to effective teaching practice. The following principles, according to Ramsden (1992) and O'Neill (2014) can be seen as important for effective teaching, which, although generic in nature, could be regarded as applicable for teaching in Accounting classroom

- *Interest and explanation* – When learners' interest is aroused in something, whether it is an academic subject or a hobby, they usually enjoy working hard at it (Ramsden, 1992). This entails that teachers have to establish the relevance of content, but also construct explanations that enable learners to understand the material. Clear explanations and demonstrations ensure that learners understand the content (Pintrich & Schunk, 2002). It is consequently, essential to know what learners understand and then create connections between what is known and what is new for them (Ramsden, 1992). According to O'Neill (2014), effective teachers develop valuable relationships with their learners. Thus, they get to know them and take a particular interest in their overall development and progress. They treat their learners with respect and expect the same in return. This means that effective teachers work collaboratively with their learners.

- *Concern and respect for learners' learning* – Ramsden (1992, p. 98) highlighted this concern: "Truly awful teaching is most often revealed by a sheer lack of interest in and compassion for learners and their learning". This implies, making a subject seem more demanding than it actually is and making things difficult which makes learners worry that

they will not be able to cope, is not an effective way of teaching. It rather has everything to do with kindness and humility, always trying to help learners feel that the subject can be mastered, encouraging them to try things out for themselves and to succeed. Effective teachers teach in a way that encourages learners to take greater responsibility for their own learning (i.e. self-regulated learning) (cf. 2.3.1). They make sure their learners know what the goals of the learning programme and the lessons are; understand how these goals will be assessed; know whether they are on track to achieve success; and are actively involved in evaluating their own learning (O'Neill, 2014).

- *Appropriate assessment and feedback* – This principle involves using a variety of assessment techniques and allowing learners to demonstrate their mastery of the content and required standards required by the curriculum in different ways (O'Neill, 2014). It avoids those assessment methods that encourage learners to memorise and rehearse only, and recognises the importance of constructive feedback to motivate more effort to learn (Ramsden, 1992) (cf. 2.5.7). O'Neill (2014) believes that effective teachers closely monitor each learner's achievements, which enables them to provide learners with regular feedback on their performance and also give them valuable information to assess the impact of their teaching. Asking learners questions, checking for understanding and monitoring learners' work will also lead to corrective feedback and thus ensure that learning has occurred properly (Pintrich & Schunk, 2002). Effective teachers constantly reflect on how well they are getting through to their learners and seek for better ways of teaching those who are struggling as well as those who are achieving well.

- *Clear goals and intellectual challenge* – Effective teachers set high standards for learners by communicating clear goals. Learners should know up front what they will learn and what they will be expected to do (Ramsden, 1992). Such teachers also strive to motivate and engage all their learners in learning rather than simply accepting that some learners cannot perform well (O'Neill, 2014).

- *Independence, control and active engagement* – Ramsden, (1992, p. 100-102) postulates that "good teaching fosters a sense of learner control over learning and interest in the subject matter. Good teachers create learning tasks appropriate to the learner's level of

understanding” This requires that the uniqueness of individual learners is recognised. Consequently, this will lead to learners who not only learn better, but enjoy learning more. Thus, effective teachers use techniques that best serve the learning needs of their learners, but also acknowledges that there are many things that learners can learn themselves through guided discovery (O’Neill, 2014).

- *Learning from learners* – “Effective teaching refuses to take its effect on learners for granted” (Ramsden, 1992, p. 102). Thus, although the relation between teaching and learning can be seen as problematic, uncertain and relative, good teaching is open to change and constantly investigates what the effects of instruction are on learning, and then adjusts the instruction in the light of the evidence collected. By doing this learning is personalised for learners and techniques are used that have each learner working on tasks that engage and challenge them to achieve their personal best. In addition, effective teachers understand that learners develop at different levels and that in every classroom there will be a range of learner abilities and aptitudes (O’Neill, 2014).

- *Having mastery of their teaching content* - When effective teachers have a thorough knowledge and understanding of their subject content and the required skills they will be able to inspire their learners with a love for learning. Furthermore, such teachers also understand how learners best learn concepts, content and skills and then use their knowledge of learning processes to determine which will be most effective to help the particular learners in their classes learn successfully (O’Neill, 2014).

- *Safe and well-organised environment* - Providing a secure and well-organised environment, both physically and emotionally, so that learners can achieve successful learning is a key characteristic of an effective teacher. These teachers usually know that learners learn best if they are in a classroom where they feel safe and confident to attempt new tasks even if they are unsure how to approach them (O’Neill, 2014).

In the Accounting classroom, the elements of the learning environment, which are under control of the teacher, have the potential to influence positively both the way in which learners approach their learning of Accounting and the learning outcomes they achieve in this subject (Jackling, 2005). An educational environment conducive to more positive

learning of Accounting, is where teaching methods are more learner-centred, including a good relationship with learners, while encouraging deep learning and the generation of a personal learning context, dialogue and feedback (Sharma, 2010). It is therefore essential that Accounting educators create a positive learning environment (Phillips & Graeff, 2014) in order for learners to achieve optimally in the subject. If the Accounting teacher comes to class well prepared and fully understand the content to be presented, it will ensure effective teaching that will enable them to introduce new methods, theories, and philosophies into Accounting classrooms which will in turn encourage learners to view Accounting as an interesting subject in which they will want to enrol and succeed (Phillips & Graeff, 2014). It is also essential to acknowledge that reducing anxiety would potentially enhance successful learning and motivate learners to become Accounting experts (Borja, 2003).

Research in Accounting education has identified strategies that could be used appropriately for successful learning in the classroom and for the professional practice, including the promotion of life-long learning. These include the use of case studies, group based cooperative learning formats and communication and critical thinking techniques, especially focusing on metacognitive skills (Schleifer and Dull, 2009; Booth, Luckett, & Mladenovic, 1999). These kind of strategies can provide a space for the learning process to unfold (Gorski, 2009). This is important as Accounting classroom practices should be explicitly designed to prepare learners for an active, democratic, and ethical community, consequently encouraging them to become active transformers of the world around them (Nagda, Gurin, & Lopez, 2010). Thus teachers and learners' perceptions that studying Accounting is simply a matter of rote learning a set of rules must be discarded (Booth et al., 1999). Recently there have been requests from many sectors from within Accounting education fraternity, as well as universities, to address the shortcomings in learning, which were identified as difficulty with problem-solving, poor abstract reasoning skills, lack of basic skills (such as mathematical and language skills), and an inability to transfer academic knowledge to the workplace (ASA, 2014). Therefore, it is necessary to look into learning activities that can be done in the classroom that can enhance learners' engagement with their subject material and result in improved analytical and conceptual thinking skills for successful learning in Accounting.

2.5.4 Learning activities

The Accounting profession requires that Accounting teachers incorporate activities into the learning environment that develop life-long learning skills, analytical thinking, and the ability to work in teams (Hall, Ramsay, & Raven, 2004). To achieve this, Accounting education should move away from routine tasks and the memorising of principles to a more conceptual and analytical form of learning (Beattie, Collins, & McInnes, 1997; Davidson, 2002). Methods and techniques used to facilitate this type of learning include case studies, group-based learning, cooperative learning approaches, and specific tasks designed to address communication and presentation skills (Rebele et al., 1998; Booth et al., 1999). These teaching techniques are considered suitable for the development of the appropriate competencies in Accounting.

The type of learning approaches implemented by Accounting learners is a crucial factor influencing the quality of their learning outcomes (Booth et al., 1999; Davidson, 2002). However, Nqwenya (2014) revealed that teachers viewed Accounting as a discipline which requires a particular kind of practice and instruction, which entails thinking, reasoning and problem-solving activities. In Accounting, learners are frequently faced with challenging problems which they have to solve in order to develop higher-order reasoning and problem-solving skills. Active practice is therefore deemed important due to the practical nature of the subject. This implies that repeated exposure to Accounting scenarios and problems is important for learners to develop competence in different skills (Farrell & Farrell, 2008; Pickford and Brown, 2006).

Consequently, the Accounting Education Change Commission (AECC, 1990) has urged teachers to move away from a lecture method and to investigate new instructional methods where learners become active participants in the learning process. The AECC suggests that learners learn best by doing and should be encouraged to work in groups on unstructured problems. The AECC (1990) also states that successful accountants must possess communication and effective reading, listening, writing, and speaking skills. Thus a lesson using cooperative learning can reinforce these skills. Cooperative learning exercises are structured so that the participants of the group must listen effectively to

obtain the necessary information to achieve the group's goal. Teachers may not always require a formal written response, but learners do have to read, listen, and speak. In cooperative learning learners are not passive observers in the classroom; they are active problem solvers seeking information and sharing ideas with others. As learners are able to practice their presentation skills within small groups they can with increased self-confidence then advance to presentations before the whole class (Capar & Tarim, 2015). This approach can enhance learners' engagement with their subject content and result in improved analytical and conceptual thinking skills (Hall et al., 2004).

Hence it can be concluded that in the Accounting classroom, active learning techniques including problem-solving exercises, informal small group exercises, case studies, role-playing, simulations, as well as others are beneficial to learners since it creates a greater interest in the material and improving their critical thinking, analytical, and problem solving skills (Carter & Hogan, 2013). This also encourages motivation to learn in the Accounting classroom which will be discussed in the next section.

2.5.5 Motivation

Teachers influence learner motivation in different ways. This is evident through daily interactions with learners, where they influence learners' beliefs about their own abilities, their attitudes towards certain subject content, their immediate and long-term goals, their beliefs about the causes of their success and failures and their reasons for ultimately choosing to do their academic work (Anderman & Anderman, 2010). In addition, how teachers deliver instruction and monitor learner performance also has an important impact on learner motivation (Pintrich & Schunk, 2002). Motivation occurs when: there are clear expectations and demonstrations by the teacher; by asking learners questions to ensure that they understand the content; and by monitoring their work as well as providing corrective feedback to ensure that learning has occurred properly (Pintrich & Schunk, 2002). Wentzel and Brophy (2014) adds that expressing learning goals, demonstrating task-related thinking and problem-solving, encouraging metacognitive awareness and control of learning strategies, teaching for conceptual change and lastly promoting self-regulated learning are important strategies for motivating successful learning. Moreover,

teachers often provide learners with feedback designed to motivate rather than only to inform about accuracy of their answers. The primary purpose of this motivational feedback is to get learners to work on tasks and to maintain productive task engagement. It is therefore important to note that virtually everything the teacher does has a potential motivational impact on learners (Thoonen et al., 2011). This includes not only the obvious motivational actions by teachers (e.g., setting goals, rewarding good performances), but also activities typically associated with instruction (e.g., grouping learners, questioning strategies) and teacher attempts at classroom management and methods for reducing and dealing with disciplinary problems (Pintrich & Schunk, 2002).

Motivation also takes place at every point in the learning and achievement process. Many factors drive students' motivation, ranging from external rewards or schools' environments to students' personal goals and interests (Pintrich & Schunk, 2002). Research done by Dweck and Cohen (2016) shows that learners' beliefs about themselves, their environment, and what it takes to succeed in intellectual activities can influence their motivation and, as a result, their performance in school. This means that shaping these beliefs can potentially affect learners' academic motivation and performance. Building on this, the design and implementation of instructional activities to change learners' attitudes and beliefs is essential (Dweck & Cohen, 2016). Motivation and hard work have also been identified to be almost equally as important as cognitive factors in explaining learners' academic performance. Learners who are highly motivated can increasingly perform better (Hsia, Huang, & Hwang, 2016).

According to Darwin (2011), creating learning conditions where learners are continually motivated should be an unceasing goal of teachers. This includes making the lessons more meaningful, being sensitive to the difficulties learners experience and giving regular feedback to learners about their progress. Research done by Anderman and Anderman (2010), clearly indicates that learner motivation is enhanced when learners have opportunities to make choices about their own learning during classes and thus teachers should provide all learners with opportunities to make choices. This could lead to learning environments where learners experience independence and can have a positive influence on their learning and motivation. When learners perceive that their teachers care about

their choices, positive learning outcomes can be the result (Juvonen, 2006). More specifically, research indicates that when learners perceive that their teachers care, they are more likely to develop positive beliefs about perceived control of their own learning, whereas when learners experience their teachers as uncaring and cold, they are more likely to develop external control beliefs, which ultimately will lead to lower academic achievement and negative feelings about school (Skinner et al., 1998).

Guilloteaux and Dörnyei's, (2008) constructed a model on three aspects of motivational teaching practice to guide the understanding of the processes essential for learner motivation. This includes: classroom environment, learner engagement and development of learner identities.

- *The importance of the classroom environment* – the classroom is stimulating and purposeful, an environment that is supportive and safe, and characterised by co-operative learning.
- *Learner engagement* that focusses on attitudes and successes, ownership and independence, relevance and involvement.
- *The development of learner identities* that focusses on the positive image a learner has of him/herself.

Dörnyei (2007) identified that sustained learning cannot take place unless the educational context provides sufficient inspiration and enjoyment to build up continuing motivation in the learners. Boring but systematic teaching can produce, for example, good test results but seldom does it inspire life-long commitment to the subject matter. According to Wentzel and Brophy (2014), learning is fun and exciting when the curriculum is addressing learners' interests and abilities and the teacher emphasises practical activities in the classroom.

Despite its fundamental role in the learning process and the extensive literature base, there remain differences of opinion about the nature of motivation and the necessary conditions for it to impact on learning (Coyle, 2013). It seems that linking motivation and achievement (cf. 2.3.1) is much more complex and dynamic than can be explained through only attitudes to work and ensuing test results. Consequently, understanding the relationship between

motivation and academic achievement is critical within education (Cheng, Li, & Su, 2011). This requires the identification of factors that nurture motivation with which teachers may positively influence learners' academic achievement (Goodman et al., 2011).

2.5.5.1 Motivation in the Accounting classroom

A key aspect in motivating learners to be successful in Accounting is that it is important for Accounting teachers to be perceived by their learners as effective. In particular, it was found that learners who performed better are those who did more in terms of reading ahead, doing homework and participating in class because their teachers were experienced as effective in teaching Accounting (Darwin, 2011). Thus, Accounting teachers need to encourage learners to become actively involved in subject matter by going beyond the information given, restructure it in their own way of thinking and prior understanding. In this process, the responsibility for learning must be gradually shifted to the learners through practice exercises, question-and-answer dialogues and discussions that engage them in increasingly complex thought patterns (Carter & Hogan, 2013).

The AECC has also called for more innovative teaching techniques to encourage motivation, which requires a shift away from the traditional lecture format to a more active and team-learning format (Carter & Hogan, 2013). In addition, there is also an overwhelming consensus that technology should be incorporated into the Accounting curriculum (Sugahara & Boland, 2006). Albrecht and Sack (2000) report that multimedia materials usually provide significant positive effects on learners' motivation in the studying of Accounting. De Lange et al. (2003) also conducted an empirical study and discovered a positive relationship between learning outcomes in Accounting and the use of Course Management Software (CMS). Introducing technology into the Accounting classroom may also help develop learners' vocational skills, which will prove highly beneficial in their future Accounting careers. Furthermore, delivery methods, using technology such as e-learning, are believed to contribute to learners' self-directed learning, which encourages them to be active participants in their life-long learning process (De Lange et al., 2003).

Motivation is directly related to the emotions of learners and furthermore have a critical influence on successful learning (Sylwester, 1994) (cf.2.4.2.1). The development of learner

identities that include values, attitudes, and notions of self, have also been identified as important to motivation for learning (Coyle, 2013; Dooley & Eastman, 2008; Lorenzo, Casal, & Moore 2010; Lasagabaster, 2011). These emotions involved in the Accounting classroom will be discussed in the next section.

2.5.6 Emotions involved in the Accounting classroom

Emotional experiences are seen as critical in academic settings and tests, examinations and homework are associated with different emotional states that encompass frustration, anxiety and boredom (Tyng, Amin, Saad & Malik, 2017). Borja (2003) found that many learners new to Accounting view the subject as being as difficult as learning to speak a foreign language. Phillips and Graeff (2014) noticed that learners seem to have a rigid negative idea about the difficulty of Accounting, which colour their experience of the subject by fear and worry, resulting in anxiety and a lack of motivation (cf. 2.5.5). In addition, a large number of learners appear to not see the relevance of Accounting to their personal lives and thus minimise their efforts by simply memorising enough material to merely pass the exam. Based on research conducted by Buckhaults and Fisher (2011) the Accounting classroom seems to create anxiety for teachers, as well as learners. Anxiety has been consistently shown to have a negative effect on academic learning and performance, specifically when learners need to give attention in classrooms, memorize difficult content of use different strategies in their tasks (Pintrich & Schunk, 2002). Research conducted by Ameen, Guffey and Jackson (2002) reported that 78% of college and university Accounting lecturers surveyed suffer from teaching anxiety, with 38.5% of these lecturers suffering physical symptoms and 80% experiencing psychological symptoms. Ameen et al. (2002) and Borja (2003) claim that a main contributor to these feelings of anxiety can be as a result of not employing an effective teaching approach and they assert that these feelings of anxiety can be lessened if the Accounting teacher comes to class well prepared and fully understanding the material to be presented. Based on my own experience as a teacher and university lecturer, I experienced that many Grade 9 learners do not choose the subject Accounting because they are scared and uncertain about succeeding. I also observed that several Grade 10 and Grade 11 learners drop the subject somewhere during the year. During informal discussions with these learners, they mention that they struggle

with the content and understanding the calculations and consequently do not do the homework which snowballs into more anxiety and in increased negativity towards the subject.

2.5.7 Assessment and feedback

The link between feedback and successful learning has long been acknowledged (Hounsell, McCune, Hounsell, & Litjens, 2006), and the assumption of a relationship between feedback and performance is well established (Bloxham & West, 2007; Holmes & Papageorgiou, 2009). It is generally accepted that feedback on assignments and formative assessments serve as a key process in the development and enhancement of learning (Mutch, 2003). Furthermore, feedback is increasingly seen as an imperative way to facilitate learners' development to become independent learners who are able to monitor, evaluate, and regulate their own learning (Ferguson, 2011; Higgins, Hartley, & Skelton, 2002). Consequently, feedback has come to be regarded as a vital part in every individual's development and learning progress (Mutch, 2003). Appropriate feedback gives the opportunity for an individual learner to record progress toward his or her success. The commonly used definition of feedback, is that it constitutes information allowing a learner to reduce the gap between what is evident currently and what could or should be the case (Hattie & Yates, 2014). Several research studies have established that the effects of feedback have a high impact on academic progress (Hattie & Timperley, 2007). One of the hidden effects of feedback appears to be in influencing how much effort learners allocate to an activity. In the study of Northcraft, Schmidt and Ashford (2011), learners were asked to work on several tasks within a class period. It was found that learners spend more time on and putting effort into those tasks in which there were specific and timely feedback available. The availability and quality of feedback to learners can, therefore, immediately enhance learning (Northcraft et al., 2011).

Classrooms are active places where teachers and learners constantly interact with one another and thus affect learner motivation (Pintrich & Schunk, 2002). This means that teachers ask questions, provide feedback, give rewards and punishments, praise and criticise, respond to learners' questions and requests for help and offer assistance when

learners experience difficulties. Studies with high school learners indicate that feedback becomes more effective when it reflects progress made in terms of actual accomplishments, rather than normative standards such as only marks (Harks, Rakoczy, Hattie, Besser, & Klieme, 2013). Such feedback seems to be regarded by learners as more useful than only mark information, and has been found to enhance more interest in the material being taught (Harks et al. 2013). Conversely, punitive teachers contribute to negative classroom conditions, which can result in a range of adverse outcomes, such as negative attitudes towards the subject, anxiety and low marks (Demanet & Van Houtte, 2012). However, this does not imply that feedback needs to be set at some universally positive level. Teacher criticism associated with controlling learner behaviour in the study of Demanet and van Houtte (2012) has been found to have a constructive effect in encouraging learning. With regard to giving feedback for goal-directed efforts, its purpose is to indicate shortcomings, to correct errors, or to suggest better ways of progressing (Hattie and Yates, 2014).

Assessment for learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there, which is also known as formative assessment (William, 2011). In a definition by Hargreaves (2005), teachers giving feedback for improvement is seen as assessment for learning. This includes using feedback from learners to develop or improve teaching and learning strategies for individual learners, and feedback to learners to boost self-esteem, inspire, motivate, to help them think and to promote deeper learning and understanding (Hargreaves, 2005). Thus in an assessment for learning process, feedback on assignments and formative assessments serves as a key strategy in the development and enhancement of learning (Mutch, 2003). Furthermore, feedback is increasingly seen as crucial to facilitate learners' development as independent learners who are able to monitor, evaluate, and regulate their own learning (Ferguson, 2011; Higgins, Hartley, & Skelton, 2002). This kind of feedback can be an important contributor to the quality of how the learner experiences the learning of a subject (Sorensen, 2008). This means that learners recognise feedback on assessment as being important in identifying their strengths and weaknesses, while enhancing motivation and

improving future marks. Feedback on the actual state of learning or performance is thus important (Narciss, 2008; Black et al., 2003; Sadler, 1989).

Specific feedback on performance in order to enhance development must consist of more than the provision of correct answers. This requires feedback to be analytical and suggestive, meaning that an analysis of the mistakes must be made, as well as possible corrective measures that can be taken should be discussed with the learner (Watkins et al., 2007). Performance feedback is thus a type of feedback on the accuracy of the work and include corrective information, especially when careless mistakes have been made (Pintrich & Schunk, 2002). However, corrective feedback must be done within the context of positive teacher-learner relationships. This means that the teacher should display a positive and respectful attitude toward learner efforts, and communicate that such errors are natural steps along the path to mastery. Such positive relationships (not only between teacher and learner, but among learners also) is often a foundation to building the trust needed (Hattie & Yates, 2014). Feedback can be a key factor of classroom-based learning when tasks are difficult and the learner struggles. If no support or assistance is given to the learners regarding feedback, the goals for successful learning will not be achieved. To complete this section on feedback, nine key points are highlighted by Hattie and Yates (2014, p.55) that help to describe when feedback becomes an effective instructional component for successful learning.

1. The feedback process exists in that what is received and interpreted by a learner, rather than what a teacher gives or believes has taken place.
2. Feedback can work best when criteria for success are known to the learner in advance, and where the goal to achieve such success is shared by learners and teacher alike.
3. Feedback can best cue attention onto a task, with a known goal or sub goal, and away from self-focus.
4. Feedback must engage a learner at, or just above, the current level of functioning.
5. Feedback must challenge the learner to invest effort in moving forwards, and assure the learner that it is perfectly natural to experience difficulties when mastering difficult tasks.

6. Feedback is powerful when the classroom climate is one of welcoming errors and seeing disconfirmation as a natural and positive part of developing and exercising new skills.
7. It is optimal when feedback matches the content of the instruction given earlier, and is in accord with available social modelling stimuli identified as worthy of emulation.
8. Feedback thrives in an environment where errors are welcomed, and error training may be a worthwhile adjunct to increase the power of feedback.
9. Feedback is received and used by learners when teachers themselves are prepared to adapt and adjust their methods and priorities in response to the outcomes indexed through their learners' success on various assessment outcomes.

Specifically, in South Africa, policies in education are asserting a learner-centred approach that integrates assessment with learning. This approach assumes that knowledge is not a fixed entity to be grasped by the learner but instead is constructed by learners based on their own understanding, which is influenced by their background, perspectives and experiences (Ellery, 2008). As a result, this type of assessment tends to be more flexible, integrative, contextualised, process oriented, criteria referenced and formative. This 'assessment for learning' approach encourages learner independence and self-evaluation and can lead to active and deeper learning (Ellery, 2008; Sorensen, 2008). When assessment is done for the improvement of learning, it becomes a process that involves feedback and reflection (Wiggins, 1993).

In Accounting where learners are exposed to difficult concepts, the need for feedback is crucial. Therefore, explaining new words and terminology is a crucial part of feedback because if the learners do not understand the meaning of these particular words or terms correctly, they are likely to misunderstand the meaning of the whole question (Qhosola, 2016). This is especially applicable to the South African education context where many learners are learning in English, which is their second (or even third or fourth) language and they are not proficient in the language (Nel & Theron, 2008).

The subject of Accounting has also been developed to ensure that learners are equipped with critical thinking, communicating and mathematical, collecting, analysing, interpreting

and organising skills (DoE, 2008). Therefore, when Accounting learners engage with feedback through dialogue and discussion, it is an opportunity to develop such skills. Furthermore, using feedback provides learners with the opportunity to develop problem-solving skills as they are encouraged to think critically when they contribute or defend an argument (Suskie, 2009). Thus, such an approach to giving feedback provides an opportunity to the development of problem solving skills in an Accounting classroom (Walker, 2010).

The use of appropriate feedback in the Accounting classroom may create a space where learners feel they are in control and have the ability to monitor and direct their own learning (Black & William, 2009). Therefore, when they have a sense of being in control they tend to be more accountable for their actions (Walker, 2010). In other words, when they have a sense of accountability, they tend to realise their responsibility to reflect on the feedback in order to prepare for tasks effectively.

2.6 Summary of chapter

This chapter provided a conceptual, contextual and theoretical background to the subject Accounting, the construct of learning and successful learning, as well as the factors influencing successful learning. As the focus of this study is on creating positive learning conditions for the Accounting classroom positive education was outlined as an approach to learning and the teaching of subject Accounting. Specific reference was also made to the possible factors influencing classroom conditions.

A central theme of this literature review seems to be that the focus of Accounting curriculums and classrooms is primarily on ensuring that learners complete the curriculum successfully in order to obtain good marks. Despite departmental requirements for pass rates, the reason for this could be that the entry into the Accounting profession appears to be quite rigorous.

As a result, many learners do not cope with these demands and do not perform well or drop the subject. As this literature review established, there are several factors besides only attaining good marks which are also important to establish a positive classroom which takes learners' unique learning needs and their well-being into consideration. Thus ensuring that learners have a positive experience of the subject which can consequently lay the foundation for the development of a life-long learner.

In the next chapter the research methodology of the study will be discussed in detail.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In Chapter 2, the literature review indicated that there are several factors that influence conditions for successful learning in the Accounting classroom. As mentioned in Chapter 1, a mixed method approach was followed to answer the research questions. In this chapter the research design and methodology applied in this study are described. The research paradigm is also explained, as well as how the participants were selected for the study. The quality criteria and ethical considerations are also discussed.

3.2 Research methodology

3.2.1 Research paradigm

Research paradigms define what research is about, and what falls within and outside the limits of legitimate research. A paradigm may be viewed as “a set of basic beliefs or assumptions about fundamental aspects of reality” (Maree, 2016). Guba and Lincoln (1994), as well as Henning, Smit, and Van Rensburg (2004) define a paradigm as a “theory or hypothesis” that fundamentally influences how you see the world, determines your perspective, and shapes your understanding of how things are connected. A paradigm or framework is referred to as a perspective or a basic set of opinions, which delivers a rationale for the research, directs the research action, and commits the researcher to specific methods of data-gathering, observations and interpretation (Terre Blanche & Durrheim, 2002; Guba, 1990).

In this study, a pragmatic research approach (Creswell, 2014) was followed. Pragmatism is normally associated with mixed methods research where the focus is on the consequences of research, understanding the research problem in social science research and then uses various methods of data collection to inform the problems that are investigated (Creswell, & Plano Clark, 2011; Creswell, 2014). The pragmatic paradigm seeks all possible and comprehensive information regarding a research problem and in pragmatism there is a

concern with applications and solutions to problems. Consequently, researchers use all approaches available to understand the problem, in order to provide a complete picture of a problem (Creswell, 2009; Thomas, 2009; Maree & Van der Westhuizen, 2007).

This study identified and explored factors that influence classroom conditions in an Accounting classroom with a mixed methods design. I made use of different data collection methods, namely: closed questionnaires, Likert-type scales for the items, interviews, and observations to discover possible problems in the Accounting classroom, where-after the findings were used in an attempt to construct a model that could change the classroom practices of Accounting classes to create more positive learning conditions.

3.2.2 Literature review

According to McMillan and Schumacher (2010) the review of literature serves several purposes in research, such as highlighting the significance of the research problem, developing the research design, relating the study to previous knowledge and suggesting further research. Furthermore, a literature review normally provides an overview of current and relevant research appropriate to the research topic (Maree, 2016). A thorough study was made of available research articles and primary and secondary literature sources to explore the concept of successful learning and to determine the factors that could influence classroom conditions for successful learning in the Accounting classroom. In order to achieve this, both national and international databases were consulted. In compiling the literature review chapter (Chapter 2), I used various sources to collect information on the key components of this research study, namely: the subject accounting, learning conditions, successful learning and positive education. Scientific books and articles from accredited academic journals were the main sources of information, as well as searches on web databases such as EBSCOHOST, ERIC and Google Scholar.

The key words that were used in the academic search included:

- Accounting
- learning conditions
- successful learning
- positive education

A brief explanation of the key concepts was provided in Chapter one. The purpose of the literature review was to elucidate the concepts central to the study and to provide a framework for the construction of the questionnaire items.

3.3 Research method and design

3.3.1 Mixed methods research

A mixed method approach was selected as appropriate for the study. Mixed methods research is defined as a procedure for collecting, analysing and “mixing” both quantitative and qualitative data at some stage of the research process within a single study or a series of studies to understand a research problem more completely (Ivankova, Creswell, & Plano Clark, 2007; Creswell, 2009). Furthermore, mixed methods research is seen as an approach to review the links between qualitative and quantitative forms. It involves theoretical and logical assumptions, the use of qualitative and quantitative methods, and then mixing approaches in the study so that the overall strength and depth of a study can be richer (Creswell, 2009).

Strengths that offset the weaknesses of both quantitative and qualitative research are provided in mixed methods research and can therefore deliver more evidence for studying a research problem. The various design options provide a useful framework for researchers from which they can select a design that best corresponds with the research problem in order to make the study manageable (Creswell & Plano Clark, 2011).

Quantitative data was collected by means of a self-designed questionnaire (cf. 3.6.1.1). Qualitative data was collected through individual interviews with Accounting learners and teachers (cf. 3.6.2.1), as well as observations (cf. 3.6.2.2.) in selected classrooms.

3.3.2 Sequential explanatory design

In this study, I worked within a sequential explanatory mixed methods perspective. The explanatory design is a mixed methods design in which the researcher begins by conducting a quantitative phase and follows up on the findings with a qualitative phase. The qualitative phase was implemented for the purposes of explaining the initial results in more depth, and to explore the factors identified as significant in the quantitative phase.

The design is most useful when a researcher wants to assess trends or themes and relationships with quantitative data but also be able to explain the reasons behind these trends (Creswell & Plano Clark, 2011). The word explanatory in the design name suggests that the qualitative findings help explain the quantitative results obtained in the first phase. I could then compare and “mix” the findings from the quantitative and qualitative phase to address the research problem and answer the research questions in the best possible manner.

3.4 Strategies of inquiry

3.4.1 Quantitative strategy of inquiry

Survey research was used as the quantitative strategy for this research. McMillan and Schumacher (2010) describes survey research as the evaluation of the position, opinions, beliefs and attitudes of a specific group of people using questionnaires or interviews. Surveys are often used in educational studies to describe feelings, attitudes, beliefs, and thoughts of people (McMillan & Schumacher, 2010). Leedy and Ormrod (2010) describe survey research as a simple design in which the researcher poses a series of questions to participants, summarises their responses with statistical methods and then draws inferences about the particular population from the responses of the sample. A survey to explore teachers and learners’ opinions about current learning conditions in the Accounting classroom was employed. As part of the quantitative part a self-structured questionnaire was compiled and was distributed to teachers and learners in FET Accounting classrooms.

3.4.2 Qualitative strategy of inquiry

Phenomenology was employed as the qualitative strategy of inquiry. From the original concept of interpretivism, a number of different interpretive approaches, such as phenomenology were developed. According to Maree (2016, p. 77) phenomenological studies focus on the meaning that certain experiences hold for the participants, that is “to determine what an experience means for the persons who have had the experience and are able to provide a comprehensive description of it”.

Creswell (2014, p.13) describes phenomenological research as a “strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants.” According to Johnson and Christenson (2012,) the aim of the researcher in phenomenological research is to explore the minds of the participants to understand their experiences, perceptions and views, and this was the purpose of this research.

I was the instrument through which the data was collected and analysed during the qualitative phase, specifically during the interviews with Accounting learners and teachers as well as observations in the Accounting class. I conducted individual semi-structured, open-ended, face-to-face interviews with 13 learners, purposefully chosen from the respondents who had completed the questionnaire and six teachers from the selected schools where observations took place. I recorded the interviews with a digital voice recorder which enabled verbatim transcription of the audio files.

3.5 Participant selection

Participants of this study were purposively selected. According to Merriam (1998) purposeful sampling is based on the notion that the researcher wants to discover, understand and get insight into the research problem and must therefore select the best possible sample from which the most information could be obtained. This is a strategy in which specific people in situations or settings are selected deliberately in order to provide information that cannot be adequately acquired from other choices (Maxwell, 2005).

Purposive sampling is applicable when it is needed to obtain information from participants who have experienced the research problem and the researcher wants to establish the reasons and attitudes from the participants (Maree, 2007). All Accounting teachers and learners in South Africa comprise the population. As it was not possible to do research among all teachers and learners in South Africa, a study sample was chosen. The sample size consisted of all the secondary schools in the Vaal Triangle area, located in Gauteng, and all the Grade 10, 11 and 12 teachers and learners who have Accounting as a subject. The chosen schools are all governed by the Gauteng Department of Education. The reason for purposively focusing on Grade 10, 11, and 12 Accounting learners is that these

learners have chosen the subject in Grade 10 with a purpose to follow a career related to Accounting. However, it is my experience that many Grade 10 Accounting learners choose to drop out and change subjects after being exposed to Accounting as a major subject. With regard to Grade 11 learners, when they seem to experience difficulty with the subject content their Accounting marks drop drastically in the first part of the year and then they experience feelings of anxiety towards Accounting and also want to change subjects. Grade 12 learners have been exposed to the knowledge and skills required for successful Accounting learning, have experienced the learning conditions in the Accounting classroom over a period of three years and still continued with the subject. They could therefore add valuable information.

As the explanatory mixed methods design was used in this study, sampling occurred at two points in the design: in the quantitative and qualitative phase. In the first phase of the research, questionnaires were given to 700 Accounting Grade 10, 11, and 12 learners, of which 576 were completed and returned (82.3%). Twenty questionnaires were distributed to the Accounting teachers of nine secondary schools in the Vaal Triangle area of the Gauteng Province, of which 12 (60%) responded and returned it. The quantitative data obtained from the questionnaires determined the selection of the qualitative sample. After the quantitative data had been analysed, some participants were purposefully selected for the interviews. I randomly chose three Accounting learners from each grade (10, 11, and 12) from the three schools to obtain the views of learners experiencing different Accounting content and representing different grades. In addition, learners ($n=1$) who indicated that they wanted to take part in the qualitative phase voluntarily were also included. The sample of the teachers was small and therefore all of them ($n=12$) were requested to participate in qualitative phase. There were, however, only ($n=6$) who indicated their willingness. Saturation, or the point at which no additional data or themes are observed in the data and the researcher becomes confident that the category is saturated (Starks & Trinidad, 2007), occurred within the 13 interviews with learners and six teachers.

The three schools in the Vaal Triangle chosen for the observations, represented different socio-economic areas where learning resources range from more easily available to limited availability.

This provided a better picture of how learning conditions in the Accounting classroom are created in different contexts. Observations took place over a period of two weeks where-after saturation was achieved (cf. 3.6.2.2).

3.5.1 Pilot study sample

The pilot study sample involved all the BEd students (N=39) (1st to 4th years) who have Accounting as a major subject at a specific university. I have also used two Accounting learners (N=6) from each grade in the FET phase (Grade, 10, 11, and 12) at a school, which were in a different district and not included in the main study, for the pilot sample during the quantitative phase of this study. The students at the university have decided to specialise in becoming Accounting educators and therefore contributed positively to this study by judging the appropriateness of the questionnaire, with regard to language and kind of questions asked. Valuable data came from the pilot study and no changes were made to the questionnaire after the pilot study was conducted because the questionnaire for learners complied with reliability criteria.

3.6 Data collection methods

As mentioned previously I used a sequential explanatory mixed method. The data collection procedures in the explanatory design involved collecting quantitative data first, analysing the data and then using the results to inform the follow-up collection of qualitative data (Creswell & Plano Clark, 2011). In the explanatory design, the interpretation of the quantitative and qualitative data collections are mixed and not dealt with independently.

3.6.1 Quantitative data collection method

Firstly, quantitative data collection methods were used in order to investigate the experiences, perceptions and views of the Grade 10, 11, and 12 Accounting learners and teachers about learning conditions in the Accounting classroom. In this study, a self-structured Likert-scale questionnaire was developed and the questionnaire questions were determined by the literature review. A qualitative component where respondents were allowed to motivate their answers was also part of this questionnaire. This enabled me to gain richer data.

3.6.1.1 Questionnaire

If it is carefully planned, a questionnaire is a useful method for collecting responses from a large population. Therefore, questionnaires may be seen as a valuable method of obtaining quantitative data (Burton & Bartlett, 2005). The design of the questionnaire is an extremely important part of the research process. When the questionnaire is designed, the researcher has to keep in mind what type of data will be generated by the questions and the statistical techniques that will be used to analyse the data (Maree, 2016).

In the context of this study, a qualitative component was added to the questions in order to allow the respondents to motivate their answers. The content of the questions was directed by the literature review. The constructs as determined by the literature review that were measured by this questionnaire included the following:

- General learning conditions
- Factors affecting learning in the Accounting classroom
 - Motivation in the Accounting classroom
 - Support in the Accounting classroom
 - Teacher attitudes in Accounting classroom
 - Development of thinking skills: teacher expectations
 - Feedback in the Accounting classroom
- The subject Accounting
 - Feelings about Accounting
 - The value of Accounting
 - Experiences with Accounting
- Learner's own learning
 - Critical thinking skills and dispositions in the Accounting classroom
 - Learning actions

3.6.1.1.1 Questionnaire design

The design of a questionnaire requires that the researcher pay attention to the following aspects as highlighted by Maree (2016, p. 178): appearance of the questionnaire, completion time, the question sequence, the wording of questions, and the response categories.

3.6.1.1.2 Appearance of questionnaire

I incorporated all the aspects as suggested by Maree (2016) to make the questionnaire user-friendly. This included the font not being too small and neat printing. Clear instructions were given and the purpose for compiling the questionnaire was indicated (cf. Appendix A and B). The effectiveness of the questionnaire was measured during the pilot study.

3.6.1.1.3 Completion time of questionnaire

According to Maree (2016), learners should be able to complete a questionnaire in less than 30 minutes and adults in less than 20 minutes. In the context of this study, both teachers and learners completed the questionnaires in less than the allocated time. The learners took approximately 15 minutes to complete the questionnaire and the teachers completed the questionnaire in their own time.

3.6.1.1.4 Question sequence

The questions in the questionnaire were formulated as statements and the statements were ordered logically into different sections so as not to confuse the participants. The questions in each section only dealt with one specific topic (Maree, 2016). I also concentrated on the correct wording of the questions to ensure that the items were understood and meaningful. The questionnaire was sent for language editing before it was copied and distributed. Some of the guidelines suggested by Cohen et al. (2007, p. 334) were applied:

- Clear, unambiguous language was used.
- Statements were clear and to the point.

- Double-barrelled and vague statements were avoided.
- No sensitive aspect, that might have offended participants, were addressed.

The self-structured, closed questionnaires for teachers and learners respectively, were developed in accordance with the literature review. The literature and a pilot study served to steer the design of the questionnaire in order to collect rich data regarding the classroom conditions in the Accounting classroom. Furthermore, several aspects regarding classroom conditions and the successful learning in the Accounting classroom were highlighted in the literature, that lead to the formulation of the questions relating to the research questions. Under the guidance of my supervisors, I developed the questionnaire which comprised of 5 sections. The aim of the questionnaires was to gather information from teachers and learners regarding aspects that are important in creating positive classroom conditions for successful learning. The questionnaire thus comprised the following sections which are cross referenced to the sections in the literature review that informed the construction of the questionnaire items.

- Section A: biographic information (learners and teachers).
- Section B: evaluate the general classroom conditions in the Accounting classroom (cf. 2.3, 2.4, 2.5).
- Section C: evaluate learning and teaching in the Accounting classroom (cf. 2.3, 2.4).
- Section D: statements regarding aspects about the subject Accounting (cf. 2.2).
- Section E: statements regarding their own learning (learners) and their own teaching (teachers) in the Accounting classroom (cf. 2.3, 2.4, 2.5).

3.6.1.1.5 Types of questions

Questions can be divided into open (unstructured) or closed (structured) questions (Bell in Maree, 2016). Open-ended questions do not suggest any response to the set question. They permit participants to answer in their own frame of reference. A closed question provides for a set of responses from which the participant has to choose one or more than one response (Maree, 2016). Bell (in Maree, 2016) distinguishes between different types of

closed questions: list, ranking, category, quantity, grid, and scale. For the purpose of this study, scale questions were used.

Scales are very common and useful in survey research to measure how participants feel or think about something (Maree, 2016). According to Bell (in Maree, 2016), scales are intended to help researchers discover the strength of feeling or attitude. The response options are set up in such a way that the variables measured can be expressed as numerical scores that are of either an ordinal, interval, or ratio type (Maree, 2016).

The Likert scale, which provides an ordinal measure of the participant's experiences, perceptions and views, was utilised in the questionnaire (Cohen et al., 2007). The four-point scale characterised the frequency according to which certain actions in the classroom were taking place, namely: almost always, often, sometimes, and very seldom. I chose to exclude a neutral option, as the purpose of the questionnaire was to determine an opinion about the topic. According to Leedy and Ormrod (2005, p. 187) a "no opinion" or neutral response could have implications for the research, as it allows respondents to "straddle the fence" by simply choosing the neutral option.

3.6.1.1.6 The pilot study

Before the questionnaire was administered, I had to determine whether the questionnaire complied with validity and reliability criteria (Cohen et al., 2007). There are a number of different types of validity, namely: face, content, construct, and criterion validity. In the context of this study, content, face and construct validity were considered. These are discussed later in the chapter (cf. 3.10.2). The appropriateness of the questionnaire, with regard to language and kind of questions asked were determined in the pilot study. No changes were made to the questionnaire after the pilot study was conducted because the questionnaire for learners complied with reliability criteria (cf. 4.2.1.1).

3.6.1.1.7 Group administration of questionnaires

The data collection from the learners was done with group administration (Maree, 2016). In this study, I administered the questionnaires for completion by the learners from the different schools during the Accounting periods. This was necessary as the questionnaire

was not translated into the home language of certain learners, and I needed to be present if any uncertainties should arise. Learners completed the questionnaires under supervision of their own teachers or the research assistant, who has a PhD in Education and is therefore an experienced researcher. Prior to the completion of the questionnaires, I informed the responsible teacher or research assistant about the procedure for completing the questionnaire and given time to pose questions about uncertainties in the questionnaire items. I then received the completed questionnaires packed according to the different grades (10, 11, and 12). The teachers completed the questionnaires in their own time and I collected these questionnaires on a specific date arranged with the teachers. The return rate for the questionnaires is reported in Chapter 4 (cf. 4.3).

3.6.2 Qualitative data collection methods

Qualitative research is based on a more realistic approach that seeks to understand real-world settings and in general, the research is carried out in real-life situations. Interviews and observations are mainly used as the data collection methods (Maree, 2010).

3.6.2.1 Individual interviews

Creswell (2005) states that an individual interview is a way of finding out what is in or on someone's mind, his or her individual lived experience and knowledge, opinions, and beliefs. It is usually conducted face-to-face with the participants. According to Greeff (2005), an individual interview is an attempt to understand the world from the participant's perspective, to clarify the value of people's experiences and to discover their world of living. Kamberelis and Dimitriadis (2013) mention that the key advantage of interviews can be that participants are directly involved and this could allow their disclosures to be strengthened. they argue that the reason for this is that the interviewed participants use their own words to present their views and experiences as they understand and know them best.

In qualitative research, a distinction is made between unstructured (open-ended), semi-structured and structured interviews. The semi-structured interview differs from the unstructured and structured interviews, as both the question and answer categories rely on

the researcher and the informant's social interaction, hence they are not predetermined (Kothari, 2004; Maree et al., 2011).

Semi-structured interviews rely on the understanding that the interaction of participants is significant for broadening responses, and this could trigger deeper details of views and unleash inhibitions that may have otherwise prevented participants from releasing vital information (Maree, 2016). This results in more a human inclination where perceptions and attitudes can emerge through participants' interaction. This interaction, according to Leedy and Ormrod (2014), facilitates the establishment of a researcher's relationship with participants, which inspires the generation of more quality data.

The use of semi-structured interviews was chosen for this study, as the technique allows the collection of original data from the participants (Maree, 2016) and is recommended when the researcher is working within a paradigm that is underpinned by the assumption that reality is socially constructed by the participants in their setting of interest (De Vos et al., 2011; Merriam, 2009). The focus of my study was to gain more in depth understanding of how the classroom conditions affects the learning of Accounting learners, as well as the teachers' experiences and perspectives regarding the teaching of the subject Accounting. I was therefore able to gather more data during the interviews by the teacher about the issues relating to teaching and learning in the Accounting classroom as identified during the quantitative phase. In this study, the semi-structured interview allowed me to interact with the learners and teacher's experiences for better clarity regarding teaching and learning in the Accounting classroom. The semi-structured interview therefore fit well in the qualitative data collection method that was used in the second phase of this study.

The interviews in this study were semi-structured and the interview schedule (Addendum J & K) was determined by the findings of the quantitative phase.

After the analysis of the questionnaire data, I selected constructs (cf. chapter 4) for which more explanatory and rich data were needed, for the interviews. The participants were purposefully selected as they could elaborate on these constructs focused on in the questionnaires in phase 1 of the study. In order to gain richer data, I tried to gain a better understanding of the participant's experiences, perceptions and views (Leedy & Ormrod,

2001) of learning conditions in the Accounting classroom. Individual interviews were conducted with purposefully selected Grade 10 – 12 Accounting teachers and learners in the second phase of the data collection procedure to obtain more contextual and rich data of the teaching and learning conditions in the Accounting classroom. Furthermore, to generate data regarding how the teacher views the experiences, attitudes and perceptions regarding the classroom conditions for successful learning. It was audio recorded and transcribed verbatim.

3.6.2.2 Observations

As a qualitative data gathering technique, observations were also used to support me to obtain a better understanding of the phenomenon being observed (Maree, 2016). Observation is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them (Maree, 2016).

Classroom observations formed part of the data-collection procedure in the qualitative part in this study. Creswell (2009) noted observations to be useful as they give a first-hand experience of the observed activities as they occur in their natural setting. My role, therefore, was that of a non-participant observer as I was not participating in any way in the teaching and learning process. I only made myself known as I gained permission to sit in, observe and take field notes of the lesson observations.

Qualitative observations are those in which the researcher takes field notes about the behaviour and activities of individuals at the research site and records, in an unstructured or semi-structured way, all the activities at the research site (Creswell, 2009).

In this study, classroom observations were conducted to observe the Accounting classroom conditions and teaching and learning practices to understand how it affected successful learning in the Accounting classroom. I took notes about certain activities and behaviours of the teachers and learners in the Accounting classrooms of the three selected schools.

An observation criteria list (Addendum L) with certain categories of behaviour, of what I intended to observe in the Accounting classrooms was compiled related to aspects such as

relationships between teacher and learners, how feedback is done, learning actions and specific teaching methods employed in the classroom. This was informed by the literature review as well as my own experience as an Accounting teacher at Secondary School level and as an Accounting lecturer for a pre-graduate teacher education programme at a Higher Education Institute. These aspects that formed part of the observation criteria list were therefore identified by me as relevant issues that could confirm the findings from the quantitative and the qualitative phases of the study. In this study, I made use of observations to gain an in-depth understanding of the learning conditions in the Accounting classroom. The data acquired from the questionnaires and the interviews, as well as the literature review, were used to compile criteria for categories of behaviour (Addendum L) to be observed. I participated as an observer as participant (Maree, 2016), which means I got into the situation, taking notes of the classroom conditions in the Accounting classrooms to understand the assumptions, values and beliefs, but I remained uninvolved and did not influence the dynamics of the classrooms (Maree, 2016) of the Accounting learners as well as the teaching and learning conditions in the classrooms. I made use of anecdotal records (short descriptions of basic actions observed capturing key phrases or words (Maree, 2016) by taking field notes of the observations done in the classrooms. I analysed and interpreted the data and then compared it with data gathered from the questionnaires and interviews.

3.7 Data collection procedures

In mixed methods research, the data collection procedure consists of several key components. Data collection is more than simply collecting data – it involves several interconnected steps. Moreover, in mixed methods research, the data collection needs to proceed along two strands, namely quantitative and qualitative (Creswell & Plano Clark, 2011). I kept the possibility of adjustment, development and change in mind when I formulated a plan to collect the data. I obtained ethical clearance and permission to conduct the research from the research ethics committee of the North-West University as well as the Gauteng Department of Basic Education. The informed consent form clearly stated that participation was voluntary and anonymous (cf. 3.11). A review of the relevant literature on the topic was done (cf. 3.2.2). The researcher applied a mixed methods

approach, using a sequential explanatory design in which quantitative data were collected in the first phase by means of a self-designed Likert scale questionnaire (cf. 3.6.1.1).

The diagram in Figure 3.1 illustrates the explanatory design as it was employed in this study.

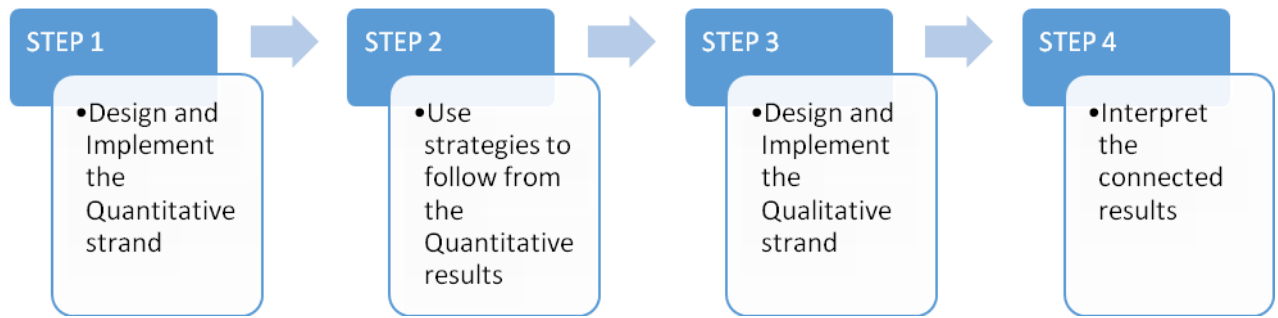


Figure 2.1: Flowchart of the procedures in an explanatory design

I followed the procedure summarised in Table 3.1 for collecting the quantitative and qualitative data.

Table 2.3: Data collection procedure

Data collection procedure	
Step 1	Conducted a thorough literature review in order to inform the questionnaires, interview schedule as well as the observations. As part of the procedures followed in this study, I started by formulating the research questions and aims (cf. 1.3).
Step 2	A structured Likert scale questionnaire for learners (cf. Addendum H) and teachers (cf. Addendum I) with a qualitative component was compiled.
Step 3	Ethical approval was obtained from the Gauteng Department of Basic Education, as well as the specific university's ethical committee (cf. Addendum M, Addendum N).
Step 4	Before the actual research was conducted, a pilot study with a small group (N=39) of 1 st to 4 th year students doing their BEd degree with Accounting as

	their major subject at a specific university, as well as some (N=6) Grade 10, 11 and 12 Accounting learners, from a school in a different district, was conducted. The results of the pilot study helped to determine if the questions set in the questionnaire were appropriate. From the pilot study it became clear that the questionnaire for learners complied with reliability criteria (cf. 4.2.1.1).
Step 5	Gained permission and consent from the school principals and Head of Departments of all the selected schools and explained the purpose of the study.
Step 6	The quantitative phase was conducted first by going to the participating secondary schools in the Vaal Triangle area in Gauteng. All the Accounting learners and teachers in the Grade 10-12 Accounting classes who were present on the day completed a questionnaire.
Step 7	All participants were requested to sign an informed consent letter. It was also explained to them that some of them will be contacted for further voluntary participation in the qualitative phase.
Step 8	The data from the questionnaires was analysed using descriptive and inferential statistics and the findings obtained from the questionnaires were used to develop questions to pose in the interviews in the second phase of the data collection process.
Step 9	The results from the quantitative data was used to compile the qualitative questions and was also used to determine the participants chosen for the interviews. Semi-structured interview questions were formulated to support the data from the quantitative phase of this study.
Step 10	Selected participants were contacted to take part in the interviews and requested to sign an informed consent form. Appointments for the interviews were made at three different schools in the Vaal Triangle area.

Step 11	The face-to-face semi-structured interviews to explore the experiences, perceptions and views of the participants were conducted. The interviews were recorded using an audio tape recorder, and transcribed verbatim shortly thereafter.
Step 12	Observations were done in the Accounting classrooms at the same three selected schools where I took observational notes of the learning conditions in the Accounting classroom. I scheduled dates with the teachers and with the permission of the principal to act in the capacity of an observer as participant (cf.3.6.2.2) in the classrooms.
Step 13	The qualitative data was analysed using a deductive thematic analysis as determined by the constructs of the quantitative analysis. However, an inductive analysis was also done which were presented in the categories and sub-categories.
Step 14	The findings of both the phases were presented
Step 15	The findings of all the phases of the research were interpreted and discussed in an integrated manner

3.8 Role of the researcher

The explanatory design in mixed methods research was implemented in this study in two distinct phases (Creswell & Plano Clark, 2011). My role in the first phase involved recruitment of the appropriate respondents, developing the questionnaires and collecting and analysing the quantitative data. The analysis was done with the help of a statistician. Based on a need to further understand the quantitative results, I implemented a second, qualitative phase after completing the quantitative phase (Creswell & Plano Clark, 2011). I identified learners and teachers within the quantitative sample for the interviews.

It was important for me to follow the correct procedure to obtain permission from the Gauteng Department of Basic Education and schools to study the participants in the Accounting classrooms (Creswell 2009). I carefully considered any sensitive ethical issues.

In the qualitative phase I was very closely involved in the data collection process, especially during the observations and the interviews and therefore avoided any biased opinions and perspectives. According to Creswell (2009), I had to consider the following range of ethical and personal issues that could compromise the collection of reliable data, namely: historical, social, and cultural experiences, status, race, gender, expectations, and personal connection to the school. I was constantly aware of these issues to uphold objectivity and avoid biasness. In an attempt to remain as objective as possible, all data, including the field notes, were reflected on with the participants, as well as with my promoter in order to obtain honest, credible, and meaningful findings.

3.9 Data analysis and interpretation

Data analysis in mixed methods research consists of separately analysing the quantitative data using quantitative methods and the qualitative data using qualitative methods (Creswell & Plano Clark, 2011).

3.9.1 Quantitative data analysis process

The quantitative data analysis process in mixed methods research consists of the organisation and preparation of the data for analysis, recording the data using statistical procedures and then analysing, interpreting the collected data (Creswell & Plano Clark, 2011).

Table 2.4: Quantitative data analysis process

Quantitative data analysis process	
Step 1	Organise and prepare data for analysis In the quantitative phase, the unprocessed data was converted into a form useful for data analysis, which means the data was scored by assigning numeric values to each response, cleaning data entry errors from the database and creating special variables that were needed (Creswell & Plano Clark, 2011).

	The data from all the questionnaires in this study was analysed by a statistician at the North-West University's Vaal Triangle Campus and she selected the most appropriate statistical procedures of internal consistency (cf. 4.3) for this study.
Step 2	Recording and analysis of the data Data recording and computing were completed with a statistical computer program called Statistical Package for the Social Sciences (SPSS) version 20. The Cronbach's alpha coefficient for each construct in the questionnaire was calculated. Cronbach's alpha is a measure of internal consistency - how closely a set of items in a group relate to one another. The Cronbach alpha scores are given in Chapter 4 (cf. 4.2.1). A descriptive and inferential statistical procedure was followed during the data analysis in this study. Descriptive statistics is a collective name for a number of statistical methods that are used to organize and summarize data in a meaningful way (Maree, 2010). The purpose of most research is to use the findings from the sample data to generalise or draw conclusions about the population. This is called statistical inference, a field that relies on the probability theory (Maree, 2010).
Step 3	Interpretation of the data All of the completed questionnaires were usable and therefore were tallied, percentages were calculated and frequencies were displayed in tables and graphs to help visualise the findings (cf. 4.3; cf. 4.4). This enabled me to interpret the findings, determine the factors that influence classroom conditions for successful learning in the Accounting classroom and to identify issues that needed to be explained further in the qualitative phase.

3.9.2 Qualitative data analysis process

Qualitative data analysis in mixed methods research consists of the organisation and preparation of the data for analysis, description and coding of the data, and furthermore focusses on analysing, interpreting and reporting the collected data (Creswell & Plano Clark, 2011). A data analysis process entails the arrangement of data, the compilation of patterns and the interpretation (giving of meaning) to the data collected. The data are then clustered into themes by means of a coding process and finally organised in the form of tables (Creswell, 2014). For the purpose of this study, data analysis from the interviews and observations were done deductively.

Table 2.5: Qualitative data analysis process

Qualitative data analysis process	
Step 1	Organise and prepare data for analysis During the qualitative data analysis, the data needs to be prepared in such a way that the transcribing text for interviews and observations can be converted into word processing files for analysis (Creswell & Plano Clark, 2011). This step emphasises the need for the researcher to familiarise herself thoroughly with the data by reading and re-reading all of it to absorb as much detail as possible. To achieve this purpose, I went through all the data I had collected. This entailed reading through textual data and listening to the audio recordings. After having familiarised myself with the data, I began transcribing the raw data. Afterwards, I read the transcripts several times alongside the audio recordings to cross-check and confirm that I understood everything that was said by the participants. The qualitative data in this study came from open-ended questions in certain sections of the questionnaires, interviews, and observations. Data from Section B and C of the questionnaires involving two open-ended questions and additional comments or remarks from all sections were

	transcribed in table format, whereby each question was accompanied by all participant responses to enable visual access for interpretation. Responses from the individual interviews were transcribed verbatim in table format. This was done as the interviews were used to explain questions that were initially asked in the questionnaires in the quantitative phase.
Step 2	Description and coding of the data After the interviews were transcribed, a content analysis was done on the data collected. Content analysis is an analytical technique that is carried out when qualitative data is coded and categorised in order to be analysed. The content analysis was done deductively to explain the implications of the existing theories about the phenomenon under study against the collected data from the quantitative and qualitative phases (Schreier,2012). In the deductive approach, I started with some categorical scheme suggested by a theoretical perspective as well as the construct items in the questionnaire from the quantitative phase. (Lune & Berg, 2017). When the deductive data analysis was being done, key words and phrases were highlighted in the transcriptions. This process is called coding (Merriam, 2009; Nieuwenhuis, 2007). Coding helps the researcher to quickly and easily retrieve specific pieces of the data (Merriam, 2009). These key words were then used to make major categories under open codes. Open coding is done when major categories of information are drawn out by means of coding the data. The generalised inferences were then given labels by means of axial coding. With axial coding, the core phenomenon is identified and focused on. The labels were then compared by means of constant comparison. Constant comparison is the attempt to saturate the categories that emerge from the data. I compared the data obtained through the questionnaire with the data from the transcriptions to determine similarities and differences, a process which Merriam (2009, p. 175) describes as the constant comparative

	method of data analysis. From there themes, categories and sub-categories emerged that were discussed. Themes generated by the data were used to describe classroom conditions for successful learning in the Accounting classroom which enabled me to present the findings that answered the research questions.
Step 3	Analysis of the data Data was analysed using the constant comparative method of data analysis. It involved comparing one segment of data with another to determine similarities and differences (Merriam, 2009). I analysed the data from the interviews with teachers and learners and then secondly compared that data with the observations done in the classrooms of the same participants. During this third step, the researcher looked carefully at the similarities and patterns in the codes that were initially generated in Step 2. After I had made notes alongside the identified key words and phrases of interest I became aware of emerging patterns. More specifically, I identified groups of similar words which I organised in a tabular format for easy analysis.
Step 4	Interpretation of the data Once the analyses were complete, a mixed methods interpretation was done which involved looking across the quantitative results and the qualitative findings and making an assessment of how the information addresses the research objectives of the study. Data derived and analysed from all the collection methods were compared and interpreted. The fourth step involved a careful review of all the themes identified in Step 3. I revisited the transcripts and the tables in which I had grouped similar key words together. This enabled me to check relationships between emerging

	themes, to verify whether or not they correlated with what was asked, and to ensure that I had not missed anything or had misrepresented participants' views. Afterwards, I merged all the identified key words or phrases to devise well-defined theme names. I then conducted an analysis of each theme, identifying each one's meaning and constructing a brief and informative name for each identified theme. I first critically looked at the data, and then identified themes, subthemes and categories. I subsequently gave the themes titles and explained why I regarded them as meaningful. The identified themes, subthemes and categories were then used to answer the secondary research questions.
Step 5	Report writing Kumar (2005) states that research writing must be absolutely accurate, clear and free of ambiguity, logical, and concise. Report writing was the last step of the research process in which I described the data collected during the questionnaires and interviews, and drew conclusions from the findings. The writing up was the final and the most critical stage of the data analysis process. As recommended by Braun and Clarke (2016) it is where the researcher writes up the data in a concise, meaningful and understandable manner. I attempted to ensure that the research report contained enough evidence from the themes which emerged from the data to present a compelling case. The researcher made recommendations with regard to positive classroom conditions that could be implemented to assist learners and teachers for successful learning in the Accounting classroom.

3.10 Quality criteria

Since mixed methods research involves both quantitative and qualitative strands of data, there was a need to address the specific types of validity checks that were done for both strands (Creswell & Plano Clark, 2011).

3.10.1 Reliability

Reliability refers to the consistency with which a measuring instrument, in this case the self-designed Likert scale questionnaire, yields a result (Neuman, 2011, Pietersen & Maree, 2007; Leedy & Ormrod, 2010). An instrument (a Likert scale questionnaire in the case of this study) is reliable if it accurately displays the true score of the aspects under investigation. Quantitative reliability means that scores received from participants are consistent and stable over time. I checked for the reliability of scores through statistical procedures of internal consistency (cf. 4.3) (Creswell & Plano Clark, 2011).

3.10.2 Validity

Validity in mixed methods research employs strategies that address possible matters in data collection, data analysis, and the interpretations that might compromise the combining of the quantitative and qualitative parts of the study and the conclusions drawn from the combination (Creswell & Plano Clark, 2011).

In this study, questionnaires were employed as part of the quantitative part of the study. A pilot study was conducted with a group of students (n=34) from a university, as well as Grade 10, 11, and 12 Accounting learners (n=6) who do not form part of the sample in order to determine the reliability and validity of the questionnaire. I verified the items included in the questionnaire with the statistician and furthermore, inter-item correlations were calculated and indicated that the items in each of the questionnaire sections truly measured the construct in question (cf.4.2.1).

The reliability of the questionnaire items of the pilot study was measured with the Cronbach Alpha coefficient, based on the inter-item correlations (Pietersen & Maree, 2007). If the items of the test are correlated to one another, the value of alpha is higher. However,

Tavakol and Dennick (2011) argue that a high Cronbach Alpha coefficient does not always reflect a high degree of consistency as alpha is affected by the length of the test. If the test length for a specific construct is too short, the alpha will be low. The alpha can be increased by adding more related items that test the same concept. In the case of construct 2 and 4 that yielded a Cronbach Alpha score below 0.7 (cf. Table 4.1), both constructs respectively consisted of five test items which could have attributed to the lower Cronbach Alpha score. With regard to validity, face (cf. 3.10.2.1.5), content (cf. 3.10.2.1.6), statistical conclusion (cf. 3.10.2.1.4) and construct validity (cf. 3.10.2.1.3) were considered (Pietersen & Maree, 2007).

3.10.2.1 Validity of the design

The perspective of Onwuegbuzie and Johnson (2006) illustrates how validity in mixed methods can be related to stages in the process of research. Since mixed methods research involves both quantitative and qualitative strands of data, there will be a need to address the specific types of validity checks that will be done for both strands (Creswell & Plano Clark, 2011).

3.10.2.1.1 Internal validity

Internal validity of a research study is the extent to which its design and the data it yields allow the researcher to draw accurate conclusions about cause-and-effect and other relationships within the data (Leedy & Ormrod, 2005). The questionnaire used in this study was reviewed by me and my promoters before conducting the research. The pilot study was also conducted to check if the questions in the questionnaire complied with reliability criteria (cf. 4.2.1.1).

3.10.2.1.2 External validity

External validity refers to the degree to which results can be generalised to the entire population (McMillian & Schumacher, 2001). Although generalisation cannot be achieved due to the small sample the external validity of this study was enhanced by the fact that the study was conducted in a real-life setting with a selected sample group of participants (Leedy & Ormrod, 2005).

3.10.2.1.3 Construct validity

Construct validity is needed for standardisation (Pietersen & Maree, 2007) and is the extent to which an instrument measures a characteristic that cannot be directly observed but must instead be inferred from patterns in people's behaviour (Leedy & Ormrod, 2005). I verified the items included in the questionnaire with the literature review, my promoter and the statistician to make sure the items measured what they were supposed to. The pilot study was also conducted to check if the questions in the questionnaire complied with reliability criteria (cf. 3.10.1).

3.10.2.1.4 Statistical conclusion validity

In the context of the study, I was of the opinion that threats to statistical conclusion validity will be avoided as appropriate statistical tests were utilised by the Statistical Consultation Services of the North-West University, Vaal Triangle Campus to analyse the data obtained from the questionnaires (McMillan & Schumacher, 2006)

3.10.2.1.5 Face validity

The questionnaire complied with the criteria for face validity as the instrument truly measured what the researcher wanted to measure (Leedy & Ormrod, 2005). This was assessed through a pilot study.

3.10.2.1.6 Content validity

Content-related validity is defined by Leedy and Ormrod (2005, p. 92) as "the extent to which a measurement instrument is a representative sample of the content area being measured". The questionnaire reflected the various parts of the content domain, as mentioned above, in appropriate proportions. This was verified with the promoters and in discussions with colleagues who are knowledgeable in the field of study and it was also compared to what the literature and the pilot study revealed.

3.10.3 Credibility and trustworthiness

In qualitative research, the researchers focus on the validity and reliability of instruments and this indicate that research is credible and trustworthy. Credibility refer to the accuracy of the findings in the qualitative research according to Lincoln and Guba (1985, p. 290-301). In the qualitative part of the study, it was generally accepted that engaging multiple methods of data collection, such as observation and interviews used in this study, would have led to trustworthiness (Maree, 2007). The validity of this part of the study was done by doing member checking by means of asking the participants if the transcriptions and interpretations were true reflections of the data. In addition, the involvement of peer researchers to assist with the interviews and the interpretation of the data, enhanced the trustworthiness. A colleague with a PhD and experience in mixed methods research was requested to assist with this. In the qualitative phase of the research, I was the data gathering instrument (Maree, 2007) that conducted the interviews with teacher and learners and also took the observation notes.

3.10.4 Transferability and dependability

The transferability of the research confirms whether the findings of the study would be the same if the research was conducted with another group of people in a different context (De Vos et al., 2002). Tashakkori and Teddlie (2003) also view the possibility of transferring the research findings into a context other than the original as an indication of the validity of the findings. The transferability of this study can only be concluded when the study will be done in future again in different contexts. However, it was attempted in this thesis to provide as much as possible detail about the research methodology in order for another researcher to transfer it to a similar kind of study.

“Dependability, on the other hand, represents the degree to which the reader can be convinced that the findings did indeed occur as they say they did” (Durrheim & Wassenaar, 2002, p. 64). To establish dependability in the study, a pilot study (cf. 3.6.1.1.6) was conducted before the actual research was done and regular consultation with the promoters supported this.

3.11 Ethical considerations

In both quantitative and qualitative research, ethical issues, such as providing reciprocity to participants for their willingness to provide data, handling sensitive information and disclosing the purposes of the research are requested (Creswell & Plano Clark, 2011). The way the data collection procedures were administrated in this study attended to these ethical issues, namely, standardised procedures were followed during the first phase when questionnaires were completed. Learners were informed about the purpose of the study and how they could benefit from the results in future. They were encouraged to answer the questions as honest as possible and were assured that each questionnaire or interview discussion will be handled with confidentiality. They voluntary completed the questionnaires under supervision of their own teachers or the research assistant. Prior to the completion of the questionnaires, I informed the responsible teacher or research assistant about the procedure for completing the questionnaire and given time to pose questions about uncertainties in the questionnaire items.

Ethical considerations are viewed by Hitchcock and Hughes (1995) as important concerns about values or beliefs and personal views in research. My responsibility towards the participants is viewed by these authors as central to the research. My ethical code of conduct was, therefore, considered as extremely important, not only in terms of permission from participants to participate in the study, but also in terms of the way they were treated (Hatch, 2002).

In the next section, the ethical procedure that was followed regarding the informed consent from participants, as well as obtaining permission for conducting the study, will be discussed.

3.11.1 Informed consent

A basic ethical consideration in the planning of all research must be whether the research can harm the participants or community members in any way. For me to gather informed consent from the respondents in the first quantitative phase and the participants in the second qualitative phase was an important first step in presenting accurate ethical

behaviour during the research (Louw & Edwards, 1998). I explained to all the learner and teacher participants what were expected of them during the research process (Hatch, 2002).

Information about the goal of the study as well as about the procedure of the study were communicated to each learner and teacher participant during a discussion in the classroom. The participants' right to privacy should also be respected (Leedy & Ormrod, 2001), therefore, an agreement with each participant was communicated that any information will be managed with privacy, confidentiality and that no names or personal information will be disclosed. All participants were informed that their participation is voluntary and that they had the option to discontinue if they wanted. The learner and teacher participants were required to sign the consent form as proof that they understood the procedure and expectations and as confirmation of their voluntary participation in the study. No one was, therefore, treated unfairly or was included in the study under false pretences. The participants were informed about the process of quantitative as well as qualitative methods that could be used in the study. The consent form also allowed the researcher to know their personal contact details if they were willing to participate in the interviews during the qualitative phase of the study, therefore the confidentiality of the study was very important. The details of the participants were not exposed in the study when the results were reported in the thesis.

3.11.2 Confidentiality

According to De Vos, Strydom, Fouché, and Delport (2011), confidentiality specifies the handling of information in a confidential manner and focus on the privacy of all participants, which refers to agreements between persons that limit other's access to private information.

The researcher ensured that the data were handled confidentially and that the collection of the data did not infringe on the time and privacy of the participants. They were assured that all identifying information would not be made available to anyone except the promoter and the researcher.

3.11.3 Anonymity

If information is given anonymously, it ensures the privacy of participants and anonymity means that no one should be able to identify any participant afterwards (De Vos et al., 2011). Throughout the study, the identities of the participants remained anonymous, with the exception of the participants for the interviews in the qualitative phase of the study. The researcher assured the participants that the interviews recorded will not expose their identities in any way. Each participant was allocated a number in the interview coding and analysis.

An ethical application was submitted to the Faculty of Human Sciences Research Committee of the North-West University in February 2017 (cf. 1.2; Addendum A). The application was approved, allowing me to conduct the research.

3.12 Conclusion

This chapter explained the research methodology followed in this study and entailed a description of the research design, population and sampling, data collection methods and the measures that were taken to ensure the trustworthiness of the study. The ethical aspects pertaining to the research were also discussed.

Chapter 4 will explain the analysis of the data, the findings and conclusions concerning the opinions of learners and teachers regarding the classroom conditions in the Accounting classroom and the impact it has on successful learning.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter, the analysis and interpretation of the quantitative findings which were collected by means of questionnaires, as well as the qualitative research which was collected through interviews and observations, will be discussed. Firstly, the quantitative findings of the questionnaire will be given and thereafter the findings of the qualitative phase. Finally, as this is a mixed method research design, the findings of both these phases will be interpreted and discussed in an integrated manner whereby the qualitative findings will be used to give explanations for the findings of the first quantitative phase.

4.2 Quantitative data analysis

4.2.1 The questionnaire and reliability of the results

A self-constructed Likert-scale questionnaire with a qualitative component was used to collect the quantitative data providing an opportunity for respondents to motivate their answers. These qualitative responses are incorporated in the presentation of the qualitative findings. The questions had four options, thereby avoiding a neutral response. The questionnaire was divided into four constructs derived from the literature review, consisting of several questions aimed at answering the research questions posed at the onset of the study.

The data analyses and interpretations will be dealt with in the following sequence:

- Reliability of the questionnaire for the pilot study and the actual study
- Biographic information of the participants
- Data analysis and interpretation of quantitative data: teacher and learner responses
- Data analysis and interpretation of qualitative data: teacher and learner responses

The next section reports on the reliability of the questionnaire for the pilot study and the actual study.

4.2.1.1 Reliability of the questionnaire

Table 4.1 indicates the Cronbach alpha coefficients that were calculated for the various constructs in questionnaires for the pilot study.

Table 4.1: Cronbach alpha coefficients: pilot study

Questionnaire constructs	Cronbach alpha coefficient pilot study: students
1. General learning conditions	0.859
2. Learning in the Accounting classroom	0.912
3. The subject Accounting	0.600
4. My own learning	0.777

Table 4.2 reflects the Cronbach alpha coefficients for the actual study.

Table 4.2: Cronbach alpha coefficients: actual study

Questionnaire constructs	Cronbach alpha coefficient: Grade 10- 12 learners
1. General learning conditions	0.780
2. Learning in the Accounting classroom	0.850
3. The subject Accounting	0.600
4. My own learning	0.719

The Cronbach alpha coefficient was calculated to determine the internal consistency of the various questionnaire sections. The Cronbach alpha is a reliability coefficient that calculates the extent to which items, such as those found in a questionnaire, are correlated positively with one another (Akbaba, 2006). Consequently, a Cronbach alpha coefficient measures consistency among individual items in a scale (Simon, 2008). Sekaran (2000) points out that the internal consistency reliability becomes higher as the Cronbach alpha moves closer to 1.

In most Social Sciences, a Cronbach alpha coefficient between 0.7 and 0.8 is regarded as acceptable when working with a set of items to be considered on a scale, but some use 0.75 or 0.80 while others are lenient and accept 0.60 (Simon, 2008). According to Simon (2008), 0.60 could be seen as in order for an exploratory study. As this study was an exploratory study, it is clear from Table 4.2 that the questionnaire for learners complied with reliability criteria.

As I observed a problem with the reliability values of construct 3 in the learner questionnaire in particular, a factor analysis was conducted after the actual study to examine the unidimensionality of the variables in each construct. Factor analysis is a useful tool for investigating variable relationships. A primary goal of factor analysis is to achieve a meaningful interpretation of the observed variables through the factors, and to reduce the number of variables (Cohen, Manion & Morrison, 2007). The factors that explain the least amount of variance are generally discarded (Cohen et al., 2007; Field, 2012). The outcome of the factor analysis for the learner questionnaire is reported in section 4.3.

4.2.2 Biographical information of learner participants

I distributed 700 questionnaires to learners in nine different schools in the Vaal Triangle. Of the 700 questionnaires distributed, 576 (82.2%) were returned by learners.

4.2.2.1 Gender of learners

Table 4.3: Gender: Learners

Gender	f	%
Male	198	34.4
Female	378	65.6
Total	576	100.0

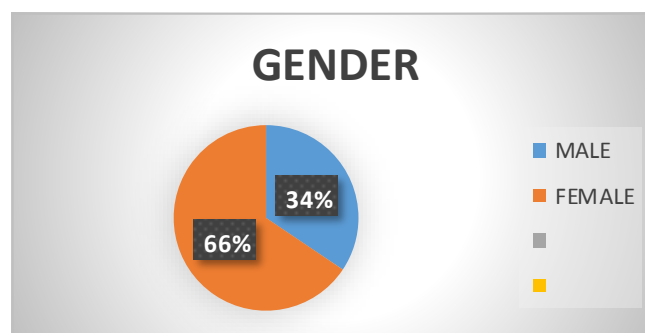


Figure 4.1: Gender:Learners

Table 4.3 and Figure 4.1 presents the biographic information of the learners related to their gender.

“f” indicates the number of respondents out of a total of 576.

The above table indicates that 65.6% of the respondents are female learners and 34.4% are male learners. Table 4.3 indicates that more females (N=378) than male learners (N=198) participated in the research.

4.2.2.2 Grade of learners

Table 4.4: Grade: Learners

Grade	f	%
Grade 10	214	37.2
Grade 11	228	39.5
Grade 12	134	23.3
Total	576	100.0

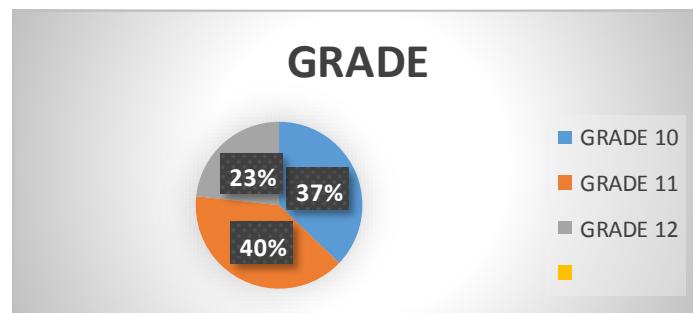


Figure 4.2: Grade: learners

“f” indicates the number of respondents out of a total of 576. Table 4.4 indicates that:

- (214) 37.2% of respondents are in Grade 10,
- (228) 39.5% of respondents are in Grade 11, and
- (134) 23.3 % of respondents are in Grade 12.

Table 4.4 presents the biographic information of the learners related to their grade at the school. It indicates that more or less an equal number of learners from Grade 10 (N=214) and Grade 11 (N=228) participated in the research. Fewer learners from Grade 12 (N=134) were part of the study.

4.2.2.3 Suburb where school is located: learners

Table 4.5: Suburb where school is located

Area	f	%
Vereeniging	32	5.6
Vanderbijlpark	369	64.1
Sebokeng	68	11.7
Sasolburg	64	11.1
Evaton	43	7.5
Total	576	100.0

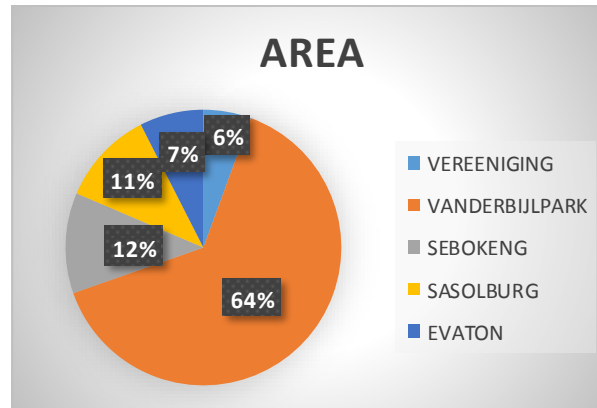


Figure 4.3: Suburb where school is located: Learners

Table 4.5 and Figure 4.3 indicate that:

- (32) 5.6% of respondents are learners from schools in Vereeniging,
- (369) 64.1% of respondents are learners from schools in Vanderbijlpark,
- (68) 11.7% of respondents are learners from schools in Sebokeng,
- (64) 11.1% of respondents are learners from schools in Sasolburg, and
- (43) 7.5% of respondents are learners from schools in Evaton.

4.2.3 Biographical information of teacher participants

I distributed 20 questionnaires to teachers in nine different schools in the Vaal Triangle. Of the 20 questionnaires distributed, 12 (60.0%) were returned by teachers.

4.2.3.1 Gender of teachers

Table 4.6: Gender: Teachers

Gender	f	%
Male	3	25
Female	9	75
Total	12	100.0

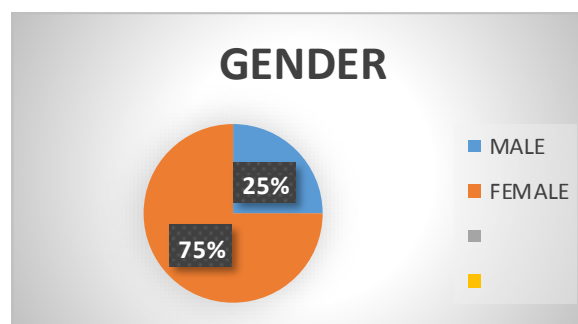


Figure 4.4: Gender: Teachers

Table 4.6 and Figure 4.4 present the biographic information of the teachers related to their gender. “f” indicates the number of respondents out of a total of 12.

Table 4.6 indicates that 75% of the respondents are female teachers and 25% are male teachers. Thus, more female (N=9) than male teachers (N=3) participated in the research.

4.2.3.2 Grades taught by teachers

Table 4.7: Grade: Teachers

Grade	f
Grade 10	7
Grade 11	7
Grade 12	6
Total	12*

**Please see explanation for this total underneath*

“f” indicates the number of respondents out of a total of 12. Some of the teacher participants in the study teach for different Grade classes, some teach Grade 10 and 11, and other only teach Grade 12:

- 7 of respondents teach Accounting for Grade 10,
- 7 of respondents teach Accounting for Grade 11, and
- 6 of respondents teach Accounting for Grade 12.

*Table 4.7 presents the biographic information of the teachers related to their teaching Accounting to a specific grade at the school. From the data obtained from teachers, they indicated that they do not only teach for one specific grade in Accounting. At some schools the teacher teaches Grade 10 and 11 Accounting, at other schools only Grade 12. Some of the teacher participants indicated that they teach for Grade 10 and 11 Accounting classes, whereas others indicated that they teach Grade 10, 11 and 12.

4.2.3.3 Suburb where school is located: teachers

Table 4.8: Suburb where school is located: Teachers

Area	f	%
Vereeniging	1	8.3
Vanderbijlpark	7	58.4
Sebokeng	1	8.3
Sasolburg	2	16.7
Evaton	1	8.3
Total	12	100.0

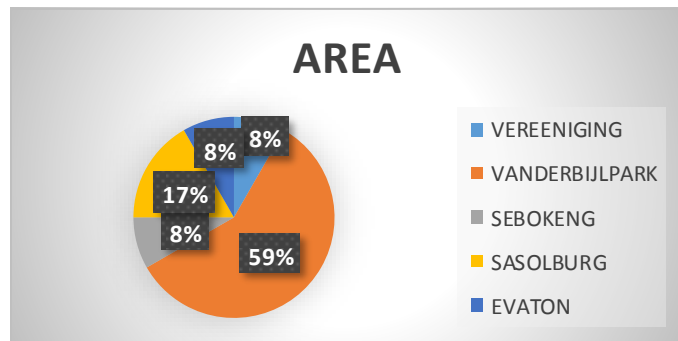


Figure 4.5: Suburb where school is located: Teachers

Table 4.8 and figure 4.5 indicate that:

- (1) 8.3% of respondents are teachers from schools in Vereeniging,
- (7) 58.4% of respondents are teachers from schools in Vanderbijlpark,
- (1) 8.3% of respondents are teachers from schools in Sebokeng,
- (2) 16.7% of respondents are teachers from schools in Sasolburg, and
- (1) 8.3% of respondents are teachers from schools in Evaton.

4.2.2.4 Conclusion

From the above biographical information, it can be summarised that the majority of the learner respondents were females and in Grade 10 and Grade 11 Accounting classes. Most of the respondents came from schools in Vanderbijlpark.

4.3 Findings of the learner data

A descriptive and inferential statistical procedure was followed during the data analysis in this study. Descriptive statistics can be divided into two ways of representing or describing the data. They are graphical and numerical ways (Pietersen & Maree, 2016).

As part of the descriptive and inferential statistical procedure, an exploratory factor analysis was conducted with the learner data. The purpose of the factor analysis was to determine the items that “belong together” in the sense that they were answered similarly and therefore measure the same dimension or factor (Pietersen & Maree, 2016). I used factor analysis to group the variables together in order to reduce problem complexity. This section presents the responses obtained from the learners for each of the sections in the questionnaire. Each section focused on a specific construct that was derived from the literature review in relation to classroom conditions for successful learning in the Accounting classroom. Although the learner and teacher questionnaires focused on the same issues, the questions were phrased differently to suit the respective group. The learner responses will be discussed separately from teacher responses. A factor analysis was done for the learner data and descriptive and inferential analysis for the teacher data. The findings for the responses were summarised with frequencies and percentages. In some instances, graphical representations served the purpose of visually highlighting the prominent characteristics that emanated from the responses (Pietersen & Maree, 2007a). The tables reflect only findings of respondents. Reference made to missing responses in the findings tables refer to the number of respondents who did not respond to a particular item. Graphical representations were not used for these responses as it contains an overload of data which can create confusion.

Please note that this section only presents the findings as the mixed interpretation with the qualitative findings will be done at the end of this chapter. However, under each sub-construct I am highlighting some of the notable findings.

4.3.1 Questionnaire construct 1: General learning conditions

The Kaiser-Meyer-Olkin (KMO) measure was meritorious, $KMO = 0.848$, and Bartlett’s Test of Sphericity that provided a chi-square output that was significant, $p < 0.05 = 0.000$, verified the sampling adequacy for the analysis (Field, 2012, 2013).

A principal component factor analysis was conducted on 8 items (variables) with orthogonal rotation (varimax), indicating the factor loadings for each variable on each factor. Eigenvalues for each factor was obtained. Only one factor had an eigenvalue over

Kaiser's criterion of 1 (Kaiser, 1960). All the questionnaire items (variables) therefore fit onto a single theoretical construct, namely general learning conditions.

The factor analysis revealed that the original questionnaire items (variables) in the construct (General learning conditions) did not require any additional grouping into sub-constructs, as indicated in Table 4.9.

The purpose of this section was to evaluate the general learning conditions in the FET Accounting classroom in order to determine to what extent the learners feel able to achieve the learning outcomes of the subject Accounting and how they experience the learning environment.

Table 4.9: Construct 1: General learning conditions

Question-naire items	Construct: General learning conditions	Almost always	Often	Sometimes	Very seldom
Sub-construct 1: Feeling able to achieve outcomes					
1	I feel able to do Accounting successfully.	176 30.6%	175 30.4%	199 34.5%	26 4.5%
4	I am well prepared for formal tests and exams	179 31.1%	190 33.0%	168 29.2%	39 6.8%
5	I believe that I can obtain good marks in Accounting	239 41.5%	191 33.2%	120 20.8%	26 4.5%
5.1	Indicate your goal % to achieve in the subject Accounting: _____% Missing: Learner 34 (5.9%)	0-49%	50-60%	60-79%	Above 80%
		19 3.3%	37 6.4%	198 34.6%	288 49.8%
6	I have confidence that I can achieve all the objectives/ learning outcomes required by the curriculum	216 37.5%	216 37.5%	125 21.7%	19 3.3%

Sub-construct 2: Experiencing the learning environment					
2	I find the Accounting learning environment a meaningful learning environment.	258 44.8%	158 27.4%	129 22.4%	31 5.4%
3	I am challenged to think critically (e.g. to question information)	198 34.4%	185 32.1%	160 27.8%	33 5.7%
7	I am involved in different activities in the class to succeed in Accounting Missing: Learner 1 (0.2%)	187 32.5%	148 25.7%	168 29.2%	72 12.5%
8	The teacher creates a positive learning environment for learners to achieve learning outcomes in Accounting	387 67.2%	92 16.0%	76 13.2%	21 3.6%

4.3.1.1 Sub-construct 1: Feeling able to achieve outcomes

From the responses obtained for this section, 27.8% of the learners indicated that they are sometimes challenged to think critically in the Accounting classroom, and only 37.5% of the learners almost always feel confident that they will achieve the outcomes of this subject even though almost half of the learners (49.8%) participated in this study indicated that they believe they can achieve 80% and above in the subject Accounting. From the findings obtained, 34.5% of the learners sometimes feel that they are able to do Accounting successfully, and 29.2% are sometimes well prepared for formal tests and exams. Table 4.9 also indicates that only 37.5% of the learners almost always and 21.7% sometimes have confidence that they can achieve all the objectives and learning outcomes required by the curriculum.

4.3.1.2 Sub-construct 2: Experiencing the learning environment

Table 4.9 indicates that only 44.8% of the learners who were involved in the study almost always find the Accounting environment a meaningful learning environment, whereas 67.2% of the learners indicate that the teachers almost always create a positive learning environment for them to achieve learning outcomes in Accounting.

The findings also indicated that 32.5% of them are almost always involved in different activities to help them succeed in Accounting and 29.2% only sometimes.

4.3.2 Questionnaire construct 2: Factors affecting learning in the Accounting classroom

The Kaiser-Meyer-Olkin (KMO) measure was meritorious, KMO = 0.892, and Bartlett's Test of Sphericity that provided a chi-square output that was significant, $p < 0.05 = 0.000$, verified the sampling adequacy for the analysis (Field, 2012, 2013).

A principal component factor analysis was conducted on 19 items (variables) with orthogonal rotation (varimax), indicating the factor loadings for each variable on each factor (Field, 2012). Eigenvalues for each factor was obtained. Five factors had eigenvalues over Kaiser's criterion of 1 (Kaiser, 1960) that in combination explained 51.338% of the variance.

The variables with factors loadings greater than 0.5 were retained for interpretation purposes. Normally, the cut-off point in most literature is regarded as 0.4 (Field, 2012). However, as the researcher wanted to include variables that significantly contributed to a construct, the stringent cut-off criteria of Tabachnick and Fidell (2007) were applied throughout the study: 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good), and 0.71 (excellent). In cases where a variable loaded higher on one factor than another, the variable was clustered with the factor where the highest loading occurred.

The factor analysis revealed that the original questionnaire items (variables) in the original construct (Learning in the Accounting classroom) could be grouped into five sub-constructs as indicated in Table 4.10.

Table 4.10: Construct 2: Factors affecting learning in the Accounting classroom

Questionnaire items	Construct: Factors affecting learning in the Accounting classroom	Almost always	Often	Sometimes	Very seldom
Sub-construct 1: Motivation in the Accounting classroom					
1	The learning activities chosen by the teacher motivates me to complete them	195 33.9%	211 36.6%	140 24.3%	30 5.2%

3	The classroom activities stimulate my interest in the subject Accounting	179 31.1%	206 35.8%	143 24.8%	48 8.3%
6	I feel motivated to do the class activities in the Accounting class	200 34.7%	187 32.5%	154 26.7%	35 6.1%
7	I feel motivated to do the homework activities in Accounting	174 30.2%	184 31.9%	172 29.9%	46 8.0%
Sub-construct 2: Support in the Accounting classroom					
4	Classmates support one another when they struggle	227 39.4%	140 24.3%	101 17.5%	108 18.8%
8	I feel safe to ask questions in the Accounting classroom	288 50.0%	91 15.8%	109 18.9%	88 15.3%
18	I experience good relationships between teacher and learners in the classroom	336 58.3%	113 19.6%	77 13.4%	50 8.7%
Sub-construct 3: Teacher attitudes in Accounting classroom					
2	An atmosphere of mutual respect exists in the Accounting class between teachers and learners	339 58.9%	119 20.6%	80 13.9%	38 6.6%
5	The teacher encourages me to question things	286 49.7%	148 25.7%	90 15.6%	52 9.0%
13	The teacher is enthusiastic about teaching Accounting Missing: Learner 1 (0.2%)	414 71.9%	80 13.9%	54 9.4%	27 4.8%
14	The teacher treats all learners the same way	376 65.3%	83 14.4%	62 10.8%	55 9.5%
19	The teacher encourages learners to participate in class discussions	318 55.2%	127 22.0%	79 13.8%	52 9.0%
Sub-construct 4: Development of thinking skills: teacher expectations					
9	The teacher expects of me to solve problems on my own Missing: Learner 3 (0.5%)	119 20.8%	178 30.9%	179 31.4%	97 16.9%

10	The teacher expects of me to motivate my answers Missing: Learner 3 (0.5%)	214 37.2%	192 33.3%	134 23.3%	33 5.7%
11	We have to analyse (to examine something methodically and in detail) information in class Missing: Learner 4 (0.7%)	243 42.2%	198 34.4%	98 17.0%	33 5.7%
12	We have to interpret (explain the meaning of information or actions) information in class	244 42.2%	177 30.7%	115 20.0%	40 6.9%

Sub-construct 5: Feedback in the Accounting classroom					
20	The teacher provides feedback after activities done in class	316 54.9%	146 25.3%	65 11.3%	49 8.5%
22	The teacher always provides feedback after tests and exams (assessments)	404 70.1%	102 17.7%	51 8.9%	19 3.3%
23	The teacher provides feedback after homework is done	315 54.7%	142 24.7%	82 14.2%	37 6.4%

4.3.2.1 Sub-construct 1: Motivation in the Accounting classroom

As indicated in Table 4.10, only 34.7% of the learners almost always feel motivated to do the class activities in the Accounting class, and 24.8% sometimes feel the classroom activities stimulate their interest in the subject Accounting. The findings obtained from the learners indicated that only 30.2% almost always feel motivated to do their homework, whereas 29.9% sometimes, and 8% very seldom have that feeling.

4.3.2.2 Sub-construct 2: Support in the Accounting classroom

In this sub-construct, the learners had to indicate how often they experience support and good relationships in the Accounting classroom. A few learners (18.8%) very seldom, and 17.5% sometimes experience support from classmates when they struggle. Learners (58.3%) almost always experience good relationships between teacher and learners in the classroom, while 13.4% sometimes feel that they do not experience these positive relationships and support. From the learners' responses in the questionnaire, only 50% of

the learners almost always, and 18.9% sometimes feel safe to ask questions in the Accounting classroom.

4.3.2.3 Sub-construct 3: Teacher attitudes in Accounting classroom

A large number of learners (71.9%) indicated that their teachers are almost always enthusiastic about teaching Accounting and almost always (55.2%) encourages learners to participate in class discussions. The learners (49.7%) indicated that the teacher almost always and (25.7%) often encourages them to question things. A large number of learners (58.9%) indicated that an atmosphere of mutual respect almost always exists in the Accounting class between teachers and learners. Almost half of the learners (49.7%) indicated that teachers encourage them to question things. It is interesting to note that 65.3% of the learners almost always feel that the teacher treats all learners the same way, and 9.5% feels that is not the case and that it happens very seldom.

4.3.2.4 Sub-construct 4: Development of thinking skills: teacher expectations

The purpose of this section was to get an indication of the expectations teachers have of learners regarding analysis, interpretation and solving of problems that occur in the Accounting classroom. According to the responses of the learners, only 42.2% indicated that they are almost always challenged intellectually to analyse and interpret information in class. Only 20.7% of the learners indicated that teachers almost always expect them to solve problems on their own. A number of learners (37.2%) indicated that teachers almost always expect from them to motivate their answers.

4.3.2.5 Sub-construct 5: Feedback in the Accounting classroom

The majority of the learners (54.9%) indicated that the teacher almost always provide feedback after activities in class, 70.1% indicated almost always after tests and exams, and 54.7% indicated that the teachers provide feedback almost always after homework is done.

4.3.3 Questionnaire construct 3: the subject Accounting

The Kaiser-Meyer-Olkin (KMO) measure was meritorious, KMO = 0.845, and Bartlett's Test of Sphericity that provided a chi-square output that was significant, $p < 0.05 = 0.000$, verified the sampling adequacy for the analysis (Field, 2012, 2013).

A principal component factor analysis was conducted on 13 items (variables) with orthogonal rotation (varimax), indicating the factor loadings for each variable on each factor (Field, 2012). Eigenvalues for each factor was obtained. Three factors had eigenvalues over Kaiser's criterion of 1 (Kaiser, 1960) that in combination explained 58.070 % of the variance.

The variables with factors loadings greater than 0.5 were retained for interpretation purposes (cf. 4.3.2). In cases where a variable loaded higher on one factor than another, the variable was clustered with the factor where the highest loading occurred.

The factor analysis revealed that the original questionnaire items (variables) in the construct (The subject Accounting) could be grouped into three sub-constructs as indicated in Table 4.11.

Table 4.11: Construct 3: The subject Accounting

Questionnaire items	Construct: The Subject Accounting	Almost always	Often	Sometimes	Very seldom
Sub-construct 1: Feelings about Accounting					
5	I am anxious about the subject, because I struggle to complete the activities	65 11.3%	76 13.2%	221 38.4%	214 37.2%
6	I experience constant failure in Accounting	39 6.8%	69 12.0%	173 30.0%	295 51.2%
7	I experience negative feedback regarding my performance in Accounting from the teacher	36 6.3%	50 8.7%	108 18.8%	382 66.3%
11	I wish that I did not choose Accounting as a subject	42 7.3%	40 6.9%	115 20.0%	379 65.8%
12	I think about taking another subject in Accounting's place	43 7.5%	38 6.6%	97 16.8%	398 69.1%

Sub-construct 2: The value of Accounting					
4	I believe the subject Accounting is relevant to my future studies	308 53.5%	107 18.5%	85 14.8%	76 13.2%
8	I believe that I perform well in Accounting	230 39.9%	177 30.7%	132 22.9%	37 6.4%
9	I have a positive attitude towards the subject Accounting	252 43.8%	165 28.6%	130 22.6%	29 5.0%
11	I am satisfied about choosing Accounting as a subject	301 52.3%	125 21.7%	94 16.3%	56 9.7%
13	I want to become a successful accountant / auditor	238 41.3%	87 15.1%	85 14.8%	166 28.8%
Sub-construct 3: Experiences with Accounting					
1	I experience the subject content as difficult	62 10.8%	111 19.3%	303 52.6%	100 17.4%
2	I experience the calculation exercises as complex	63 10.9%	139 24.1%	293 50.9%	81 14.1%
3	The learning activities in Accounting require problem-solving skills	215 37.3%	214 37.2%	122 21.2%	25 4.3%

4.3.3.1 Sub-construct 1: Feelings about Accounting

From the findings in Table 4.11, 38.4% of the learners indicated that they sometimes feel anxious about the subject because they struggle to complete the activities in the Accounting classroom. In this section the learners were also asked to give responses regarding their experiences in the Accounting classroom. Some learners, (30%) indicated that they sometimes experience constant failure and 18.8% sometimes experience negative feedback regarding their performances in Accounting. With regard to regret taking the subject Accounting, 65.8% of the learners very seldom regret, 69.1% very seldom think about taking another subject in the place of Accounting and only 7.3% of the learners indicated that they wish they did not choose Accounting as a subject.

4.3.3.2 Sub-construct 2: The value of Accounting

Learners (43.8%) indicated that they almost always and (28.6%) often have a positive attitude towards the subject Accounting, and it appeared that 52.3% of the learners are still satisfied choosing the subject on school level. Only 39.9% of the learners almost always

believe that they can perform well in Accounting, whereas 22.9% of learners often feel that way. Although 41.3% of the learners still almost always have the expectation to become successful accountants or auditors, only 53,5% of the learners believe that the subject Accounting is relevant to their future studies.

4.3.3.3 Sub-construct 3: Experiences with Accounting

In this sub-construct, the learners had to indicate how often they experience the content and calculations in Accounting as difficult and complex. Learners, 52.6% and 50.9% sometimes, and 24.1% often experience the subject content and calculations as difficult. From the findings obtained from learners, 37.3% almost always and 37.2% often experience that the learning activities in Accounting require problem-solving skills.

4.3.4 Questionnaire Construct 4: My own learning

The Kaiser-Meyer-Olkin (KMO) measure was meritorious, KMO = 0.863, and Bartlett's Test of Sphericity that provided a chi-square output that was significant, $p < 0.05 = 0.000$, verified the sampling adequacy for the analysis (Field, 2012, 2013).

A principal component factor analysis was conducted on 8 items (variables) with orthogonal rotation (varimax), indicating the factor loadings for each variable on each factor (Field, 2012). Eigenvalues for each factor was obtained. Two factors had eigenvalues over Kaiser's criterion of 1 (Kaiser, 1960) that in combination explained 47.551 % of the variance.

The variables with factors loadings greater than 0.5 were retained for interpretation purposes (cf. 4.3.2). In cases where a variable loaded higher on one factor than another, the variable was clustered with the factor where the highest loading occurred.

The factor analysis revealed that the original questionnaire items (variables) in the construct (My own learning) could be grouped into two sub-constructs as indicated in Table 4.12.

Table 4.12: Construct 4: My own learning

Questionnaire items	Construct: My own learning	Almost always	Often	Sometimes	Very seldom
Sub-construct 1: Critical thinking skills and dispositions in the Accounting classroom					
1	I feel encouraged to persist in my work and not give up	248 43.1%	194 33.7%	108 18.8%	26 4.5%
2	I work accurately and precise	161 28.0%	227 39.4%	161 28.0%	27 4.7%
3	I think critically when solving Accounting problems	172 29.9%	225 39.1%	151 26.2%	28 4.9%
4	I evaluate information when solving Accounting problems	194 33.7%	207 35.9%	145 25.2%	30 5.2%
9	I complete all my assignments without giving up	204 35.4%	169 29.3%	156 27.1%	47 8.2%
Sub-construct 2: Learning actions					
5	I listen to the opinions of others during class discussions	271 47.0%	174 30.2%	102 17.7%	29 5.0%
6	I ask questions in the class	168 29.2%	126 21.9%	170 29.5%	112 19.4%
9	I explore alternative viewpoints when doing Accounting activities	137 23.8%	188 32.6%	189 32.8%	62 10.8%

4.3.4.1 Sub-construct 1: Critical thinking skills and dispositions in the Accounting classroom

From the findings, only 29.9% of the learners almost always think critically when solving Accounting problems and 39.1% of the learners often think critically. Only 28.0% of the learners indicated that they almost always work accurate and precise in the Accounting classroom, as 39.4% often do. It seems that 43.1% of the learners almost always and a few learners (18.8%) sometimes feel encouraged to persist in their work. Only 35.4% of the

learners almost always complete their assignments without giving up. From Table 4.12 it is clear that 35.9% of the learners in the Accounting classrooms often, and 25.2% sometimes evaluate information when solving Accounting problems.

4.3.4.2 Sub-construct 2: Learning actions

In this sub-construct the learners were asked to give responses regarding their learning actions in the Accounting classroom. Firstly, they had to indicate how often they listen to opinions of others during class discussions and almost half of the learners (47.2%) stated that they almost always and often (30.2%) do that. Only 29.2% of the learners almost always, and 19.4% very seldom ask questions in the Accounting classroom. Only 23.8% of the learners indicated that they almost always, and 32.8% often explore alternative viewpoints when doing Accounting activities.

4.4 Descriptive analysis of teacher data

This section presents the responses obtained from the teachers for each of the sections in the questionnaire. Each section focused on a specific construct in relation to the classroom conditions for successful learning. Although the learner and teacher questionnaires focused on the same issues, the questions were phrased differently to suit the respective group. By means of descriptive and inferential statistics, data was organised and summarised to promote an understanding of the data characteristics (Maree, 2016).

The findings for the responses are summarised with frequencies and percentages. Graphical representations serve the purpose of visually highlighting the prominent characteristics that emanated from the responses (Maree, 2016). The tables reflect only the findings of participants who responded. Reference made to missing responses in the findings tables refer to the number of participants who did not respond to a particular item.

4.4.1 Teacher: Section B

The purpose of this section was to evaluate the general classroom environment of Accounting teachers in order to determine to what extent they are able to create meaningful learning environments for successful learning. Table 4.13 classifies the responses obtained for the teachers.

Table 4.13: Teacher - Section B - General classroom environment

Questionnaire items	Construct: General classroom environment	Almost always	Often	Sometimes	Very seldom
1	I feel able to plan successful activities for Accounting learners	8 66.7%	1 8.3%	2 16.7%	1 8.3%
2	I create a meaningful learning environment where learners can connect with the subject matter	8 66.7%	1 8.3%	3 25.0%	0 0%
3	I allow discussions that challenge the learner's critical thinking skills	6 50.0%	2 16.7%	3 25.0%	1 8.3%
4	I use examples during teaching that prepare learners well for the formal tests and exams	8 66.7%	1 8.3%	3 25.0%	0 0%
5.1	I believe that my learners can obtain good marks	5 41.7%	4 33.3%	3 25.0%	0 0%
5.2	Indicate your goal % for learners' average in the subject Accounting	0-49% 0%	50-60% 33.3%	60-79% 66.7%	Above 80% 0%
6	I have confidence that all my learners can achieve all the objectives/learning outcomes required by the curriculum	5 41.7%	5 41.7%	2 16.7%	0 0%
7	I create adequate opportunities for learners to succeed in Accounting	8 66.7%	1 8.3%	3 25.0%	0 0%

Most of the teachers (66.7%) indicated that they almost always feel able to plan successful activities for their Accounting learners, and 66.7% of the teachers almost always use examples during teaching that prepare learners well for the formal tests and exams. From

the teacher responses, 66.7% almost always, and 25% sometimes create meaningful learning environments where learners can connect with the subject matter. Half of the teachers (50.0%) almost always allow discussions in the classrooms that challenge the learner's critical thinking skills, whereas 25.0% only sometimes allow that. Some of the teachers (41.7%) almost always have confidence in their learners that they can achieve learning outcomes, whereas 41.7% almost always, and 25% sometimes, believe that the learners can obtain good marks in Accounting. The teachers indicated that they almost always (66.7%) and often (8.3%) create adequate opportunities for learners to succeed in Accounting.

4.4.2 Teacher: Section C

The purpose of this section was to evaluate learning in the Accounting classroom in order to determine which methods and activities is used in the Accounting classroom to enhance successful learning. This section also focuses on certain factors that influence successful learning in the Accounting classroom. Table 4.14 classifies the responses obtained from the teachers.

Table 4.14: Teacher - Section C - Learning in the Accounting classroom

Questionnaire items	Construct: Learning in the Accounting classroom	Almost always	Often	Sometimes	Very seldom
<i>Sub-construct 1: Stimulating activities</i>					
2	I use learning activities that range from easy to complex	6 50.0%	5 41.7%	1 8.3%	0 0%
4	I use classroom activities that stimulate my learners' interest in the subject Accounting	7 58.3%	3 25.0%	2 16.7%	0 0%
<i>Sub-construct 2: Encouragement</i>					
6	I encourage my learners to question things	8 66.7%	2 16.7%	2 16.7%	0 0%

21	I encourage learners to participate in class discussions	8 66.7%	2 16.7%	1 8.3%	1 8.3%
22	I encourage learners to complete the homework exercises	10 83.3%	1 8.3%	1 8.3%	0 0%
<i>Sub-construct 3: Teacher attitudes</i>					
1	Learners and teachers respect one another in my class	8 66.7%	2 16.7%	2 16.7%	0 0%
13	I am enthusiastic about teaching Accounting Missing: Teachers 2 (16.7%)	9 41.7%	1 16.7%	0 0%	0 0%
14	I treat all learners in the same way	8 66.7%	1 8.3%	1 8.3%	2 16.7%
18	Good relationships exist between me and my learners	8 66.7%	1 8.3%	1 8.3%	2 16.7%
5	I allow classmates to support one another when they struggle	7 58.3%	2 16.7%	3 25%	0 0%
<i>Sub-construct 4: Development of thinking skills</i>					
3	I use examples in the classroom that challenge the learners thinking	7 58.3%	3 25.0%	2 16.7%	0 0%
6	I encourage my learners to question things	8 66.7%	2 16.7%	2 16.7%	0 0%
7	I believe that my learners feel safe to ask questions in the classroom Missing: Teachers 1 (8.3%)	8 66.7%	1 8.3%	2 16.7%	0 0%
8	I expect of my learners to solve problems on their own	3 25.0%	7 58.3%	2 16.7%	0 0%
9	I expect of my learners to motivate their answers	4 33.3%	5 41.7%	3 25%	0 0%
10	Learners have to analyse information in class	5 41.7%	5 41.7%	2 16.7%	0 0%

11	Learners have to interpret information in class	4 33.3%	6 50.0%	2 16.7%	0 0%
<i>Sub-construct 5: Rewards and feedback</i>					
15	I am patient with the learners who struggle in the class	7 58.3%	2 16.7%	1 8.3%	2 16.7%
16	I reward all learners for good performance	7 58.3%	4 33.3%	0 0%	1 8.3%
17	I provide feedback after activities have been completed in class	9 41.7%	1 8.3%	1 8.3%	1 8.3%
19	I provide feedback after tests and exams (assessments)	10 83.3%	0 0%	0 0%	2 16.7%
20	I provide feedback after homework is done	8 66.7%	1 8.3%	0 0%	2 16.7%
<i>Sub-construct 6: Teaching methods</i>					
12.1	I make use of different teaching methods Missing: Teachers 1 (8.3%)	2 16.7%	6 50.0%	3 25.0%	0 0%
12.2	Indicate which of the teaching methods are used in the class				
	Lecture method Missing: Teachers 3 (25.0%)	5 41.7%	2 16.7%	1 8.3%	1 8.3%
	The discussion method Missing: Teachers 3 (25.0%)	4 33.3%	4 33.3%	1 8.3%	0 0%
	Demonstration method Missing: Teachers 1 (8.3%)	5 41.7%	3 25.0%	3 25.0%	0 0%
	Brainstorming Missing: Teachers 3 (25.0%)	2 16.7%	2 16.7%	2 16.7%	3 25%
	Role play Missing: Teachers 3 (25.0%)	1 8.3%	1 8.3%	0 0%	7 58.3%
	Group work	2 16.7%	2 16.7%	4 33.3%	4 33.3%

4.4.2.1 Sub-construct 1: Stimulating activities

More than half of the teachers (58.3%) indicated that they almost always and often (25%) use classroom activities that stimulate learner's interest in the subject Accounting and 50% almost always and often (41.7%) use activities that range from easy to complex.

4.4.2.2 Sub-construct 2: Encouragement

Table 4.14 shows that 66.7% of the teachers almost always encourage their learners to question things in the Accounting classroom. The findings also show that 66.7% of the teachers almost always and 16.7% often encourage the learners to participate in class discussions. Most of the teachers (83.3%) indicated that they almost always encourage their learners to complete their homework exercises.

4.4.2.3 Sub-construct 3: Teacher attitudes

Table 4.14 shows that 41.7% of the teachers almost always and 16.7% often are enthusiastic about teaching Accounting. Most of the teachers (66.7%) almost always treat all learners in the same way, and 58.3% of the teachers indicated that they almost always allow classmates to support one another when they struggle. The findings indicated that good relationships almost always (66.7%) and very seldom (16.7%) exist between teachers and the learners and 66.7% of the teachers indicated that learners and teachers almost always respect one another in the class.

4.4.2.4 Sub-construct 4: Development of thinking skills

Teachers were asked to provide feedback on their teaching in the Accounting classroom. More than half of the teachers (58.3%) indicated that they almost always and often (25%) use examples in the classroom that challenge the learners thinking. The findings show that 25% of teachers almost always and 58.3% often allow learners to take control of their learning by expecting them to solve the problems on their own, and 41.7% often expect learners to motivate their answers. Only 33.3% of teachers almost always let learners interpret, and analyse information (41.7%), whereas 66.7% of the teachers almost always encourage their learners to question things in the Accounting classroom. Of the teachers,

66.7% almost always and 16.7% sometimes believe that their learners feel safe to ask questions in the classroom.

4.4.2.5 Sub-construct 5: Rewards and Feedback

In this section, teachers were also asked how often they provide feedback to learners after class activities, homework, tests and exams. The findings indicated that 41.7% of teachers almost always provide feedback after class activities, 83.3% almost always after tests and exams, and 66.7% almost always after homework is done. There are some teachers (16.7%) who very seldom provide feedback to learners after tests and exams. More than half of the teachers (58.3%) indicated that they almost always and (33.3%) often reward all learners for good performance and 58.3% of the teachers indicated that they are almost always patient with learners who struggle in the class.

4.4.2.6 Sub-construct 6: Teaching methods

From the findings obtained in Table 4.14, only 16.7% of the teachers indicated that they almost always and often (50%) use different teaching methods. As seen from the findings, most of the teachers (41.7%) make use of the lecturing method, 33.3% often use discussion methods, 41.7% almost always use demonstration methods, only 16.7% almost always use brainstorming, and 8.3% role play. More than half of the teachers (58.3%) very seldom use role play as a teaching method in Accounting. Group work, which is an important method that will enhances learners' ability to work in teams, is very seldom (33.3%) and sometimes (33.3%) used by the teachers in the Accounting classroom.

4.4.3 Teacher: Section E

The purpose of this section was to evaluate statements regarding aspects about the subject Accounting and how the teachers experience it. Table 4.15 classifies the responses obtained from the teachers.

Table 4.15: Teacher - Section E - The subject Accounting

Questionnaire items	Construct: The subject Accounting	Almost always	Often	Sometimes	Very seldom

Sub-construct 1: Experiencing the subject from teacher's viewpoint					
1	I experience the subject content as difficult Missing: Teachers 1 (8.3%)	1 8.3%	0 0%	2 16.7%	8 66.7%
2	The calculations done in Accounting exercises are complex Missing: Teachers 1 (8.3%)	0 0%	1 8.3%	4 33.3%	6 50.0%
3	The subject Accounting demands critical thinking skills from my learners to solve problems	2 16.7%	4 33.3%	5 41.7%	0 0%
4	The activities done in the classroom focus on problem-solving Missing: Teachers 1 (8.3%)	2 16.7%	5 41.7%	4 33.3%	0 0%
5	I believe the subject Accounting is relevant for learners' future studies Missing: Teachers 1 (8.3%)	9 75.0%	0 0%	2 16.7%	0 0%
9	I understand all the subject content Missing: Teachers 1 (8.3%)	9 75.0%	2 16.7%	0 0%	0 0%
10	I have a positive attitude towards teaching Accounting Missing: Teachers 1 (8.3%)	9 75.0%	0 0%	2 16.7%	0 0%
11	I regret choosing Accounting as a subject to teach Missing: Teachers 1 (8.3%)	0 0%	1 8.3%	0 0%	10 83.3%
12	I am satisfied to be an Accounting teacher Missing: Teachers 1 (8.3%)	8 66.7%	3 25.0%	0 0%	0 0%
Sub-construct 2: Teacher's view of learners' experiences					
6	I believe that my learners experience anxiety because they struggle to complete the activities Missing: Teachers 1 (8.3%)	0 0%	5 41.7%	5 41.7%	1 8.3%
10	I believe that my learners feel anxious about Accounting Missing: Teachers 2 (16.7%)	4 33.3%	4 33.3%	2 16.7%	0 0%

7	My learners experience constant failure in Accounting Missing: Teachers 1 (8.3%)	0 0%	0 0%	4 33.3%	7 58.4%
8	I experience negative feedback from my learners about the content of Accounting Missing: Teachers 1 (8.3%)	0 0%	2 16.7%	3 25.0%	6 50.0%

4.4.3.1 Sub-construct 1: Experiencing the subject from teacher's viewpoint

The questions in this section, focused on how the teachers experience the Accounting content and difficulty of the calculations. From the findings, 66.7% of the teachers indicated that they very seldom experience the subject content as difficult, and 75% of the teachers indicated that they almost always understand all the subject content, whereas 8.3% almost always experience the content as complex. Another aspect addressed in the questionnaire was the difficulty of the calculations done in Accounting, where half of the teachers (50%) very seldom, and 33.3% sometimes, find the calculations complex. The teachers reported that the subject Accounting almost always (16.7%), and sometimes (41.7%), demands critical thinking skills to solve problems. Only 16.7% of the teachers almost always and (33.3%) sometimes stated that activities done in the Accounting classroom focus on problem-solving and 75% of the teachers almost always believe that the subject Accounting is relevant for their learners' future studies. Although 75% of the teachers almost always have a positive attitude towards teaching Accounting, 83.3% very seldom regret choosing Accounting as a subject to teach, and 66.7% almost always are satisfied to be an Accounting teacher.

4.4.3.2 Sub-construct 2: Teacher's view of learners' experiences

It seems that 41.7% of the teachers often believe that their learners experience anxiety because they struggle to complete activities in the accounting classroom. Relating to this, 33.3% of the teachers sometimes feel that their learners experience constant failure in Accounting and 16.7% often. With regard to the teachers' experience of learners giving negative feedback about the content of Accounting, 25% sometimes experience negative feedback from their learners about the content of Accounting. From the findings, 33.3% of the teachers almost always and 33.3% often believe that their learners feel anxious about Accounting.

4.4.4 Teacher: Section F

The purpose of this section was to get a better understanding regarding the teaching of Accounting teachers and how they encourage the learners to succeed in their learning.

Table 4.16 classifies the responses obtained from the teachers.

Table 4.16: Teacher - Section F - My own teaching

Questionnaire items	Construct: My own teaching	Almost always	Often	Sometimes	Very seldom
Sub-construct 1: Using strategies to develop thinking					
1	I make use of class discussions that provide opportunities for my learners to think Missing: Teachers 1 (8.3%)	4 33.3%	5 41.7%	2 16.7%	0 0%
4	I encourage my learners to think critically when solving Accounting problems Missing: Teachers 1 (8.3%)	8 66.7%	3 25.0%	0 0%	0 0%
6	I use class activities that give me the opportunity to generate questions from my learners	3 25.0%	5 41.7%	3 25.0%	0 0%
7	I use class activities that allow learners to generate questions Missing: Teachers 1 (8.3%)	5 41.7%	5 41.7%	1 8.3%	0 0%
9	Learners struggle to analyse problems Missing: Teachers 1 (8.3%)	1 8.3%	3 25.0%	6 50.0%	1 8.3%
Sub-construct 2: Using strategies to develop dispositions/ habits of mind					
2	I encourage my learners to persist in their work and not give up Missing: Teachers 1 (8.3%)	7 58.3%	4 33.3%	0 0%	0 0%
3	I encourage my learners to work accurately Missing: Teachers 1 (8.3%)	8 66.7%	2 16.7%	1 8.3%	0 0%

5	I use class discussions to listen to the opinions of all learners Missing: Teachers 1 (8.3%)	3 25.0%	6 50.0%	2 16.7%	0 0%
8	I create class activities that give my learners the opportunity to explore alternatives opinions (own view)	2 16.7%	7 58.3%	2 16.7%	0 0%
<i>Sub-construct 3: Observation of learners' reaction to teaching</i>					
10	Learners give up easily when they struggle with problems Missing: Teachers 1 (8.3%)	1 8.3%	2 16.7%	7 58.3%	1 8.3%
11	My learners complete all their assignments without giving up Missing: Teachers 1 (8.3%)	3 25.0%	4 33.3%	4 33.3%	0 0%

4.4.4.1 Sub-construct 1: Using strategies to develop thinking

From the findings in Table 4.16, only 33.3% of the teachers almost always and 41.7% often use class discussions as opportunities for their learners to think. There are teachers who almost always (66.7%) and often (25%) encourage their learners to think critically when solving Accounting problems. It seems that this is done by means of class activities, where 41.7% of the teachers almost always and 41.7% often use class activities that allow learners to generate questions. Only 25.0% of the teachers indicated that they almost always use class activities that gives themselves the opportunities to generate questions from the learners. Some of the teachers (25.0%) indicated that their learners often and (50.0%) sometimes struggle to analyse problems in Accounting.

4.4.4.2 Sub-construct 2: Using strategies to develop dispositions/ habits of mind

It seems from the findings that 58.3% of the teachers almost always and (33.3%) often encourage their learners to persist in their work and (66.7%) almost always encourage their learners to also work accurately. Only 25% of the teachers indicated that they almost always use class discussions to listen to the opinions of all learners, whereas 58.3% indicated that they often create class activities that give learners the opportunity to explore alternatives opinions.

4.4.4.3 Sub-construct 3: Observation of learners' reaction to teaching

From the findings indicated that 58.3% of the teachers indicated that their learners sometimes give up easily when they struggle with problems and only 25% stated that learners almost always complete assignments without giving up. In the next section the qualitative data analysis will be discussed.

4.5 Qualitative data analysis

The results of the qualitative data analysis will be discussed by documenting themes from the transcriptions of the interviews as well as the field notes taken during the classroom observations. The themes that were identified during the quantitative phase were used as basis for formulating the questions asked during the semi-structured interviews with the purpose of explaining the results of the quantitative data.

In the qualitative analysis of the data, direct quotes will be used to support themes, categories and sub-categories. For the learners it will be labelled as follows, for example: L1DGR10. "L" refers to learner no. 1 with "D" indicative of a particular school followed by the grade the learner was in, i.e. Grade 10, at the time of the study.

In explaining themes, the collective numerical values denoting the 13 learner participants in the qualitative phase of the study are referred to as follows:

- "Few" indicates 1 to 3 learners,
- "Some" refers to 4 to 7 learners,
- "Many" refers to 8 to 10 learners, and
- "Most" refers to 11 to 13 learners.

For the teachers the following labels are used: T1D. "T" refers to teacher no. 1 with "D" indicative of a particular school where the teacher taught at the time of the study. In explaining themes, the collective numerical values denoting the 6 teacher participants in the qualitative phase of the study are referred to as follows:

- "Few" indicates 1 to 2 teachers,
- "Some" refers from 3 to 4 teachers, and
- "Most" refers to 5 to 6 teachers.

Please note that in many instances a single quote will be given reflecting more than one participant's statement. This is to prevent the presentation of repetitive quotes that offers the same sentiment.

During the process of the data analysis, themes and categories were deductively identified. This was determined by the literature, constructs from quantitative data and from the open questions asked in the questionnaire in the quantitative phase. However, an inductive analysis was also applied as identified from answers supplied by the learners and teachers through the open responses on the questionnaires and interviews. These inductive themes are mostly evident in the subcategories. My observations affirmed both the deductive and inductive findings that emerged from the themes. Within some of the categories, sub-categories also emerged during the analysis, providing additional relevant information to clarify categories in more detail. Please note that observational notes are not reported under all the themes, as it was not specifically observed.

The next section deals with the findings of the qualitative data as presented by themes, categories and sub-categories. The findings are presented in the following themes, categories and subcategories as indicated in Table 4.17.

Table 4.17: Outline of themes, categories and subcategories

Themes	Categories	Sub-categories
4.5.1 General learning conditions	Learning environment in the Accounting classroom	Positive classroom climate Negative classroom environment
	Goal setting	Setting own goals Teacher's role in goal setting
	Successful learning environment	Teacher contribution to learning environment Ideal learning environment
4.5.2 Factors affecting learning in the Accounting classroom	Motivation	
	Support in the classroom	
	Feedback	
	Teacher expectations	

	Relationships in the Accounting classroom	Positive relationships Negative relationships
4.5.3 Perceptions of the subject Accounting	Feelings about Accounting	
	The value of Accounting	
	Experiences with Accounting	Teacher challenges Learner challenges Activities in the classroom Content difficulty
4.5.4 Attitudes towards the subject Accounting	Attitudes towards the teaching of the subject Accounting	Positive attitudes towards the teaching of the subject Accounting Negative attitudes towards the teaching of the subject Accounting
	Attitudes towards the learning of the subject Accounting	Positive attitudes towards the learning of the subject Accounting Negative attitudes towards the learning of the subject Accounting
4.5.5 Learners own learning in the Accounting classroom	Critical thinking skills for Accounting	
	Accuracy	
	Persistence	
	Learning actions	Questioning Practice
4.5.6 Teaching methods in Accounting	Using different methods	Lecture method
		The discussion method
		Demonstration method
		Brainstorming
		Role play
		Group work

4.5.1 Theme 1: General learning conditions

Theme 1 gives information provided by the learners and teachers on the general learning conditions in the Accounting classroom. It focuses on how they experience the learning environment in the Accounting classroom, their goal setting and their views on a successful learning environment. These themes relate to the following constructs as identified in the learner questionnaire of the quantitative phase: General learning conditions (cf. 4.3.1), General classroom environment (cf. 4.4.1) and Learning in the Accounting classroom (cf. 4.4.2).

Table 4.18: Theme 1: General learning conditions

Themes	Categories	Sub-categories
4.5.1 General learning conditions	Learning environment in the Accounting classroom	Positive classroom climate Negative classroom environment
	Goal setting	Setting own goals Teacher's role in goal setting
	Successful learning environment	Teacher contribution to learning environment Ideal learning environment

4.5.1.1 Category 1: Learning environment in the Accounting classroom

4.5.1.1.1 Sub-Category 1: Positive classroom climate

Some of the learner participants felt that their Accounting classroom is a “*good and balanced place and the class is not too big*”. They believed that “*the teacher can give more*

attention” to all learners in a smaller class and *“everyone is involved”* (L3TGR10; L2EGR10; L8TGR11).

A learner participant also mentioned that, *“the teacher is always helpful, adapts to learner speed, ensures that all learners are up to speed, work is always completed in class time”* (L5EGR10). Other learner participants (L12EGR12), indicated that *“it’s a very free learning environment”* where *“we can ask questions when we want to and have discussions”* and *“we work hard, and we can ask anything”* (L6TGR11). It was also mentioned that they experience a comfortable positive learning environment as reflected in these learner participants’ comments: *“It’s nice to be here, especially when the teacher, if you don’t understand she’ll come to you and she’ll help you out, it just gives a positive environment, thinking I don’t have to be scared of asking questions and stuff”* (L7EGR11). *“It’s actually so positive”* (L8TGR11); *“It’s a very free learning environment; we can ask questions when we want to and we can have discussions”* (L12EGR12). Another learner participant stated, *“because of the class environment and getting to know the teacher more, Accounting became more fun for me”* (L7EGR11).

From the teachers’ perspective, one teacher participant reported (T1DGR12) that she *“try my best to be friendly as possible to learners”*. Another teacher participant (T2PGR10) described her classroom environment as a *“positive, nice place, where you build relationships and spent time on problems”*.

4.5.1.1.2 Sub-Category 2: Negative classroom environment

A few learner participants commented on the negative aspects they experience regarding the learning environment. *“Environment is quiet, some learners are scared to ask questions”* (L9DGR12), while another asserted that they were pressurised for time, *“cannot learn anything when we rush through work and when finish marking homework, there were no time left for explanation”* (L10DGR12).

From the teachers’ perspective, one teacher participant reported (T4UGR12) that *“the resources provided by the department is not very good”*, where another teacher participant (T1DGR12) mentioned that *“the kids don’t open up and some learners are shy”*.

In my observations I noted that time to complete all the required tasks seem to be an issue in the classrooms, as the homework needs to be marked, problems that arise from homework need to be discussed, as well as a new example or topic must be explained.

4.5.1.2 Category 2: Goal setting

4.5.1.2.1 Sub-Category 1: Setting own goals

Most of the learner participants indicated that they can set their own goals in the Accounting classroom, feel confident and work hard to achieve these goals. This is evident in these learner participant responses: *“I think I feel quite confident and I pay attention in class (L4EGR10); “you study, you ask yourself questions, and if you answer it correctly then you know for sure” (L2EGR10); “so if I set a goal for myself, then I am confident that I can study “(L7EGR11); and “I don’t want to always aim for high, because then I feel I’m not going to do that bad” (L8TGR11).* One of the learner participants mentioned that he was taught to set reachable goals for himself: *“We are trained to make goals that we know we can reach” (L5EGR10).*

It appeared that some learners made an effort to set and achieve their goals according to their own ability and commented on how they do that and what affected their goal setting: *“If I understand what I’m doing, then I can set goals in my head” (L12EGR12); and “I feel a bit scared sometimes because it’s difficult, but I stay confident, I am not going to be negative, but I will also not get too excited” (L10DGR12).*

One learner stated *“I guess it all comes down to how hard I study for the test and if I really, say I really want to achieve eighty-five, then I will put in the extra effort to study for it ... and to make sure that I understand everything correctly” (L7EGR11).* Another learner participant mentioned *“But there is a thing that I’ve learnt, the problem with some learners is, they don’t set goals so high that they don’t reach it, they set it so low that they reach it and then they can’t go further” (L5EGR10).*

4.5.1.2.2 Sub-Category 2: Teacher’s role in goal setting

Some of the learner participants see the teacher as the key to reach goals: *“honestly, with the teacher, you feel you can reach that goal” (L3TGR10); “Because I see what I’ve learnt.*

And I think it also goes down to the passion of the teacher because I know that I didn't get myself here, she was always there pushing me (L11TGR12); and *"I feel more confident after getting used to teacher"* (L1DGR10). Other learners expressed some feelings that have a negative effect on their goal setting: *"I tried my best, then teacher said the test was difficult at some places, then I doubt myself again"* (L9DGR12); *"Well, I do try to get there, but then sometimes I'll think I'll do good and then I don't, so then I try not to judge it"* (L6TGR11).

4.5.1.3 Category 3: Successful learning environment

4.5.1.3.1 Sub-Category 1: Teacher contribution to learning environment

To be successful in Accounting, learners were asked what they think the ideal learning environment will be. A learner participant indicated that the learning environment needs to be strict, where *"a teacher isn't afraid to put you back in line, when you're stepping out of line, but not in the way that discourages you"* (L4EGR10). Another learner participant (L5EGR10) indicated that *"a teacher that will find a different way to explain work to you and will always nurture you to grow in a specific way"* contributes to the learning environment and the *"teachers' attitude plays a huge role"* according to another learner participant (L13DGR11).

It appeared to me during the observations that large class numbers clearly lead to teacher frustration. This was evident in teachers continuously yelling at learners to keep quiet and seemed irritated if they did not react appropriately to her requests. However, in the smaller class, the teacher was calm and in control of the learning environment.

4.5.1.3.2 Sub-Category 2: Ideal learning environment

Some learner participants indicated that the ideal learning environment for success will be *"a smaller class"* where the teacher can give more *"individual support"* (L8TGR11), *"personal attention"* (L2EGR10); *"you can ask more questions"* (L11TGR12) and *"A peaceful one where you put in effort and you don't slack off"* (L7EGR11). Other learner participants stated that *"the environment has to be professional"* (L3TGR10), *"Everyone has to work together"* (L9DGR12), *work hard and success will come out of that"*

(L1DGR10). A few indicated that the learning environment should be *“good, competitive”* (L6TGR11) and *“quiet”* (L9DGR12), characterised by *“a space’* where there’s *“mutual respect”* and everyone can just be *“positive”* (L12EGR12).

Many learner participants felt that *“they need to be motivated”* (L13DGR11); to be successful and there should be *“no negativity”* (L9DGR12). They commented that it should be *“a place where learners support and motivate each other”* (L12EGR12; L6TGR11; L4EGR10). One learner participant added that *“practising enough activities and homework”* will lead learners to success (L1DGR10).

One teacher participant stated that the learning environment must be *“open and positive”* (T3EGR11), while another teacher participant commented that *“success in the classroom will depend on the type of school you teach in”* and further stated that *“the bigger the class, less effort will be put in”* (T2PGR10).

4.5.2 Theme 2: Factors affecting learning in the Accounting classroom

Theme 2 gives information provided by the learners and teachers on the factors they believe affect learning in the Accounting classroom. This includes aspects such as motivation, support, feedback, teacher expectations and relationships. These themes relate to the following constructs as identified in the learner questionnaire of the quantitative phase: Learning in the Accounting classroom (cf. 4.3.2), and specifically the sub-constructs: Motivation in the Accounting classroom (cf. 4.3.2.1), support in the Accounting classroom (cf. 4.3.2.3), feedback in the Accounting classroom (cf.4.3.2.4) and teacher expectations (cf. 4.3.2.5). It also connects to the construct: General classroom environment (cf. 4.4.1) and Learning in the Accounting classroom (cf. 4.4.2) in the teacher quantitative findings.

Table 4.19: Theme 2: Factors affecting learning in the Accounting classroom

Themes	Categories	Sub-categories
Factors affecting learning in the Accounting classroom	Motivation	
	Support in the classroom	
	Feedback	

	Teacher expectations	
	Relationships in the Accounting classroom	Positive relationships Negative relationships

4.5.2.1 Category 1: Motivation

Many of the learners who participated in this study indicated that *“motivation is very important for Accounting” as they declared that “because the subject is difficult and the work is a lot”* (L3TGR10; L5EGR10; L8TGR11; L12EGR12; L9DGR12; L4EGR10; L7EGR11; L2EGR10; L2EGR10). Two learner participants mentioned with regard to homework that *“motivation is important for doing homework, you need to be motivated enough to do it”* (L5EGR10; L6TGR11).

A few learner participants felt, *“it’s good because you think also about your future, I don’t want to do bad and that motivates you to do better and just improve”* (L8TGR11; L12EGR12). One learner participant commented that she is *“excited and motivated now to study Accounting for the exam, because it’s easy to learn”* (L1DGR10).

Some learner participants reported that *“to be successful, somebody must motivate you to do well”* (L8TGR11); and *“I think you need somebody to motivate you, encourage you to say you can actually do this”* (L4EGR10). Another learner participant stated that *“a lot of motivation comes from our teacher”, “she motivates us all the time, because she wants you to do your best”* (L3TGR10).

One learner participant felt that *“if you do not believe or if nobody says to you that you can do it, then you will not do it”* (L9DGR12). Another learner participant added: *“I think for instance with me when I struggled with asset disposal, it’s important that the teacher should motivate you to try harder”* (L7EGR11).

A few learner participants focussed on the negative aspects they experienced with regard to motivation. One learner participant felt that *“I wouldn’t have dropped out of Accounting if*

I was motivated” (L13DGR11). Another learner participant stated that *“you definitely need to be motivated, otherwise I would have dropped out of the subject, because it’s not the easiest subject and becomes more difficult as you go on”* (L10DGR12).

At the same time, one learner participant mentioned that *“motivation is very important, especially in Grade 10 there are many students who drop out, because they feel if they get bad marks, they don’t know why and there’s no-one there to motivate you, you just feel like, “I don’t need this* (L11TGR12). One of the learner participants even said that *“I am any way going to be yelled at if I do not get it right”* (L13DGR11).

From the teacher participants’ perspectives, one teacher reported that *“motivation is important to keep them positive”* (T3EGR11), while another stated: *“motivation is very important, and if you take a learner for Accounting that is not motivated, then you will have a learner that will be frustrated and will perform poorly in the subject”* (T1DGR12). One teacher participant expressed, *“learners will not get distinctions if they are demotivated”* (T2PGR10).

4.5.2.2 Category 2: Support in the classroom

Many of the learner participants asserted that support in the Accounting classroom is an important aspect for them to feel motivated. One learner participant stated *“support between us learners is a huge fact”* (L13DGR11), and others commented *“the support is actually quite good, but we are a bit competitive* (L6TGR11), and *“we motivate each other the whole time”* (L5EGR10). According to other learner participants, they *“are all friends, and support each other when we do homework together”* and they *“know all your classmates very well”* (L4EGR10; L11TGR12; L2EGR10; L7EGR11).

Some of the learner participants described some ways how they support each other in the Accounting classroom: *“We also have a whatsapp group, so if we don’t understand something, then we discuss it there”* (L3TGR10); and *“if we don’t understand we end up having a discussion with whole entire class”* (L5EGR10). Other learner participants mentioned that *“I am not sure if we are allowed to support each other”* (L9DGR12), *“but feels at ease if I struggle and there’s someone next to you to help”* (L7EGR11).

Some learner participants commented that the teacher would encourage them to support each other: *‘So ma’am says “you guys may help each other” (L4EGR10) “and if there’s a problem in the whatsapp group, she can address it there or you can just go individually to your friend for support” (L2EGR10).* Another learner participant stated that *“the teacher places us next to each other in the classroom for support, one that do well and one that struggle (L10DGR12),* whereas another learner mentioned that *“we help each other a lot, but only if the teacher is out of the classroom” (L1DGR10).*

A few learner participants added the following about support: *“If anyone wants help there’s always help given by the teacher, by even the students themselves (L3TGR10); “Because it’s a small group, it’s easier to get help from each other. If we need help with homework, we speak to each other. (L12EGR12); and “It’s actually good, because we can talk to one another, and even during breaks we figure out certain problems regarding the homework by helping each other” (L10DGR12).*

During the interviews with teachers, they were asked how they feel about learners supporting each other in the classroom during activities. Some teacher participants indicated how they feel about support: *“I promote it definitely, I do not mind, because it builds self-confidence” (T2PGR10); “I think we have to allow them to support one another” (T1DGR12); “I had small classes, so you could do peer-teaching within limits” (T4VGR12) and “I really encourage that to a certain point” (T3EGR11).*

In one of the classes, I observed that learners speak freely to one another and actually help each other when they have questions regarding the homework. My experience in another class was a bit different, where the learners only speak when the teacher asked a question. It was the same learners who asked the questions every time, where the other learners in the class never said anything or asked questions.

4.5.2.3 Category 3: Feedback

Feedback in Accounting classrooms was reported to be done, mostly after tests and exams and was mainly teacher-guided. Some learner participants indicated that the teacher *“usually gives us our mark and she gives us the test to see what we got wrong and then we work through it” (L5EGR10; L8TGR11; L7EGR11; L4EGR10).* A few of the learner

participants reported that the teachers made an effort to give corrective feedback on their mistakes. This is reflected in the following statement: *“Mostly after she has checked everything, we can see where did we go wrong and rectify your mistakes, by doing a similar exercise again to just make sure”* (L6TGR11; L9DGR12); Individual attention was also reported: *“she’ll ask you if you understand, but if all of us got the same question wrong, she’ll explain it again”* (L8TGR11); *“if there’s something wrong that all of us did wrong, she will explain it with us and show us what we did wrong, but if it’s individual, she will sit with us individual”* (L7EGR11); *“She actually helps you individually with your mistakes (L3TGR10); “She does do the whole test with everybody, but if you have one specific one that you are questioning about, then just you ask her and then she’ll explain it”* (L4EGR10) ; and *“She will show you what you have done wrong, then you have to work on it and then she’ll give you feedback and give you the opportunity to ask questions”* (L11TGR12). However, one learner participant asserted that *“Feedback happens very fast, you still sit there to get over the shock of your mark, then the teacher is already three questions away, sometimes I missed answers and you still have “no clue what’s going on there”* (L13DGR11).

Another aspect regarding giving feedback that the learner participants touched on, is the memorandum. Some learner participants stated that *“the mistakes of the test are done in class”*, but *“no memorandum of the test is handed out”* (L13DGR11); and *“no memorandum is handed out, the teacher just give us the correct answers”* (L10DGR12; L1DGR10). Another learner participant added, *“if somebody needs help, she’s said we must work on it first and I don’t remember a time with a memorandum”* (L3TGR10). While other learner participants affirmed that a memorandum is used during feedback. They indicated, *“she gives us the marks and then she gives us our test with the memorandum to check the work and what we got wrong and if we have questions we can ask the questions”* (L12EGR12). Other learner participants added, *“if you made mistakes, you sometimes get a memorandum and then later she will help you with your mistakes”* (L2EGR10; L10DGR12).

A few learner participants also reported on the feedback about homework or class activities. One learner participant stated, *“during class exercises, most of the time, you will submit your answer sheets to the teacher and then she will call you individually and*

highlight your mistakes and at the end she will go through problems with the whole class” (L9DGR12). Other learner participants commented, “after class activities, she will take it in and mark it herself and give it back to you the next day, then we can go through it and ask questions” (L10DGR12; L9DGR12).

All the teacher participants confirmed that they use “*memorandums*” to give feedback after homework, tests and exams (T1DGR12; T2PGR10; T3EGR11; T4VGR12; T5DGR10; T6TGR11). Most of them indicated that they give the learners their scripts back to them and then “*they have to work through their tests and highlight what they have wrong*” (T3EGR11).

4.5.2.4 Category 4: Teacher expectations

A few learner participants reported that their teachers expect them to do well and to understand everything. One learner participant stated, “*she expects very high of us, she wants you to get it and succeed very well* (L5EGR10), while another learner participant indicated, “*in the beginning, if it’s still new to us, she’ll allow us to get it wrong a bit, but after she explains it, she expects you to know it*” (L11TGR12) and “*she expects you to ask for help*” (L12EGR12).

Other learner participants asserted that their teachers are “*very patient with us, she doesn’t expect you to know it now, so she practices with you, she pushes you to practice a lot and she expects you to get it right*” (L12EGR12); and “*she expects you to get it right but she knows you won’t get it right immediately, it will take time*” (L3TGR10; L4EGR10).

Another learner participant felt that the teacher “*analyses a person*”, and, “*she definitely studies a person from day one and she’ll know what type of kid you are and then she’ll see this one still needs that bit of motivation*”, then *she’ll be prouder of the one that got less than the ten percent because they did more than what they even thought they could do*” (L8TGR11). Some learner participants felt that the teacher expects the best from them according to their ability: “*she expects the best of us, but if we don’t get there then she also understands if we really struggle with it or something like that* (L6TGR11); and “*when you made mistakes she will sit with you understand what you have done wrong, and help you to correct it*” (L7EGR11).

According to a few other learner participants, the teacher expects learners to work independently. One stated: *“when the teacher has done a few examples with us, then she expects from us to try one, and later do more difficult ones”* (L2EGR10). Another reported, *“she explains everything pretty well so she would expect you to at least try it on your own”* (L4EGR10). Some teacher participants confirmed that *“they expect learners to try at least”* (T3EGR11). Another teacher participant affirmed (T1DGR12) *“we want them to be proper Accounting students all the way to varsity”* and *“hoping to see most of them becoming Accountants”*. Other teacher participants expressed that they *“expect that learners must be able to do it”* (T6TGR11) and *“expect them to give their best and do their homework”* (T5DGR10).

4.5.2.5 Category 5: Relationships in the Accounting classroom

4.5.2.5.1 Sub-category 1: Positive relationships

Many of the learner participants felt that they have more positive relationships with their Accounting teachers than negative. A few learners realised that *“the teacher helps everyone a lot, she does her best for you to take out your best and that’s a good relationship”* (L3TGR10; L8TGR11; L7EGR11). Another learner participant stated that he has a *“good and comfortable relationship with teacher but a little bit casual”* (L2EGR10).

The teacher-learner relationship was seen as *“a mentor relationship”* by one of the learner participants, and he claimed that *“it’s supposed to be like that”* (L5EGR10). He indicated that *“there are certain trouble makers in the class and she has a very quick way of dealing with them and never degrading them”* (L5EGR10). One of the other learner participants stated that *“if you do your part, then the teacher will gladly help you”* (L9DGR12). Another learner participant expressed that *“it’s a beautiful relationship actually, feeling like she’s our mom, she cares and you can ask her anything”* (L8TGR11).

A few learner participants indicated that *“the relationship was good, characterised by motivation of learners, she’s not rude to us and answers our questions”* (L13DGR11; L4EGR10; L12EGR12). Another learner participant commented, *“because it’s a smaller class, the relationship becomes more personal and open”* (L11TGR12). Others felt *“it’s a very comfortable relationship where she will perform the same role as what our mentors*

would” (L7EGR11; L9DGr12), whereas another learner participant highlighted “*there’s not favouritism, it’s constant, so that’s good*” (L6TGR11).

A teacher participant stated that, “*I believe there must be a good relationship so that they can feel comfortable in my class*” (T1DGR12), while another expressed “*you do not have to be a drill sergeant in class*” (T4VGR12). In the private school setting, the teacher commented, “*It is so positive and you build a good relationship with smaller classes*” (T2PGR10). Another teacher participant indicated, “*the relationship is wonderful and by just being strategically friendly and accommodating, we’ll automatically develop that thing*” (T3EGR11).

4.5.2.5.2 Sub-category 2: Negative relationships

A few learner participants did feel that the relationships were negative. One learner participant felt that “*the relationship between us and the teachers is not very good*” (L1DGr10), whereas another learner viewed the relationship “*not so open*” (L2EGR10). Some of the learner participants expressed their concerns regarding the relationships in the classroom. One learner noticed that “*if you do not work in class and you sit and do nothing, the teacher have a little sore and difficult attitude towards you*” (L9DGR12), where another learner participant mentioned that the teacher “*has favourites which get more attention in the class as others, she is friendlier to them and you get that feeling that she doesn’t like you a lot*” (L10DGR12). A learner also reported, “*if there’s a problem, she shouts at you and if you did something wrong she gets mad*” (L3TGR10).

4.5.3 Theme 3: Perceptions of the subject Accounting

Theme 3 gives information provided by the learners and teachers on their perceptions of the subject Accounting. It focuses on their feelings about Accounting, the value of the subject and their experiences with the subject Accounting. These themes relate to the following constructs of the quantitative phase: The subject Accounting (cf. 4.3.3), specifically the sub-constructs: Feelings about Accounting (cf. 4.3.3.1), the value of Accounting (cf. 4.3.3.2) and experiences with Accounting (cf.4.3.3.3). It also relates to the construct: The subject Accounting (cf. 4.4.3) in the teacher quantitative findings.

Table 4.20: Theme 3: Perceptions of the subject Accounting

Themes	Categories	Sub-categories
4.5.3 Perceptions of the subject Accounting	Feelings about Accounting	
	The value of Accounting	
	Experiences with Accounting	Teacher challenges Learner challenges Activities in the classroom Content difficulty

4.5.3.1 Category 1: Feelings about Accounting

Many learner participants expressed their negative feelings about the subject in different ways. One learner showed mixed emotions and said " *Ooh, Accounting, it's horror*", *but then you get so used to it, and it's not as bad as I thought it would be* (L8TGR11). Other learner participants stated "*Accounting is a challenge and you need to work hard to get it right*" and "*if the balance sheet balance, it's a good feeling*" (L9DGR12; L13DGR11; L3TGR10). Words like, "*amazing*" (L13DGR11), "*interesting*" (L8TGR11) and "*challenging*" (L5EGR10) were used by the learner participants to describe their feelings if they understood what's going on in the subject. This is reflected in these statements: "*Doing Accounting in Grade 12 was enjoyable for me and the best year*" (L9DGR12); and "*I realised that I really enjoy working with numbers and doing calculating*" (L3TGR10).

A few learner participants felt that if they understand the work, "*you feel good, its easy and I enjoy it*" (L13DGR11; L12EGR12; L1DGR10). Some learner participants commented on the emotional aspects that affected their feelings towards the subject Accounting: "*It makes me very emotional, it frustrates me, it makes me happy and when I know this is good, I'm very satisfied with my work*" (L3TGR10). Another learner' participant's emotions were negative, "*I feel like the first time you see something it will be like, I won't get this right.*" (L8TGR11). Another one added: "*This is not my favourite subject, but it's nice to study it because I like to understand things*" (L10DGR12).

Teachers expressed their feelings about Accounting as “*difficult*” to teach (T3EGR11), “*I enjoy Accounting and like the content*” (T6TGR11; T4VGR12; T2PGR10), and “*it takes hard work*” (T1DGR12).

4.5.3.2 Category 2: The value of Accounting

Many learner participants were of the opinion that the value of the subject Accounting has an effect on their future careers: “*I actually need it for my future career*” (L11TGR12); “*I knew I need Accounting to become a CA*” (L13DGR11); “*it helps me with financial management*” (L2EGR10); and, “*I think in the future if I want to have my own business, then I know how to do my own books*” (L6TGR11; L7EGR11). A few learner participants viewed the value of Accounting to be more of a skill needed in life. “*I have realised it’s a valuable life skill, which is why I have continued taking it*” (L5EGR10; L3TGR10). A few learner participants expressed that “*it opens doors for you and you can actually use it at university*” (L13DGR11; L10DGR12). Another learner participant sees the subject only as “*backup*” (L8TGR11) to follow as a career if his other plans fail.

4.5.3.3 Category 3: Experiences with Accounting

The following were identified as sub-categories within the experiences with Accounting: teacher challenges, learner challenges, activities in the classroom and content difficulty.

4.5.3.3.1 Sub-category 1: Teacher Challenges

Some of the challenges the teacher participants experienced in the Accounting classrooms are stated as “*you’ll find in a class of 49 learners, only 25 has calculators*” (T3EGR11), whereas another teacher participant affirmed that, “*basic skills in language and maths*”, which she feels are important skills to master in Accounting, is a big challenge (T4VGR12). Some teacher participants indicated that “*the real challenge is they struggle with certain topics and experience it as difficult*” (T5DGR10; T6TGR11; T1DGR12).

4.5.3.3.2 Sub-category 2: Learner Challenges

Some learner participants asserted Accounting as a “*challenge*” and that “*you must work hard to get it right*” (L9DGR12; L1DGR10). One learner participant mentioned: “*It’s mainly*

the way the questions are asked that is challenging" (L11TGR12), and others stated that *"as a learner you get frustrated if you don't understand and don't get things right* (L3TGR10; L13DGR11). Some of the challenges the learner participants experience in Accounting were reported as: *"When you write the exam, they'll ask it differently and then you struggle most of the time"* (L11TGR12; L10DGR12). Other learner participants were of the opinion that *"the textbook sometimes explains it in a very complicated way* (L5EGR10; L13DGR11); and *"it's a bit tough if you read an adjustment and you have no clue what's going on there and if you make one mistake in the balance sheet, the rest is then all wrong* (L10DGR12; L9DGR12).

According to some learner participants another challenge was when they need to *"comment and give advice when solving problems, this was very difficult for me"* (L9DGR12; L10DGR12). It appeared that *"unprepared class tests"* and *"assignments also lead to frustration"* (L1DGR10; L10DGR12). One learner participant asserted that *"I don't know what to do, because we did not practice it in homework and then everyone gets 20% or 30%"* (L13DGR11). A few learner participants stated that *"all of this link, if you do not understand one concept, then you do not know what to do next"* (L1DGR10; L10DGR12).

4.5.3.3.3 Sub-category 3: Activities in Accounting

Some learner participants reported that *"we get a lot of homework sometimes"* (L5EGR10; L13DGR12; L10DGR12; L9DGR12) and others stated: *"we do exercises together in class"* (L12EGR12; L11TGR12); *"We do mostly practical exercises from a textbook"* (L4EGR10) and *"examples in the workbooks, but sometimes there aren't enough, so then we'll do exam papers or extra worksheets"* (L11TGR12).

Another learner participant felt that *"the textbooks only have easy examples* (L9DGR12), whereas others felt *"there are easy and difficult exercises in our textbooks"* (L13DGR11; L7EGR11).

A learner participant stated that *"sometimes the CAPS document don't have everything, so teacher has extra papers, extra notes, extra homework that we need to practice* (L3TGR10). Another learner participant felt *"with extra exercises, were like, "Okay, I got*

this." (L8TGR11), whereas another learner participant commented "*I sometimes have no clue what the exercise expects from me*" and "*seldom gets opportunity in class to practice exercises on my own*" (L1DGR10).

It seems like if teachers do a variety of activities with learners, as reflected in this statement: "*it's not every day the same activities, a variety of different things*" (L7EGR11). With regard to textbooks, a few learner participants indicated that "*exercises become more difficult*" as they proceed and the teacher "*do easy exercises first and then focusses on the more difficult exercises*" (L10DGR12; L1DGR10). Some learner participants stated that the teacher make us "*summaries*" (L6TGR11; L4EGR10; L7EGR11, L12EGR12), and some reported that the teacher "*make copies of previous tests*" (L1DGR10), of what they need to work through.

During my observations, I noticed that learners mostly do exercises in the class and then need to complete the same exercise for homework. In one class the teacher constantly referred back to the "*summaries*" they work from. Most of the teacher participants indicated that they give learners "*more difficult and challenging activities*" as they progress with the topic (T3EGR11; T4VGR12; T5DGR10), where another teacher participant expressed, "*I do not like the text book approach, I give them old exam paper questions*" (T2PGR10). However, most of the teacher participants indicated "*we work mostly through exercises in a textbook*" (T4VGR12; T5DGR10; T6TGR11; T1DGR12).

4.5.3.3.4 Sub-category 4: Content difficulty

Although most of the learner participants highlighted the difficult aspects of the Accounting content, a few learners did find the content "*interesting and enjoyable*" (L5EGR10) and stated that "*I'm doing quite well with it*" (L9DGR12) and "*I understand it and not everything is so difficult*" (L1DGR10). A few of these learner participants said that the questions "*is not difficult, but sometimes you just don't understand what is written there and sometimes they ask it in a complicated way*" (L13DGR11; L4EGR10).

Some of the topics which the learner participants seem to struggle with, include, is "*the asset disposal one is difficult*" (L8TGR11); "*asset disposal is a riller*" (L13DGR11); "*I'm*

struggling a bit with the fee income and refunding fee income to a debtor, auditing and all those formulas" (L5EGR10; L9DGR12). Another learner participant also *"struggle with asset disposal and income statement, because what I found is they try to trick you a lot and that is really like you have to really dissect the problem to understand exactly what they're saying"* (L7EGR11). A few learner participants stated that *"some things are really difficult"* (L11TGR12; L10DGR12; L12EGR12), *like if they ask the questions differently, that sometimes it's challenging* (L12EGR12).

One of the learner participants indicated that the *"information they give you in an exercise, is what it is"* and also commented that *"a lot times learners don't understand Accounting because they come up with their own theories"* (L3TGR10). A few learner participants asserted that *"Grade 12 content is heavier than Grade 10 and 11, but it helps if you've done Grade 10 and 11 because it builds on"* (L11TGR12) *"it's accumulated knowledge"* (L12EGR12) and *"it forces you to actually understand the whole principle"* (L3TGR10). Many of the learner participants complained that the subject *"is difficult"*, *"is not the easiest subject"*, *"the work is a lot and very difficult"* (L4EGR10; L10DGR12; L1DGR10; L7EGR11; L12EGR12; L5EGR10; L9DGR12; L3TGR10). One learner participant did mention when he *"struggle with it personally"* he will *"do more different exercises just so that I can get more clarity on each topic"* (L7EGR11).

A few teacher participants mentioned that they experience Accounting as a *"difficult subject that takes hard work"* (T1DGR12; T3EGR11), whereas another teacher participant indicated *"certain topics in Accounting is difficult to teach"* (T4VGR12).

4.5.4 Theme 4: Attitudes towards the subject Accounting

Theme 4 gives information provided by the learners and teachers on their attitudes towards the subject Accounting. It focuses on the positive and negative attitudes the teachers have towards teaching Accounting, as well as the positive and negative attitudes the learners have towards learning Accounting. These themes relate to the following constructs as identified in the learner questionnaire of the quantitative phase: Learning in the Accounting classroom (cf. 4.3.2), specifically the sub-construct: Teacher attitudes in Accounting classroom (cf. 4.3.2.2), the subject Accounting (cf. 4.3.3), specifically the sub-construct the

value of Accounting (cf. 4.3.3.2) It also relates to the construct: The subject Accounting (cf. 4.4.3) in the teacher quantitative findings analysis.

Table 4.21: Theme 4: Attitudes towards the subject Accounting

Themes	Categories	Sub-categories
4.5.4 Attitudes towards the subject Accounting	Attitudes towards the teaching of the subject Accounting	Positive attitudes towards the teaching of the subject Accounting Negative attitudes towards the teaching of the subject Accounting
	Attitudes towards the learning of the subject Accounting	Positive attitudes towards the learning of the subject Accounting Negative attitudes towards the learning of the subject Accounting

4.5.4.1 Category 1: Attitudes towards the teaching of the subject Accounting

A teacher's attitude in the Accounting classroom was felt by many learner participants to be of significant importance for a positive environment to be created for successful learning.

4.5.4.1.1 Sub-Category 1: Positive attitudes towards the teaching of the subject Accounting

One learner participant stated about a teacher, “*she takes it very serious and is good in her work*” (L2EGR10). Some learner participants responded by expressing strong feelings about how they experience their teachers’ attitudes: “*Amazing and he is very excited*” (L13DGR12), “*passionate*” (L2EGR10; (L5EGR10; L5EGR10; L8TGR11; L11TGR12; L7EGR11) and “*very positive*” (L4EGR10; L13DGR12). Other learner participants stated: “*she loves it a lot and takes pride in it a lot*” (L12EGR12; L7EGR11); the teacher “*shows enjoyment for Accounting and she gives her all*” (L3TGR10; L9DGR12; L13DGR12); and “*she takes time, she’s very patient with us*” (L3TGR10).

A learner participant mentioned that *“the teacher enjoys the subject”* and *“the way she teaches is very good”* (L9DGR12), while other learner participants indicated *“she’s not teaching because it’s her job and she has to, she’s teaching because she wants to”* (L11TGR12) and *“she knows what she’s doing and she enjoys her work and she works hard”* (L6TGR11), *she will teach it as best as she can and it’s always great.* (L7EGR11).

Some teacher participants felt positive about teaching Accounting: *“I am always positive, I like what I’m doing, I have a passion”* (T2PGR10; T6TGR11); *“the nice part of teaching Accounting is really to see that the learners understand what you are saying”* (T3EGR11); *“if you can get a learner to pass”* (T4VGR12) and *“respect and commitment”* (T1DGR12) are some of the attitudes described by teachers about their teaching.

4.5.4.1.2 Sub-Category 2: Negative attitudes towards the teaching of the subject Accounting

The teacher’s attitude in the Accounting classroom was felt by a few learners as negative. One learner stated, *“if the teacher does not like you, then she shows it and then you feel as if you are not good enough”* (L1DGR10), another learner felt the teacher treats learners as *“unknowing”* (not knowing what is going on) and then the learner does not ask questions to avoid being belittled, *“the teacher will say to you that you are supposed to know this, why don’t you?”* (L10DGR12). This is reported as leading to an uncomfortable environment and humiliation (L10DGR12). Another learner responded to the question about asking questions in the classroom and added, *“jy’s bang die onderwyser kraak jou af”* [you are scared the teacher will humiliate you] (L13DGR11).

A few teacher participants commented that they *“think it’s too difficult sometimes”* (T3EGR11; T5DGR10; T4VGR12) to teach and *“it takes hard work”* (T1DGR12). One teacher participant stated, *“I get so frustrated, especially when learners are not taking it serious”* (T6TGR11). Another teacher participant mentioned that the learners *“sits there and do not want to try at least to do difficult calculations, then it makes one feel negative”* (T3EGR11). A teacher participant experienced *“the quantity of theory brought into Accounting as negative”* (T2PGR10).

4.5.4.2 Category 2: Attitudes towards the learning of the subject Accounting

4.5.4.2.1 Sub-category 1: Positive attitudes towards the learning of the subject Accounting

A few learner participants expressed their attitudes and feelings towards the learning of the subject Accounting in the following manner: A feeling of “*enjoyment*” (L4EGR10; L12EGR12), One learner participant asserted, “*it makes me happy and when I know this is good, I’m very satisfied with my work, Accounting is just amazing, I love Accounting so much*” (L3TGR10). Another added, “*I actually wouldn’t mind becoming an Accountant one day*” (L11TGR12). One learner participant also reported that Accounting “*is ’n baie lekker vak en dis baie interessant (is a very enjoyable subject and interesting)*” (L2EGR10). In addition these comments were made: “*I’m excited to learn new things, I’m very positive about that*” (L3TGR10); “*Ek is baie positief, ek het nie rêrig ’n negatiewe gesindheid teenoor Rek nie, jy moet jouself net fokus, alles is eintlik nie so moeilik nie (I am very positive, I do not have a negative attitude towards Accounting, you just have to focus, everything is not so difficult)*” (L9DGR12); “*Ek hou baie van die vak en geniet dit om dit te doen, veral as ek dit verstaan (I enjoy the subject and like to do it, especially when I understand)*” (L1DGR10); and “*once you get everything right and if everything balances you feel very good about that*” (L3 TGR10).

A few learners attribute their positive feelings about the subject towards the teacher: “*I feel because my teacher takes time to go through the work my attitude towards it is positive*” (L8TGR11); , “*Because of the class environment and getting to know the teacher more, Accounting became more fun for me and it’s now one of my favourite subjects*” (L7EGR11); “*I love it, the teacher makes it very fun*” (L5EGR10); “*It’s positive, good and I think I really appreciate the teacher*” (L11TGR12); and “*Ek voel altyd lekker om na die klas toe te gaan (I always feel good to go to class), want die juffrou maak dit baie lekker, sy doen baie moeite met ons*” (because the teacher makes it enjoyable and she puts in effort for us).

Some teacher participants experienced the learners’ attitudes as “*positive*” (T2PGR10; T1DGR12; T6TGR11), and another teacher participant mentioned that “*learners show more confidence if they understand the work and see improvement*” (T4VGR12).

4.5.4.2.2 Sub-category 2: Negative attitudes towards the learning of the subject Accounting

Some learners declared their attitudes towards the subject in a negative sense, which are possible in these assertions: *“It makes me very emotional and it frustrates me”* (L3TGR10); *“Ek moes myself gedwing het en dit het vir my ook moeilik gemaak (I had to force myself and that made it difficult for me)”* (L13DGR11); *“I didn’t initially like it, it was more of a negative attitude, just doing it because I have to”* (L7EGR11); *“Graad 11 was vir my glad nie ’n lekker vibe nie”* (Grade 11 did not have a nice vibe) (L13DGR11); *“I do not feel comfortable in the Accounting class”*; and *“ek sal nie sê dis my gunsteling vak nie”* (I wouldn’t say this is my favourite subject) (L10DGR12).

A few learner participants gave reasons for their negative attitude, *“soos ek sukkel die meeste van die tyd en dit is maar, as jy een dingetjie fout doen op ’n balansstaat dan’s alles verkeerd (as I struggle most of the times, if you make one mistake on the balance sheet, then everything is wrong)”* (L10DGR12). (L13DGR11). One learner reported, *“I get frustrated if I don’t get the certain things right”* (L3TGR10), whereas another learner felt, *“alhoewel ek partykeer moedeloos gevoel het dan moet jy maar net half weer terugkom, rustig word en jouself net fokus”* (however I feel discourage sometimes, I just come back again, stay calm and just focus again) (L9DGR12).

Some of the consequences of these negative attitudes, led to a learner dropping out of Accounting: *“As gevolg van dit, het ek dit nou gelos so aan die begin van Graad 11, toe ek in die klas sit, het ek nie lekker gevoel nie en nie ’n clue gehad wat aangaan nie en die basis was nie vas nie, toe los ek dit”* (because of this, I dropped out at the beginning of Grade 11, I didn’t feel well when sitting in the class and had no clue of what’s going on in class, the foundation was not in place, so I left) (L13DGR11).

A few teacher participants experienced negative attitudes from their learners, *“there’s quite a number of learners in the class who have negative feelings about the subject”*, their learners *“struggle and they do not do their homework because they feel it’s too difficult”* (T3EGR11; T5DGR10; T4VGR12).

4.5.5 Theme 5: Learners' own learning in the Accounting classroom

Theme 5 gives information provided by the learners and teachers on the learners own learning in the Accounting classroom. It focuses on incorporating critical thinking skills in Accounting, as well as the importance of accuracy and persistence when learning in Accounting. Information regarding the learning actions, specifically questioning and practice, will also be given in this section. These themes relate to the following constructs as identified in the learner questionnaire of the quantitative phase: General learning conditions (cf. 4.3.1), learning in the Accounting classroom (cf. 4.3.2), specifically the sub-construct teacher expectations (cf. 4.3.2.5). It also links to the construct: My own learning (cf. 4.3.3) specifically the sub-construct: critical thinking skills and dispositions in the Accounting classroom (cf. 4.3.4.1) and learning actions (cf. 4.3.4.2). In the teacher quantitative findings this section connects to the constructs: General classroom environment (cf. 4.4.1), learning in the Accounting classroom (cf. 4.4.2), the subject Accounting (cf. 4.4.3) and my own teaching (cf. 4.4.4).

Table 4.22: Theme 5: Learners' own learning in the Accounting classroom

Themes	Categories	Sub-categories
4.5.5 Learners own learning in the Accounting classroom	Critical thinking skills for Accounting	
	Accuracy	
	Persistence	
	Learning actions	Questioning Practice

4.5.5.1 Category 1: Critical thinking skills for Accounting

Some of the learner participants seem to not know what the concept “critical thinking” means, which is reflected in these comments: *“I’m not sure, I’m thinking of three different ones that it could be”* (L5EGR10); *“I do not understand critical thinking”* (L8TGR11); *“you have to think out of the box”* (L10DGR12); and *“I think it will be like you have to think like complex and some of the topics leads to it”* (L4EGR10).

Some of the learner participants asserted that they believe that critical thinking skills were incorporated in Accounting: *“To me it is being able to break down the whole problem into smaller pieces and actually analyse everything for every exercise or like problem solving for instance and give your opinion on this”* (L11TGR12); *“Because some questions, let’s say it will be in a balance sheet, but they’ll ask things from another line of work that you did”* (L12EGR12); *“like with the income statement, you have to really dig deeper to see is this amount included or excluded and I think sometimes it is necessary if it’s a trickier question”* (L7EGR11); and *“Ek sal altyd krities dink en vra hoekom doen ek dit of waar kom dit vandaan, ek wil presies weet hoekom”* (*I will always think critically and ask why or where does it come from, I want to know exactly why it happen*) (L1DGR10).

A learner participant indicated that the teacher, *“gee ook altyd maar die moeilikste voorbeelde wat jy moet oefen om dit dan self te ontwikkel”* (*always gives the most difficult examples what you need to practice to develop it yourselves*) (L10DGR12), where another learner stated that the teacher *“will allow us to answer on our own”* (L2EGR10) and another affirmed that the teacher *“reason it and link it with other things”* (L6TGR11).

A few teacher participants expressed: *“critical thinking is a concept that brings the learner into much deeper level of thinking, e.g. when they need to solve problems”* (T3EGR11); *“that is thinking about thinking”* and *“giving them problems to solve, will teach them critical thinking”* (T5DGR10).

Some concerns about this were also highlighted. One teacher participant declared that *“we do not teach this enough”* (T4VGR12). Another teacher participant raised a concern about the time that is limited to finish all the curriculum content and there is *“no time to teach these skills”* (T3EGR11), whereas another teacher expressed that *“teaching to the test”* (T4VGR12), is the only way learners will pass the subject. One teacher indicated that these skills must be *“stimulated in class”* (T2PGR10) and added that you *“need time to do this”*.

4.5.5.2 Category 2: Accuracy

Some learner participants asserted that *“working accurately in Accounting”* (L2EGR10) is very important and one learner declared, *“you need to work accurate to understand the work correctly”* (L9DGR12). Many of the learner participants reported on how they ensure

to work accurately in Accounting. Two learner participants mentioned that *“you have to read very carefully and if there’s something that I don’t understand I like to go back, recap, and then go back to my question”* (L3TGR10; L2EGR10). Another learner participant stated, *“I’ll usually have my notes next to me and when I find something I don’t understand I’ll read the question over and over until I understand it correctly”* (L5EGR10). Other learner participants added, *“I will make sure that I at least go back, then I refer back to the summary”* (L8TGR11); *“then I’ll go over each individual adjustment”* (L7EGR11); and *“I go back to the summary to check how it’s done”* (L6TGR11). One learner participant asserted, *“ek het letterlik gaan sit en dan gaan kyk ek waar ek verkeerd gegaan het”* (*I literally sat down to look where I have gone wrong*) (L13DGR11).

Working with different transactions in Accounting also seem to have an effect on how the learners work accurately. One learner participant stated, *“ek begin normaalweg deur om die vraag deur te lees en besef, hierdie ene gaan vir my bietjie moeiliker wees en dan speel my brein alreeds en dan vat ’n highlighter, merk, okay wag, hierdie is dit, vat ’n potlood, skryf neer”* (L9DGR12). (*I normally start to read the question to realize that this one is going to be more difficult, then my brain starts to think and I take a highlighter and pencil and write it down*)

“I’ll look at the T-account again and make sure I think what I’ve done is correct and then I’ll put the answer into the Income statement” (L4EGR10). One learner participant mentioned, *“ek kyk baie terug oor een of ander voorbeeld”* (*I look back at previous examples*) (L1DGR10), and another also stated, *“I read through it and then make use of an example”* (L2EGR10).

It was mentioned by a learner participant that *“in baie transkasies vra hulle meer as een ding en jy moet dit mooi kan analiseer om seker te maak wat die regte bedrag is”* (L1DGR10) (*in a lot of transactions they ask more than one thing and you need to analyse it clearly to make sure which is the correct amount*). The same learner also added *“om aantekeninge langsaaan op ’n foliopapier te maak en om te wys watse T-rekening dit is help sodat jy nie self deurmekaar word nie (to make notes on the side of the folio paper and to show which T-accounts are used helps me not to get confused)* (L1DGR10). Another

learner participant stated, *“the teacher always says use a ruler for every exercise to make sure you don’t skip anything, but I’m a bit lazy so I don’t do that, I do the exercise, when I’m done with it I put a tick next to it”* (L11TGR12). One learner participant concluded that she double checks her work, *“ek lees maar die vrae baie noukeurig deur en as ek ‘n groot som moet doen, dan tik ek dit twee keer in op die calculator as daar dan nou tyd is”* (I read through the questions thoroughly and when I need to do a big calculation, I pin it twice on the calculator if there is time) (L10DGR12).

A few learner participants reported some negative actions regarding accuracy. One learner participant stated, *“No, I do not check my work, I do it once and leave it”* and the same learner participant mentioned that, *“I will only go back and check it in the test”* (L12EGR12). Another learner participant commented on the consequences of not working accurately, *“ek het al so baie optelfoute gemaak, wat my baie punte gekos het”* (I have made so many calculation errors, which cost me a lot of marks) (10DGR12), whereas another learner participant affirmed, *“some learners do not get it right, then they want to copy your homework”* (L13DGR11).

Some of the teacher participants indicated that accuracy in Accounting *“is very important”* (T2PGR10; T3EGR11; T4VGR12; T5DGR10) and one teacher participant also asserted that working accurately *“is a constant process and you need to incorporate it on a daily basis”* (T2PGR10). Another teacher participant expressed that *“learners must check themselves”* (T3EGR11). However, in contradiction to these afore-mentioned statements one teacher participant stated, *“if you enforce accuracy, learners will spend too much time to get it right and not finish the paper”* (T6TGR11).

4.5.5.3 Category 3: Persistence

Many learner participants agreed that persistence will help to motivate you to succeed in Accounting: *“To get it right, I do not give up at all and I’m challenged to get it”* (L3TGR10); *“I can’t leave things unfinished, so it’s a good thing, I’d rather push through till the end and have everything wrong than to just start and then stop* (L11TGR12); *“I am motivated to persist and do everything* (L4EGR10); *“gee nie op as ek gemotiveerd is nie”* (do not give up

when I am motivated) (L1DGR10); and *“I never give up, because there is a way to do it”* (L2EGR10). One learner declared that *“I actually taught myself to persist”* (L7EGR11).

Some learner participants commented on what they do when they struggle: *“If I can’t do it, I find somebody who can do it and I ask them to explain it to me”* (L5EGR10); *“if I struggle, it’s a mind-set of at least I tried”* (L8TGR11); and *“I do as much as I can and then I’ll ask for help if I struggle”* (L12EGR12; L6TGR11).

A few learner participants focused on some negative actions. One learner felt *“I can’t do this” and also mentioned that “I sometimes then leave it”* (L6TGR11), where another learner stated, *“as ek rêrig nie ’n clue het van watse kant af dit te benader nie, dan los ek dit, want dit help nie eers ek probeer nie”* (If I really do not have a clue how to approach it, then I leave it, it doesn’t help me to try) (L10DGR12).

Some teacher participants seemed to feel very strongly about persistence in Accounting as reflected in this statement: *“I think not giving up is a matter of motivation”* (T6TGR11). Some teacher participants linked persistence with feedback: *“if you teach learners, they do activities and you get feedback and give feedback, they persist”* (T1DGR12; T2PGR10; T4VGR12).

4.5.5.4 Category 4: Learning actions

4.5.5.4.1 Sub-category 1: Questioning

Questioning appeared to be seen as a learning action taken by most of the learners to understand the content of Accounting better. During the interviews they were asked to comment on the way questioning is done in the class and if they feel comfortable asking questions in the Accounting classroom. Some of the learner participants reacted positively: *“I don’t have to be scared of asking questions, if I really believe I don’t know, then I will put up my hand and ask”* (L7EGR11); *“of course you feel comfortable asking questions, if you don’t understand, no-one’s afraid to ask”* (L3TGR10; L4EGR10); *“we can always ask her”* (L8TGR11; L6TGR11); *“ons mag vra en ek’s maar die een wat die meeste vrae vra”* (we are allowed to ask questions and I am the one asking the most questions) (L2EGR10); and *“We can ask questions when we want to and she answers us”* (L12EGR12).

A few learner participants seem to have some concerns. One stated, *“I will raise my hand and ask, as long as it’s not a stupid question”* (L5EGR10), because he felt, *“that’s not a very smart thing to do”*. Another learner participant reported, *“party kinders is dalk bietjie skrikkerig met die vrae vra”* (some learners might be a bit scared to ask questions) (L9DGR12), and another expressed that *“bigger class discourages asking questions”* and felt *“if some things are really difficult, but it’s a small principle that I missed, I wouldn’t ask, it’s embarrassing”* (L11TGR12). One learner stated, *“Ek vra nie, want my onderwyser beweeg so vinnig deur ’n werkkaart en as jy ’n gedeelte gemis het en jy weet nie presies hoe hy by die antwoord uitgekom het nie, gaan hy net aan”* (I do not ask because the teacher rushes through the worksheet and if you missed a part and you don’t know how did he get to the answer, he just proceeds) (L1DGR10).

Another learner commented that *“Ek sal nooit ooit weer iets vra nie, want juffrou se oë rol”*, (I will never ask the teacher something because her eyes roll) (L13DGr11), whereas another learner felt the same, *“sy’t ’n vraag gevra en toe steek ek my hand op, toe antwoord ek en toe was die antwoord nou verkeerd, maar toe rol sy haar oë, ek het van daai dag af nooit weer gemaklik gevoel nie”* (she asked a question and I put up my hand, then I answered and it was wrong, but she rolled her eyes and I never felt comfortable again) (L10DGR12).

During my observations, I noted that in one classroom learners asked the teacher a lot of questions when they experienced problems. This classroom environment was very relaxed and positive, and I could observe a good relationship between learners and teachers. However, in another classroom, where the teacher seemed a bit annoyed, some learners were very quiet during the lesson and learners did not ask any questions. I also experienced this classroom environment a bit tense, as learners were uncomfortable to ask questions.

4.5.5.4.2 Sub-category 2: Practice

Most of the learner participants reported that working through exercises in class as well as practicing these exercises at home is part of the learning actions they take. Some learner participants stated, *“Ek sou sê deur baie oefening, dis hoe ’n mens dit reg gekry het en as*

jy dit verkeerd het, dan doen jy nie dieselfde oefening nie maar 'n ander oefening" (I would say through a lot of practice, that is how you get it right and if you have done it wrongly, then you try another exercise) (L13DGR11); *"the teacher practices with us and give activities and pushes us a lot to practice"* (L3TGR10); and *"we get a lot of homework sometimes"* (L5EGR10). Most of the learner participants also affirmed that doing exercises regularly is the way they prepare for tests and exams in Accounting and they elaborated on how they make use of activities and exercises to learn. One learner reported that she *"het baie oefeninge uitgewerk, herhaal die heeltyd en het net vraestelle uitwerk"* (worked through a lot of exercises, repeat the whole time and worked through exam papers) (L13DGR11; L10DGR12). Others stated they *"begin gewoonlik deur om teorie deur te lees en dan vat ek vraestelle"* (start to read through the theory and then I take the exam papers) (L9DGR12; L1DGR10); *"I'll basically just go through exercises done in class"* (L8TGR11); and *"I'll do the exercises we've previously done again and then check if they're correct afterwards"* (L4EGR10). One learner reported *"ek vat maar net die vorige aktiwiteite wat ons gedoen het, dan doen ek net al daardie transaksies weer"* (I just take the previous activities we have done then I just do those transactions again) (L1DGR10). One learner expressed, *"my way of learning is I learn better when I hear things"* (L11TGR12) and another said *"I like to do stuff on rough, then I'll make it physical that I can see how it works and I use colour so it makes it easier"* (L6TGR11).

A few learner participants stated *"I would redo the exercises that we had before by trial and error"* (L7EGR11); and *"I think what helps, my favourite part of dealing with transactions is the quick ones, because normally, when you take too long on one, you start to panic"* (L11TGR12),

However, a few learner participants asserted that they do not practice the examples or exercises again, they just *"I just look at it"* (L12EGR12); *"ek kyk maar net oor dit"* (I just look over it) (L2EGR10); and *"I will look at it and refer back"* (L6TGR11). One learner participant stated that *"I do not have time to do homework"* (L13DGR11).

4.5.6 Theme 6: Teaching methods in Accounting

Theme 6 gives information provided by the learners and teachers on the teaching methods of the teachers in Accounting. It focuses on using the different teaching methods, for example lecturing, discussion and demonstration methods, as well as brainstorming, role play and group work. This theme relates to the following constructs as identified in the learner questionnaire of the quantitative phase: Learning in the Accounting classroom (cf. 4.4.2) and My own teaching (cf. 4.4.4) in the teacher findings analysis section.

The teachers and learners were asked to elaborate on different methods used in the Accounting classroom. Table 4.23 provides a summary of the category and sub-categories.

Table 4.23: Theme 6: Teaching methods in Accounting

Themes	Categories	Sub-categories
4.5.6 Teaching methods in Accounting	Using different methods	Lecture method
		The discussion method
		Demonstration method
		Brainstorming
		Role play
		Group work

4.5.6.1 Category 1: Using different methods

During the interviews it appeared as if teacher participants make use of different teaching methods. According to a few learner participants, the teacher *“uses a lot of examples on the board and she explains a lot”* (L9DGR12) and another learner participant indicated, *“if the second or third learner in the class start struggling, then she goes to the board and she explains”* (L10DGR12). One learner participant mentioned that the teacher follows a procedure: *“she’ll start of by reading it, then explaining it, and then we’ll discuss it”* (L8TGR11). Another learner participant felt the teacher’s methods *“is exciting”* and made the teaching approach *“fun”*. This learner also explained how the teacher made the class *“fun”*, by means of *“story telling”* and *“tells us about the history of the business”* to understand the concepts better (L13DGR12). One learner participant also mentioned that

the teacher uses “ *case studies, which is more theoretical and we need to complete sentences*” (L1DGR10).

From all the teaching methods mentioned underneath, most of the teacher participants indicated that in the Accounting classroom they use “*mostly lecturing and demonstration method*” (T5DGR10; T6TGR11; T1DGR12; T2PGR10; T3EGR11) when they teach new concepts. Some teacher participants asserted that they “*do not normally use role play or brainstorming methods*”, however one teacher participant stated that “*I like to role play a little bit to show them the things in practical*” (T3EGR11). Group work in the Accounting class is reported “*not done*” (T3EGR11; T4VGR12; T5DGR10; T6TGR11) by most teachers. However, one teacher participant indicated that “*Accounting is a subject where the learners can learn together in groups*” (T2PGR10).

During my observations, I noticed that the formal lecturing method was commonly utilized in all the classes I have observed. This method was mainly used when the teacher started the lesson to introduce the topic and to explain the new content and concepts to the learners. The demonstration method was incorporated many times, especially when explaining calculations on the board. They also used the question and answer method very often when marking homework and explaining some problems to the learners.

4.5.6.1.1 Sub-category 1: Lecture method

Many learner participants indicated that the lecturing method is the most used method in the Accounting classrooms. This is evident in the following statements: “*Normally, he’ll be in front with the lecture method*” (L11TGR12); “*the methods that she primarily uses is the demonstration and lecturing*” (L7EGR11; L2EGR10); “*he teaches it, but not very formal, feel unsure about what he is actually doing*” (L1DGR10); and “*I think he does lecturing*” (L3TGR10).

A teacher participant indicated that the lecture method is “*plain straightforward teaching*” (T4VGR12), which will be used with “*new topics*” (T4VGR12). Another teacher participant stated that the lecture method is incorporated when “*you need to teach them new procedures and concepts*” (T3EGR11).

4.5.6.1.2 Sub-category 2: The discussion method

Some learner participants indicated that the teacher *“discusses it with us where we have a problem and does examples on the board”* (L5EGR10). A few learner participants stated, *“we do have discussions”* (L12EGR12), *“well, I do know that she also does stuff on the board, and especially in the beginning and then we discuss what do you think about this, what do you think about that”* (L6TGR11), whereas another learner explained, *“but for some cases where it’s for instance exam papers and he marks it himself, then he will do one-on-ones where he’ll bring you to his table and explain the mistakes you made”* (L11TGR12).

A few teacher participants felt that the discussion method is important in the teaching of Accounting: *“I think you need to discuss problems”* (T6TGR11), *“when we can talk about a certain topic”* (T2PGR10) and *“when I relate real-life situations, we will have some discussions”* (T4VGR12).

4.5.6.1.3 Sub-category 3: Demonstration method

The demonstration method is used in the classroom according to some learners: *“She draws a demonstration of the example on the board”* (L5EGR10); *“she would draw pictures on the board”* (L12EGR12); *“explaining the new concepts by demonstrating”* (L7EGR11); *“the demonstration method also comes in”* (L6TGR11) and *“if he works through an example, he will show us on the board”* (L1DGR10).

A teacher participant mentioned that the subject Accounting *“is more mathematical and more demonstrative”* (T2PGR10) as she has to show the learners the calculations on the board. Another teacher participant indicated that *“it depends on the topic and will demonstrate then”* (T1DGR12).

4.5.6.1.4 Sub-category 4: Brainstorming

Learners did not respond well to this question and only one learner indicated that *“we do not do brainstorming”* (L2EGR10).

Some of the teacher participants indicated that they do not really incorporate brainstorming as a teaching method: *“I don’t normally brainstorm”* (T3EGR11; T2PGR10; T4VGR12). One teacher participant indicated that she brainstorms *“only when we have a little bit of a discussion about something”* (T3EGR11).

4.5.6.1.5 Sub-category 5: Role play

Little response was given to this question. One learner participant indicated that *“we do not role play”* (L2EGR10).

Some teacher participants indicated that they do not really use role play as a teaching method: *“I don’t role play”* (T2PGR10; T5DGR10; T6TGR11). A teacher participant mentioned that she *“like to role play a little bit and show them the things in practical”* (T3EGR11).

4.5.6.1.6 Sub-category 6: Group work

It seems as if group work in the Accounting classroom is not regularly used. One learner participant stated *“it’s not normally group exercises because it’s more like our own”* (L6TGR11), while another learner participant indicated, *“we will not do group work in class, she will just ask in the class for answers, they will pinpoint you in class to answer the question, that is a bit forced”* (L10DGR12).

A few teacher participants gave their opinion about doing group work in the Accounting classroom and stated *“I think Accounting is a subject where group work can work”* (T2PGR10), *“they can learn together in Accounting”* (T4VGR12), and *“it gives them a chance to give their opinions”* (T1DGR12).

4.6 Interpretation and discussion of integrated findings

The findings for the quantitative phase, including questionnaires for teachers and learners were analysed in sections 4.3 and 4.4, and the qualitative findings from the teacher and learner interviews and observations in section 4.5 of this chapter. All the findings from the quantitative and qualitative phases will be integrated in this interpretation and discussion section, therefore the constructs of the learner and teacher quantitative findings as well as

the qualitative themes, categories and subcategories will be collapsed in the headings of the discussion that follows.

4.6.1 Return rate of questionnaires

The high return rate of questionnaires, namely 82.2% from the learners and 60% from the teachers, is a good indication that learners and teachers were willing to share their opinions and experiences about the subject and the learning thereof.

Table 4.24: Return rate of questionnaires: Learners

Learners	f	%
Submitted	576	82.2
Not	124	17.8
Total	700	100.0

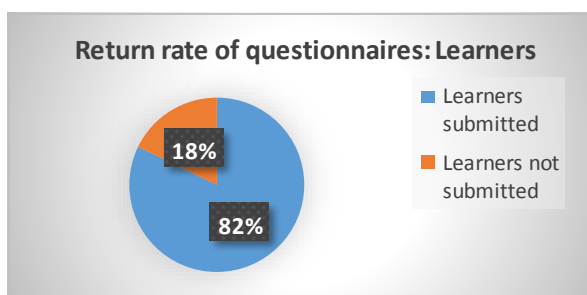


Figure 4.6: Return rate of questionnaires: Learners

Table 4.25: Return rate of questionnaires: Teachers

Teachers	f	%
Submitted	12	60.0
Not	8	40.0
Total	20	100.0

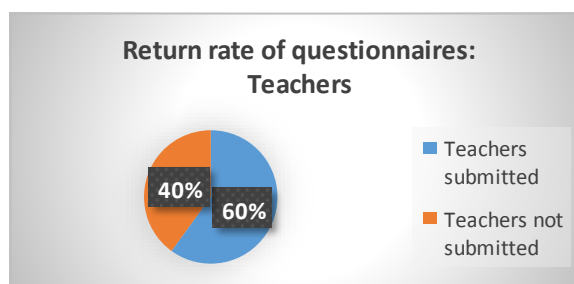


Figure 4.7: Return rate of questionnaires: Teachers

4.6.2 Biographical background of learner and teacher participants

The majority of the Accounting learners who responded to the questionnaire and who agreed to participate in the interviews in this study came from Vanderbijlpark, even though different schools across the Vaal Triangle area took part in both the quantitative or qualitative phase. This can be attributed to the fact that this area has more secondary

schools that teach Accounting. The class numbers ranged from 10 to 35 learners in different Accounting classes. During the interviews, learner participants from one private school indicated that they believe that the smaller numbers in their schools give them an advantage over learners who are in classrooms with large numbers. According to these learners they get more individual attention (cf. 4.5.3.2).

The effects of overcrowded classrooms have been found to be extensive for teachers and learners, but this is unfortunately a feature of the South African education system (Marais, 2016). Teaching in overcrowded classrooms creates a challenge in producing productive learning classroom environments for which effective teaching and assessment strategies are crucial, especially in the Accounting classroom where the understanding of concepts, calculations and working accurate are important. For example, teachers cannot practice a variety of methods, such as higher-order questioning and implement learning approaches, where learners are actively participating, in such large classes (Marais, 2016).

Most of the participants were female teachers and learners. The teachers who participated did not teach Accounting for single Grades only, but they were mostly responsible for two to three grades, e.g., Grade 10 and 11. Teachers also came from different schools in the Vaal Triangle area. As mentioned above, many of these teachers teach in public schools with average to large numbers of learners in their classrooms and other teach in private schools with smaller classes.

4.6.3 General learning conditions

One of the main constructs that was identified in the literature and in the empirical study was general learning conditions in the FET Accounting classroom that can determine to what extent the learners feel able to achieve the learning outcomes of the subject Accounting and how they experience the learning environment. In the literature review it was highlighted that in order for successful learning to take place in a classroom, it is essential that teachers create all-embracing positive learning environments (Phillips &

Graeff, 2014 Bratten et al., 2013; Bonner,1999; Wu, 2008) (cf. 2.5.3) as this could ensure that learners achieve learning outcomes successfully.

The quantitative research findings revealed that 72.2% of the learners seem to almost always and often view the Accounting environment as a meaningful learning environment and 83.2% (almost always and often) think that the teacher creates a positive learning environment for learners to achieve learning outcomes in Accounting (cf. 4.3.2.1). Whereas 75% of the teachers almost always and often think that they create a meaningful environment where learners can connect with the subject matter (cf. 4.4.1). This is also confirmed in the interviews where some of the learners made comments about teachers creating a free, positive, supportive and comfortable learning environment which helps them to enjoy the subject. Teachers also specifically commented that they try to make it a positive environment where relations can be built and time is spent on problems (cf. 4.5.1.1.1). These large percentages of teachers and learners feeling that a positive learning environment is created can be indicative of why most learners feel able that they can achieve the outcomes of Accounting. This is evident in that 61% (almost always and often) of the learners feel able to do Accounting successfully (cf. 4.3.1.1), 74.7% (almost always and often) believe that they can obtain good marks in Accounting (cf. 4.3.1.1) and 75% (almost always and often) have confidence that they can achieve all the objectives/learning outcomes required by the curriculum (cf. 4.3.1.1). These opinions of the learners are also reflected in 83.4% (almost always and often) of the teachers having confidence that all their learners can achieve all the objectives/learning outcomes required by the curriculum (cf. 4.4.1) and 75% (almost always and often) indicating that their learners can obtain good marks (cf. 4.4.1). Adding to this general positive feedback could be that in practice 58.2 % (almost always and often) of the learners appear to be involved in different activities in the classroom and that 75% (almost always and often) of the teachers believe that they create adequate opportunities for learners to succeed in Accounting (cf. 4.4.1). An important aspect here, which is essential for success in succeeding as an Accountant professional (cf. 2.2.3) is that 58.2% of the learners (almost always and often) deem that they are challenged to think critically which is in contrast with the larger percentage (66.7%) of the teachers who almost always and often believe that they allow discussions that challenge the learners' critical thinking

skills. Hewitt (2008) (cf. 2.3.1) affirms that learning is a complex concept and action, and that teachers and learners should recognise the important integrated cognitive aspects of learning, thinking and problem solving. Accounting as a subject also needs to ensure that learners become lifelong, independent learners by developing their thinking skills (Nqwenya, 2014; Noe, 2000). (This aspect of critical thinking will be dealt with in paragraph 4.6.6.1).

It must be noted here that nearly half of the learners (49,8%) think that they can achieve 80% or more, 34.6% deem they can achieve between 60% and 79%, and only 9.7% believe they can attain percentages below 60% (cf. 4.3.1.1). Furthermore, 5.9% of the learners did not respond to this item, which could indicate that they are not sure about what their possible achievement can be. This is in contrast with the teachers' beliefs, as none (0%) of the teachers believe that their learners can obtain an average of 80% or above for this subject (cf.4.4.1) even if 75% (almost always and often) believe that their learners can get good marks (cf.4.4.1).

Although these above mentioned findings are encouraging, the national pass percentages do not reflect it, as the National Diagnostic Report on learner performance (2018), in 2017 reported that 103 427 learners wrote the Grade 12 Accounting examination, and only 68 318 learners managed to achieve 30% and above, amounting to 66.1% of all learners participating in that specific examination (cf. 1.1). Furthermore, the Department of Basic Education (2013) affirms that the matric results as well as the pass rates of university students in Accounting is decreasing and that the number of learners taking this subject is also declining (DBE, 2013) (cf. 2.2.3.1). Therefore, having a sense of learning successfully, making progress and being in control of that learning are not necessarily reflected in the results (Coyle, 2013) (cf. 2.4.1).

The learner interviews indicated that they believe that there are several requirements to generate the ideal positive learning environment and it appears that the teacher play a central role in this. A controlled environment, where learners are nurtured and supported, seems to be a key factor for learners in which they feel safe enough to progress (cf. 4.5.1.1.1). However, large classrooms (cf. 4.5.1.3.1) and the type of

school (seemingly linked to discipline) have been mentioned by learners and teachers to present some difficulties in maintaining positive learning environments (cf. 4.5.1.1.2). Phillips and Graeff (2014) and other researchers (cf. 2.5.3; 2.4.2.2) assert that the teacher as an individual personality is an important element in creating an effective teaching and learning environment and in the failures and success the learner experiences. This means that the teacher must recognise his/her role in all the activities in the classroom and how it directly affects the behaviour of the learners who are still growing and learning (OECD, 2017). It is therefore essential that Accounting teachers create a controlled, but supportive positive learning environment in order for learners to perform successfully in the subject (Lyke & Young, 2006; Lake, 2009) (cf. 1.5.2).

Linked to the feelings of experiencing general positive learning conditions in the Accounting classrooms is the phenomenon that 64.1% (almost always and often) of the learners deem that they are well prepared for formal tests and exams (cf. 4.3.1.1). This is confirmed by the qualitative findings where most of the learners indicated that they feel confident to set their own achievable goals, but as one learner asserted it takes hard work (cf. 4.5.1.2.1). Literature confirms that successful learners are those who meta-cognitively, motivationally and behaviourally self-regulate their learning in order to achieve their goals and to be successful (Schleifer & Dull, 2009) (cf. 2.4.1.1). (This aspect will also be addressed in more detail later in this section) (cf. 4.6.4.1).

During the observations, I did notice some positive classroom environments where learners could freely ask questions to clarify uncertainty and the relationships between teachers and learners as well as between learners seemed positive. This could lead to learners feeling more confident and inspired to achieve their goals, as literature confirms that strong meaningful social relationships can have a positive impact on learners working towards goals and to help them achieve these goals and perform better (Diener & Chan, 2011) (cf. 1.1).

However, despite many learners and teachers viewing their general learning environments in the Accounting classroom as positive it needs to be emphasised that there are significant percentages of learners that express opposite opinions. This is reflected in that

39% of learners sometimes and very seldom feeling able to do Accounting successfully, 36 % (sometimes and very seldom) deem themselves well prepared for formal tests and exams, 25.3% (sometimes and very seldom) believing that they can obtain good marks in Accounting, 25% (sometimes and very seldom) indicating having confidence that they can achieve all the objectives/ learning outcomes required by the curriculum, 27% (sometimes and very seldom) finding the Accounting learning environment a meaningful learning environment and 16.5% (sometimes and very seldom) think that the teacher creates a positive learning environment for learners to achieve learning outcomes in Accounting (cf. 4.3.1.1). Again it seems that the teacher seems to be central in these opinions of the learners as the qualitative findings affirmed that some learners are scared to ask questions and that they usually feel rushed to complete the work which leave little time for explanations (cf. 4.5.1.1.1). In the teachers' questionnaire responses 25% (sometimes and very seldom) think that they create a meaningful learning environment where learners can connect with the subject matter, 25% (sometimes and very seldom) believe that they create adequate opportunities for learners to succeed in Accounting, 25% (sometimes and very seldom) indicate that they use examples during teaching that prepare learners well for the tests and exams, and 16% (sometimes and very seldom) believe that their learners can obtain good marks. During the interviews the teachers attribute these negative opinions to the DBE not providing adequate resources (cf. 4.5.1.1.2), as well as being pressurised to complete the curriculum (cf. 4.5.1.1.2) and learners not opening up about their problems (cf. 4.5.1.1.2). These findings are also reflected in that only 41.7% (sometimes and very seldom) of the learners feel that they are involved in different activities in the class to succeed in Accounting and 25% (sometimes and very seldom) of the teachers deeming that they create adequate opportunities for learners to succeed in Accounting. This could also be the reason why 33.7% of the learners (sometimes and very seldom) indicated that they feel challenged to think critically (e.g. to question information) with 33.3 % (sometimes and very seldom) of teachers suggesting that they do allow discussions to challenge learners' critical thinking skills. Some of the learners confirmed during the interviews that they are allowed to ask questions and take part in discussions. However, there is no certainty if these questions challenge information or content given or

if its only to clarify uncertainties. None of the teachers commented to this specific issue of allowing learners to discuss issues or ask questions.

From the quantitative and qualitative findings in this section, one can conclude that most of the teachers and learners seem to perceive the conditions that are created for learners as positive, but there are also a significant percentage who do not experience the conditions as conducive for teaching and learning.

4.6.4 Factors affecting learning in the Accounting classroom

4.6.4.1 Motivation and encouragement in the Accounting classroom

The literature review strongly highlighted the relation of motivation to learners' academic performance and success as an important issue (Pintrich & Schunk, 2002) (cf. 2.5.5). However, for motivation to really make an impact it is essential for the teacher to create a positive, safe learning environment, where the act of encouragement to learn and progress is central (Phillips & Graeff, 2014) (cf. 1.1).

From the quantitative findings it seems that most of the learners' experience motivation in the Accounting classroom. This is evident in that 70.5% of learners (almost always and often) believe that the activities chosen by the teacher motivate them to complete the activities, 66.9% (almost always and often) indicated that the classroom activities stimulate their interest in the subject, 67.2% (almost always and often) feel motivated to do the class activities and 62.1% (almost always and often) feel motivated to do the home work activities in Accounting (cf. 4.3.2.1). In the interviews many of the learners affirmed their belief that motivation is very important for Accounting because the subject is difficult and the work is a lot (cf.4.5.2.1). It also seemed that they feel strongly that motivation is an important factor for not dropping the subject. However, crucially the teacher was identified as someone who needs to encourage the learner to do the activities and actually believing they can do it (cf. 4.5.2.1). With regard to choosing classroom activities that stimulate learners interest in Accounting a large percentage (83.3%) of the teachers asserted that they do this (cf. 4.3.2.1). Stimulating interest in a subject is a critical motivator for learners to want to learn. According to Darwin (2011), creating learning conditions where learners

are continually motivated should be an unceasing goal of teachers. This includes making the lessons more meaningful. (cf. 2.5.5).

As 91.7% (almost always and often) (cf. 4.4.2.1) of the teachers seem to use learning activities that range from easy to complex it could add to the learners' sense of feeling motivated since they can experience feelings of achievement in the progression from easy to difficult activities. This can be seen as a form of scaffolding within the zone of proximal development, as introduced by Vygotsky, where the focus is on adjusting the support offered during a teaching session to fit the child's current level of performance and then gradually allowing learners to grow by removing the support and providing more complex cognitive stimulation (Bates, 2016; Donald et al. 2010). During the interviews most of the teachers also strongly asserted that motivation is important to keep the learners positive (cf. 4.5.2.1).

An important action that is linked to motivation is encouragement by the teacher. Some reassuring findings of the teachers' questionnaire is that 83.4% (almost always and often) of the teachers encourage their learners to question things (cf. 4.4.2.2), and the same percentage (83.4%) almost always and often encourage their learners to participate in class discussions (cf. 4.4.2.2). These actions are important for developing critical thinking skills (cf. 1.1; cf. 2.2.2; cf. 2.5.2; cf. 4.6.6.1) as well as building positive classroom relationships (cf. 2.5.3; cf. 2.4.3; cf. 4.6.4.3). Furthermore, 91.6% (almost always and often) encourage their learners to complete the homework exercises. As Accounting is a subject where practice (cf. 2.5.1; cf. 2.5.3) is essential to constantly improve skills (cf. 2.2.2) this could be an important action of teachers. The snowball effect of this could be that the better learners become at applying the skills through persistent practice the better the possibility that they will experience successful learning and consequently become independent learners (Ferguson, 2011; Higgins, Hartley, & Skelton, 2002) (cf. 2.5.7).

Although there is a sizable percentage of learners who seem motivated there are also a considerable percentage who are not. This is reflected in that 29.5% (sometimes and very seldom) think that the learning activities chosen by the teacher motivates them to complete the activities, 33.1% (sometimes and very seldom) deem that the classroom activities

stimulate their interest in the subject, 32.8% (sometimes and very seldom) feel motivated to do the class activities, and 37.9% (sometimes and very seldom) feel motivated to do the homework activities (cf. 4.3.2.1). However, in contrast to these many learners seemingly struggling with motivation only 16.7% of the teachers think that they sometimes and very seldom choose activities that stimulate their learners' interest in Accounting (cf. 4.4.2.1). The same percentage deem that they sometimes and very seldom use learning activities that range from easy to complex activities. With regard to encouragement 1.7% (sometimes and very seldom) encourage learners to question things, 8.3% (sometimes and very seldom) encourage learners to participate in class discussions and the same percentage (sometimes and very seldom) encourage learners to complete homework activities (cf. 4.4.2.2). These negative reactions are mirrored in the interviews where a few learners attribute getting "bad marks" to no-one being there to motivate them or even being yelled at if they struggle to get the exercises right (cf. 4.5.2.1).

The literature emphasises that it is important to create learning conditions where learners are continually motivated and encouraged which should be a constant goal of teachers. This includes making the lessons more meaningful (Darwin, 2011) (cf. 2.5.5) and encouraging learners to become actively involved in the subject (Carter & Hogan, 2013) (cf.2.5.5.1). Moreover, how teachers teach and present the content and then monitor learner performance have an important impact on learner motivation (Pintrich & Schunk, 2002) (cf. 2.5.5).

4.6.4.2 Support in the Accounting classroom

Closely linked to motivation and encouragement is support which in turn is essential for a successful learning culture (Noble & McGrath, 2008) (cf. 2.4.3). Since teachers' attitudes (shown by tone of voice, comments, enthusiasm and interest in the subject), affect learners directly and indirectly they have a central role in establishing a supportive classroom environment (Dent & Harden, 2001) (cf.2.4.2). Aspects of positive feelings and relationships in the classrooms can definitely support Accounting learners in the classrooms to achieve successful learning (Diener, 2011) (cf. 2.4.3). If no support or assistance is given to the learners regarding feedback, the goals for successful learning will not be achieved (Hattie and Yates (2014) (cf. 2.5.7).

Most of the learners indicated in their questionnaire that they experience that their classmates support one another when they struggle (63.7% - almost always and often) and 77.9% (almost always and often) experience good relationships between the learners and the teachers in the classroom (cf. 4.3.2.2). They also seem to feel safe to ask questions in the classroom (65.8% - almost always and often).

These three aspects were also emphasised strongly during the interviews with learners. Although no specific mention was made of teacher support, the issue of feeling safe to ask questions is a good indicator that support is given by the teacher when asked. I also observed the positive interaction between the teacher and learners when they were allowed to ask questions. However, support between learners, associated with positive relationships between learners and teachers, were asserted fervently as important factors for successful learning in the Accounting classroom. It was also mentioned that teachers place stronger and weaker learners next to each other in order for the stronger learner to assist when the weaker learner struggles. This is an important strategy by teachers as peer support has been found to be a very constructive support strategy. An important tool for the learners was also using the social media tool of whatsapp to communicate with each other when they struggle. Support was also identified as a motivator to progress in Accounting (cf. 4.5.2.2). In addition, positive relationships with peers and teachers help learners to experience support and acceptance, and feel connected to school. Constructive relationships between teacher and learners can also motivate learners to achieve and behave according to a school's culture, contributing to a positive school culture (Noble & McGrath, 2008) (cf. 2.4.3).

During the interviews with teachers, they were asked how they feel about learners supporting each other in the classroom during activities. Some teachers feel strongly about learners supporting each other and indicated that it builds self-confidence (cf. 4.5.2.2).

However, it must also be noted that 19.8% of the learners thought that classmates support one another sometimes and very seldom. The reason can possibly be found in some of the comments learners made during the interviews where they seem not sure if they are allowed to help each other or that they assist each other only when the teacher is out of the

classroom. With regard to feeling safe to ask questions 34.2% of the learners indicated that they sometimes and seldom experienced this. In some of the observations' it was also noted that classrooms were very quiet and none of the learners asked questions or only the same few time and again.

The literature emphasises the importance of positive relationships with peers and teachers, as this helps learners to experience support and acceptance and feel connected to school (Noble & McGrath, 2008) (2.4.3). According to Diener and Chan (2011) (cf. 1.1), aspects of positive feelings and strong meaningful relationships in the classrooms can definitely support Accounting learners in the classrooms to experience success.

4.6.4.3 Relationships in the Accounting classroom

In school settings, positive relationships with peers and teachers help learners to experience support and acceptance and feel connected to the school. Relationships can also motivate learners to achieve, contributing to a positive school culture (Noble & McGrath, 2008) (cf. 2.4.3).

In the quantitative findings, the majority of teachers (75%) indicated that good relationships (almost always and often) (cf. 4.4.2) exist between them and the learners. This is in correlation with the learners' responses, where 77.9% of learners (almost always and often) experienced good relationships between teacher and learners in the Accounting classroom (cf. 4.3.2.3). Such positive relationships (not only between teacher and learner, but among learners also) is often a foundation for building the trust that is needed (Hattie & Yates, 2014) (cf. 2.5.7). The findings from the qualitative phase also support this, as many of the learners experienced good and positive relationships between teacher and learners in the classroom, characterised by mentorship, motivation and good comfortable relationships (cf.4.5.2.5.1).

A study by Pintrich and Schunk (2002) (cf. 2.5.7) found that classrooms are active places where teachers and learners constantly interact with one another, specifically where learners ask questions and request help and teachers offer assistance when learners experience difficulties. Most of the learners (65.8%) almost always and often felt safe asking questions in the Accounting classroom (cf. 4.3.2.3). This is confirmed by most of the

teachers in that they believed that there should be good relationships in the classroom, as they see it as an important factor to feel positive and motivated to succeed in learning (cf. 4.5.2.5.1).

However, some learners appeared to be more doubtful. This is reflected in that 22.1% (sometimes and very seldom) experience good relationships in the classroom (cf. 4.3.2.3) and 25% of the teachers also sometimes and seldom experience that. Another concern is that 34.2% of the learners sometimes and very seldom feel safe to ask questions in the classroom (cf. 4.3.2). From the findings in the qualitative phase, some learners expressed that they do not experience good relationships in the classroom (cf. 4.5.2.5.2) and the teachers have “favourites” (cf. 4.5.2.5.2). From this, it appeared that they feel the relationships between teacher and those “favourite” learners are better and that not all learners are treated equally in the Accounting classroom. This could possibly have a negative impact on their performance, as literature affirms that teachers must recognise and manage emotions, set and achieve positive goals, appreciate the viewpoints of others, and establish and maintain positive relationships so that they can handle interpersonal situations constructively for learners to acquire the core competencies (Borkar, 2016) (cf. 2.4.3).

An educational environment favourable to more positive learning of Accounting, is where teaching methods are more learner-centred, including a good relationship with learners, while encouraging meaningful learning and the creation of a personal learning context (Sharma, 2010) (cf. 2.5.3). A more positive learning environment characterised by more positive relationships between teachers and learners can lead to more successful learning in the Accounting classroom.

4.6.4.4. Attitudes towards the subject Accounting

Teachers can have a substantial impact on learner motivation through their interactions with learners and their attitudes towards certain subject areas (Anderman & Anderman, 2010) (cf. 2.5.5). Since teachers’ attitude (shown by tone of voice, comments, enthusiasm and interest in the subject), influence learners directly and indirectly they have an essential role in establishing a supportive classroom environment (Dent & Harden, 2001) (cf. 2.4.2).

Learners (85.8%) indicated that their teachers (almost always and often) are enthusiastic about teaching Accounting, 77.2% indicated that teachers almost always and often encourage learners to participate in class discussions and 75.4% of the learners confirmed that teachers almost always and often encourage them to question things (cf. 4.3.2.3), which could be beneficial towards their success. More importantly the literature emphasised that teachers should respect each learner's interests, abilities and limits (Bates, 2016) (cf. 2.3.2.2). It seemed that mutual respect exists in the Accounting classroom as 79.5% of the learners indicated that an atmosphere of mutual respect almost always and often exists in the Accounting class between teachers and learners (cf. 4.3.2.2). It is interesting to note that 79.7% learners felt that the teacher almost always and often treats all learners the same way (cf. 4.3.2.2). From the teacher responses 83.4% of teachers almost always and often felt that learners and teachers respect one another and that the teacher (75%) almost always and often treat all learners in the same way. This could probably be because the majority of the teachers confirmed that they almost always and often encourage learners to question things (83.4%), to participate in class discussions (83.4%) and to complete homework exercises (91.6%) (cf. 4.4.2.2). Furthermore, a large percentage of teachers (75%) believe that they almost always and often have a positive attitude towards teaching Accounting (cf. 4.4.3.1). This was also reflected during the interviews, where it appeared that some teachers are still passionate about teaching Accounting, believe that they are helpful, and think that they have a positive influence on learners' performance (cf. 4.5.4.1.1). However, what is concerning is that only 58.4% of all the teachers almost always and often are still enthusiastic about teaching Accounting.

In contrast to some of these positive attitudes, not all the learners shared the same feelings, as 20.3% (sometimes and very seldom) feel that the teacher treats all learners the same and 24.6% (sometimes and very seldom) experience encouragement from teachers to question things and 22.8% (sometimes or very seldom) feel encouraged to participate in class discussions (4.3.2.2). From the interview responses, it appeared that some learners feel uncomfortable to ask questions when they struggle and want to avoid humiliation (cf. 4.5.4.2.2). These learners experienced their teacher's attitude during teaching as negative (cf. 4.5.4.1.2) which could result in learners not performing well. Fisher (2005, p. 199) (cf. 1.1) affirms that teachers are the primary source to create invitations and opportunities for

learners to learn and how learners respond to these opportunities will depend in a large way on the attitudes and the teaching methods and strategies that the teacher adopts.

4.6.4.5 Teacher and learner expectations

In the work of Zimmerman (1997) (cf. 2.4.2) it was found that the learners' view of academic success seems to have a direct impact on motivation and future perceptions about their ability to achieve their goals. From the quantitative findings it seems as if the learners have high expectations, as 74.7% of the learners indicated that they almost always and often believe they can obtain good marks in Accounting (cf. 4.3.1.1), and the teachers (83.4%) also confirmed that they had confidence in their learners that they can achieve learning outcomes and they (75%) believed that the learners (almost always and often) can obtain good marks in Accounting (cf. 4.4.1), but these expectations are not reflected in the national pass rates (results) for Accounting, as only 66.1% of the 103 427 learners who wrote the national examination in 2017 achieved a mark above 30% for Accounting (cf. 2.2.3.1).

With regard to the expectations that teachers have of learners about analysis, interpretation and problem solving that occur in the Accounting classroom, the learners asserted that the teacher almost always and often expects learners to analyse (76.6%) and interpret (72,9%) information in the class (cf. 4.3.2.4), even though only 66.5% almost always and often felt intellectually challenged in the Accounting class. Some of the learners (70.5%) indicated that their teachers almost always and often expect them to motivate their answers (cf. 4.3.2.4), which is a positive response. The qualitative findings from the interviews support this notion, as it seemed that teachers expect learners to do well in Accounting according to their ability (cf. 4.5.2.4). It appeared that the teachers motivate the learners to ask for help if needed and that teachers expect learners to work independently and try to do exercises on their own first (cf.4.5.2.4). These findings are promising, as literature confirms that effective teachers understand the standards their learners are expected to achieve (O'Neill, 2014) (cf. 2.5.3) and learners should know up front what they will learn and what they will be expected to do (Ramsden, 1992) (cf. 2.5.3).

However, the fact that just more than half of the learners 51.7%) indicated that teachers almost always and often expect them to solve problems on their own (cf. 4.3.2.4) can be linked to the findings where 33.5% of learners (sometimes and very seldom) felt intellectually challenged and that teachers expect from them to analyse (22.7%) and interpret (26.9%) information in class (cf. 4.3.2.3). This is an indication that teachers might be hesitant to teach learners complex and analytical skills in practice. It was confirmed in the literature that teachers must learn to teach in ways that develop higher-order thinking and performance to help young people learn the more complex and analytical skills they need for the 21st century (Darling-Hammond & Richardson, 2009) (cf. 2.5.3). Furthermore, clear expectations from learners by the teacher can ensure that learners understand the content (Pintrich & Schunk, 2002) (cf. 2.5.5). More importantly, having high expectations of learners by trying to motivate and involve all the learners in learning rather than simply accepting that some learners cannot succeed, demonstrates effective teaching (O'Neill, 2014) (cf. 2.5.3). Some of the teachers (16.7%) (sometimes and very seldom) had confidence in their learners that they can achieve learning outcomes and they (25%) sometimes and very seldom believed that the learners can obtain good marks in Accounting (cf. 4.4.1). However, as mentioned in 4.6.3, what is interesting from the findings is that none of the teachers believed that their learners can obtain averages of 80% (cf.4.4.1) or above for this subject, although most of the learners believed they can. This could be an indication that teachers believe their learners can succeed by achieving the learning outcomes, but they do not have very high expectations that their learners will get distinctions for Accounting.

4.6.4.6. Feedback

When assessment is done for the improvement of learning, it becomes a process that involves feedback and reflection (Wiggins, 1993) (cf. 2.5.7). Furthermore, feedback is given in an attempt to clear misconceptions and improve learning by identifying learners' gaps and how they can alter them towards improvement for the task and how teachers monitor learner performance has an important impact on successful learning (Pintrich & Schunk, 2002) (cf. 2.5.5). Corrective feedback can be carried out within the context of positive teacher-learner relationships, especially when the teacher displays a positive and

respectful attitude toward learner efforts and communicates that such errors are natural steps on the road to success (Hattie & Yates, 2014) (cf. 2.5.7). In the questionnaire in the quantitative phase, the learners were asked to indicate how often the teachers provide feedback after different assessment forms. The majority of the learners (87.8%) indicated that the teachers almost always and often provide feedback after tests and exams and after homework (79.4%) and activities (80.2%) are done (cf. 4.3.2.4). This is confirmed by the teachers as it appears as if they (almost always and often) focus more on feedback after formal assessment tasks like tests and exams (83.3%) than on feedback after class activities (50%) and homework (75%) (cf. 4.4.2.5). Hattie and Yates (2014) and others (cf. 2.5.7) also found that there are teachers who apparently do not regard feedback after class activities and homework as important.

Conversely, there are some teachers (16.7%) (cf. 4.4.2.5) who sometimes and very seldom provide feedback to learners after tests and exams, which might lead to learners making the same mistakes again. It is generally accepted that feedback on assignments and formative assessments serves as a key process in the development and enhancement of learning (Mutch, 2003) (cf. 2.5.7). From the learner responses during interviews, it seemed that the feedback in the accounting classrooms is mainly teacher-guided, where the teacher provides memorandums and only explains the incorrect answers to the learners (cf. 4.5.2.3). This is disconcerting as it appears that there are teachers (16.7%) who apparently do not regard feedback after class activities and homework as important, as they sometimes and very seldom do this (cf. 4.3.2.4), and for successful mastering of the content, corrective feedback is a very important action (Hattie & Yates, 2014) (cf. 2.5.7). With regard to this, some teachers (33.3%) felt that their learners sometimes and 16.7% often experience constant failure in Accounting as well as negative feedback (25%-sometimes) (cf. 4.4.3.2). From the qualitative responses, it was evident that few of the learners seem to make an effort to do corrective feedback of their mistakes (cf. 4.5.2.3) and they also reported that feedback from their teacher does not get a lot of attention because of time constraints to complete the required content (cf. 4.5.2.3). The literature review affirms that for feedback to be most helpful to learners, it must consist of more than the provision of correct answers. It must include, asking learners questions, to check for understanding as well as continuous monitoring of the learners' work which will lead to

corrective feedback but also to a deeper understanding of mistakes made, thus ensuring that successful learning has occurred (Pintrich & Schunk, 2002) (cf. 2.5.3).

All the teachers confirmed during the interviews that they use memorandums to give feedback after all assessments in Accounting (cf. 4.5.2.3) During the observation period, I observed that teachers mark the homework in different ways. Some just read the answers to learners, others hand out memorandums and learners check for mistakes, whereas in other classes, feedback is only given to learners when it is asked for (cf. 4.5.2.3). These observations are in contrast with the literature which emphasises that the use of feedback in the Accounting classroom must create a space where learners feel they are in control and have the ability to monitor and direct their own learning (Black & William, 2009) (cf. 2.5.7).

4.6.5 The subject Accounting

4.6.5.1 Feelings about Accounting

A key component of social cognition is the ability to understand the thoughts and feelings of other people (Frith & Frith, 2003) (cf. 2.3.2.2), and this links with the social constructivism theory, where the social and cultural aspects of people are seen as an important factor in the process of learning.

From the findings in the quantitative phase of the research, 75% of the learners sometimes and very seldom experience feelings of anxiety in the Accounting classroom (cf. 4.3.3.1) which is quite different from the smaller percentage (50%) of the teachers indicating that they sometimes and very seldom believe that their learners experience anxiety because they struggle to complete the activities (cf. 4.4.3.2). However, 41.7% of the teachers indicated that they believe that their learners experience anxiety because they struggle to complete activities (cf. 4.4.3.2). A positive indication is that only 18.8% of the learners (almost always and often) experience constant failure in Accounting and only 15% almost always and often experience negative feedback regarding their performance (cf. 4.3.3.1). Most of the learners (85.8%) sometimes and very seldom regret taking Accounting as a subject and 85.9% (sometimes and very seldom) think of taking another subject in Accounting's place (cf. 4.3.3.1). Most of the teachers (91.7%) still almost always and often

experience feelings of satisfaction to be an Accounting teacher and 83.3% sometimes and very seldom regret choosing Accounting as their subject to teach (cf. 4.4.3.1). However, as a consequence of teachers almost always (8.3%) and sometimes (16.7%) experiencing the subject content as difficult, many teachers can also experience feelings of anxiety (cf. 4.4.3.1) and expressed these same feelings again in the interviews (cf. 4.5.3.1). This confirms the findings by Buckhaults and Fisher (2011) (cf. 2.5.6) found that the Accounting classroom seems to create anxiety for teachers as well as learners. Anxiety has been consistently shown to have a negative effect on academic learning and performance as it has effects on attention, memory and strategy use (Pintrich & Schunk, 2002) (cf. 2.5.6).

During the interviews some of the feelings about the subject Accounting described by the learners were positive, they felt the subject is interesting and enjoyable, whereas others felt Accounting is a challenging subject (cf. 4.5.3.1). A number of the teachers also confirmed this, when they expressed feelings of enjoyment (cf. 4.5.3.1), but also indicated that it is sometimes difficult to teach Accounting and it takes hard work to succeed as a teacher of Accounting (cf. 4.5.3.2). These emotions can influence how learners or teachers approach a task or how to engage with the task as possible outcomes can result in failure.

There were also mixed feelings expressed by the learners about the subject during the interviews, as some learners indicating positive feeling, but also that they sometimes feel anxious, because they struggle to complete the activities in the Accounting classroom (cf. 4.5.3.1). They also affirmed that the following mixed feelings about the subject occurred as they experience success but also failure and frustration. These include altering feelings of happiness, anger, satisfaction, anxiety and enjoyment (cf. 4.5.3.1).

According to Pintrich and Schunk (2002) (cf. 2.5.5), a distinction is made between emotions that are experienced when learners actually engage in tasks, like emotions of enjoyment or frustration. These kinds of feelings can have a significant impact on their learning, positive and negative, as learners who frequently experience and express positive emotions like happiness, pleasure and comfort tend to be more resilient (Fredrickson & Tugade, 2004) (cf. 2.4.3) and more likely to function better, meaning that they have

increased feelings of empowerment, self-confidence and self-esteem (Fredrickson & Losada, 2005) (cf. 2.4.3).

On the other hand, negative feelings could hinder successful learning, for example when learners experience their teachers as uncaring and cold, they are more likely to develop external control beliefs, meaning, that the learners believe that certain factors will control their behaviour, which ultimately will lead to lower academic achievement and negative feelings about school (Skinner et al., 1998) (cf. 2.5.5). Therefore, it is essential to reduce feelings of anxiety as it can potentially improve successful learning and motivate learners to become Accounting experts (Borja, 2003) (cf. 2.5.3).

4.6.5.2. The value of Accounting

Accounting education has come under increasing criticism for not providing the type of entrants it is claimed will be needed for the Accounting profession of the future (Adler & Milne, 2015) (cf. 2.2.3.1). Yet, there seems to be an increasing number of accountants still required to fill the critical skills gaps in the economy and who can contribute to the economic development of the country (cf. 2.2.2).

From the quantitative findings, it is believed by 72% (almost always and often) of the learners that the subject Accounting is relevant to their future studies (cf. 4.3.3.2), and many learners during the qualitative phase were of the opinion that the value of Accounting has an effect on their future careers (cf. 4.5.3.2). The teacher responses confirm this, as 75% of teachers (almost always and often) think that the subject is still relevant for their learners' future studies (cf. 4.4.3.1). Most of the learners (74%) were almost always and often satisfied that they chose the subject on school level, and 70.6% of the learners (almost always and often) believed that they can perform well in Accounting. What is also positive, is that 91.7% of the Accounting teachers are almost always and often satisfied to be an Accounting teacher and 83.3% of them (sometimes and very seldom) regret the choice they made to teach Accounting. The positive trends can be seen as constructive, but the negative trends can result in negative feelings and outcomes. For example, for some reason (such as constant failure) a learner may have developed a dislike for a subject like Accounting, because he may fail to see its value, and it could have a negative

impact on his/her performance in Accounting. Furthermore, it seemed that the expectations for successful learning in Accounting was not very high (cf. 4.5.3.2), although some of the learners (56.4%) still almost always and often have the expectation to become successful accountants or auditors. However, it is a concern that 43.6% of the learners (sometimes and very seldom) have that expectation (cf. 4.3.3.2).

This could possibly have a negative effect on the status of the subject Accounting and demote the value of the subject, as 26% of the learners (sometimes and very seldom) feel satisfied about choosing the subject Accounting. What is promising though, is that literature specifically indicates that an increasing number of learners are needed to fill critical skills gaps in the economy and contribute to the economic development the country as a whole needs (cf. 2.2.2).

4.6.5.3. Experiences with Accounting

Accounting is seen as a complex and abstract field in which financial information is used to build and sustain a successful business (Wilson, 2014) (cf. 2.2.2).

The quantitative findings indicate that 70% of the learners (sometimes and very seldom) experience the subject content as difficult, and some learners (65%) sometimes and very seldom experience the calculations as complex (cf. 4.3.3.3). Teachers (83.4%), on the other hand, also (sometimes and very seldom) experience the subject content as difficult and 83.3% of the teachers sometimes and very seldom experience the calculations done in Accounting as complex (cf. 4.4.3.1). This is a positive indication that most learners and teachers seem to be able to deal with the content difficulty of the subject.

However, there is a sizable percentage of learners (30%) who almost always and often experience the subject content as difficult and 35% indicated that they almost always and often experience the content and calculations in Accounting as difficult and complex (cf. 4.3.3.3). These findings can also be linked to negative feelings about the subject. Phillips and Graeff (2014) (cf. 2.5.6) noticed that learners seem to have a negative perception about the difficulty of Accounting, which affect their experience of the subject as fear and worry, resulting in anxiety and a lack of motivation. Zimmerman (1997) (cf. 2.4.2.2) also

declares that if you feel bad about your current performance, it is likely that you will feel even less positive the next time you undertake a task, which you previously found too difficult.

During the interviews, it seemed that the teachers believe their learners experience anxiety because they struggle to complete activities and struggle with the difficulty of certain topics in Accounting (cf. 4.5.3.3.1). Some learners indicated that they were involved in different activities to help them succeed in Accounting, however many of the learners appeared not to be always involved in different activities to help them. Being involved in different activities implies that learners practice the same content and calculations of a specific topic by doing different exercises, homework, assignments and questions from previous exam papers. It is very important in Accounting to practice a variety of questions, because each question gives the information differently and learners need to learn how to apply the principles and skills.

Most of the teachers feel that they are able to plan activities for their Accounting learners, making learning easier and especially preparing them well for the formal tests and exams (cf. 4.5.3.3.3). With regard to why teachers think learners experience difficulties with the subject they attribute to a shortage of resources like calculators, learners' poor skills in language and maths, as well as the difficulty of certain topics in the Accounting curriculum (cf. 4.5.3.3.1).

In the Accounting classroom, active learning techniques like problem-solving exercises, are very important, because it can improve learners' critical thinking and specifically their analytical skills (Carter & Hogan, 2013) (cf. 2.5.5). The quantitative findings show that 74.5% of the learners affirmed that the learning activities in Accounting (almost always and often) require problem-solving skills (cf. 4.3.3.3). The reason for this could be that learners might not have clarity on exactly what problem-solving skills consist of (Francisco et al. 2003). Yet, quite a significant less percentage of teachers (58.4%) almost always and often experience the problem-solving activities as important (cf. 4.4.3.1). Furthermore, 41.7% of the teachers (almost always and often) experience it as a challenge when their learners experience anxiety because they struggle to complete the activities (cf. 4.4.3.2).

The quantitative findings showed that 33.3% of the teachers (sometimes and very seldom) think that the activities done in the classroom focus on problem-solving (cf. 4.4.3.1) where 25.5% of the learners indicated that the learning activities in Accounting (sometimes and very seldom) require problem-solving skills (cf. 4.3.3.3). Most of the teacher participants indicated that they give learners difficult and challenging activities as they progress with the topics done in Accounting (cf. 4.5.3.3.3) and a few of the learners indicated that their activities consist of problem-solving questions and they experience solving problems as very difficult (4.5.3.3.2). Francisco et al. (2003) and other's (cf. 2.5.2) findings that the focus of schools' and universities' Accounting courses has been mostly on the mastery of the Accounting curriculum, with little time spent helping learners to develop the necessary skills, such as problem solving could clarify the afore mentioned finding.

4.6.6 Learners own learning

4.6.6.1. Critical thinking skills in the Accounting classroom

Trainers in the field of Accounting assert that only teaching the technical skills is not sufficient to develop a successful accountant. It is also necessary to address broader based skills and competencies, which include critical thinking (Kermis & Kermis, 2011; AICPAA as cited by Jayaprakash, 2005) (cf. 2.2.2). For critical thinking, Facione (2013) (cf. 2.5.2) affirms that it requires a variety of cognitive skills that include interpretation, analysis, evaluation, inference, explanation, and self-regulation. Accountants must be competent in these critical thinking skills to be successful in their work, especially in a competitive business environment (Freeley & Steinberg, 2000) (cf. 2.5.2).

The quantitative research findings revealed that 69% of the learners seem to almost always and often think critically when solving Accounting problems and 69.6% (almost always and often) evaluate information when solving Accounting problems (cf. 4.3.4.1). From the teacher responses, 91.7% of the teachers (almost always and often) encourage their learners to think critically, by 75% of them almost always and often making use of class discussions that provide opportunities for them to think (cf. 4.4.4.1). Furthermore, teachers indicated that they let learners almost always interpret (83.3%) and analyse

(83.4%) information, whereas 83.4% of the teachers almost always and often encourage their learners to question things in the Accounting classroom (cf. 4.4.2.4).

This was confirmed by some of the teacher interviews as they stated that critical thinking skills were incorporated in their Accounting classes by analysing problems, problem solving and allowing learners to give opinions. (cf. 4.5.5.1.1). Teachers giving more difficult exercises and calculations seemed to keep learners challenged (cf. 4.5.5.1.1). This is in compliance with the opinion of Collins and Mangieri (2004) (cf. 2.5.2), who stated that the development of critical thinking skills will become evident as learners purposefully persist in their problem solving.

However, some learners (29%) indicated that teachers sometimes and very seldom expect them to motivate their answers, analyse (22.7%) and interpret (26.9%) information (cf. 4.3.2.4), which is concerning as this gives learners limited opportunity to develop reasoning skills that enhance critical thinking. Only a few of the teachers indicated that they let learners sometimes and very seldom interpret (16.7%) and analyse (16.7%) information, in the Accounting classroom (cf. 4.4.2.4).

The larger percentage of teachers that indicated that they develop critical thinking could confirm that teachers are willing to present lessons and incorporate strategies that challenge learners' thinking. However, some could be hesitant to do it in practice, maybe in fear of doing it incorrectly or not knowing how to do it. Collins and Mangieri (1992) (2.5.2), as well as Borich (2004) (2.5.2), believed that to help a learner think critically requires a teacher to perform several unique teaching functions, namely to provide information about when and how to use mental strategies for learning and explicitly illustrate how to use these strategies to think through solutions to real-world problems, which is particularly applicable to the teaching of Accounting. From the qualitative findings it appeared that learners seem to only have a basic or even any understanding of critical thinking and it is unclear if the teachers actually incorporate these skills in the Accounting classroom (cf. 4.5.5.1.1). Teachers raised concerns about the time that is limited to finish all the curriculum content which results in inadequate time to teach critical thinking skills. However, most of the teachers affirmed that these skills should be stimulated in the

classrooms and that it is important to for solving problems. They also try to incorporate critical thinking skills by teaching in different ways to approach problems (cf. 4.5.5.1). Nevertheless, some felt that the only way learners will pass the subject is to teach according to the test (i.e. knowing the content to pass the test) (cf. 4.5.5.1.1).

Fisher (2005) (cf. 2.5.3) asserts that teachers are the primary source to create invitations and opportunities for learners to think critically. Therefore, how learners respond to these opportunities will depend in large measure on the attitudes and the teaching methods and strategies that the teacher adopts. Moreover, many research studies have shown that metacognition, which entails understanding the goals of the learning process, figuring out the best strategies for learning, and assessing whether the learning goals are being met, can help learners be academically successful and improve their Accounting performance (Hammond & Richardson, 2009; Schleifer & Dull, 2009) (cf.2.5.3).

4.6.6.2. Dispositions in the Accounting classroom

For further development of critical thinking skills, it is also important that learners work accurately in Accounting and persist (cf. 2.5.2). Accuracy and persistence are two key critical thinking dispositions that have been identified by Costa and Kallick (2009) (cf. 2.5.2) and could improve results in Accounting.

Developing a strong habit of striving for accuracy means, you take control of your goals and work carefully towards them, which includes working with precision and craftsmanship and taking time to assess the final product (Costa & Kallick, 2009) (cf. 2.5.2). The quantitative research findings revealed that 67.4% of the learners seem to believe that they almost always and often work accurately and precise in Accounting (cf. 4.3.4.1). The teachers also indicated that they (83.4%) almost always and often encourage their learners to work accurately (cf. 4.4.4.2). From the qualitative findings, working accurately in Accounting was asserted by many learners and teachers as very important (cf. 4.5.5.1.2) and checking work and reading through the questions and transactions carefully appeared to be the best practices for accuracy (cf. 4.5.5.1.2). Many learners indicate that they recheck everything when working with difficult questions and thus they believe accuracy

also establishes comprehension (cf. 4.5.5.1.2). It also appeared that learners use methodical approaches such as making notes to remind them why the answers are correct.

What can be a concern is that a significant percentage (32.7%) of the learners indicated that they (sometimes and very seldom) work accurately and precisely in the Accounting classroom (cf.4.3.4.1). As bookkeeping is an important element of financial reporting and requires accuracy and precision (Jackling, 2005) this finding should be noted (cf. 2.5.2). Some teachers (8.3%) affirmed that they (sometimes and very seldom) encourage their learners to work accurately (cf. 4.4.4.2). A few learners mentioned that if they keep on making mistakes and not working accurately led to them giving up and not persisting in their homework (cf. 4.5.5.2).

Persistence refers to sticking to a task until it is completed which results in becoming a successful learner. This means that successful people do not give up easily, are able to analyse a problem, and develop a system, structure, or strategy to address problems (Costa & Kallick, 2009) (cf. 2.5.2). The quantitative research findings revealed that 76.8% of the learners seem to almost always and often feel encouraged to persist in their work not giving up and 64.7% of the learners indicated that they complete all their assignments without giving up (cf. 4.3.4.1). On the other hand, 66.6% of the teachers (66.6%) indicated that their learners (sometimes and very seldom) give up easily when they struggle with problems and 58.3% of the teachers affirmed that their learners almost always and often complete their assignments without giving up. (cf. 4.4.4.3).

From the qualitative findings it appeared that many learners have a strong determination to follow through with difficult tasks and will ask for help to complete the activities that they struggle with (cf. 4.5.5.1.3). Most of the teachers also felt very strongly about persistence in Accounting and some teachers linked persistence with motivation and feedback. In addition, they believed that giving feedback to learners about mistakes, giving positive comments and by motivating a learner to do better next time, the learners will start to persist, especially with a difficult task (cf. 4.5.5.1.3).

However, some of the learners (23.3%) sometimes and very seldom feel encouraged to persist in their work and 35.3% of the learners (sometimes and very seldom) complete their

assignments without giving up (cf. 4.3.4.1). The teachers (25%) also indicated that their learners almost always and often give up easily when they struggle with problems and 33.3% of the learners sometimes and very seldom complete assignments without giving up (cf.4.4.4.3), even though almost all the teachers (91.6%) encouraged their learners to persist in their work and work accurately (cf. 4.4.4.2). During the interviews a few of the learners mentioned that if they can't do something or they struggle, they sometimes just leave it and give up (cf. 4.5.5.3). For learners in Accounting to be successful in their learning and for achievement of outcomes, persistence to complete all the tasks and activities and working accurately are crucial aspects to focus on (cf.2.5.2).

4.6.6.3 Learning actions

As mentioned in the previous discussion (cf. 4.6.6.2), the development of critical thinking skills will only become evident as learners consider others' point of view, generate questions and explore the alternatives and consequences of their actions (Collins & Mangieri, 2004) (cf.2.5.2).

Learners (77.2%) indicated that they (almost always and often) listen to opinions of others during class discussions and some (51.1%) almost always and often ask questions in the Accounting classroom (cf. 4.3.4.2). For better understanding and performance in their work, it is important to ask questions in the classroom if they experience difficulties. Furthermore, some of the learners indicated that they (56.4%) almost always and often explore alternative viewpoints when doing Accounting activities (cf. 4.3.4.2). Some of the teachers (75%) indicated that they almost always use class discussions that provide opportunities for their learners to think (cf. 4.4.4.1). Carter and Hogan (2013) (cf.1.1) affirm that a discussion is a good strategy to teach learners to think critically, while also giving them criteria to apply in evaluating alternatives. Most of the teachers (75%) indicated that they (almost always and often) create class activities that create opportunities for their learners to explore alternative opinions (cf. 4.4.4.2) and to listen to opinions of others (75%) (cf. 4.4.4.2). These activities and strategies are very important for the development of critical thinking (Collins & Mangieri, 2004) (cf.2.5.2).

Questioning was seen as a learning action taken by some of the learners, where 51.5% of the learners indicated that they (almost always and often) ask questions in the class (cf. 4.3.4.2). This was confirmed during the interviews where some learners use questioning to understand the content of Accounting better (cf. 4.3.4.2). Some of the learners felt comfortable asking questions in the classroom, whereas a few learners raised concerns and expressed their fear to ask questions because of the negative response they get from the teacher and the consequent embarrassment they feel. From the literature, questioning is seen as a teaching strategy that stimulate the development of critical thinking skills, as it will help learners to deliberately generate questions and explore the alternatives and consequences of their actions (Mangieri & Collins, 2004) (cf. 1.1).

Working through exercises in class and practicing homework activities in Accounting contribute greatly to learners' success and play a big role in their learning actions (Darwin, 2011) (cf.1.1). In the qualitative phase most of the learners confirmed that working through exercises and previous exam papers is the way they prepare for tests and exams in Accounting (cf. 4.5.5.2.2).

From the findings in the qualitative phase, it seemed that most of the teachers encourage their learners to complete homework exercises and encourage learners to participate in class discussions (cf. 4.5.5.2.2). Working through previous exam paper questions and practicing old activities appeared to be the independent learning actions taken by learners (cf.4.5.5.2.2). Teachers organise extra classes and provide extra activities which seem to promote more dependent learning. From these findings it seemed that learners still depend a lot on the teachers to help them with difficult tasks and activities (cf.4.5.5.4.2).

Looking at the concerning aspect of the findings from the learner responses, only 58.2% of the learners indicated that they are almost always and often involved in different activities in the class to succeed in Accounting (cf. 4.3.1.2). What can be an alarming aspect is that almost half of the learners (48.9%) sometimes and very seldom ask questions in the class and 22.7% of them sometimes and very seldom listen to the opinions of others during class discussions (cf. 4.3.4.2). Linked to the unfavourable responses regarding critical thinking (cf. 4.6.6.1), is the perception that 43.6% of the learners indicated that they (sometimes

and very seldom) explore alternative viewpoints when doing Accounting activities (cf. 4.3.4.2). It is also distressing that it appears as if a large number of learners are not always involved in different activities to help them think critically. (cf. 4.3.4.2). This is in contrast with the teachers' findings in the quantitative phase, as most of the teachers (58.3%) indicated that they often create class activities that create opportunities for their learners to explore alternative opinions (cf. 4.4.4.2). From the learner responses in the qualitative phase, it also appeared that some teachers work too fast and do not allow time for questioning (cf. 4.5.5.2.1) and it seemed that some learners are too scared to ask questions (cf. 4.5.5.2.1).

4.6.7. Teaching methods

Classroom conditions imply the creation of a learning environment by the teacher where learners feel safe, nurtured and intellectually stimulated and challenged (Lyke & Young, 2006; Lake, 2009) (cf. 2.5). This is achieved through the choice of teaching methods and strategies as well as teaching and learning activities through which an intellectual environment that inspires learners to explore on their own, is created (Crotty, 2002; Lake, 2009) (cf. 2.5). Different methods and techniques used to facilitate learning in the classroom can include case studies, group-based learning, cooperative learning approaches, and specific tasks designed to address communication and presentation skills (Rebele et al., 1998; Booth et al., 1999) (cf. 2.5.4).

The teachers were asked during the quantitative phase to indicate how often they use different teaching methods like lecturing, group work, discussion, role play and brainstorming, as these teaching techniques are considered appropriate for the development of the appropriate competencies in Accounting learners (cf. 2.5.5). The teachers (66.7%) indicated that they almost always and often use different teaching methods. Most of the teachers almost always and often make use of the lecturing method (58.4%), discussion method (66.6%) and the demonstration method (66.7%) (cf. 4.4.2.6). This is encouraged by Pintrich and Schunk (2002) (cf. 2.5.5) who affirm that demonstrations by the teacher ensure that learners understand the content and ensure that learning was successful. Class discussions, where learners listen to opinions of other

learners and are given opportunities to explore alternatives opinions, was mentioned by some teachers (75%) as one of the methods used (cf. 4.4.4.2). An interesting observation is that 25% of the teachers who participated in this study, did not respond at all to this question in this section (cf. 4.4.2).

The responses regarding brainstorming and role play was not so promising, as only 33.4% of the teachers indicated that they almost always and often use brainstorming as a teaching method in the Accounting classroom (cf. 4.4.2.6) and only 16.6% of the teachers almost always and often role play (cf. 4.4.2.6). Only 33.4% of the teachers also indicated that they almost always and often incorporate group work in the Accounting classroom (cf. 4.4.2.6). From the qualitative findings, it seemed that mostly teacher-centred methods are used in the Accounting classrooms (cf. 4.5.6.1), where teachers explain the new content from the textbooks by means of examples and discussions. The teachers and learners confirmed that methods like brainstorming and role play are not really used in the Accounting classrooms (cf. 4.5.6.1.4), which might indicate that teachers do not really know how to incorporate this method effectively. Group work, which is an important method that will enhance the learners' ability to work in teams, is very seldom used by the teachers in the Accounting classroom (cf. 4.5.6.1).

Pintrich and Schunk (2002) (cf. 2.5.3) investigated how effective teaching practices influence learner achievements and highlighted that clear explanations and demonstrations ensure that learners understand the content better. An educational environment favourable to more positive learning of Accounting, is where teaching methods are more learner-centred which encourages meaningful learning and feedback (Sharma, 2010) (cf. 2.5.3).

In order to teach and assess the practical application of skills in Accounting, Pickford and Brown (2006) note that it is important to give learners opportunities to practise them. This requires teaching methods that promote active involvement of learners in their learning (Fortin & Legault, 2010) (cf. 2.5.1). They added that active learning can be achieved through case-study analysis, individual and group projects, problem-based presentations, problem-solving and real-life scenarios, role play, discussions and simulations. These

approaches require learners to be actively involved in the learning process through group discussion and self-expression (Ballantine & Larres, 2007; Farrell & Farrell, 2008).

According to (Ramsden, 1992, p. 100) (cf. 2.5.3), “Good teaching fosters a sense of student control over learning and interest in the subject matter and good teachers create learning tasks appropriate to the learner’s level of understanding”. Good teachers also recognise the uniqueness of individual learners and do not treat all learners as if they are exactly the same. The quantitative findings indicated that many teachers (83.3%) feel that they allow learners to take control of their learning by expecting them to solve the problems on their own (cf. 4.4.2.4) and 75% of the teachers (almost always and often) expect learners to motivate their answers (cf.4.4.2.4). Most of the teachers (75%) showed consistency on how they (almost always and often) treat all learners in the same way (cf. 4.4.2.3) and the majority of the teachers (75%) indicated that they are patient with learners who struggle in the classroom (cf. 4.4.2.5).

From the qualitative findings, it seemed that teachers do expect from learners to solve problems and difficult examples on their own (cf. 4.5.2.4) and motivate their answers (cf. 4.5.6.1). A few learners asserted that their teachers are patient with them and expect them to keep on trying even if it takes time (cf.4.5.2.4). However, a few of the learners did not experience consistency, as they felt that the teacher do not treat learners the same (cf.4.5.4.1.2).

According to Wentzel and Brophy (2014) (2.5.5), teachers believe that when you teach the right things the right way, motivation will come naturally, however there are usually not a large number of learners intrinsically enthusiastic about their learning and therefore most of them require some form of motivation to perform better. Through their enthusiastic presentation of alternative ideas, concepts, and support, teachers can serve as powerful motivators for critical thinking (Collins & Mangieri, 2004) (cf. 2.5.2). During the interviews most of the teachers felt that they are enthusiastic about teaching Accounting and believed that they can create positive learning environments through their choice of teaching methods and strategies for learners to achieve learning outcomes (cf.4.5.6.1).

4.7 Conclusion

The quantitative and qualitative findings, as well as the discussion and interpretation thereof were presented in this chapter. In analysing the findings obtained through the questionnaires, I was able to identify themes which could be supported by the literature study in Chapter 2. Further explanation of the qualitative results was provided by excerpts from the transcriptions of the semi-structured interviews and notes of the observations done. During the mixing of the findings, a clearer picture of the opinions of teachers and learners regarding different aspects related to positive classroom conditions in the Accounting classroom for successful learning emerged.

Using the findings and discussion in this chapter, the following chapter will discuss the development of a model that could possibly support the creation of more positive classroom conditions in the Accounting classroom for successful learning.

CHAPTER FIVE

A MODEL TOWARDS CREATING POSITIVE ACCOUNTING CLASSROOM CONDITIONS THAT SUPPORT SUCCESSFUL LEARNING AT SCHOOL

5.1 Introduction

The literature review and empirical study have revealed that successful learning in the accounting classroom is dependent on several factors, but most importantly is the positive engagement of the learner with the environment in which the learning takes place. One of the objectives of this study was to develop a model for teachers towards creating positive accounting classroom conditions that support successful learning at school. However, before the specific model is explained it is important to conceptualise the meaning and implication of a model. thereafter, the model created for this study, as influenced by the literature review and the empirical study, will be presented.

5.2 The concept “model”

A model can be seen as a simplified representation or description of something that exists or could exist (Gibbons, Boling, & Smith, 2014). Furthermore, Mouton, Marais and Rhoodie (1990) add that a model usually attempts to represent the dynamics of a phenomenon in that it provides a basic indication of relations between the main elements in a process. According to Mouton et al. (1990), Wessels (2007) and Nojaja (2009), the definition of a model depends partially on the purpose of the model. This can include to simplify visual relationships, to accommodate general comparisons, to show the influence of collected data or to be a constructive device in search of a theory. Models may be distinguished in terms of their contents, which can contain maps, graphs or scaled representations of real-world simulations. However, Smith (2008) suggests that a primary goal of models should be to specify processes rather than principles. The term “conceptual framework” or theoretical model is also commonly used in research (Rucker, 2017). Both refer to the key theories, models and ideas that exist in relation to a chosen topic. A good theoretical model should link the research questions with theories and concepts that were discussed in the literature review as well as with the findings of the empirical study (Rucker, 2017).

In this chapter, I will discuss the Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model (cf. 5.8) which I have designed. The purpose of this model is to simplify the visual relationships between certain key principles, knowledge and skills of the subject Accounting (cf.4.3.3) with the classroom environment and also show the relationships with successful academic outcomes. Furthermore, the model will incorporate the influence of the factors in the classroom environment as identified by the literature review and findings of the empirical study, as well as using the theory of positive education as basis for academic achievement and successful learning in the Accounting classroom. The PACCSL model (cf. 5.8) contains figures that represent the input, environment and output elements that influence successful learning in the Accounting classroom. However, the primary goal of the PACCSL model (cf. 5.8) is to specify a specific educational process that will lead to successful learning in the Accounting classroom. The PACCSL model (cf. 5.8) can be seen as a combination of a conceptual framework and a theoretical model, as it includes some of the key theories of teaching and learning (cf.2.3.2), educational processes and ideas that exist in relation to successful learning.

In the designing of models, there are certain advantages and disadvantages which will subsequently be discussed.

5.3 Advantages of models

Adapted from Wessels (2007), Nojaja (2009) and Bong (1996) I have identified certain advantages for using a model to compact the findings of my literature review and empirical study in a visual exposition in order to attain my aim of providing suggestions for creating positive learning conditions in the Accounting classroom:

- The simplicity for presenting the findings of my study which fully incorporates factors specified for creating positive learning conditions in the Accounting classroom.
- The model as a whole can be tested and revised easily.
- Research results can be presented in text-form within a specific framework.
- The significance of the research results can be presented and evaluated within a specific framework.
- The gap that exists between the empirical study and the theory can be limited.

- The problem that has been researched can be presented in a condensed and summarised form.

Although the model assisted me to better understand the processes and findings I also experienced some disadvantages to the use of a model.

5.4 Disadvantages of models

I acknowledge the following possible disadvantages of a model as identified by Wessels (2007), Moloi (2010) and Bong (1996):

- Models capture potential interactions among variables that belong to separate dimensions in a limited manner. For example, effects of goal setting on specific aspects of certain constructs can be neglected in a model that represents only a single dimension which in this instance is creating positive learning conditions for successful learning in the Accounting classroom.
- In reducing a complex process to a one-dimensional representation, information can be lost, for example not addressing all the aspects of well-being in my model
- The utility of models depends on the user's own understanding of reality.
- Models can only represent reality and should not be confused with reality.
- You cannot expect to receive feedback in some models.

To counteract the possible limited understanding of the visual representation of the model I added a description and explanation of all the features in an attempt to provide a more in-depth insight.

5.5 Model design

To build a good quality theoretical model, I followed the next strategies as suggested by Rucker (2017):

- I looked at the research title and research problem which formed the basis for the study and the theory I wanted to present.
- I thought carefully about which variables are key to the research and needed to be grouped according to their dependent or independent status.

- I conducted a comprehensive literature review to ensure my model is novel and truly contributes to my field of study.
- In the course of my reading, I identified theories (cf. 2.3.2) which I thought best describe the link between different variables found in my research project. In this instance the theory of positive education (cf. 2.4.3) stood out as the foundational theory to be used for my study and model.
- I attempted to discuss the predictions of this theory (e.g. how it explains human behaviour) to make a clear connection to my research.

There are various ways to build models. However, I used the following steps recommended by Wessels (2007) and Moloi (2010) to design my model:

Step 1: Problem identification. I did a thorough literature review and empirical study to investigate the problem I identified for my study

Step 2: Based on the findings of my literature review and empirical study I attempted to make scientific assumptions through the identification and classification of variables as well as through the determination of the inter-dependence of these variables.

Step 3: I then designed the model.

However, for the next steps, it is recommended that this model should be verified by further studies to test the full applicability of it in practice. In order to assist this, a comprehensive description of the research process used in this study, as well as how my model has been designed, are given in this thesis.

5.6 Types of models

Before I designed my model, I also explored different types of models to get an idea of both elements and best practices related to education processes and models. There are many models and processes related to education and teaching (Wilson, Blinco, & Rehak, 2004), but it needs to be noted that academic processes have their own uniqueness and its mainly influence by education as a system (Ruskov & Ruskov, 2007).

Ruskov and Ruskov (2007) mention that the following major customs of the academic processes must be acknowledged when designing a process model in education:

- Education is an active and mutual process, where various aspects regarding teaching and learning are related.
- Knowledge transferring methods, forms and techniques between teachers and learners are constantly changing (cf.4.4.2.6; cf.4.4.4)

In terms of this chapter, design process models will be used in the development of the model. Process models have graphical representations and illustrate different approaches, theoretical flows and changing practices (Bobbe, Krzywinski, & Woefel, 2016).

The development of any model will depend on the application value of that specific model. For the purpose of this study, different models related to academic success and classroom environment (cf.4.5.1.3) were explored and will be discussed next.

Examples of these models and frameworks include “An Academic Chain Operation model” (ACOM) (Ruskov & Ruskov, 2007), the “Inputs-Environments-Outcomes (I-E-O) Model” (Astin, 1993), the “Conceptual Framework for Examining Academic Success” (York & Rankin, 2015), “The 3-P Model of Learning” (Biggs, 1989), the “PROSPER: A new Framework for Positive Education” (Noble & McGrath, 2015), the “PERMA model of well-being” (Seligman, 2011), “Optimal experience/development, self-regulated growth” (Knoop, 2012) and, the “High Performance Learning framework” (Eyre, 2016).

5.6.1 An Academic Chain Operation model (ACOM) (Ruskov & Ruskov, 2007)

This model is based on the assumption that the processes within educational development activities should include all the main educational processes, namely: planning, designing, managing, and support. An Academic Chain Operation model (ACOM) is a process model that can be used as a tool for academic process control. ACOM enables users to address, improve, and communicate academic practices within and between all interested stakeholders (Ruskov & Ruskov, 2007). Furthermore, this model enables academic organisations to effectively gain knowledge about the processes in their academic groups.

Figure 5.1. presents a visual presentation of the ACOM model that highlights the main elements of an educational process, which indicates that they need to plan, design, manage and support throughout the process.

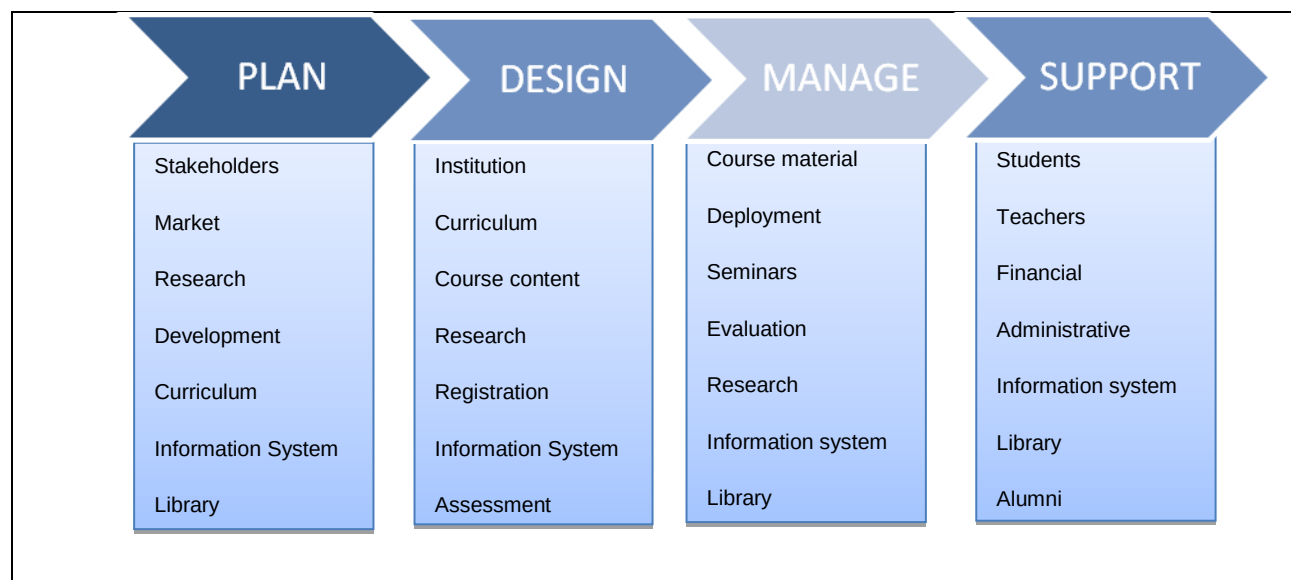


Figure 5.1: An academic chain operation model (ACOM) (Ruskov & Ruskov)

The Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model (cf. 5.8) that I present in this chapter is also a process model and is based on the main educational processes to address factors influencing classroom conditions in the Accounting classroom (cf. 2.5; cf. 4.5.2), to improve these conditions by communicating positive classroom practices (cf.4.5.4.1.1) for successful learning.

5.6.2 The Inputs-Environments-Outcomes (I-E-O) Model (Astin, 1993)

According to Astins' study, developing students' Accounting competencies (cf. 4.5.5.1; cf. 4.5.5.2, cf. 4.5.5.3) in a university needs a more comprehensive approach that includes inputs, environment/process, and outcomes. The I-E-O model was developed by Astin (1993) based on his research in higher education as an appropriate analysis framework. Inputs have been identified as personal qualities students initially bring to an educational programme, while the environment refers to students' actual experiences (cf. 4.5.3.3) during an educational programme, and outcomes comprise talents that lecturers are trying to develop in their educational programmes (Astin, 1993). The theory contends that inputs influence processes and processes, in turn, determine outputs (Slack, Chamber, &

Johnston, 2004). Figure 5.2 indicates the relationships among the three components of the I-E-O model. The model contends that outcomes in terms of student development are determined by both inputs and learning environments – at the same time inputs also influence outcomes. The model also suggests that the environment could function as a mediator. The study identified some key educational inputs that may affect the environment and the outcomes. Furthermore, Astin (1993) explains that the relationship between environment and student outcomes cannot be understood without taking into account student inputs. The I-E-O model is appropriate for analysing relationships among student engagement (cf. 4.3.2.2; cf. 4.5.2.5). Figure 5.2. presents a visual presentation of the I-E-O model.



Figure 5.2: I-E-O Model (Astin, 1993)

Several researchers have employed the I-E-O model. Kelly (1996) tried to identify relationships between inputs, environment, and student persistence (cf. 4.5.5.3; cf.4.6.6.2). The study found the relationship between input and environment to be statistically significant. Likewise, the relationship between environment and student persistence was also found to be substantial. However, other research using the I-E-O model provides a different result. Norwani (2005) conducted a study to identify relationships among inputs, environment, and learning outcomes in terms of students' grades and competency development. She found that the biggest predictor of student grades was student inputs (cf. 4.5.1.2), while competency development was mainly influenced by environment factors (cf.4.6.4). Furthermore, Thurmond, Wambach and Connors (2002) employed the I-E-O model to examine the relationships between student satisfaction, environments, and student characteristics. The results show that student satisfaction was influenced by the

environment. Consequently, it seems that a student, as the most important input, will be transformed into an output through a transformation process (environment).

Astin's (1993) I-E-O model will serve as the theoretical framework for this study. According to The Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model, successful learning outcomes will be viewed as functions of three sets of elements: (1) inputs, goal-setting (cf. 4.5.1.2), content knowledge and skills of Accounting (cf.4.5.5.1; cf. 4.3.2.4) and the basic principles and rules of Accounting; (2) environment, factors influencing learning, classroom conditions (cf., learning activities (cf.4.5.5.4), effective teaching and learning strategies (cf.4.5.6) and relationships and experiences (cf.4.5.3.3) that learners encounter in the classroom; and (3) outcomes, learners academic achievement and success in Accounting.

5.6.3 Conceptual Framework for Examining Academic Success (York & Rankin, 2015)

The I-E-O model also served as a theoretical framework for the conceptual framework of York and Rankin (2015) as they asserted it provided them with a way to clearly identify academic success as an outcome and, therein, create a focused definition of academic success influenced by aspects more accurately defined as inputs or environment. An initial conceptual framework (Figure 5.3), based on Astin's I-E-O model (1993) and York and Rankin's (2015) preliminary review of higher education literature, is included here to demonstrate the changes that occurred as York and Rankin's study was being conducted. This initial framework of academic success is comprised of academic achievement; acquisition of knowledge, skills, and competencies (cf.4.5.5.1); and, persistence (cf. 4.5.5.3) and retention. Student learning is included to capture outcomes related to specific institution or programme learning outcomes, including cognitive and affective skills (cf. 4.5.5.1). Finally, persistence and retention are included as a measure of students' academic progress (York & Rankin, 2015).

A visual graph of this model is presented in figure 5.3.

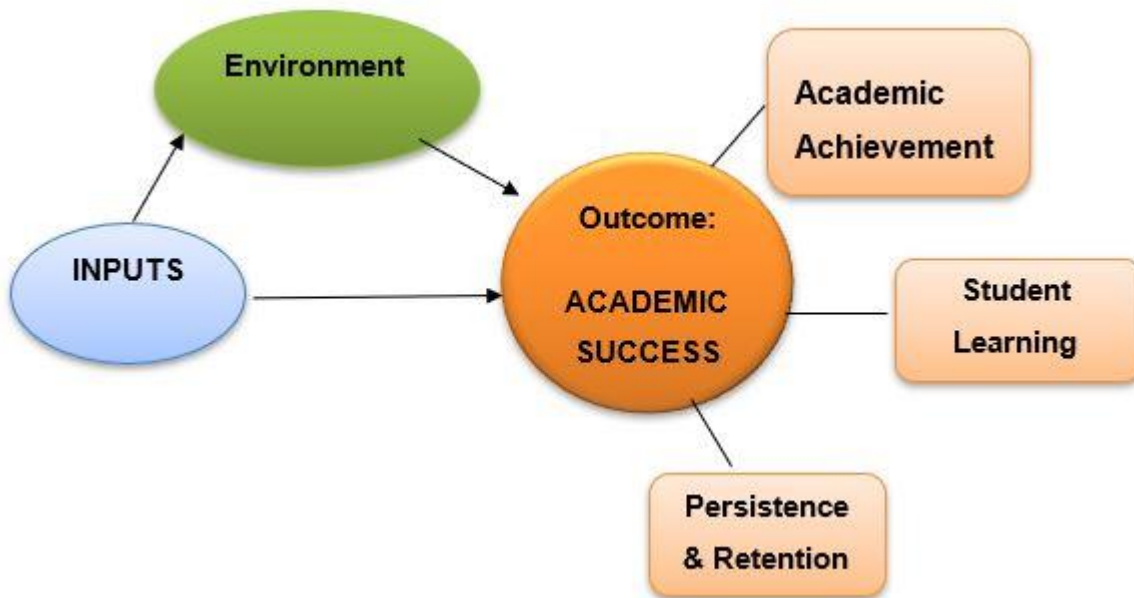


Figure 5.3: Conceptual framework for examining academic success (York & Rankin, 2015)

However, Kuh, Kinzie, Buckley, Bridges and Hayek's (2006) definition of academic success includes seven parts, namely academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence (cf.4.5.5.1; cf. 4.5.5.3), attainment of learning outcomes, and post-university performance. It is with this critique in mind that York, Gibson and Rankin (2015) presented an amended definition and conceptual model of academic success (Figure 5.4). Based on their findings, they define academic success as inclusive of academic achievement, attainment of learning objectives, acquisition of desired skills and competencies, satisfaction, persistence, and post-college performance.

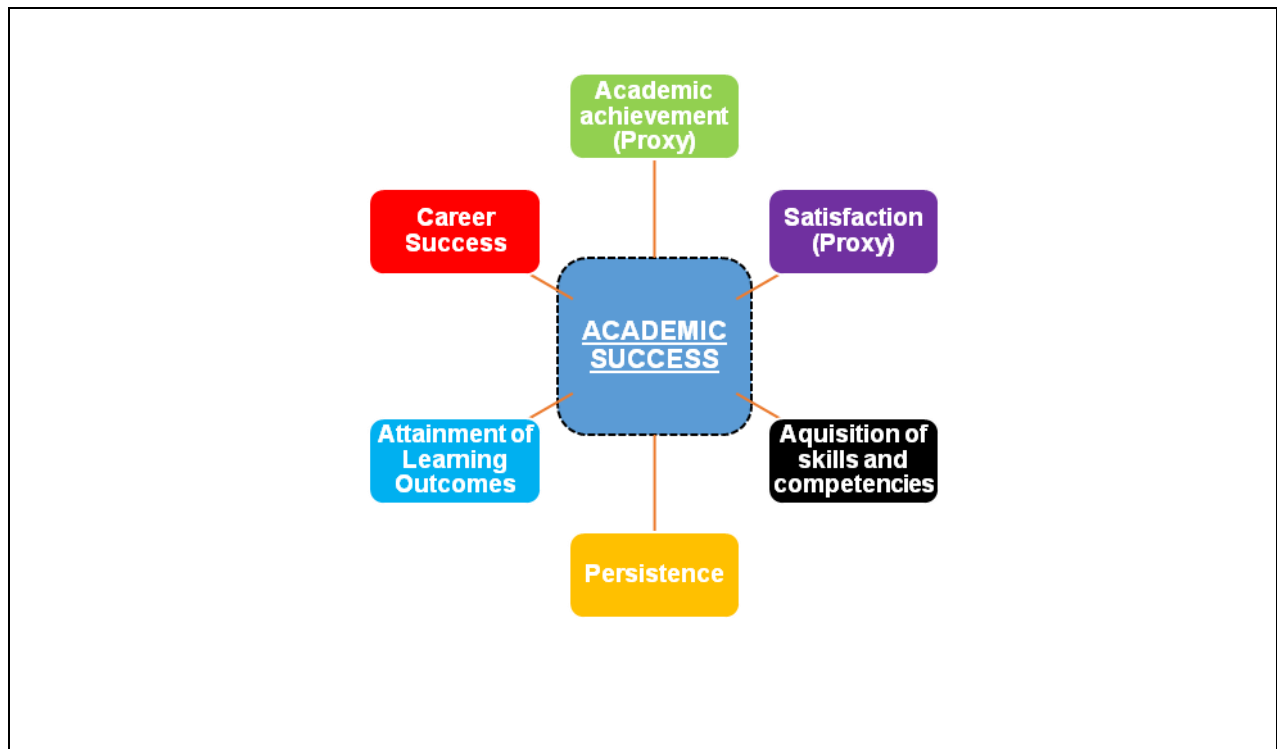


Figure 5.4: Revised conceptual model of academic success (York, Gibson, & Rankin, 2015)

In the development of the PACCSL model (cf. 5.8), successful learning in Accounting is the main focus or outcome and I had to consider the factors that influence successful learning (cf. 2.4.2; cf.4.5.2). Some of these factors that might have an impact on the PACCSL model can include psychological and physiological factors, the classroom conditions and considering positive education as an approach for successful learning (cf. 2.4.3; cf.4.6.4).

5.6.4 The 3-P Model of Learning (Biggs, 1989)

Biggs (1967) described a design process model as a set of procedures for the design of instruction, comprising the process described in an orderly series of steps based on research findings. His focus was clearly on process and also introduced the idea that teachers should play a central role in instruction.

Biggs (1989) proposes the 3-P Model of Learning that consists of three main elements, i.e. presage, process, and product. Presage refers to learner context and teaching context, process is the interaction between learner and teaching (cf. 4.4.3.1; cf.4.5.2.5) context that is measured by approaches to learning, and product is the desirable learning outcomes. This model is similar to the I-E-O model, since presage is associated with both process and

product. Process (approach to learning), in turn, has an association with product (Gibbons et al., 2014). Biggs (1989) contends that learner context (presage) consists of four main dimensions, namely: abilities, prior knowledge and pre-entry biases, preferred ways of learning (cf.4.3.4.2), values, expectations (cf.4.5.2.4), motivation (cf.4.3.2.1; cf. 4.5.2.1). Furthermore, the process focuses on the approaches to learning and the product, which is also seen as the learning outcomes, highlight deep, independent learning and critical thinking. Figure 5.5 provides a visual presentation of the 3-P Model of Learning.

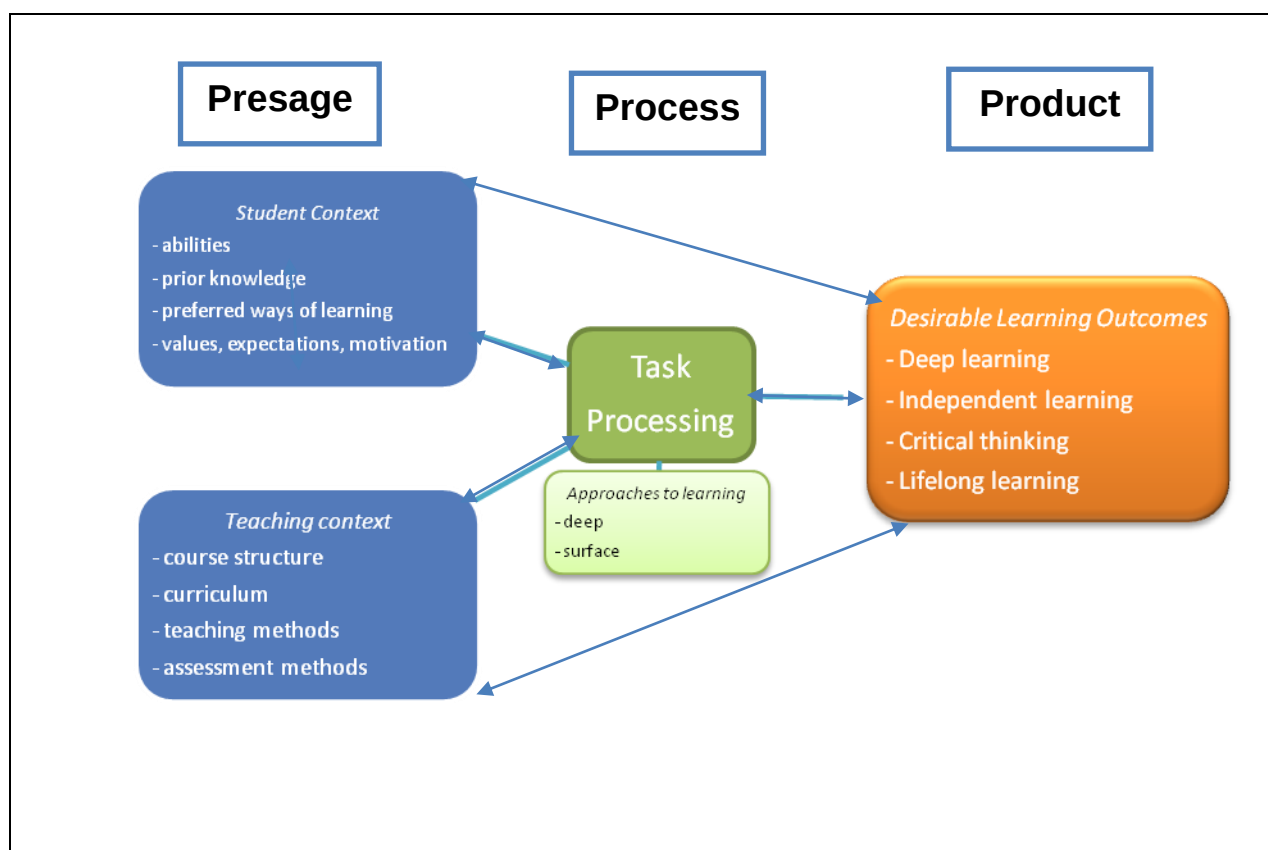


Figure 5.5: The 3-P Model of Learning (Biggs, 1989)

The 3-P Model of Biggs, focussing on presage, process and product, has been considered in the development of the PACCSL model (cf. 5.8) because it also focuses on learners' abilities, knowledge and expectations (presage), the teaching and learning approaches and activities in the classroom (process), and lastly the main focus is on the achievement of desirable learning outcomes (product) in Accounting. In the process of designing the model, the factors and the classroom conditions influencing the (outcome) (cf. 4.3.1; cf. 4.5.1), successful learning in Accounting (cf. 4.5.1.3), have been considered.

5.6.5 The PERMA model of well-being (Seligman, 2011)

Positive education in schools is recognised by learners who experience mainly high levels of subjective well-being in the form of positive emotions and attitudes (cf. 4.5.4.2.1; cf.4.5.3.1) towards school (Borkar, 2016). In 2011, the leading positive psychologist Martin Seligman proposed the PERMA well-being model, identifying five essential elements of well-being: *positive emotions, engagement, relationships, meaning, and accomplishment* (cf. 2.4.3). The model indicates the link between positive emotions and learning and shows how humans react to positive emotions in ways that broaden their capacity to learn and consequently tend to learn more. A graphical display of the PERMA model is given in figure 5.6.

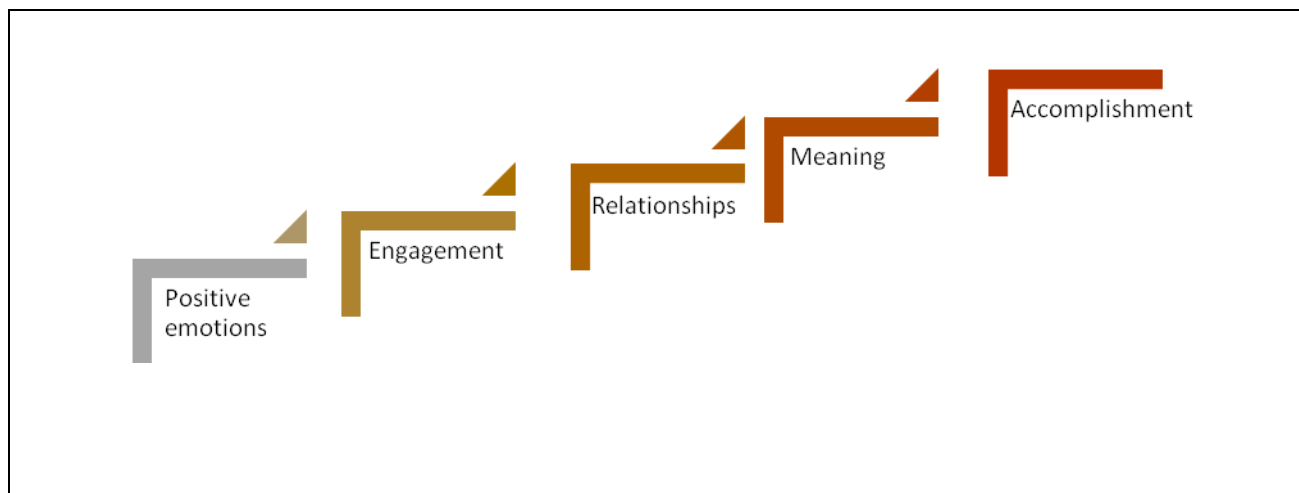


Figure 5.6: The PERMA model of well-being (Seligman, 2011)

I believe that meaningful relationships in the Accounting classroom can have a positive impact on learners working towards goals and to help them achieve these goals. These aspects of positive feelings and relationships in the classrooms (cf.4.5.2.5.1) can most probably support Accounting learners to experience success and can have an impact on the successful implementation of the PACCSL model (cf. 5.8)

5.6.6 PROSPER: A new Framework for Positive Education (Noble & McGrath, 2015)

The goal of positive psychology is to provide the conditions and processes that contribute to the flourishing of people (Gable & Haidt, 2005). Noble and McGrath (2015) believes that

the PROSPER framework used for positive psychological interventions can help people, groups, organisations or communities to achieve their goals. The term ‘to prosper’ is defined as to thrive and succeed in a healthy way, i.e. to flourish (Noble & McGrath, 2015). The word ‘PROSPER’ communicates the purpose of the framework and highlights the seven key elements that have been identified as contributing to well-being: Positivity, Relationships, Outcomes, Strengths, Purpose, Engagement, and Resilience. PROSPER within a school context incorporates school practices that have the potential to enhance learner well-being and achievement (Noble & McGrath, 2015). The positivity principle of this framework was incorporated in the PACCSL model.

Figure 5.7 gives a visual scenario of the PROSPER model.

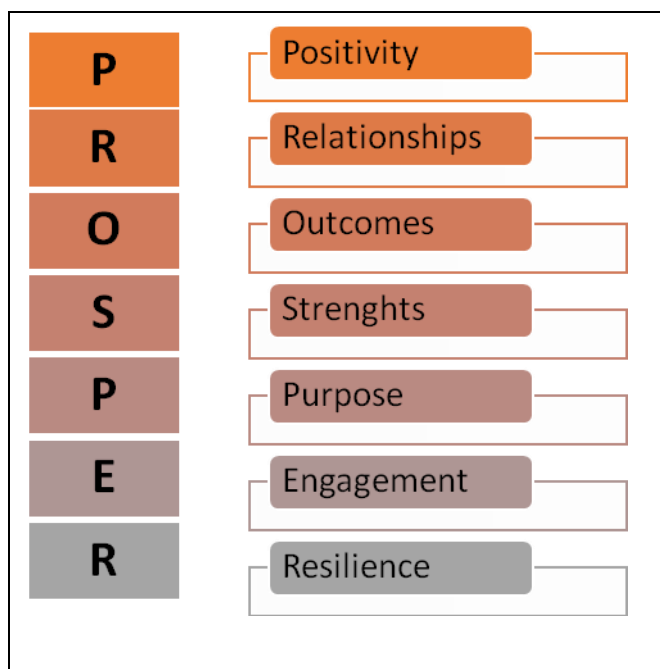


Figure 5.7: PROSPER: A New Framework for Positive Education (Noble & McGrath, 2015)

In the PACCSL model, the main focus is on creating “positive” classroom conditions for successful learning. Some of the positive classroom conditions that the PACCSL model (cf. 5.8) will highlight include, positive relationships (cf. 4.5.2.5.1) between teacher and learner, positive attitudes/feelings (cf. 4.5.4.1.1), positive emotions and persistence. I believe that positive classroom conditions can help learners to achieve more success in Accounting when they feel confident and positive (cf.4.5.3.1) that they can achieve the goals.

5.6.7 Optimal experience/development, self-regulated growth (Knoop, 2012)

How well-being, learning, creativity, and performance is related in a person and how the conditions in the environment affect the person, enables human flourishing (Knoop, 2009, 2011). Furthermore, the academic rationale is to apply the most fundamental categories of well-being to schools by educating teachers in understanding and applying them (Knoop, 2009, 2011).

The model of Knoop (2012) illustrates how the basic motivation for self-regulated growth and self-regulated balancing are foundational processes for all forms of well-being, as well as for learning and creative processes.

Basic motivation supports the employment of individual strengths, which may be understood as genetic dispositions, personality traits and behavioural preferences. Importantly, every component in the model can be promoted and inhibited by the individual as well as by the perspectives (Knoop, 2012). Figure 5.8 represents the graph of optimal development and how different activities and factors can influence the path of self-regulated growth.

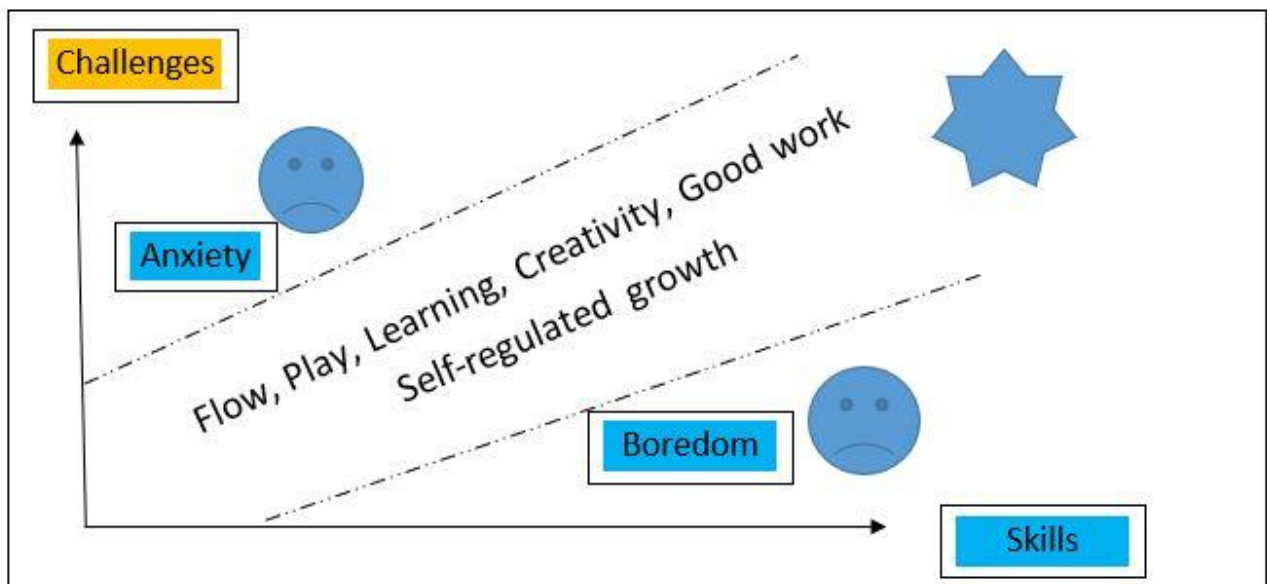


Figure 5.8: Optimal experience/development, self-regulated growth (Knoop, 2012)

The model of Knoop (2012) illustrates how the basic motivation for self-regulated growth and self-regulated balancing are foundational processes for all forms of well-being, and for

learning processes and creative processes. The basic motivation supports the employment of individual strengths, this may be understood as genetic dispositions, personality traits and behavioural preferences. Importantly, every component in the model can be promoted and inhibited by the individual as well as by the environment, thus providing an argument for combining psychological and sociological perspectives (Knoop, 2012).

In the Accounting classroom there are many challenges and some learners do experience anxiety in the classroom (cf. 4.3.3.1). To reduce the negative feelings, the PACCSL model (cf. 5.8) attempted to develop a process or path to successful learning through positive classroom conditions. This is important as the literature review and empirical findings have demonstrated that motivation (cf. 2.5.5.1; cf.4.3.2.1.), support (cf. 4.3.2.2, 4.6.4.2) and persistence (cf.2.5.2; cf. 4.6.6.2) play an important role in the learning process and are therefore integrated in the PACCSL model (cf. 5.8).

5.6.8 The High Performance Learning Framework (Eyre, 2016)

The High Performance Learning theory (Eyre, 2016) suggests that most learners are capable of achieving high levels of academic performance and that it is the role of a school to help learners make this a reality. Accompanied by hard work, the delivery of success is dependent on a carefully structured process and the best way to predict success is to create it (Whyte, 2015).

The Model for High Performance focuses on advanced cognitive performance, how people achieve it and how to structure education in schools so that more learners achieve it.

In her model, Eyre (2016) highlighted the formula for success, including believing in learner potential, creating all possible learning opportunities, as well as providing motivation (cf. 4.5.2.1) and support (cf. 4.5.2.2) that will lead to high achievement. The conceptual framework includes 7 pillars of high performance, namely encouraging a mind-set shift to believing that all learners can achieve, enquiry-based learning as a strategy, expertise development of teachers, practice and training, constructive feedback (cf.4.5.2.3), and engagement of parents and learners in their learning.

Figure 5.9 provides a visual presentation of the High Performance framework that



represents the formula for success and the 7 pillars of high performance.

Figure 5.9: The High Performance Learning Framework (Eyre, 2016)

These 7 pillars of high performance learning have been considered in the development of the PACCSL model (cf. 5.8) because the literature review and empirical study have shown that if a learner has a positive mind-set (cf. 2. 4.2.1), support and motivation (cf. 2.5.5 cf. 4.3.2.2, 4.6.4.2) and receives regular feedback (cf. 2.5.7; cf. 4.6.4.6) on performance, successful learning can be possible in the Accounting classroom.

All the models that have been discussed seem to have characteristics that correlate with academic success, achievement, high performance learning and positive education. In order to create positive classroom conditions that support successful learning in the Accounting classroom, the PACCSL model had to:

- identify inputs in the process;
- recognise classroom conditions (environment) factors that influence successful learning;
- identify other factors that influence successful learning, including motivation, feedback, relationships, attitudes, thinking skills and dispositions;
- present the research objective/problem in a summarised form; and
- close the gap between theory and research results.

I, therefore considered all the strengths of all the models that have been discussed in the development of a model to create positive Accounting classroom conditions that supports successful learning at school.

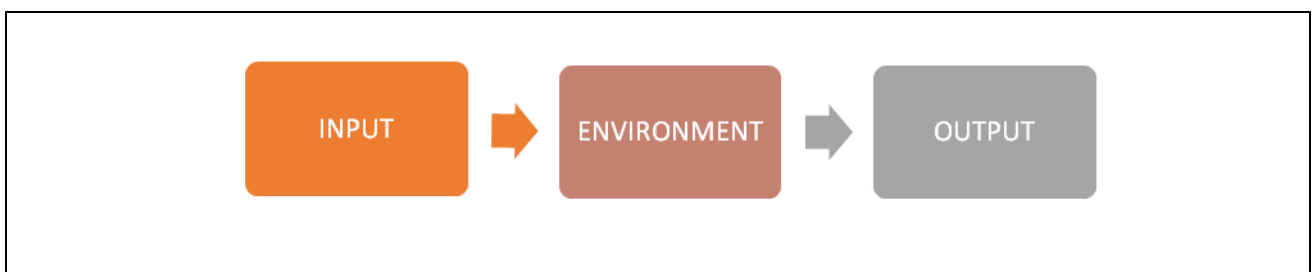
5.7 A model towards creating positive Accounting classroom conditions that support successful learning at school

5.7.1 Introduction

In this section, the designing process of the Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model (cf. 5.8) will be discussed in detail. The main purpose is to develop a model for creating positive Accounting classroom conditions that support successful learning at school. The PACCSL model (cf. 5.8) can be seen as an educational process model that consists of three phases: Input, environment and output. The process starts with the key principles, knowledge and skills of the subject Accounting (input) that relates with the classroom environment and also show the relationships with successful academic outcomes (output). Furthermore, the model will present the factors that have been identified by the empirical part of this study that could influence successful learning, positive education as an approach to successful learning and the possible factors influencing the classroom conditions that have an effect on the academic achievement and successful learning in the Accounting classroom.

The next section will discuss the development of a model and all the components involved in each of the three phases.

Figure 5.10 provides a visual presentation of the relationships in the process to successful learning in the Accounting classroom.



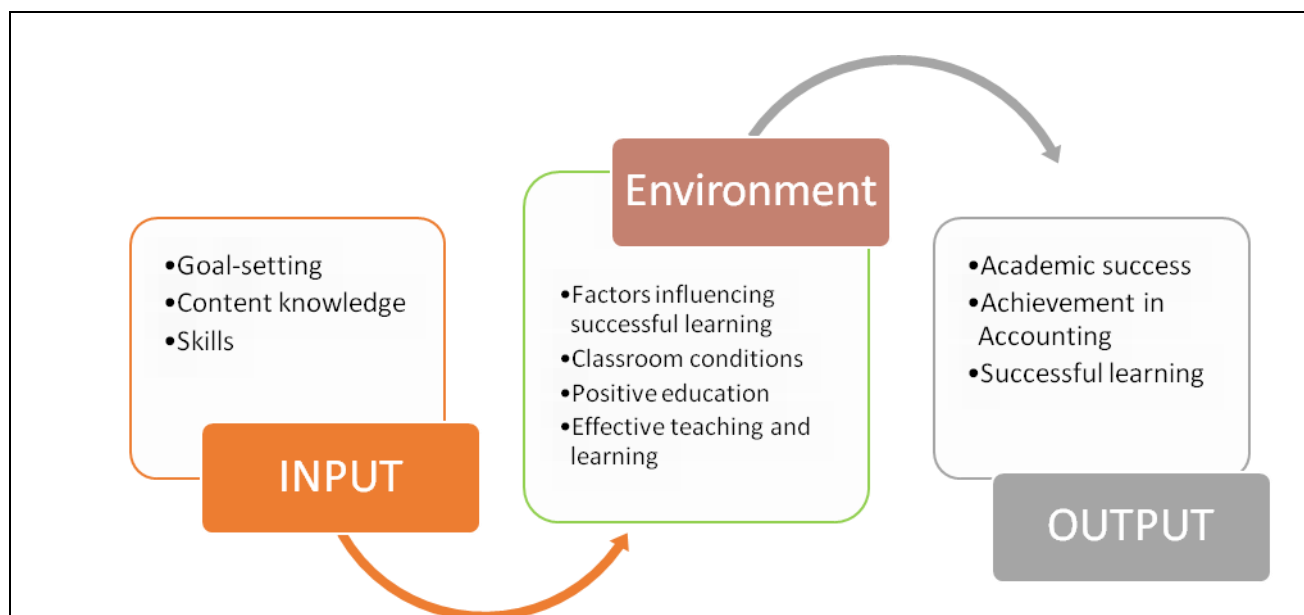


Figure 5.10: The relationships in the process to successful learning

In Figure 5.10 I tried to identify relationships between inputs, environment, and output in the process to successful learning. The relationship between the input and environment can be regarded as significant, as the basic knowledge and skills needed for Accounting and the setting of goals lay the foundation for successful learning of the subject. Likewise, is the important relationship between environment and the output, as all the factors influencing the classroom conditions could have a direct effect on the academic achievement and success in Accounting. The Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model (cf. 5.8), will represent these relationships among inputs, environment, and learning outputs. Successful learning outcomes will be viewed as functions of three sets of elements: (1) inputs, goal-setting, content knowledge and skills of Accounting and the basic principles and rules of Accounting; (2) environment, factors influencing learning, classroom conditions, learning activities, effective teaching and learning strategies and relationships and experiences that learners encounter in the classroom; and (3) outcomes, learners' academic achievement and success in Accounting.

5.7.2 Input

Figure 5.11 provides a visual presentation of the elements of the subject Accounting.

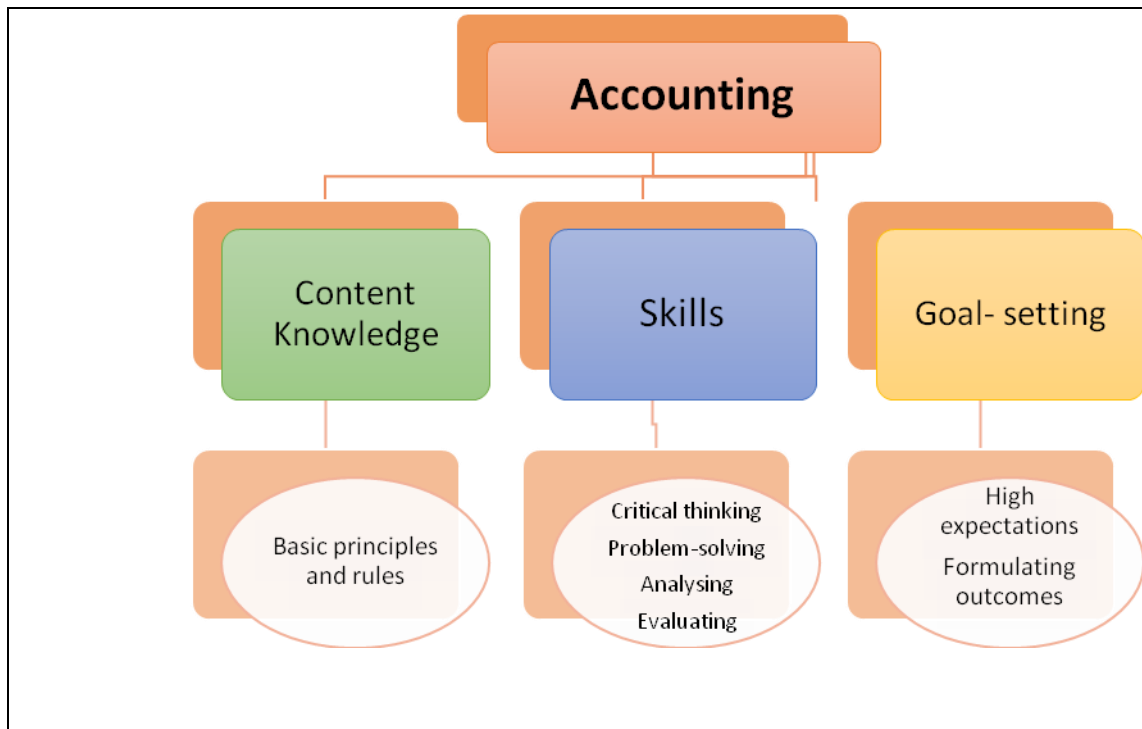


Figure 5.11: The elements of Accounting

5.7.2.1 Content knowledge

The subject Accounting is a complex and abstract field in which financial information should be taught with the goal of developing the ability to interpret basic rules and principles of Accounting (cf.2.2.1, 2.2.2; 4.6.5). For learners to understand and apply all the difficult content and calculations (cf.4.6.5), they firstly and very importantly need to know the basic rules and principles of Accounting. Teachers should therefore teach the Accounting learners these rules and principles (GAAP) (cf. 2.2.2) with the goal of developing their abilities to analyse transactions correctly and make judgements of the financial information that is linked to the International Accounting standards (IFRS) (cf. 2.2.2; 4.6.6.1).

5.7.2.2 Skills

In the subject Accounting, learners need to apply various technical skills, including being able to properly record, analyse, and interpret financial transactions and further to make judgements of financial information, when preparing financial statements and reports (cf. 2.2.2, 4.6.6.1). However, experts in the field of Accounting realised that only teaching the afore-mentioned technical skills is not sufficient to develop a successful accountant. It is also necessary to address broader based skills and competencies, which include critical thinking, oral and written communication, teamwork, ethical awareness, technological competence, decision making and independent thinking (cf. 2.2.2; 4.6.6.1). Consequently,

Accounting teachers should be educated on how to incorporate and teach these skills to the learners when applying the Accounting content in the curriculum, even though it seems, according to the empirical data, that teachers might be hesitant to teach learners complex and analytical skills in practice (cf. 4.5.5.1; 4.6.6.1).

5.7.2.3 Goal-setting

For learners to be successful in Accounting, teachers should set high standards for learners by formulating clear goals. Learners should know up front what they will learn and what they will be expected to do with what they know. According to the empirical data it was evident that some learners made an effort to set and achieve their goals according to their own ability (cf. 4.3.1.1; 4.5.1.2), but the Accounting teacher plays a key role to help learners to set and reach their goals.

Consequently, learners need the support and encouragement from teachers to keep them confident and to motivate them to push harder to succeed and reach their goals (cf. 4.5.1.2.2).

5.7.3 Environment

5.7.3.1 Factors influencing successful learning

Figure 5.12 provides a visual presentation of the factors influencing successful learning in the Accounting classroom.

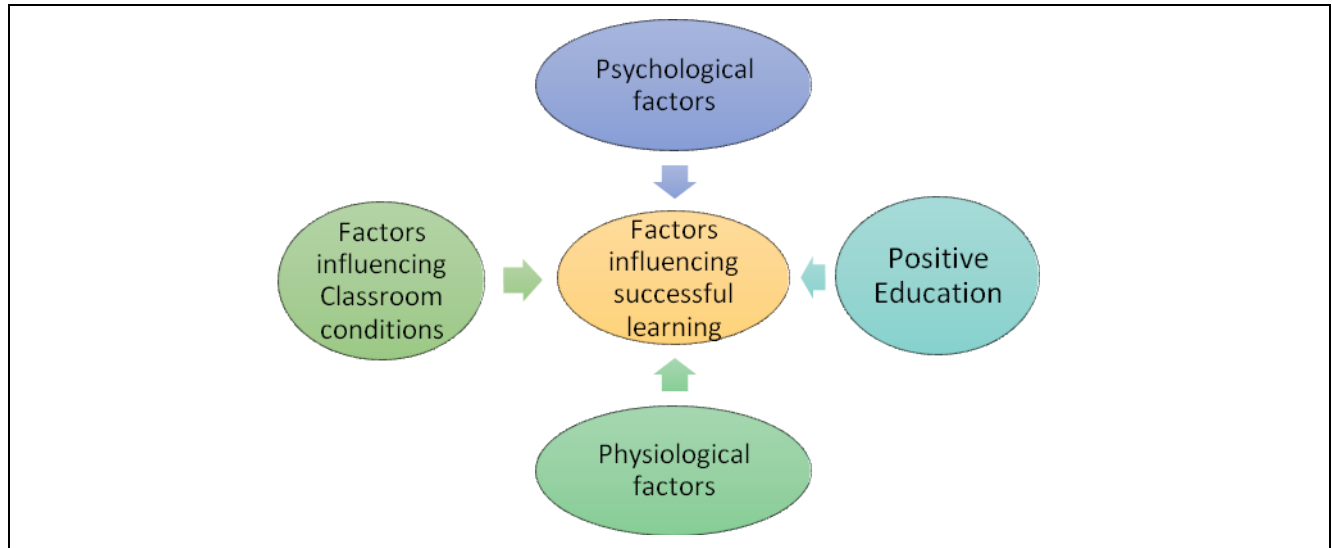


Figure 5.12: Factors influencing successful learning

To ensure successful learning in the Accounting classroom, several factors must be considered, especially the engagement of the learner with the environment (cf. 1.1), for example, a psychological connection (cf. 2.4.2.1) with the setting in which the learning takes place as well as the physiological factors (cf. 2.4.2.2). Other important factors influencing the Accounting classroom conditions for successful learning, include teachers' understanding of knowledge, critical thinking and dispositions, effective teaching and learning strategies, learning activities (cf. 4.5.5.4; 4.6.6.3), emotions, motivation, assessment and feedback also have an impact on learners' academic achievement (cf. 4.6.4). It also became clear from the study that learner well-being can enhance learning and academic performance (cf. 1.1) Therefore, the link between positive education and academic success should be emphasised in the classrooms and feelings of accomplishment and success are important to be promoted.

In the next section, these factors influencing successful learning will be discussed.

5.7.3.2 Psychological factors

Figure 5.13 provides a visual presentation of the psychological factors influencing successful learning in the Accounting classroom.

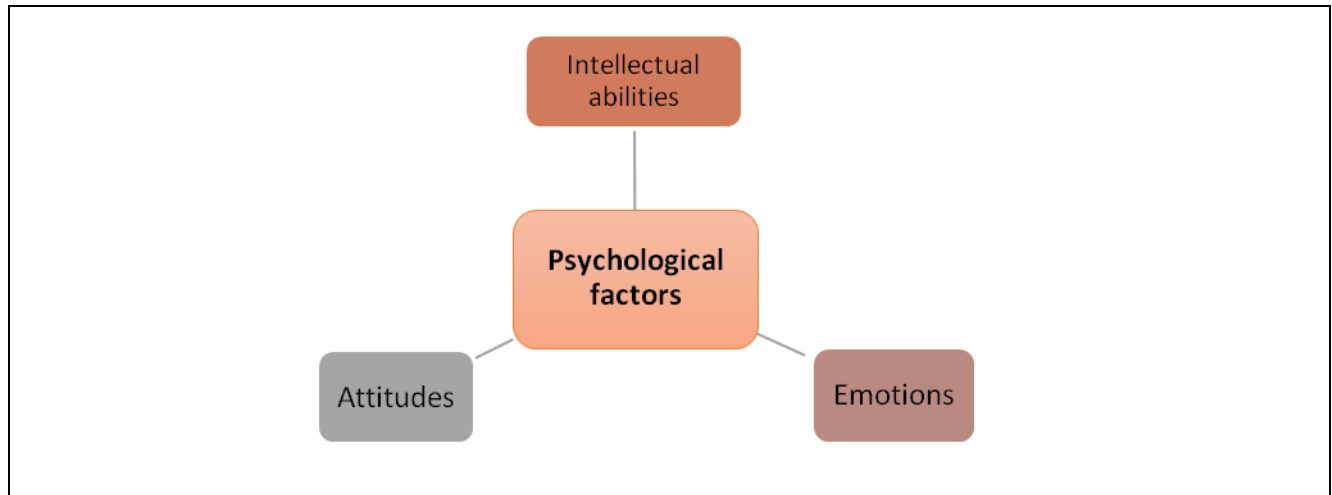


Figure 5.13: Psychological factors

When learners believe that their intellectual abilities can be developed, they are more likely to take on challenges, put in more effort, and learn from errors and setbacks. This, in turn, can lead to greater achievement (Blackwell, Trzesniewski, & Dweck, 2007) (cf. 2.4.2.1). Accounting teachers should therefore be informed and sensitive to the different learning needs of all learners in the class, each with their own intellectual abilities, and try to accommodate all learners when teaching the Accounting content.

Emotions also influence learning success (Sylwester, 1994) (cf. 2.4.2.1; 4.6.5.1). If learners, for some reason has developed a dislike for the subject Accounting, it can result in poor performance in Accounting and consequently lead to a learner dropping out. The empirical data reveals that the Accounting learners experience positive and negative emotions in the classrooms (cf. 4.5.3.1), for example, feelings of anxiety towards the subject Accounting which can hamper successful learning. Learners experience many emotions during lessons, while studying and when writing tests and examinations (Pekrun & Linnenbrink-Garcia, 2014) (cf. 2.4.2.1; cf.4.5.3.1). If they feel negative about a performance, it is likely that they will feel even less positive the next time they undertake a task, which they previously found too difficult. Although, from the empirical data, some very

positive feelings about the subject Accounting were described by the learners as an interesting and enjoyable subject and some experienced feelings of satisfaction (cf. 4.6.5.1). Such positive emotions like happiness, pleasure and comfort tend to be more resilient (Fredrickson & Tugade, 2004) (cf. 2.4.3) and when learners experience such emotions, they are more likely to function better (Fredrickson & Losada, 2005) (cf. 2.4.3; cf. 4.5.4.2.1). Accounting teachers must therefore be aware that emotions can influence how learners approach their activities, tests or exams, and must try to teach them how to engage with the tasks systematically while encouraging positive emotions. It is important for teachers to understand and to deal with the emotions experienced by learners in the Accounting classroom, as it can have a great influence on their possible outcomes of successful learning.

The effectiveness of the work done and the speed with which it is achieved are influenced by the attitude of the learner, whereas a positive attitude enables learning and also plays a role in establishing a supportive classroom environment (Dent & Harden, 2001) (cf. 2.4.2; cf. 4.5.2.2). Attitudes play a major role in the mental composition and general behaviour of the individual and therefore have an effect on the development of a personality, as well as on the willingness to progress in school (cf. 2.4.2). Accounting teachers can have a substantial impact on the learners through their interactions with learners and their attitudes towards them and the subject content (cf. 4.5.4.1). From the empirical data, some learners experienced their teacher's attitude during teaching as negative (cf. 4.5.4.1.2) which could result in learners not performing well. Accounting teachers are the primary source in the Accounting classroom that can lay the foundation to positive attitudes, by creating constructive opportunities for learners to learn. How learners respond to these opportunities will depend in a large way on the attitudes and the teaching methods and strategies that the teacher implements in the Accounting classroom.

5.7.3.3 Physiological factors

Figure 5.14 provides a visual presentation of the physiological factors influencing successful learning in the Accounting classroom.

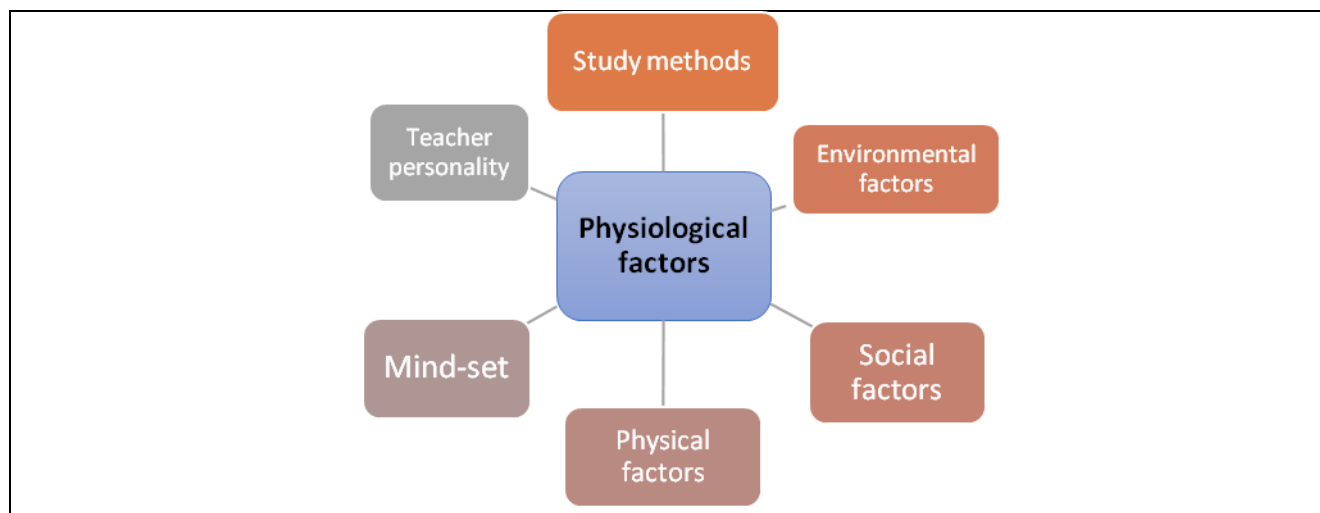


Figure 5.14: Physiological factors

Some physiological factors (cf. 2.4.2.2) influencing the environment that affect the effectiveness of learning includes, teacher personality, mind-set, social and physical factors, environmental factors and study methods (OECD, 2017) (cf. 2.4.2.2). The teacher as an individual personality is an important element in the learning environment or in the failures and success of the learner. The Accounting teacher must therefore recognise that in all his teaching activities in the classroom, he is directly affecting the behaviour of the development of the learners. Furthermore, the condition in which learning takes place, including the classroom infrastructure, textbooks, equipment, school supplies, and other instructional materials can support the learners to learn effectively. Factors such as a lack of mastery of Accounting content knowledge, poor methods of teaching and learning, and limited background knowledge of content may affect the learning process of any learner. Social factors, such as co-operation and competition, are also directly related to a complex mind-set of motivation, which is linked with successful learning (cf. 2.4.2.2; cf. 4.5.2). From the findings of the empirical data it appeared as if most of the participants viewed the Accounting environment as a meaningful learning environment, as some of the learners indicated that the teachers try to create a positive learning environment for them to achieve the learning outcomes in Accounting (cf. 4.6.3). To work through exercises in class and practice homework activities in Accounting contribute a lot to their success and play a big

role in their learning actions. Accounting teachers must help learners to understand key concepts and calculations, engage them in meaningful activities with the necessary resources, and create positive mind-sets in the Accounting classroom. When Accounting teachers are sensitive to all these factors, it can lead to success.

5.7.3.4 Positive education as an approach for successful learning

Figure 5.15 provides a visual presentation of how positive education as an approach can influence successful learning in the Accounting classroom.

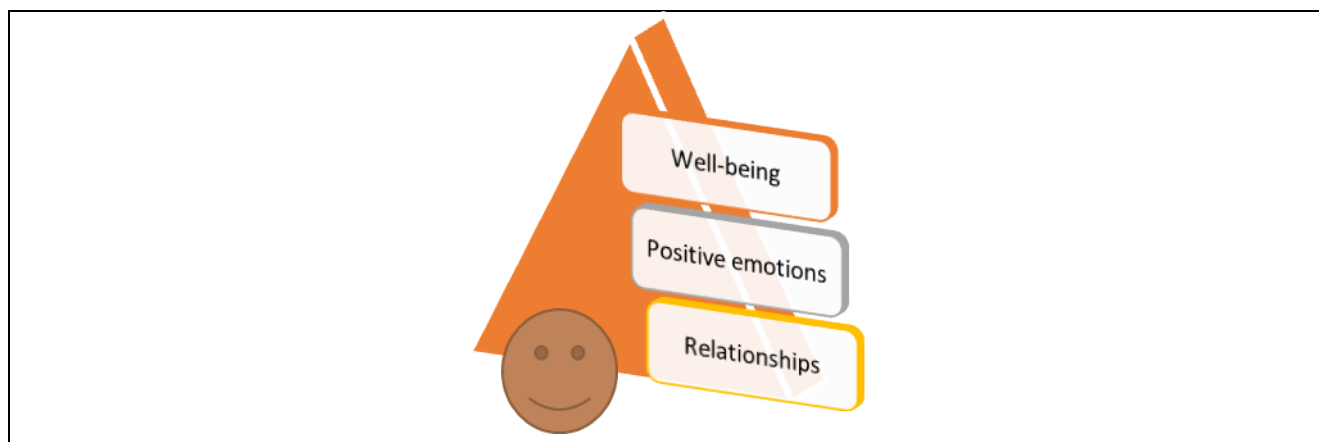
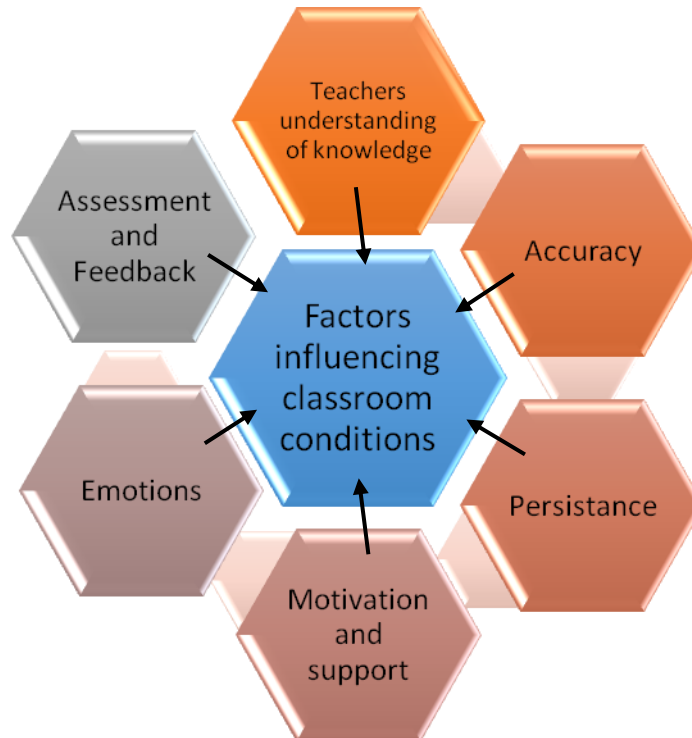


Figure 5.15: Positive education as an approach for successful learning

Learners who often experience and express positive emotions like happiness, pleasure and comfort tend to be more socially connected and more likely to perform better, meaning that they have increased feelings of empowerment, self-confidence, and self-esteem (Fredrickson & Losada, 2005) (cf. 2.4.3). Positive relationships between the Accounting teacher and learners can make a positive contribution to their sense of belonging, engagement, motivation, and achievement (Noble & McGrath, 2008) (cf. 2.4.3). The empirical data reveals that some learners experience feelings of anxiety in the Accounting classroom because they struggle to complete the activities (cf. 4.4.3.1; cf. 4.6.5.1). These kind of feelings can have a significant impact on their learning and therefore, more positive emotions should be encouraged in the classroom. It is clear from the study that learner well-being enhances learning and academic performance (Waters, 2015) (cf. 1.1). Therefore, the link between well-being and academic success should be emphasised in the Accounting classrooms and feelings of accomplishment and success should be promoted.

5.7.3.5 Factors influencing classroom conditions

Figure 5.16 provides a visual presentation of certain factors influencing classroom



conditions have an impact on successful learning in the Accounting classroom.

Figure 5.16: Factors influencing classroom conditions

For successful learning to be possible in the Accounting classroom, some significant factors such as teachers understanding knowledge, motivation, support, emotions, accuracy, persistence, assessment and feedback, that influence the outcomes, need to be the main focus in the learning environment (cf. 2.5; cf. 4.5.2.1; 4.5.2.2; 4.5.2.3). In particular, learners and teachers seem to struggle in the Accounting classroom with content knowledge and classroom practice (cf. 2.5.1). It is important that the Accounting teachers not only stay current with new teaching methodologies, but also keep track with the new and developing changes in the Accounting curriculum. For learners in Accounting to be successful in their learning and for achievement of outcomes, persistence to complete all the tasks and activities, working accurately and improving their critical thinking, analytical, and problem-solving skills, are crucial aspects to focus on (cf. 2.5.2; cf.

4.5.5.1). Accounting teachers need to encourage learners to become actively involved in subject matter by going beyond the information given, restructuring it in their own way of thinking and prior understanding. The emotions learners experience in the Accounting classroom and the way in which they assess their achievements will have a significant impact on their learning (cf. 2.5.6; cf. 4.5.3.3). To enhance the learning experiences of the Accounting learners, the emotions learners experience about the subject should be linked with motivation and it is therefore crucial for Accounting teachers to provide feedback to learners timeously and adequately (cf. 2.5.7; cf. 4.5.2.3). Feedback can work best in Accounting when criteria for success are known to the learner in advance, and where the goal to achieve success in Accounting is communicated. The classroom conditions that Accounting teachers create for their learners can have a major impact on learners experiencing failure or success.

5.7.3.6 Effective teaching and learning

Figure 5.17 provides a visual presentation of how effective teaching methods and strategies and the learning activities influence successful learning in the Accounting classroom.

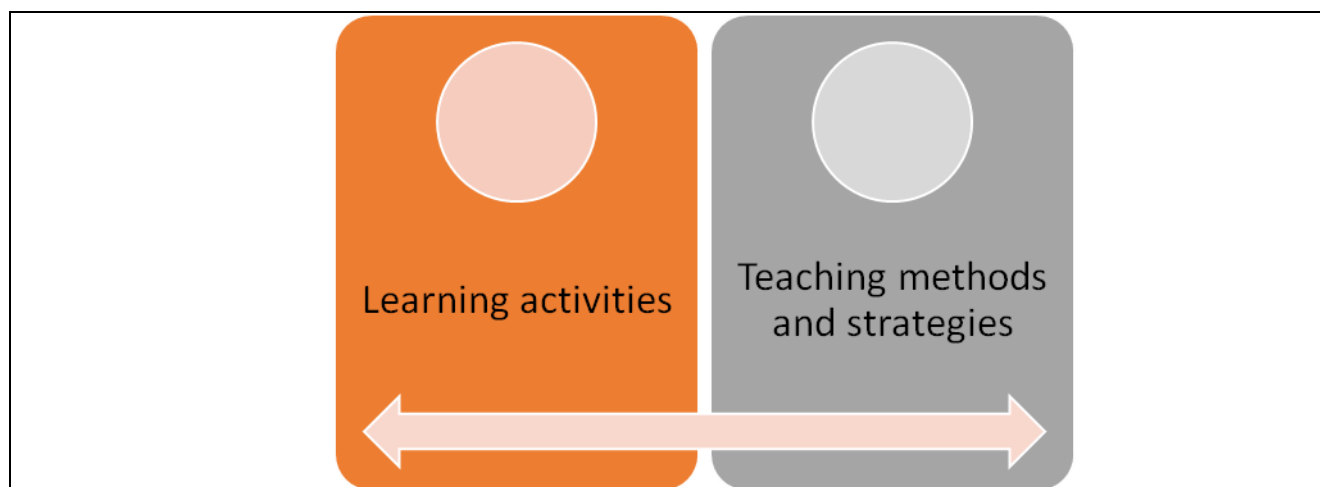


Figure 5.17: Effective teaching and learning

If the Accounting teacher comes to class well prepared and understands the content knowledge to be presented, it will ensure effective teaching. In turn effective teaching will enable Accounting teachers to introduce new methods, theories, and philosophies, which will consequently encourage learners to view Accounting as an interesting subject in which

they will want to succeed (Phillips & Graeff, 2014) (cf. 2.5.3). To help Accounting learners learn the more complex and analytical skills they need for the 21st century, Accounting teachers must learn to teach in ways that develop higher-order thinking and performance (cf. 2.5.3; cf. 4.5.5.1). Moreover, the teaching of Accounting should encourage learners to take greater responsibility for their own learning by making sure that their learners know what the goals of the lesson and the learning programme are. This requires that a wide range of teaching methods, including case studies, group work, as well as communication and critical thinking techniques need to be incorporated in the classroom (Schleifer & Dull, 2009; Booth, Lockett, & Mladenovic, 1999) (cf. 2.5.3; cf. 4.5.5.1). It is important to change learners' perceptions that studying Accounting is simply a matter of rote learning a set of rules. The learning approaches adopted by Accounting learners may be a key factor influencing the quality of their learning outcomes. In the Accounting classroom, active learning techniques including problem-solving exercises, informal small group exercises, case studies, role-playing and simulations are beneficial to learners since it creates a greater interest in the content and improves their critical thinking, analytical, and problem-solving skills needed to be successful in Accounting (cf. 2.2.2, cf. 4.5.5.1).

5.7.4 Output

Figure 5.18 provides a visual presentation of the output of the process of learning in the Accounting classroom.



Figure 5.18: The output of the process of learning in the Accounting classroom

Learners who experience success in Accounting are more likely to be motivated to learn as it is discouraging and frustrating when the pace of work is too fast, or the work is too

difficult (Walton, 2010) (cf. 2.5.3; cf. 4.5.3.1). Successful learning is also linked to learner achievement and the emphasis should be on learning from a wider perspective including the effects of the classroom experience and individual roles within (Coyle, 2013) (cf. 2.4.1.1; cf. 4.5.3.3). Success in Accounting can be seen as the achievement of positive results. Teachers, creating a positive learning environment in the Accounting classroom, might be able to provide more help to learners with their academic achievement. Academic success in Accounting will be evident when the learners show the acquisition of specific knowledge and skills demonstrated through completion of either the Grade 10, 11, or 12 Accounting curriculum. Metacognition can help Accounting learners to be academically successful and has the potential as a learning skill that can serve to improve Accounting education. Therefore, Accounting educators should encourage their learners to develop their metacognitive skills for Accounting in general, but also specifically within cognitive activities, since these are needed for academic success.

5.8 My model: The Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model

In the previous section (cf. 5.7), all the components and elements involved in the designing process of the Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model (cf. 5.8) were discussed in detail. It was important to give an overview of all the elements involved that will be part of the PACCSL model. The PACCSL model was finally designed as a summative model, consisting of all the components discussed individually. In designing the PACCSL model, all the components were considered as they were classified as elements in the process for creating positive Accounting classroom conditions that support successful learning at school.

The next section will discuss the summative PACCSL model and all the components involved in each of the three phases in the process to. Figure 5.19 gives a visual scenario of the PACCSL Model.

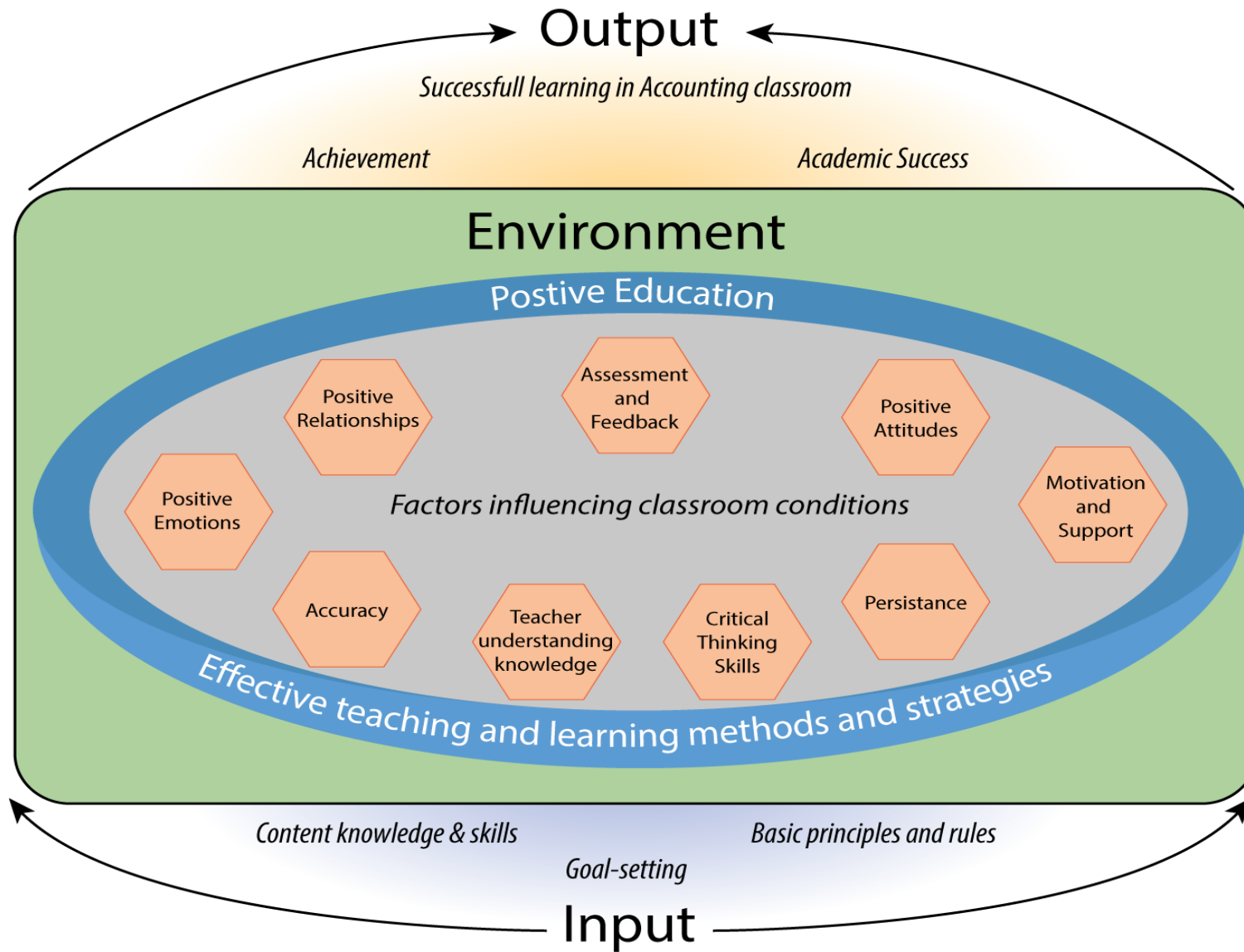


Figure 5.19: The PACCSL Model

The Positive Accounting Classroom Conditions for Successful Learning (PACCSL) model consists of three phases, namely: input, environment, output.

5.8.1 Phase 1: Input

The Accounting teacher should set clear goals for the achievement of success of the objectives of the Accounting curriculum. Firstly, it is important that learners understand the basic principles and rules related to the Accounting content. By laying this foundation from the start including having high expectations of all Accounting learners to succeed and achieve their goals (cf. 4.3.1.1) in Accounting, the learners will most probably experience positive emotions to succeed in their learning. It is essential for learners to know up front what they will learn in the specific grade (Gr 10,11 or 12), what the Accounting curriculum consists of and what will be expected from them in each Accounting lesson. This includes expectations regarding content knowledge as well as how to apply it using different skills (cf. 2.2.2, cf. 4.5.5.1). More essentially it is also important that Accounting teachers acknowledge the personal expectations that the learners have and encourage all learners to work towards achieving their own goals of achieving successful learning. The findings confirmed that creating achievable goals are important for learners prepare for tests and exams and consequently experience successful learning (cf. 4.3.1.1 and 4.5.1.2.1.).

5.8.2 Phase 2: Environment

The environment in the Accounting classroom should be covered under the umbrella of positive education, meaning that Accounting education needs to be a positive and inspiring experience. That said, all the factors influencing the classroom conditions (cf. 5.7.3.5) for learners to experience success, should be approached in a positive manner. This includes the learner attitudes towards subject content, their approaches to learning, as well as their learning activities which should be conducted with a positive attitude while experiencing positive emotions (cf. 4.4.2.6; 4.4.3.1; 4.5.2.1; 4.6.5.1). Accounting teachers should approach each lesson with a positive attitude, motivating their learners also to stay positive when working with difficult activities. The way teachers speak to learners, how they answer their questions and how they support them in the classroom with their work should all be done in a positive spirit while trying to keep themselves and the learners calm when they

experience difficulties in learning the subject. Furthermore, teachers should inspire, motivate and support learners to persist and work accurately when approaching their class activities, homework exercises, tests and exam papers. This can be done through assisting the learners with difficult calculations and showing them systematically how to approach different questions, by using different strategies, methods (cf. 4.5.6; 4.6.7) and steps. By striving to engage all the Accounting learners in the class and showing interest in their unique learning needs, the teacher can have a positive influence on the learners' success.

Furthermore, Accounting teachers must stay in touch with new content knowledge and teaching methods that may develop the learners' competencies. Continuously, evaluating learner outcomes by giving regular informal and formal assessment tasks is also essential to keep the teacher informed about how teaching methods can be adapted for better learning, as well as learner progress. As Accounting is a practical subject that needs a lot of practice, Accounting teachers should expose their learners to different assessment opportunities, including tests, assignments, homework exercises etc (cf. 4.6.6.3; 4.5.3.3.3). This will help the learners to practice a variety of questions and prepare them to answer an exam paper with confidence. Moreover, assessment can be done by asking the learners questions, monitoring their work and constantly providing corrective feedback (cf. 4.4.2.5; 4.5.2.3) to ensure that learning occurs successfully. The subject of Accounting has been developed with the purpose that learners need to acquire critical thinking, communicating, mathematical, collecting, analysing, interpreting and organising skills (cf.4.5.5.1). In order to teach and assess the practical application of such skills, it is important to provide learners with opportunities to practise these skills regularly when they engage in activities, homework, tests and exam papers (cf. 4.4.4.1; 4.5.3.3.3). Accounting teachers should also develop positive relationships (cf.4.5.2.5.1) with their learners. This will be evident when they get to know the learners and take a particular interest in their overall development and progress and treat all their learners with respect and expect the same in return. Such relationships can make a positive contribution to the Accounting learner's sense of belonging, engagement, motivation and achievement. This will then encourage learners to view Accounting as an interesting subject in which they will want to succeed.

5.8.3 Phase 3: Output

The output section of the PACCS model specifically focuses on the achievement of the learning outcomes and successful learning of Accounting by the learner. Achievement can be viewed as the competence a learner demonstrates in Accounting. This competence is the result of several intellectual and non-intellectual variables and a learner's academic success is the product of many factors. Some of these variables and factors can include, learner intellectual ability, self-confidence, persistence, attitude and hard work (Capar & Tarim, 2015) (cf. 2.5.4).

For Accounting learners to experience academic success or feelings of achievement in the subject Accounting, they need to have the basic content knowledge, be able to apply the rules and principles of Accounting and have clear set goals (cf. 4.5.1.2) to obtain good marks and succeed in Accounting, but also have to consider all the factors (cf. 5.7.3.1, cf. 5.7.3.5) influencing their environment of learning. If all the factors discussed previously (cf. 5.7.3.1, cf. 5.7.3.5) are implemented in the Accounting classroom, positive conditions can be created for successful learning. These factors can be implemented in the classroom if Accounting teachers encourage their learners to work accurately, to persist when doing activities (cf. 4.6.6.2), to show positive attitudes and emotions, motivate and support (cf. 4.5.2.1; 4.5.2.2) their learners and to build positive relationships (cf. 4.5.2.5.1) with their learners.

Successful Accounting learners will be those who positively self-regulate their learning and persist in order to achieve their goals to be successful in Accounting. Successful learning in the Accounting classroom should be measured by assessing how far the desired learning outcomes of the Accounting curriculum have been achieved using specific assessment criteria in tests and exam papers that is in line with the CAPS of the specific grade requirements. Accounting learners who experience success will more likely be motivated to learn again and consequently improve their marks. This will be evident, not only in the pass rates of Accounting, but also in the homework exercises, test and assignments that successful learning took place. It is also essential to acknowledge that reducing negative attitudes and feelings (cf. 4.5.4.1.2; 4.5.4.2.2) like anxiety, by being more supportive and

having patience with learners who struggle with difficult content (cf.4.5.3.3.4), would potentially enhance successful learning and motivate learners to become competent Accountants.

5.9 Conclusion

The purpose of developing this model was to simplify visual relationships between factors influencing successful learning in the Accounting classroom and to show the influence of collected data in an illustrative diagram. In this chapter, the focus was on defining the concept “model” and discussing the design process as well as the advantages and disadvantages of model design. Different models and frameworks of researchers were analysed and discussed, because some of their elements were important in the development and implementation of the PACCSL model. Based on some of these elements, the researcher developed a suggested model to help Accounting teachers to create more positive classroom conditions in the Accounting classroom for successful learning. All the factors and phases of the PACCSL model were discussed. The final chapter of the study will provide the main findings and recommendations.

CHAPTER SIX

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

6.1 Introduction

Accounting education has come under increasing analysis and criticism for not providing the type of entrants it is claimed will be needed for the Accounting profession of the future. Auditing education is the education system itself, and how this system succeeds or fails to provide students with the auditing knowledge and skills they need to become future auditors in the South African chartered accountancy profession (Botha, 2014) (cf. 2.2.3.). The purpose of this study was firstly to explore factors that influence classroom conditions, which impact on successful learning in the Accounting classroom. Secondly, in order to address these factors, the role of positive education as well as the attitudes and skills of teachers and learners that could create positive classroom conditions necessary for successful learning in Accounting, were investigated (cf. 1.2).

The research questions (cf. 1.3) that were formulated at the onset of the study are revisited in this chapter, in order for me to determine whether they were achieved or not. This chapter presents a summary of the findings, recommendations and limitations regarding the research questions, as well as the possible contributions this study might have.

It was important that the literature review and the data contributed to answering the primary research question on which the study was based, which assisted me in answering the research questions of the study. The chapter provides information regarding the following:

- An overview of the study
- Findings from the literature review and the empirical research
- Recommendations
- Limitations of the study
- Suggestions for further research

6.2 Overview of the study

Chapter 1 outlined the statement of the problem and the research questions of the research. The conceptual framework, research design and the structure of the research were presented. The participant selection, data collection methods and instruments and data analysis procedures were discussed. All the ethical aspects were also briefly presented.

Chapter 2 explored the theoretical frameworks of learning and the current situation in South African Accounting education. The required skills and current pass rates in Accounting was also discussed. The chapter focused on what literature states about the influence of various factors on successful learning, as well as factors that influence the classroom conditions for successful learning. Positive education as an approach for successful learning was highlighted. The literature revealed that the elements of the learning environment, which are under control of the teacher, have the potential to positively influence both the way in which learners approach their learning of Accounting and the learning outcomes they achieve in this subject. An environment conducive to more positive learning of Accounting, is where teaching methods are more learner-centred, consisting of a positive relationship with learners, while encouraging positive attitudes, motivation and providing regular feedback.

Chapter 3 elaborated on the empirical research design used to investigate the research problem. The research method, research design and data collection instruments were discussed in detail and the implementation of mixed method research by means of questionnaires, interviews and observations was motivated. A sequential explanatory mixed method approach was chosen for this study as it was my intent to gain an understanding of the participants' experiences, perceptions and views about the classroom conditions that were being investigated. An integration of the findings from the quantitative and qualitative phase was done to address the research problem and answer the research questions in the best possible manner.

Chapter 4 presented the data analysis and interpretation by means of tables and detailing frequencies in the quantitative phase. In the qualitative phase different themes were

deductively identified and analysed as determined by the constructs of the quantitative phase. Categories and sub-categories were inductively ascertained. Thereafter the findings of both phases were interpreted and discussed in an integrated manner.

In Chapter 5, I discussed different types of models and developed a suggested model to create positive classroom conditions for successful learning in the Accounting classroom. The development of the PACCSL model was discussed in detail.

6.3 Findings from the literature and empirical study

The overall research question of this study was to determine how positive Accounting classroom conditions can be created for learners to experience successful learning. This study aimed to obtain information to answer the research questions identified at the onset of the study (cf. 1.2; cf. 1.3). I attempted to revisit the research questions of the study in order to ascertain whether they have been answered.

6.3.1 Research question 1: What does the teaching and learning of Accounting entail?

The subject Accounting deals with the logical, systematic and accurate selection and recording of financial information and transactions, as well as the compilation, analysis, interpretation and communication of financial statements and managerial reports for use by different organisations in the world of business (DBE, 2011, p. 8-9) (cf. 2.2.1). The literature review revealed that Accounting should be taught with the goal of developing the ability to interpret rules and principles and to analyse and make judgements of financial information that is linked to the International Accounting standards (Gilberto et al., 2012) (cf. 2.2.1). Therefore, Accounting education must attempt to teach technical and cognitive skills (cf. 2.2.2). The Accounting profession requires that Accounting educators incorporate activities into the learning environment that develop life-long learning skills, analytical thinking, and the ability to work in teams (Hall et al., 2004) (cf. 2.5.4). To achieve this, Accounting education should move away from routine tasks and the memorising of principles to a more conceptual and analytical form of learning (Beattie et al., 1997; Davidson, 2002) (cf. 2.5.4). Methods and techniques used to facilitate this type of learning include case studies, group-based learning, cooperative learning approaches, and specific

tasks designed to address communication and presentation skills (Rebele et al., 1998; Booth et al., 1999) (cf. 2.5.4). These teaching techniques are considered suitable for the development of the proper competencies in Accounting learners.

Nqwenya (2014) (cf. 2.5.4) revealed that teachers viewed Accounting as a subject which requires a particular kind of practice and instruction. In Accounting, learners are frequently faced with challenging problems which they have to solve together in order to develop higher-order reasoning and problem-solving skills. Frequent exposure to Accounting scenarios and problems is important for learners to develop competence in different skills. A lot of evidence exists which indicates that metacognition can help learners be academically successful and if learners master these skills, it can improve Accounting education (Schleifer & Dull, 2009) (cf. 2.5.3). Within the context of this study, Accounting educators should encourage their learners to develop these skills specifically within cognitive activities like writing, comprehension, studying, and problem solving, since these are needed for academic success.

The findings revealed that critical thinking skills were incorporated in some Accounting classes by analysing problems, problem solving and giving opinions (cf. 4.5.5.1). Teachers giving more difficult exercises and calculations seemed to keep learners challenged (cf. 4.6.6.1). Although the teachers indicated that they use different teaching methods, most of the teachers only used the lecturing method, discussion methods, and most of the time, the demonstration method (cf. 4.5.6.1). Group work, which is an important method that will enhances learners' ability to work in teams, seem to be very seldom used by the teachers in the Accounting classroom (cf. 4.5.6.1.6). There also tends to be a dependency on the textbook method (cf. 4.5.3.3.3), which most often offers a single view or a general teaching method, giving only basic examples and exercises.

Some teachers indicated that they allow learners to take control of their learning by expecting from them to solve the problems on their own and expect learners to motivate their answers. However, learners indicated that teachers very seldom expect them to motivate their answers, which is a concern as this could give learners an opportunity to develop reasoning skills to enhance critical thinking. Most of the teachers showed

consistency in how they treat all learners the same way and some of the teachers indicated that they are patient with learners who struggle in the class (cf. 4.4.2.3). Most of the teachers indicated that they choose activities that stimulate learner's interest in Accounting and often use activities that range from easy to complex (cf. 4.4.2.1). Questioning was seen as a learning action taken by most of the learners to understand the content of Accounting better. Some of the learners reacted positively and felt comfortable asking questions in the classroom, whereas a few learners raised concerns and expressed their fear to ask questions because of the response they get from the teacher and the embarrassment. It also appeared that some teachers work too fast and do not allow time for questioning (cf. 4.6.6.3).

6.3.2 Research question 2: What is understood under positive classroom conditions?

Literature revealed that positive education is about the application of psychological knowledge that focuses on individual strengths, well-being, social relations, and leadership (Knoop, 2013) (cf. 2.4.3). Within the school community, it is essential to promote flourishing or positive mental health, helping learners to understand key ideas and concepts, engaging learners meaningfully in exploration and reflection, and learners applying the skills and mind-sets for flourishing in their learning (Norrish et al., 2013) (cf. 2.4.3).

The link between learner engagement, achievement and well-being is very important, the more learners are actively engaged and achieving in learning, the greater their sense of well-being (Noble & McGrath Noble, 2015; Zins et al., 2004) (cf. 2.4.3). An educational environment conducive to more positive learning of Accounting, is where teaching methods are more learner-centred, including a good relationship with learners, while encouraging deep learning and the generation of a personal learning context dialogue and feedback (Sharma, 2010) (cf. 2.5.3).

Positive classroom conditions in school are recognised by learners who experience mainly high levels of personal well-being in the form of positive emotions and positive attitudes towards their learning (Borkar, 2016) (cf. 2.4.3). Positive attitudes appear to have a stimulating effect upon the degree of learning and teaching and upon the progress in

school (cf. 2.4.2.1). In addition, strong meaningful social relationships can have a positive impact on learners working towards goals and to help them achieve these goals (Diener & Chan, 2011) (cf. 2.4.3).

During the research, most of the respondents who completed the questionnaire viewed the Accounting environment as a meaningful learning environment, whereas most of the learners indicated that the teachers try to create a positive learning environment for them to achieve the learning outcomes in Accounting (cf. 4.3.1.2; cf. 4.6.3). Some learners responded during the interviews by expressing strong feelings about how they experience the teachers' attitudes as positive and passionate (cf. 4.5.4.1.1). Most of the teachers showed a positive attitude towards teaching Accounting and are satisfied to be Accounting teachers (cf. 4.6.5). During the qualitative phase, positive learning conditions were characterised by the learners as a space where there is mutual respect and everyone can just be positive (cf. 4.5.1.3). Support between learners, associated with positive relationships between learners and teachers, were seen as important factors for successful learning in the Accounting classroom (cf. 4.6.4.2). In addition, positive relationships with peers and teachers help learners to experience support and acceptance, which can also contribute to more positive learning conditions (cf. 4.6.4.2). Some of the teachers also indicated that the learning environment must be an open and positive space (cf. 4.5.1.3) where learners feel motivated and happy. These positive learning conditions also include emotional aspects that affected their positive feelings towards the subject Accounting. Learners indicated that they experience emotional feelings and it makes them happy when they are satisfied with their work (cf. 4.5.3.1).

6.3.3 Research question 3: What constitutes successful learning?

Successful learning requires the execution of a range of cognitive and meta-cognitive skills and strategies (Grosser, 2007) (cf. 2.4.1). That said, successful learners are those who meta-cognitively, motivationally and behaviourally self-regulate their learning in order to achieve their academic goals of being successful (Schleifer & Dull, 2009) (cf. 2.4.1). According to Walton (2010) (cf. 2.4.1), successful learners are more likely to be motivated to learn and successful learning is also linked to learner achievement. Therefore, should the emphasis be on learning from a wider perspective, including the effects of the

classroom experience and individual roles within. It is also essential to acknowledge that reducing anxiety would potentially enhance successful learning and motivate learners to become Accounting experts (Borja, 2003) (cf. 2.5.3; cf. 4.3.3). In the literature review it is highlighted that in order for successful learning to take place in a classroom, it is essential that teachers create positive learning environments (Phillips & Graeff, 2014) (cf. 2.5.3; cf. 4.6.2) in order for learners to achieve learning outcomes optimally.

It seems from the findings that the expectations for successful learning in Accounting is not very high. Some of the learners have the expectation to become successful accountants or auditors (cf. 4.3.3.2) and some learners felt confident that they will achieve the outcomes of the subject Accounting (cf. 4.5.1.2.1). However, there were still some learners who indicated that they sometimes experience constant failure and negative feedback regarding their performances in Accounting (cf. 4.3.3). There were still some learners who indicated that they sometimes experience constant failure and negative feedback regarding their performances in Accounting (cf. 4.3.3). From the responses obtained from the quantitative data, some learners indicated that they are sometimes challenged to think critically in the Accounting classroom (cf. 4.3.1) and only a few learners felt that they are able to do Accounting successfully and are seldom well prepared for formal tests and exams (cf. 4.3.1). During the interviews, teachers raised concerns that they do not have sufficient time to finish all the curriculum content and to teach critical thinking skills (cf. 4.5.5.1.1). Teachers felt very strongly about persistence in Accounting and some teachers linked persistence with motivation and feedback. They believed that giving feedback to learners about mistakes they made and by motivating a learner to do better next time, the learners will start to persist and experience successful learning (cf. 4.5.5.3).

6.3.4 Research question 4: What kinds of positive classroom conditions are important for an Accounting classroom to ensure successful learning?

The development of skills and dispositions to think critically in Accounting (cf. 2.5.2) is relevant to creating positive classroom conditions in order for learners not to experience anxiety (cf. 2.5.6) and become motivated in selecting, as well as experiencing success in Accounting. This requires a wide range of cognitive skills, accuracy, persistence and technical skills (cf. 2.2.2). Pickford and Brown (2006) (cf. 2.5.2) note that in Accounting it is

important to teach and assess practical application skills and give learners opportunities to practise them. In this process, the responsibility for learning must be gradually shifted to the learners through practice exercises, question-and-answer dialogues and discussions that engage them in increasingly complex thought patterns (Carter & Hogan, 2013) (cf. 2.5.5). This requires teaching methods that promote active learner learning (Fortin & Legault, 2010) (cf. 2.5.1).

For learners in Accounting to be successful in their learning and for the achievement of academic outcomes, persistence to complete all the tasks and activities and working accurately are crucial aspects to focus on (cf. 2.5.2). Bookkeeping is an important element of financial reporting in Accounting and requires accuracy and precision (Jackling, 2005) (cf. 2.5.2). These two habits of mind are seen as dispositions that are skilfully and mindfully employed by successful people when confronted with problems, which is a regular occurrence in the world of Accounting (Costa & Kallick, 2009) (cf. 2.5.2). Working accurately in Accounting was asserted by many learners and teachers as very important and checking work and reading through the questions and transactions carefully was seen as the best practices for accuracy. However, continuously making mistakes by not working accurately, consequently led to learners giving up and not persisting in their homework (cf. 4.6.6.2).

In the Accounting classroom, the elements of the learning environment, which are under control of the teacher, have the potential to influence positively both the way in which learners approach their learning of Accounting and the learning outcomes they achieve in this subject (Jackling, 2005) (cf. 2.5.2). An educational environment conducive to more positive learning of Accounting, is where teaching methods are more learner-centred, including a good relationship with learners, while encouraging deep learning and creating a personal learning environment of communication and feedback (Sharma, 2010) (cf. 2.5.3). Many of the learners experienced good and positive relationships between teacher and learners in the Accounting classroom, however some learners did not experience this (cf. 4.6.4.3). Most of the learners felt safe in the Accounting classroom and some of the learners believed that teachers are seen as their mentors while relationships with teachers seem to be characterised by motivation. Having good, positive relationships between

teacher and learners, motivate learners and are important in an Accounting classroom to ensure successful learning. Therefore, Accounting teachers need to encourage learners to become actively involved in their work by going beyond the information given, restructuring it in their own way of thinking (Carter & Hogan, 2013) (cf. 2.5.5). According to Darwin (2011) (cf. 2.5.5), creating learning conditions where learners are continually motivated should be a constant goal of teachers. This includes making the lessons more meaningful, being sensitive to learners' difficulties and giving regular feedback to learners' about their progress. Research done by Anderman and Anderman (2010) (cf. 2.5.5) indicates that learner motivation is enhanced when learners have opportunities to make choices during classes and therefore teachers should provide all learners with opportunities to make choices about their learning strategies. The findings confirmed that some learners are motivated to do their homework, but it is linked to positive and constructive feedback. Teachers also emphasised that they believe motivation is a key factor to keep learners positive. They believed that if a learner is not motivated, they will be frustrated and consequently perform poorly in Accounting (cf. 4.6.4.1). The quantitative results revealed that some teachers give positive feedback and take learners' ability into account, where learners compare their tests against a memorandum and the teacher helps them to understand their mistakes (cf. 4.6.4.6). To summarise, motivating learners to work accurately in Accounting and to persist and not to give up, as well as giving corrective and constructive feedback, are critical factors to consider for successful learning in Accounting.

6.3.5 Research question 5: What model can be created to provide guidelines on how positive classroom conditions can be created for successful learning in the Accounting classroom?

Successful learning in Accounting can be seen as the achievement of positive academic results. Teachers, creating a positive learning environment in the Accounting classroom, might be able to provide more help to learners with their academic achievement. (cf. 5.7.4). Based on the literature review and the empirical findings a suggested PACCSL model was developed to provide guidelines on how positive classroom conditions can be created for successful learning. The PACCSL model consists of three phases: input, environment, and output (cf. 5.8). During the input section of the model, the content knowledge, how to apply

it using different skills and basic rules and principles of Accounting should be part of the foundation to learn as well as clear goals must be set to succeed. The environment (cf. 5.7.4) created in the Accounting classroom must consider factors influencing the classroom conditions for successful learning and positive education should be the umbrella under which these factors are considered. Effective teaching and learning methods and strategies should be used in the Accounting classroom to support the successful learning (cf. 5.7.3.6). This could eventually lead to the output which represents the successful learning in the Accounting classroom (cf. 5.7.4). This will most probably be evident when Accounting learners experience academic success and achievement in Accounting.

6.4 Recommendations

The purpose of this research was to develop a model to create positive classroom conditions for successful learning in the Accounting classroom. To realise this, a literature review was undertaken which served as the foundation for the empirical research. The findings of this research are incorporated with the following recommendations.

6.4.1 Recommendations for practice

Based on the results of the research, I believe that the following recommendation are important for creating positive learning conditions and consequent successful learning in the Accounting classroom.:

- Accounting teachers should align the teaching and learning outcomes of Accounting with what is required by the curriculum (CAPS) of Accounting, but also with what is required by Accounting professional standards (cf. 2.2.1), as this will ensure a foundation for success and learners feeling able that they can achieve the outcomes of Accounting and master the skills necessary for real-life work in practice. However, this can only happen if the classroom conditions are conducive for learning. For Accounting learners to achieve their goals, it is essential that teachers create positive learning environments as this could ensure that learners achieve successful learning (cf. 2.5.3; cf. 4.6.3). Teachers must have high expectations of their learner, by believing that they can obtain good marks and therefore they need to create adequate opportunities for learners to succeed in Accounting.

- To enable learners to acquire the content knowledge and skills needed to be successful in Accounting, effective teaching and learning methods and strategies should be utilised in the Accounting classroom. More learner-centred methods and active learning can foster deeper approaches to learning for better achievement (cf. 2.3.2.2). Active learning is goal-directed and driven by curiosity and very important for problem-solving. This can be achieved through case-study analysis, individual and group projects, problem-based presentations, problem-solving and real-life scenarios, role play, discussions and simulations. The Accounting teacher should incorporate these approaches in the classroom for learners to be actively involved in the learning process and improving their critical thinking, analytical, and problem-solving skills.
- Being competent in critical thinking skills is essential for Accountants to be skilled and effective in their work (cf. 2.5.2). Consequently, the Accounting curriculum should not only focus on the mastery of formulas and procedures, but also on an understanding of the interpretation of financial information and the broader implications of these interpretations on businesses (cf. 2.2.2). Moreover, critical thinking skills and dispositions need to be developed in the Accounting classroom, with a strong focus on accuracy and persistence. Accounting learners should persevere in problem solving, work more precisely and accurately, consider others' points of view, generate questions and explore alternatives and consequences of their actions. In addition, the Accounting teacher should on the one hand, allow learners to be on the forefront of their own learning with an opportunity to acquire analytical and critical thinking skills, while on the other hand developing a sense of control that will lead them to having a greater sense of accountability.
- A positive classroom atmosphere beneficial for successful learning should be created in the Accounting classroom. In other words, positive relationships between teacher and learners should exist and both teacher and learners should show positive attitudes towards their teaching and learning of Accounting. Such relationships and attitudes can make a positive contribution to the Accounting learner's sense of belonging, engagement, motivation and achievement.

- Emotions influence learning success (Sylwester, 1994) (cf. 2.4.2.1) and personal factors, such as emotions, are directly related to a complex psychology of motivation. A learning environment where learners experience independence should be created and the decisions that the Accounting teacher makes about this can have a great influence on learners' learning and motivation. When learners perceive that their teachers care about them as learners, positive outcomes will most probably be the result.
- The teacher as an individual personality is an important element in the learning environment or in the failure and success of the learner (cf. 2.4.2.2). The Accounting teacher should therefore lead and inspire his/her learners through the influence of his/her moral personality and example. The teacher must therefore recognise that in all the activities in the classroom, he or she is directly affecting the behaviour of every Accounting learner.
- The Accounting teacher should demonstrate clear expectations and need to ensure that learners understand the content by allowing the learners to ask questions, monitoring their work and providing corrective and constructive feedback to ensure that successful learning occurs.
- It is important that the Accounting teacher should open a discussion and ask follow-up questions when a learner gives an answer, irrespective of whether the answer is correct or not. By probing the learner to share how he arrived at the answer the teacher can also identify gaps and clear misconceptions, since it is not only about giving correct answers but also about understanding the logic behind the question.
- Continuous assessment and positive, constructive feedback in the Accounting classroom should be prominent as it will provide learners with clear direction on how to improve their learning and reduce anxiety. However, the Accounting teacher should also allow for feedback from learners as it allows them to develop communication, interpersonal and problem-solving skills that result from engaging with the feedback in

an effort to find ways to alter their unique gaps that were identified. When learners are involved in feedback it will enable them to reflect in order to improve their learning while it also assists teachers to keep track of learners' learning.

- The Department of Basic Education should create training opportunities and support to Accounting teachers to cope with difficult content knowledge and skills, to develop effective teaching methods and strategies and to be a more effective teacher. This should encourage a more positive attitude from teachers towards teaching Accounting.
- Overall, Accounting teachers could implement the PACCSL model to create more positive classroom conditions for successful learning in their Accounting classrooms.

6.4.2 Recommendations for further research

I believe that the following recommendations for further study can make further important contributions to creating positive classroom conditions and successful learning in Accounting. Further research should be done:

- to develop a strategy or strategies that will enable Accounting teachers to teach difficult content and skills from the curriculum more effectively;
- on the influence of assessment and feedback in the Accounting classroom on successful learning;
- on how to implement effective teaching methods and strategies in the Accounting classroom;
- on the importance of developing critical thinking skills and dispositions in the Accounting classroom; and
- on the effectiveness of the implementation of the suggested PACCSL model.

6.5 Possible contributions

This research could contribute towards the following:

- The extensive and in-depth explanatory mixed method research methods, which have been employed in this study, have provided a broad range of findings that could be investigated in further studies. In addition, it seems to be the first time a mixed methods research approach was used in the field of teaching and learning Accounting in South Africa which could encourage the use of this method in the same or other related fields.
- It also appears to be the first study in South Africa, where a large sample of learners in and teachers of Accounting was involved in the specific topic under investigation.

Contribution to knowledge:

- This study could make a theoretical contribution with regard to the identification of comprehensive factors that impact on learning conditions in the Accounting classroom by providing a model that could also improve the practice of successful learning in the Accounting classroom.
- The study attempted to extend the prior literature on factors influencing classroom conditions in the Accounting classroom for successful learning (e.g. Lyke & Young, 2006; Lake, 2009; Crotty, 2002; McCoy, 2011; Mcvay, Murphy, & Yoon, 2008) by proposing that the setting of goals and considering more positive factors influencing learning in Accounting is linked to successful learning in the Accounting classroom.

Contribution to/implications for practice:

- The study confirmed that creating positive classroom conditions in the Accounting classrooms could inspire learners to persist and successfully achieve their goals.
- Furthermore, scientific evidence was provided to support the importance of creating more positive learning environments where positive relationships and attitudes towards the subject Accounting are practised and which in the end will contribute to motivating learners to persist and succeed in Accounting.

- The study also provided evidence that when Accounting teachers consider all the factors influencing classroom conditions in the Accounting classroom, successful learning could take place and better pass rates might be possible in the subject Accounting.
- The practical application, that was visually presented in the model, could add to more and in-depth insights into successful learning in Accounting related to: (a) more effective teaching and learning strategies; and (b) suggested factors that must be accommodated and addressed to influence successful learning in Accounting. This could be essential in order to facilitate a more positive learning approach for Accounting learners (e.g. learner attitudes towards subject content, their approaches to learning, positive attitudes and positive emotions).

6.6 Limitations

The research was conducted with Accounting teachers and learners and therefore I identified the following limitations.

The study was conducted only in the Vaal Triangle area of the Gauteng province. As a result, the findings based on this research study might be seen by some to be one-sided and not representative of the views of the majority of Accounting teachers in South Africa.

Although the response rate was high for the quantitative phase, I experienced difficulty to find more Accounting teachers to participate in the qualitative phase, as there were very limited teachers at each school teaching Accounting. Only 12 teachers completed the questionnaire and six participated in the interviews.

Some teachers failed to complete the questionnaire fully. This resulted in the number of responses in some of the analyses being inconsistent.

6.7 Conclusion

The purpose of the study was to explore factors that influence classroom conditions which impact on successful learning in the Accounting classroom. The role of positive education, as well as attitudes and skills of teachers and learners in order to create positive classroom conditions necessary for successful learning in Accounting, were investigated. The research questions have been explored through an explanatory mixed method research from which the factors influencing classroom conditions for successful learning were identified and discussed. These factors have led to the development of a model that could improve the practice of successful learning in the Accounting classroom. Findings derived from the entire research study have been highlighted and recommendations made. It is hoped that the proposed PACCSL model can provide a means through which positive classroom conditions for successful learning in the Accounting classroom can be created, and will motivate Accounting teachers and learners to improve their teaching and learning conditions to experience successful learning.

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**ADDENDUM A – Informed consent: learner
questionnaire**



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

**PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR
LEARNER QUESTIONNAIRES**

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that support successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-West University Vaal Campus (Building 11B Room 127)

CONTACT NUMBER: 0835955649

You are being invited to take part in a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study will attempt to develop a model for teachers in Accounting to enable them to create more positive conditions for Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants

The study wants to understand how a positive Accounting classroom condition be created for learners to experience successful learning.

This study has been approved by the **Humanities and Health Research Ethics Committee (HHREC) of the Faculty of Humanities of the North-West University (NWU 2017-0091)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- *This study will be conducted in Secondary schools in the Vaal Triangle within a radius of 30 km from the NWU Vaal campus and will involve all Grade 10 -12 learners in the Accounting classrooms. Firstly, quantitative data collection methods will be used in order to investigate the experiences, perceptions and views of the Grade 10, 11 and 12 Accounting learners and teachers in relation to learning conditions in the Accounting classroom. A self-structured Likert-scale questionnaire will be used. However, a qualitative component where respondents will be allowed to motivate their answers will also be part of this questionnaire. There will be a possibility that you will be chosen to also participate in the interviews conducted later in this year. Individual interviews will be conducted with purposefully selected teachers and learners in the second phase of the data collection procedure.*
- ***Some selected learners will form part of the pilot study sample in order to determine the reliability and validity of the questionnaire and will not form part of the main study.***
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately 1500 participants will be included in this study.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
 - *What does the teaching and learning of Accounting entail?*
 - *What is understood under positive learning conditions?*
 - *What constitutes successful learning?*
 - *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
 - *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *You have been invited to participate because you are an Accounting learner in the FET phase (Gr10 -12) and you attend a high school in the Vaal Triangle area in the Sedibeng district. All the learners in your Accounting class are being invited to participate.*
- *You have also complied with the following inclusion criteria:
The selection criteria for this study are:*
 1. *You must be a learner with Accounting as a chosen subject*
 2. *You should be in Grade 10, 11 or 12*
- *You will be excluded if:*
 1. *You are an Accounting learner or teacher from a school outside the selected area*
 2. *You are not an Accounting learner in Grade 10, 11 or 12.*

What will your responsibilities be?

- *You will be expected to complete a questionnaire with approximately 50 questions regarding teaching and learning in your Accounting classroom. It will take about 30 min to complete the questionnaire. Interviews will be scheduled later with selected participants and will be conducted*

individually after school on a specific day. Therefore, please be aware that if you sign this consent form you could be contacted to take part in the interviews.

Will you benefit from taking part in this research?

- *The direct benefits for you as a participant will probably be to get clarity about your learning situation in the Accounting classroom and how you as learner can handle certain problems in the Accounting classroom and approach your learning better to experience success.*
- *The indirect benefit will probably be for future Accounting learners to experience successful learning in their classrooms. It will also benefit teachers on how to create their learning environments in the Accounting classroom for successful learning.*

Are there risks involved in your taking part in this research and how will these be managed?

In the research context, this means that, in principle, anyone under the age of 18 years may not choose independently whether to participate in research; a parent or guardian must give permission for the minor to choose. This is because young persons' understanding of key aspects of the research initiative may be compromised and, consequently, they may be exposed to increased risk of harm from particular research procedures. Most of the participants in this study are younger than 18 years and the risks in this study, and how these will be managed, are summarised in the table below:

<i>Probable/possible risks/discomforts</i>	<i>Strategies to minimize risk/discomfort</i>
Because you will spend about 30 minutes completing the questionnaire, it is possible that you will become tired or maybe bored with all the questions. And it will take up some of your time.	The researchers facilitating your completion of the questionnaire, will give you a break, if needed.

- *However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.*
- *Should we learn, in the course of the research, that someone is harming you for example during the interview sessions, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.*

Who will have access to the data?

- *Confidentiality: I assure you that I will protect the information I have about you and will be ensured by keeping all questionnaires information confidential because I need your names on the questionnaires to select a few participants for the interviews. Reporting of findings will be anonymous by*
- *Only the researcher and her promoter will have access to your information and the data will be kept safe and secure by locking hard copies in locked cupboards in the researcher's office.*
- *Data will be stored for 5 years in the researchers' office cabinets*

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, you will not

be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not be paid/compensated to take part in the study, but refreshments will be given to the participants doing the interviews. There will thus be no travel costs involved, because the researcher will come to the schools during times available as discussed with teachers and the principal.

How will you know about the findings?

- The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Humanities and Health Research Ethics Committee (Prof Chrizanne van Eeden) at 016 910 3516 or Chrizanne.VanEeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ Yes ☐ No

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname: _____

Phone/ Cell Phone Number /Email: _____

Declaration by person obtaining consent

I (name) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (place) on (date) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (name) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above

• I did/did not use a interpreter.
Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

**ADDENDUM B – Informed consent: teacher
questionnaire**



PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR TEACHER QUESTIONNAIRES

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that support successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-West University Vaal Campus (Building 11B room 127)

CONTACT NUMBER: 0835955649

Dear Accounting teacher: TEACHER QUESTIONNAIRE

You are being invited to take part in a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

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What is this research study all about?

- *This study will be conducted in Secondary schools in the Vaal Triangle within a radius of 30 km from the NWU Vaal campus and will involve all Grade 10 -12 learners and teachers in the Accounting classrooms. Firstly, quantitative data collection methods will be used in order to investigate the experiences, perceptions and views of the Grade 10, 11 and 12 Accounting learners and teachers in relation to learning conditions in the Accounting classroom. A self-structured Likert-scale questionnaire will be used. However, a qualitative component where respondents will be allowed to motivate their answers will also be part of this questionnaire. The data acquired from the questionnaires as well as the literature review, will be used to compile criteria for categories of behaviour to be observed.*
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately **30 Accounting teachers from different schools** will be included in this study.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
 - *What does the teaching and learning of Accounting entail?*
 - *What is understood under positive learning conditions?*
 - *What constitutes successful learning?*
 - *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
 - *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *You have been invited to participate because you are an Accounting teacher in the FET phase (Gr10 -12) and you work in a high school in the Vaal Triangle area in the Sedibeng district. All the learners in your Accounting class are also being invited to participate.*
- *You have also complied with the following inclusion criteria:
The selection criteria for this study are:*
 1. *You must be a teacher teaching Accounting at the school*
 2. *You should teach Accounting for Grade 10, 11 or 12 learners at the school*
- *You will be excluded if:*

3. You are an Accounting teacher from a school outside the selected area
4. You are not an Accounting teacher for Grade 10, 11 or 12.

What will your responsibilities be?

- You will be expected to complete a questionnaire with approximately 50 questions regarding teaching and learning in your Accounting classroom. It will take about 30 min to complete the questionnaire.

Will you benefit from taking part in this research?

- The direct benefits for you as a participant will probably be to get clarity about your teaching situation in the Accounting classroom and how you as teacher can handle certain problems in the Accounting classroom and approach your teaching better to experience success.
- The indirect benefit for you as teacher will probably be on suggestions how to create your learning environments in the Accounting classroom for successful learning.

Are there risks involved in your taking part in this research and how will these be managed?

<i>Probable/possible risks/discomforts</i>	<i>Strategies to minimize risk/discomfort</i>
Because you will spend about 30 minutes completing the questionnaire, it is possible that you will become tired or maybe bored with all the questions. And it will take up some of your time.	The researchers facilitating your completion of the questionnaire, will give you a break, if needed.

- However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.
- Should we learn, in the course of the research, that someone is harming you for example during the interview sessions, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.

Who will have access to the data?

- Confidentiality: I assure you that I will protect the information I have about you and will be ensured by keeping all questionnaires information anonymous. Reporting of findings will also be anonymous.
- Only the researcher and her promoter will have access to your information and the data will be kept safe and secure by locking hard copies in locked cupboards in the researcher's office.
- Data will be stored for 5 years in the researchers' office cabinets

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not be paid/compensated to take part in the study, but refreshments will be given to the participants doing the interviews. There will thus be no travel costs involved, because the researcher will come to the schools during times available as discussed with teachers and the principal.

How will you know about the findings?

- The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Humanities and Health Research Ethics Committee (Prof Chrizanne van Eeden) at 016 910 3516 or Chrizanne.VanEeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/) could be reproduced publicly and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ Yes ☐ No

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname: _____

Phone/ Cell Phone Number /Email: _____

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

ADDENDUM C – Informed consent: learner interview



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS
PO Box 1174, Vanderbijlpark
South Africa, 1900

Web: <http://www.nwu.ac.za>

DATE: September 2017

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR LEARNER INTERVIEWS

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that supports successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-West University Vaal Campus (Building 11B room 127)

CONTACT NUMBER: 0835955649

You are being invited to take part in a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study will attempt to develop a model for teachers in Accounting to enable them to create more positive conditions for Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants

The study wants to understand how a positive Accounting classroom condition can be created for learners to experience successful learning.

This study has been approved by the **Humanities and Health Research Ethics Committee (HHREC) of the Faculty of Humanities of the North-West University (NWU 2017-0091)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- *This study will be conducted in Secondary schools in the Vaal Triangle within a radius of 30 km from the NWU Vaal campus and the interviews will involve purposefully selected Grade 10 -12 learners in the Accounting classrooms.*
- *The researcher will do situation observations at some schools in some of the Accounting classrooms*
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately **30 participants** will be included in the individual semi-structured interviews.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
- *What does the teaching and learning of Accounting entail?*
- *What is understood under positive learning conditions?*
- *What constitutes successful learning?*
- *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
- *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *You have been invited to participate because you are an Accounting learner in the FET phase (Gr10 -12) and you attend a high school in the Vaal Triangle area in the Sedibeng district. When you signed the informed consent form for the questionnaire it was indicated that you could possibly be contacted for an interview also. For the interviews a smaller sample of learners has been purposefully selected..*
- *You have also complied with the following inclusion criteria:
The selection criteria for this study are:*
 1. *You must be a learner with Accounting as a chosen subject*
 2. *You should be in Grade 10, 11 or 12*
- *You will be excluded if:*
 5. *You are an Accounting learner from a school outside the selected area*
 6. *You are not an Accounting learner in Grade 10, 11 or 12.*

What will your responsibilities be?

- *You will be expected to take part in the interviews scheduled regarding teaching and learning in your Accounting classroom. It will take about 45 min to conduct the interview. Interviews are scheduled with selected participants only and will be conducted individually after school on a specific day. Therefore please be aware that if you sign this consent form you will be contacted to take part in the interviews*

Will you benefit from taking part in this research?

- The direct benefits for you as a participant will probably be to get clarity about your learning situation in the Accounting classroom and how you as learner can handle certain problems in the Accounting classroom and approach your learning better to experience success.
- The indirect benefit will probably be for future Accounting learners to experience successful learning in their classrooms. It will also benefit the teachers on how to create their learning environments in the Accounting classroom for successful learning.

Are there risks involved in your taking part in this research and how will these be managed?

In the research context, this means that, in principle, anyone under the age of 18 years may not choose independently whether to participate in research; a parent or guardian must give permission for the minor to choose. This is because young persons' understanding of key aspects of the research initiative may be compromised and, consequently, they may be exposed to increased risk of harm from particular research procedures. Most of the participants in this study are younger than 18 years and the risks in this study, and how these will be managed, are summarised in the table below:

<i>Probable/possible risks/discomforts</i>	<i>Strategies to minimize risk/discomfort</i>
Some of you will spend about 45 minutes participating in the interviews. It is possible that you will become tired or maybe bored with all the questions. It will also take up some of your time.	The researchers facilitating your interviews, will give you a break, if needed and some refreshments (water or juice) will be available to you during the session.
The researcher will ask you questions about what has been difficult for you in the Accounting classroom, as well as about some feelings you might have regarding this subject and the teacher. This could make you feel uncomfortable.	The researcher will make sure that your questionnaire and interview will be dealt with in confidentiality and no other teacher or learner will have access to your questionnaire or interview conversations.
Because the researcher will be present in some of the Accounting classrooms, observing the teaching and learning conditions in your class, this could make you feel uncomfortable.	The researcher will make sure that all data obtained from the observations will be dealt with in confidentiality. It will only entail a situation observation and NO discussions with learners and teachers will be conducted. The normal teaching and learning process will not be disturbed. The researcher will be an independent observer and will be as inconspicuous as possible.

- *However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.*
- *Should we learn, in the course of the research, that someone is harming you for example during the interview sessions, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.*

Who will have access to the data?

- *Confidentiality: I assure you that I will protect the information I have about you and will be ensured by keeping all recordings of the interviews confidential and safe. Reporting of findings will be anonymous.*
- *Only the researcher and her promoter will have access to your information and the data will be kept safe and secure. Audio-recorded data will be sent to a transcriber who will sign a confidentiality*

clause (i.e., she will not be allowed to talk to anyone about any aspect of the data). As soon as data has been transcribed it will be deleted from the recorders. The transcripts will be stored on a password-protected computer. All co-coders will sign confidentiality clauses.
Data will be stored for 5 years in the researchers' office

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not be paid/compensated to take part in the study, but refreshments will be given to the participants doing the interviews. There will thus be no travel costs involved, because the researcher will come to the schools during times available as discussed with teachers and the principal.

How will you know about the findings?

- The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Humanities and Health Research Ethics Committee (Prof Chrizanne van Eeden) at 016 910 3516 or Chrizanne.VanEeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.

Declaration by participant

By signing below, I agree to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ **Yes** ☐ **No**

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname:

Phone/ Cell Phone Number /Email:

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (*name*) declare that:

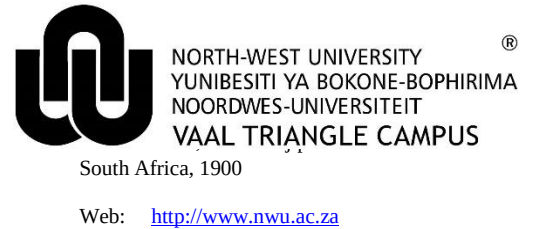
- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

ADDENDUM D – Informed consent: teacher interview



DATE: September 2017

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR TEACHER INTERVIEWS

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that supports successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-West University Vaal Campus (Building 11B room 127)

CONTACT NUMBER: 0835955649

Dear Accounting teacher: TEACHER INTERVIEWS

You are being invited to take part in a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study will attempt to develop a model for teachers in Accounting to enable them to create more positive conditions for Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants. The study wants to understand how a positive Accounting classroom condition can be created for learners to experience successful learning.

This study has been approved by the **Humanities and Health Research Ethics Committee (HHREC) of the Faculty of Humanities of the North-West University (NWU 2017-0091)** and will be conducted

according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- *This study will be conducted in Secondary schools in the Vaal Triangle within a radius of 30 km from the NWU Vaal campus and the interviews will involve purposefully selected Grade 10 -12 learners in the Accounting classrooms.*
- *The researcher will do situation observations at some schools in some of the Accounting classrooms*
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately 6 Accounting teachers will be included in the individual semi-structured interviews.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
 - *What does the teaching and learning of Accounting entail?*
 - *What is understood under positive learning conditions?*
 - *What constitutes successful learning?*
 - *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
 - *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *You have been invited to participate because you are an Accounting teacher in the FET phase (Gr10 -12) and you work in a high school in the Vaal Triangle area in the Sedibeng district. All the learners in your Accounting class are also being invited to participate.*
- *You have also complied with the following inclusion criteria:
The selection criteria for this study are:*
 1. *You must be a teacher teaching Accounting at the school*
 2. *You should teach Accounting for Grade 10, 11 or 12 learners at the school*
- *You will be excluded if:*
 7. *You are an Accounting teacher from a school outside the selected area*
 8. *You are not an Accounting teacher for Grade 10, 11 or 12.*

What will your responsibilities be?

- *You will be expected to take part in the interviews scheduled regarding teaching and learning in your Accounting classroom. It will take about 45 min to conduct the interview. Interviews are scheduled with selected participants only and will be conducted individually after school on a specific day.*

Will you benefit from taking part in this research?

- *The direct benefits for you as a participant will probably be to get clarity about the learning conditions in the Accounting classroom and how you as teacher can handle certain problems in the Accounting classroom and approach your teaching better to experience success.*

- *The indirect benefit will probably be for future Accounting learners to experience successful learning in their classrooms. It could also benefit you as teachers on how to create learning environments in the Accounting classroom for successful learning.*

Are there risks involved in your taking part in this research and how will these be managed?

<i>Probable/possible risks/discomforts</i>	<i>Strategies to minimize risk/discomfort</i>
Some of you will spend about 45 minutes participating in the interviews. It is possible that you will become tired or maybe bored with all the questions. It will also take up some of your time.	The researchers facilitating your interviews, will give you a break, if needed and some refreshments (water or juice) will be available to you during the session.

- *However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.*
- *Should we learn, in the course of the research, that someone is harming you for example during the interview sessions, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.*

Who will have access to the data?

- *Confidentiality: I assure you that I will protect the information I have about you and will be ensured by keeping all recordings of the interviews confidential and safe. Reporting of findings will be anonymous.*
- *Only the researcher and her promoter will have access to your information and the data will be kept safe and secure. Audio-recorded data will be sent to a transcriber who will sign a confidentiality clause (i.e., she will not be allowed to talk to anyone about any aspect of the data). As soon as data has been transcribed it will be deleted from the recorders. The transcripts will be stored on a password-protected computer. All co-coders will sign confidentiality clauses. Data will be stored for 5 years in the researchers' office*

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not be paid/compensated to take part in the study, but refreshments will be given to the participants doing the interviews. There will thus be no travel costs involve, because the researcher will come to the schools during times available as discussed with teachers and the principal.

How will you know about the findings?

- *The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.*

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Basic Sciences Research Ethics Committee (Prof Jaco Hoffman) at 016 910 3456 or Jaco.Hoffman@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher. You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ **Yes** ☐ **No**

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname:

Phone/ Cell Phone Number /Email:

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

ADDENDUM E – Informed consent: teacher observations



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS
PO Box 11/4, Vanderbijlpark
South Africa, 1900

Web: <http://www.nwu.ac.za>

DATE: October 2017

**PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM
FOR TEACHER OBSERVATIONS**

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that supports successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-West University Vaal Campus Building 11B room 127

CONTACT NUMBER: 0835955649

Dear Accounting Teacher: TEACHER CLASSROOM OBSERVATIONS

You are being invited to take part in a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study will attempt to develop a model for teachers in Accounting to enable them to create more positive conditions for Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants

The study wants to understand how a positive Accounting classroom condition can be created for learners to experience successful learning.

This study has been approved by the **Humanities and Health Research Ethics Committee (HHREC) of the Faculty of Humanities of the North-West University (NWU 2017-0091)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- *This study will be conducted in Secondary schools in the Vaal Triangle within a radius of 30 km from the NWU Vaal campus and will involve all Grade 10 -12 learners in the Accounting classrooms. The researcher will make use of **observations in the Accounting classroom** to gain more in depth understanding of the learning conditions in the Accounting classroom. The data acquired from the questionnaires, interviews, observations as well as the literature review, will be used to compile criteria for categories of behaviour to be observed.*
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately **10 participants** will be included in the observations in this study.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
 - *What does the teaching and learning of Accounting entail?*
 - *What is understood under positive learning conditions?*
 - *What constitutes successful learning?*
 - *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
 - *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *You have been invited to participate because you are an Accounting teacher in the FET phase (Gr10 -12) and you work at a high school in the Vaal Triangle area in the Sedibeng district. All the learners in your Accounting class are also being invited to participate in the study.*
- *You have also complied with the following inclusion criteria:
The selection criteria for this study are:*
 1. *You must be a teacher in Accounting as the chosen subject*
 2. *You should teach for Grade 10, 11 or 12 learners in Accounting*
- *You will be excluded if:*
 9. *You are an Accounting teacher from a school outside the selected area*
 10. *You are not an Accounting teacher for the Grade 10, 11 or 12 learners.*

What will your responsibilities be?

- *You will be expected to allow the researcher to do observations in your Accounting classroom to observe aspects regarding teaching and learning in your Accounting classroom. It will take about 1 week to do observations in the different classes for Grade 10, 11 and 12 Accounting learners.*

Will you benefit from taking part in this research?

- *The direct benefits for you as a participant will probably be to get clarity about your teaching situation in the Accounting classroom and how you as teacher can handle certain problems in the Accounting classroom and approach your teaching better to experience success.*
- *The indirect benefit will probably be for future Accounting learners to experience successful learning in their classrooms. The research will also benefit teachers on how to create their learning environments in the Accounting classroom for successful learning.*

Are there risks involved in your taking part in this research and how will these be managed?

<i>Probable/possible risks/discomforts</i>	<i>Strategies to minimize risk/discomfort</i>
Because the researcher will be present in the Accounting classroom, observing the teaching and learning conditions in your class, this could make you feel uncomfortable.	The researcher will make sure that all data obtained from the observations will be dealt with in confidentiality and no other teacher or learner will have access to your information or conversations.

- *However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.*
- *Should we learn, in the course of the research, that someone is harming you for example during the interview sessions, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.*

Who will have access to the data?

- *Confidentiality: I assure you that I will protect the information I have about you and will be ensured by keeping all information confidential. Reporting of findings will also be anonymous.*
- *Only the researcher and her promoter will have access to your information and the data will be kept safe and secure by locking hard copies in locked cupboards in the researcher's office.*
- *Data will be stored for 5 years in the researchers' office cabinets*

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not be paid/compensated to take part in the study. There will thus be no travel costs involve, because the researcher will come to the schools during times available as discussed with teachers and the principal to do the observations.

How will you know about the findings?

- The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Humanities and Health Research Ethics Committee (Prof Chrizanne van Eeden) at 016 910 3516 or Chrizanne.VanEeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ Yes ☐ No

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname: _____

Phone/ Cell Phone Number /Email: _____

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

Declaration by researcher

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of researcher

.....
Signature of witness

ADDENDUM F – Informed consent: parents



DATE: MAY 2017

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR PARENTS

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that support successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-west University Vaal Campus Building 11B Room127

CONTACT NUMBER: 0835955649

Dear Parent

Your child is being invited to take part in a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how your child could be involved. Also, their participation is **entirely voluntary** and they are free to decline to participate. If you say no, this will not affect them negatively in any way whatsoever. They are also free to withdraw from the study at any point, even if they do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study will attempt to develop a model for teachers in Accounting to enable them to create more positive conditions for Accounting classrooms to ensure that their teaching is effective in delivering competent and well-qualified accountants

The study wants to understand how a positive Accounting classroom condition can be created for learners to experience successful learning.

This study has been approved by the **Humanities and Health Research Ethics Committee (HHREC) of the Faculty of Humanities of the North-West University (NWU 2017-0091)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- *This study will be conducted in Secondary schools in the Vaal Triangle within a radius of 30 km from the NWU Vaal campus and will involve all Grade 10 -12 learners in the Accounting classrooms. Firstly, quantitative data collection methods will be used in order to investigate the experiences, perceptions and views of the Grade 10, 11 and 12 Accounting learners and teachers in relation to learning conditions in the Accounting classroom. A self-structured Likert-scale questionnaire will be used. However, a qualitative component where respondents will be allowed to motivate their answers will also be part of this questionnaire. Individual interviews will be conducted with purposefully selected teachers and learners in the second phase of the data collection procedure. There might be a possibility that your child will be part of the interviews as well. The data acquired from the questionnaires and the interviews, as well as the literature review, will be used to compile criteria for categories of behaviour to be observed.*
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately **1500 participants from different schools** will be included in this study.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
 - *What does the teaching and learning of Accounting entail?*
 - *What is understood under positive learning conditions?*
 - *What constitutes successful learning?*
 - *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
 - *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *Your child has been invited to participate because he/she is an Accounting learner in the FET phase (Gr10 -12) and attend a high school in the Vaal Triangle area in the Sedibeng district. All the learners in the Accounting class are being invited to participate.*
- *They have also complied with the following inclusion criteria:
The selection criteria for this study are:*
 1. *You must be a learner with Accounting as a chosen subject*
 2. *You should be in Grade 10, 11 or 12*
- *They will be excluded if:*
 11. *He/she is an Accounting learner from a school outside the selected area*
 12. *He/she is not an Accounting learner in Grade 10, 11 or 12.*

What will your responsibilities be?

- They will be expected to complete a questionnaire with approximately 50 questions regarding teaching and learning in their Accounting classroom. It will take about 30 minutes to complete the questionnaire. Interviews will be scheduled later with selected participants and will be conducted individually after school on a specific day. Therefore, please be aware that if you sign this consent form to give permission for your child to participate, he/she could be contacted to take part in the interviews.

Will you benefit from taking part in this research?

- The direct benefits for your child as a participant will probably be to get clarity about their learning situation in the Accounting classroom and how he/she as learner can handle certain problems in the Accounting classroom and approach their learning better to experience success.
- The indirect benefit will probably be for future Accounting learners to experience successful learning in their classrooms. Also benefit teachers on how to create their learning environments in the Accounting classroom for successful learning.

Are there risks involved in your taking part in this research and how will these be managed?

In the research context, this means that, in principle, anyone under the age of 18 years may not choose independently whether to participate in research; you as the parent or guardian must give permission for the minor to choose. This is because young persons' understanding of key aspects of the research initiative may be compromised and, consequently, they may be exposed to increased risk of harm from particular research procedures. Most of the participants in this study are younger than 18 years and the risks in this study, and how these will be managed, are summarised in the table below:

<i>Probable/possible risks/discomforts</i>	<i>Strategies to minimize risk/discomfort</i>
Because they will spend about 30 minutes completing the questionnaire, it is possible that they will become tired or maybe bored with all the questions. And it will take up some of their time.	The researchers facilitating the completion of the questionnaire, will give your child a break, if needed.
Because some of them will spend about 45 minutes participating in the interviews, it is possible that they will become tired or maybe bored with all the questions. And it will take up some of their time.	The researchers facilitating the interviews, will give your child a break, if needed and some refreshments (water or juice) will be available to them during the session.
Because the researcher will ask questions about what has been difficult for the child in the Accounting classroom, as well as about some feelings they might have regarding this subject and the teacher. This could make them feel uncomfortable.	The researcher will make sure that the questionnaire and interview will be dealt with in confidentiality and no other teacher or learner will have access to your child's questionnaire or interview conversations.

- However, we do believe that the benefits to them and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free to not allow your child to participate in this study. We will respect your decision.

- *Should we learn, in the course of the research, that someone is harming your child for example during the interview sessions, or that they are intending to harm someone, then we must tell someone who can help them/warn the person they are intending to harm.*

Who will have access to the data?

- *Confidentiality: I assure you that I will protect the information I have about them and will be ensured by keeping all questionnaires information confidential because I need their names on the questionnaires to select a few participants for the interviews. Reporting of findings will be anonymous.*
- *Only the researcher and her promoter will have access to their information and the data will be kept safe and secure by locking hard copies in locked cupboards in the researcher's office. Audio-recorded data will be sent to a transcriber who will sign a confidentiality clause (i.e., she will not be allowed to talk to anyone about any aspect of the data). As soon as data has been transcribed it will be deleted from the recorders. The transcripts will be stored on a password-protected computer. All co-coders will sign confidentiality clauses.*
- *Data will be stored for 5 years in the researchers' office cabinets*

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, they will not be personally identified. This means that the reporting will not include your child's name or details that will help others to know that he/she participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, they will not be paid/compensated to take part in the study, but refreshments will be given to the participants doing the interviews. There will thus be no travel costs involve, because the researcher will come to the schools during times available as discussed with teachers and the principal.

How will you know about the findings?

- The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Humanities and Health Research Ethics Committee (Prof Chrizanne van Eeden) at 016 910 3516 or Chrizanne.VanEeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree that my child is allowed to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and my child has not been pressurised to take part.
- I understand that what he/she contributes (what he/she reports/says/writes/) could be reproduced publically and/or quoted, but without reference to their personal identity.
- They may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- They may be asked to leave the study before it has finished, if the researcher feels it is in their best interests, or if he/she do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ **Yes** ☐ **No**

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname: _____

Phone/ Cell Phone Number /Email: _____

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter.

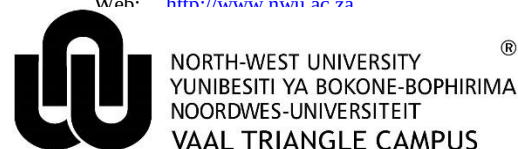
Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

PO Box 1174, Vanderbijlpark
South Africa, 1900

Web: <http://www.nwu.ac.za>



ADDENDUM G – Informed consent: students pilot study

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR STUDENT QUESTIONNAIRES (PILOT STUDY)

TITLE OF THE RESEARCH PROJECT: A model towards creating positive Accounting classroom conditions that supports successful learning at school

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Me Viné Petzer

ADDRESS: North-West University Vaal Campus (Building 11B Room 127)

CONTACT NUMBER: 0835955649

DEAR STUDENT (PILOT STUDY)

You are being invited to take part in a pilot study for a research project that forms part of my PhD study. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If

you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the pilot study at any point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

The study wants to understand how a positive Accounting classroom condition be created for learners to experience successful learning.

This study has been approved by the **Humanities and Health Research Ethics Committee (HHREC) of the Faculty of Humanities of the North-West University (NWU 2017-0091)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- *This pilot study will be conducted at NWU Vaal campus and will involve all students doing Accounting in the B.Ed. curriculum. Quantitative data collection method will be used in order to investigate the experiences, perceptions and views of the Accounting students in relation to learning conditions in the Accounting classroom. A self-structured Likert-scale questionnaire will be used. The students will complete the same questionnaire designed for the learners. However, a qualitative component where respondents will be allowed to motivate their answers will also be part of this questionnaire. In the second phase individual semi-structured interviews will also be conducted.*
- *The researcher has been trained to use the methods mentioned in the previous sentence.*
- *Approximately **150 participants** will be included in this pilot study.*
- ***The primary aim of this research study will be: How can a positive Accounting classroom condition be created for learners to experience successful learning? The objectives of this research are:***
 - *What does the teaching and learning of Accounting entail?*
 - *What is understood under positive learning conditions?*
 - *What constitutes successful learning?*
 - *What kinds of positive learning conditions are important for an Accounting classroom to ensure successful learning?*
 - *What model can be created to provide guidelines on how positive learning conditions can be created for successful learning in the Accounting classroom?*

Why have you been invited to participate?

- *You have been invited to participate because you are an Accounting for Education student in the FET phase of the B.Ed. curriculum on the NWU Vaal campus. All the students in your Accounting class are being invited to participate.*

What will your responsibilities be?

- *Your role will be to complete the questionnaire for the learners and give feedback about the relevance and appropriateness of the questionnaire. It has approximately 50 questions regarding teaching and learning in the Accounting classroom and will take about 30 min to complete. You will also be asked to evaluate the interview questions to determine if the questions are relevant and appropriate.*

Will you benefit from taking part in this research?

- *There will be no direct benefit for you. However, you can make a contribution to the research study which could improve teacher education programmes for Accounting.*

Are there risks involved in your taking part in this research and how will these be managed?

In the research context the ideal will be where benefits outweigh the risks.

Risks in this pilot study will be minimized. Risks to participants will be justified by the potential benefits to participants and/or society

- *However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.*

Who will have access to the data?

- *Confidentiality: I assure you that I will protect the information I have about you and will be ensured by keeping all questionnaires information confidential because I need you names on the questionnaires to select a few participants for the interviews. Reporting of findings will be anonymous by*
- *Only the researcher and her promoter will have access to your information and the data will be kept safe and secure by locking hard copies in locked cupboards in the researcher's office.*
- *Data will be stored for 5 years in the researchers' office cabinets*

What will happen to the data?

The data from this study will be reported in the following ways:

This information will be reported in the PhD study of the researcher. It will further be written up as articles, book chapters, research reports and spoken about at conferences in future. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not be paid/compensated to take part in the study, but refreshments will be given to the participants doing the interviews. There will thus be no travel costs involve, because the researcher will come to the schools during times available as discussed with teachers and the principal.

How will you know about the findings?

- *The general findings of the research will be shared with participants who want to have more information via email. The research findings will be available online and in the library in the PhD Thesis of the researcher.*

Is there anything else that you should know or do?

- You can contact Mrs Viné Petzer at 0835955649 or email: vine.petzer@nwu.ac.za if you have any further queries or encounter any problems.
- You can contact my supervisor Prof Mirna Nel at 016 910 3095 or mirna.nel@nwu.ac.za
- You can contact the chair of the Humanities and Health Research Ethics Committee (Prof Chrizanne van Eeden) at 016 910 3516 or Chrizanne.VanEeden@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I agree to take part in a research study entitled:

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) on (*date*) 20....

.....
Signature of participant

.....
Signature of witness

- You may contact me again

☐ Yes ☐ No

The best way to reach me is:

Name & Surname: _____

Postal Address: _____

Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name & Surname:

Phone/ Cell Phone Number /Email:

Declaration by person obtaining consent

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (*place*) on (*date*) 20....

.....
Signature of person obtaining consent

.....
Signature of witness

ADDENDUM H – Questionnaire: learner

QUESTIONNAIRE TO LEARNERS

Dear Accounting learner

I am currently busy with a PhD at the North-West University, Vaal Triangle Campus. My research is investigating positive Accounting classroom conditions that support successful learning at school. I will appreciate it if you can complete the questionnaire honestly. You will complete the questionnaire anonymously and all information will be handled with the utmost confidentiality. Your time and cooperation are valued.

Kind regards

Mrs V. Petzer

QUESTIONNAIRE TO LEARNERS

SECTION A BIOGRAPHIC INFORMATION

Complete the following information about yourself by making with an X in the appropriate block:

1. GENDER:

MALE

	FEMALE

2. GRADE:

10	11	12

3. In which suburb is your school located

VEREENIGING	VANDERBIJLPARK	SEBOKENG	SASOLBURG	EVATON

GENERAL LEARNING CONDITIONS

Read the following statements and evaluate the general classroom conditions in your Accounting class on the numerical scale from 1-4 with an X where you feel it is applicable.

Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Sometimes	Very seldom
1. I feel able to do Accounting successfully.	1	2	3	4
2. I find the Accounting learning environment a meaningful learning environment.	1	2	3	4
3. I am challenged to think critically (e.g. to question information)	1	2	3	4
4. I am well prepared for formal tests and exams	1	2	3	4
5. I believe that I can obtain good marks in Accounting	1	2	3	4
5.1. Indicate your goal % to achieve in the subject Accounting: _____%				
6. I have confidence that I can achieve all the objectives/ learning outcomes required by the curriculum	1	2	3	4
7. I am involved in different activities in the class to succeed in Accounting	1	2	3	4
8. The teacher creates a positive learning environment for learners to achieve learning outcomes in Accounting	1	2	3	4
ADDITIONAL COMMENTS or REMARKS ON THE STATEMENTS ABOVE:				

SECTION C LEARNING IN THE ACCOUNTING CLASSROOM

Read the following statements and evaluate learning in your Accounting classroom by indicating on the numerical scale from 1-4 with an X where you feel it is applicable

Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Sometimes	Very seldom
1. The learning activities chosen by the teacher motivates me to complete them	1	2	3	4
2. An atmosphere of mutual respect exists in the Accounting class between teachers and learners	1	2	3	4
3. The classroom activities stimulate my interest in the subject Accounting	1	2	3	4
4. Classmates support one another when they struggle	1	2	3	4
5. The teacher encourages me to question things	1	2	3	4
6. I feel motivated to do the class activities in the Accounting class	1	2	3	4
7. I feel motivated to do the homework activities in Accounting	1	2	3	4
8. I feel safe to ask questions in the Accounting classroom	1	2	3	4
9. The teacher expects of me to solve problems on my own	1	2	3	4
10. The teacher expects of me to motivate my answers	1	2	3	4
11. We have to analyse (to examine something methodically and in detail), information in class	1	2	3	4
12. We have to interpret (explain the meaning of information or actions) information in class	1	2	3	4
13. The teacher is enthusiastic about teaching Accounting	1	2	3	4
14. The teacher treats all learners the same way	1	2	3	4
15. The teacher provides feedback after activities done in class	1	2	3	4

16. The teacher always provides feedback after tests and exams (assessments)	1	2	3	4
17. The teacher provides feedback after homework is done	1	2	3	4
18. I experience good relationships between teacher and learners in the classroom	1	2	3	4
19. The teacher encourages learners to participate in class discussions	1	2	3	4
ADDITIONAL COMMENTS or REMARKS ON THE STATEMENTS ABOVE:				

SECTION D THE SUBJECT ACCOUNTING

Read the following statements regarding aspects about the subject Accounting and indicate your response choice on the numerical scale from 1-4 with an X.

Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Sometimes	Very seldom
1. I experience the subject content as difficult	1	2	3	4
2. I experience the calculation exercises as complex	1	2	3	4
3. The learning activities in Accounting require problem-solving skills	1	2	3	4
4. I believe the subject Accounting is relevant to my future studies	1	2	3	4
5. I am anxious about the subject, because I struggle to complete the activities	1	2	3	4

6. I experience constant failure in Accounting	1	2	3	4
7. I experience negative feedback regarding my performance in Accounting from the teacher	1	2	3	4
8. I believe that I perform well in Accounting	1	2	3	4
9. I have a positive attitude towards the subject Accounting	1	2	3	4
10. I wish that I did not choose Accounting as a subject	1	2	3	4
11. I am satisfied about choosing Accounting as a subject	1	2	3	4
12. I think about taking another subject in Accounting's place	1	2	3	4
13. I want to become a successful accountant / auditor	1	2	3	4
ADDITIONAL COMMENTS or REMARKS ON THE STATEMENTS ABOVE:				

SECTION E MY OWN LEARNING

Read the following statements regarding your own learning in the Accounting classroom and indicate your response on the numerical scale from 1- 4 with an X

Almost always: Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Some-times	Very seldom
1. I feel encouraged to persist in my work and not give up	1	2	3	4
2. I work accurately and precise	1	2	3	4
3. I think critically when solving Accounting problems	1	2	3	4
4. I evaluate information when solving Accounting problems	1	2	3	4
5. I listen to the opinions of others during class discussions	1	2	3	4
6. I ask questions in the class	1	2	3	4
7. I explore alternative viewpoints when doing Accounting activities	1	2	3	4
8. I give up easily when I struggle to analyse problems	1	2	3	4
9. I complete all my assignments without giving up	1	2	3	4
ADDITIONAL COMMENTS or REMARKS ON THE STATEMENTS ABOVE: 				

ADDENDUM I – Questionnaire: teacher

QUESTIONNAIRE TO TEACHERS

Dear Teacher

I am currently busy with a PhD at the North-West University, Vaal Triangle Campus. My research is investigating positive Accounting classroom conditions that support successful learning at school. I will appreciate it if you can complete the questionnaire honestly. You will complete the questionnaire anonymously and all information will be handled with the utmost confidentiality. Your time and cooperation are valued.

Kind regards

Mrs V. Petzer

QUESTIONNAIRE TO TEACHERS

SECTION A BIOGRAPHIC INFORMATION

Complete the following information about yourself by making with an X in the appropriate block:

3. GENDER:

MALE

FEMALE

4. TEACHING ACCOUNTING FOR GRADE:

10	11	12

3. In which suburb is your school located?

VEREENIGING	VANDERBIJLPARK	SEBOKENG	SASOLBURG	MEYERTON

SECTION B**GENERAL CLASSROOM ENVIRONMENT**

Read the following statements and evaluate general classroom environment in your Accounting class on the numerical scale from 1-4 with an X where you feel it is applicable.

Question Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Sometimes	Very seldom
1. I feel able to plan successful activities for Accounting learners	1	2	3	4
2. I create a meaningful learning environment where learners can connect with the subject matter	1	2	3	4
3. I allow discussions that challenge the learner's critical thinking skills	1	2	3	4
4. I use examples during teaching that prepare learners well for the formal tests and exams	1	2	3	4
5.1 I believe that my learners can obtain good marks	1	2	3	4
5.2. Indicate your goal % for learners' average in the subject Accounting: _____ %				
6. I have confidence that all my learners can achieve all the objectives/ learning outcomes required by the curriculum	1	2	3	4
7. I create adequate opportunities for learners to succeed in Accounting	1	2	3	4

SECTION C

LEARNING IN THE ACCOUNTING CLASSROOM

Read the following statements and evaluate learning in your Accounting classroom by indicating on the numerical scale from 1-4 with an X where you feel it is applicable

Question Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Sometimes	Very seldom
1. Learners and teachers respect one another in my class	1	2	3	4
2. I use learning activities that range from easy to complex	1	2	3	4
3. I use examples in the classroom that challenge the learners thinking	1	2	3	4
4. I use classroom activities that stimulate my learners' interest in the subject Accounting	1	2	3	4
5. I allow classmates to support one another when they struggle	1	2	3	4
6. I encourage my learners to question things	1	2	3	4
7. I believe that my learners feel safe to ask questions in the classroom	1	2	3	4
8. I expect of my learners to solve problems on their own	1	2	3	4
9. I expect of my learners to motivate their answers	1	2	3	4
10. Learners have to analyse information in class	1	2	3	4
11. Learners have to interpret information in class	1	2	3	4
12.1 I make use of different teaching methods :	1	2	3	4
12.2. Indicate which of the teaching methods are used in the class and indicate how many times per week it is used:				
LECTURE METHOD	1	2	3	4

THE DISCUSSION METHOD	1	2	3	4
DEMONSTRATION	1	2	3	4
BRAINSTORMING	1	2	3	4
ROLE PLAY	1	2	3	4
GROUPWORK	1	2	3	4
13. I am enthusiastic about teaching Accounting	1	2	3	4
14. I treat all learners in the same way	1	2	3	4
15. I am patient with the learners who struggle in the class	1	2	3	4
16. I reward all learners for good performance	1	2	3	4
17. I provide feedback after activities have been completed in class	1	2	3	4
18. Good relationships exist between me and my learners	1	2	3	4
19. I provide feedback after tests and exams (assessments)	1	2	3	4
20. I provide feedback after homework is done	1	2	3	4
21. I encourage learners to participate in class discussions	1	2	3	4
22. I encourage learners to complete the homework exercises	1	2	3	4

SECTION D**THE SUBJECT ACCOUNTING**

Read the following statements regarding aspects about the subject Accounting and indicate your response choice on the numerical scale from 1-4 with an X.

Question Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Sometimes	Very seldom
14. I experience the subject content as difficult	1	2	3	4
15. The calculations done in Accounting exercises are complex	1	2	3	4
16. The subject Accounting demands critical thinking skills from my learners to solve problems	1	2	3	4
17. The activities done in the classroom focus on problem-solving	1	2	3	4
18. I believe the subject Accounting is relevant for learners' future studies	1	2	3	4
19. I believe that my learners experience anxiety because they struggle to complete the activities	1	2	3	4
20. My learners experience constant failure in Accounting	1	2	3	4
21. I experience negative feedback from my learners about the content of Accounting	1	2	3	4
22. I understand all the subject content	1	2	3	4
23. I believe that my learners feel anxious about Accounting				
24. I have a positive attitude towards teaching Accounting	1	2	3	4
25. I regret choosing Accounting as a subject to teach	1	2	3	4
26. I am satisfied to be an Accounting teacher	1	2	3	4

SECTION E MY OWN TEACHING

Read the following statements regarding your own teaching in the Accounting classroom and indicate your response on the numerical scale from 1-4 with an X

Question Almost always: more than 3 times a week Often: three times a week Sometimes: twice a week Very seldom: once a week	Almost always	Often	Some-times	Very seldom
1. I make use of class discussions that provide opportunities for my learners to think	1	2	3	4
2. I encourage my learners to persist in their work and not give up	1	2	3	4
3. I encourage my learners to work accurately	1	2	3	4
4. I encourage my learners to think critically when solving Accounting problems	1	2	3	4
5. I use Class discussions to listen to the opinions of all learners	1	2	3	4
6. I use class activities that give me the opportunity to generate questions from my learners	1	2	3	4
7. I use class activities that allow learners to generate questions	1	2	3	4
8. I create class activities that give my learners the opportunity to explore alternatives opinions (own view)	1	2	3	4
9. Learners struggle to analyse problems	1	2	3	4
10. Learners give up easily when they struggle with problems	1	2	3	4
11. My learners complete all their assignments without giving up	1	2	3	4
ADDITIONAL COMMENTS or REMARKS ON THE STATEMENTS ABOVE: 				

ADDENDUM J – Interview schedule: learner

INTERVIEW SCHEDULE: ACCOUNTING LEARNERS: GRADE 10 - 12

1. Why did you choose the subject Accounting?
2. What is your attitude/ feelings towards the subject Accounting?
3. How do you experience your learning environment in the Accounting classroom?
4. How do you experience the teacher's attitude towards teaching Accounting?
5. How do you experience the relationship between teacher and learners in the Accounting classroom?
6. Which positive feelings do you experience in the Accounting classroom? Please explain/ Give examples of times when you experienced positive feelings
7. Which negative feelings do you experience in the Accounting classroom? Please explain / Give examples of times when you experienced negative feelings
8. How do you experience classmates and the support to one another when you struggle?
9. How would you describe your way of learning Accounting?
10. To what extent do you think does motivation play a role in the learning of Accounting?
11. How do you experience the subject content of Accounting?
12. Do you feel comfortable to ask questions in the Accounting class if you struggle with difficult problems?
13. How confident do you feel about achieving all the objectives/ learning outcomes required by the curriculum?
14. Do you at times experience the examples used during teaching as challenging / difficult to understand?
15. Please give examples of the kind of learning activities that you do in class.
16. When you are doing Accounting exercises, describe the challenges you experience if any?
17. When you are doing Accounting exercises, describe the positive things you experience if any?
18. How do you approach a difficult exercise or calculation in Accounting?
19. What do you think are the teacher's expectations when learner need to solve difficult activities in Accounting?
20. Please explain how are the following teaching methods used in your Accounting classroom: Lecture method, discussion, demonstration, brainstorming, role play, group work. Any other methods that you can remember?
21. How do you receive feedback after tests, exams, activities and homework is done?
22. How do you understand critical thinking?
23. How do you think does the teacher incorporate critical thinking skills in the teaching of Accounting?
24. How do you incorporate critical thinking skills in the learning of Accounting?
25. What procedures do you use to make sure you work accurately and precise?
26. Do you easily give up when doing difficult Accounting exercises? Why do you think is that?
27. What does the following statement mean to you? "I want to become a successful accountant / auditor"
28. Describe the ideal learning environment to experience success in Accounting.

ADDENDUM K – Interview schedule: teacher

INTERVIEW SCHEDULE: ACCOUNTING TEACHERS: GRADE 10 - 12

1. Why did you choose the subject Accounting as your major to teach in?
2. What is your attitude/ feelings towards the subject Accounting?
3. How do you experience your teaching environment in the Accounting classroom?
4. How do you experience the learner's attitude towards learning Accounting?
5. How do you experience the relationship between you the teacher and the learners in the Accounting classroom?
6. Which positive feelings do you experience in your Accounting classroom? Please explain/ Give examples of times when you experienced positive feelings
7. Which negative feelings do you experience in your Accounting classroom? Please explain / Give examples of times when you experienced negative feelings
8. How do you feel about classmates that support one another with regard to Accounting when they struggle?
9. How would you describe your way of teaching Accounting?
10. To what extent do you think does motivation play a role in the teaching of Accounting?
11. How do you experience the subject content of Accounting?
12. Do you feel comfortable to teach the content in the Accounting class?
13. How confident do you feel about achieving all the objectives/ outcomes required by the curriculum?
14. Do you use examples during teaching? Are they challenging / difficult?
15. Please give examples of the kind of activities that you do in class.
16. When you are doing Accounting exercises, describe the challenges your learners experience if any?
17. When you are doing Accounting exercises, describe the positive things your learners experience if any?
18. How do you approach a difficult exercise in Accounting?
19. How do you approach difficult calculation exercises?
20. What are your expectations from learners when they need to solve difficult activities in Accounting?
21. Please explain how the following teaching methods are used in your Accounting classroom: Lecture method, discussion, demonstration, brainstorming, role play, group work. Any other methods that you use?
22. How do you give feedback after tests, exams, activities and homework is done?
23. How do you understand critical thinking?
24. How do you incorporate critical thinking skills in the teaching of Accounting?
25. What procedures do you use to make sure your learners work accurately and precise?
26. Do they easily give up when doing difficult Accounting exercises? Why do you think is that?
27. Describe the ideal learning environment to experience success in Accounting.

ADDENDUM L: Observation categories of behaviour

OBSERVATION CRITERIA NOTES: ACCOUNTING CLASS

GRADE 10- 12

1. GENERAL LEARNING CONDITIONS/ ENVIRONMENT

Learning environment created for learners in Accounting	
An atmosphere of mutual respect exists in the Accounting class between teachers and learners	
Relationships between teacher and learners in the classroom	
Teacher-learner interaction	
The attitude of teacher	
The attitude of learners	

2. LEARNING IN THE ACCOUNTING CLASSROOM

2.1 Learning actions and Learning

Are they involved in different activities in the class	
The learning activities in Accounting require problem-solving skills	

Learners are challenged to think critically (e.g. to question information)	
Activities done in the Accounting classroom range from easy examples to more complex examples	
The examples used during teaching are challenging / difficult to understand	
Classmates support one another when they struggle	
Learners listen to the opinions of others during class discussions	
Learners give up easily when they struggle with activities	
Learners ask questions in the class	
Learners ask questions in the Accounting classroom	
2.2 Teaching methods / Teaching	
The teacher makes use of different teaching methods:	
Indicate which of the teaching methods are used in the class:	
LECTURE METHOD	
THE DISCUSSION METHOD	
DEMONSTRATION METHOD	
BRAINSTORMING	
ROLE PLAY	
GROUPWORK	

The teacher is enthusiastic about teaching Accounting	
The teacher treats all learners the same way	
The teacher is patient with the learners who struggle in the class	
The teacher provides feedback after activities done in class	
The teacher provides feedback after homework is done	
The teacher encouragement / motivation	
The teacher expectations	

ADDENDUM M – Gauteng Department of Basic Education: approval letter



GAUTENG PROVINCE

Department: Education
REPUBLIC OF SOUTH AFRICA

For administrative use:
Reference no: M2017/382

GDE RESEARCH APPROVAL LETTER

Date:	25 January 2017
Validity of Research Approval:	06 February 2017 – 29 September 2017
Name of Researcher:	Petzer A
Address of Researcher:	P O Box 554
	Park South
	Vanderbijl Park, 1910
Telephone Number:	061 910 3088 083 595 5649
Email address:	Vine.petzer@nwu.ac.za
Research Topic:	A model towards creating positive Accounting classroom conditions that supports successful learning at school
Number and type of schools:	Forty Secondary Schools
District/s/HO	Sedibeng East and Sedibeng West

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

Making education a societal priority

Office of the Director: Education Research and Knowledge Management

7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 335 0506

Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

David Makhado
2017/01/25

ADDENDUM N – ETHICS APPROVAL CERTIFICATE –



Private Bag X6001, Potchefstroom,
South Africa, 2520

Tel: (018) 299-4900
Faks: (018) 299-4910
Web: <http://www.nwu.ac.za>

Institutional Research Ethics Regulatory Committee

Tel: +27 18 299 4849

Email: Ethics@nwu.ac.za

ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by the Humanities and Health Research Ethics Committee (HHREC) on 28/07/2017, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: A model towards creating positive Accounting classroom conditions that supports successful learning at school.																																	
Project Leader/Supervisor: Prof M Nel																																	
Student: Viné Petzer																																	
Ethics number:	<table border="1"> <tr> <td>N</td><td>W</td><td>U</td><td>-</td><td>H</td><td>S</td><td>-</td><td>2</td><td>0</td><td>1</td><td>7</td><td>-</td><td>0</td><td>0</td><td>9</td><td>1</td> </tr> <tr> <td colspan="4">Institution</td> <td colspan="4">Year</td> <td colspan="8">Project Number</td> </tr> </table>	N	W	U	-	H	S	-	2	0	1	7	-	0	0	9	1	Institution				Year				Project Number							
N	W	U	-	H	S	-	2	0	1	7	-	0	0	9	1																		
Institution				Year				Project Number																									
Application Type: N/A																																	
Commencement date: 2017-07-27	Expiry date: 2020-08-27																																
Risk:	Medium																																

Special conditions of the approval (if applicable):

- Translation of the Informed consent document to the languages applicable to the study participants should be submitted to the HHREC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the HHREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- The project leader (principle investigator) must report in the prescribed format to the NWU-IRERC via HHREC:
 - annually (or as otherwise requested) on the progress of the project, and upon completion of the project
 - without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
 - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the HHREC. Would there be deviation from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC via HHREC and new approval received before or on the expiry date.
- In the interest of ethical responsibility the NWU-IRERC and HHREC retains the right to:
 - request access to any information or data at any time during the course or after completion of the project;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.
 - withdraw or postpone approval if:
 - any unethical principles or practices of the project are revealed or suspected,
 - it becomes apparent that any relevant information was withheld from the HHREC or that information has been false or misrepresented,
 - the required annual report and reporting of adverse events was not done timely and accurately,
 - new institutional rules, national legislation or international conventions deem it necessary.
- HHREC can be contacted for further information via Daan.Cleesens@nwu.ac.za or 018 210 3441

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC or HHREC for any further enquiries or requests for assistance.

Yours sincerely

Prof LA Du Plessis
Digitally signed by
Prof LA Du Plessis
Date: 2017.08.05
11:30:41 +02'00'

Prof Linda du Plessis
Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

ADDENDUM O – CODE OF CONDUCT FOR RESEARCHERS: NWU

CODE OF CONDUCT FOR RESEARCHERS

This code of conduct is applicable to all NWU researchers.

As a researcher of the North-West University (NWU), I subscribe to the rules of the NWU Institutional Research Ethics Regulatory Committee (IRERC), all applicable policies of the NWU as well as all national and international laws and regulations applicable to my field of study. Furthermore, I commit myself to abide by the ethical principles and responsibilities as set out in the Singapore statement on Research Integrity (22 September 2010), in any and all research endeavours that I undertake as a researcher of the NWU.

The four major principles of research integrity to which I will adhere and that will guide my research are:

- Honesty in all aspects of research
- Accountability in the conduct of research
- Professional courtesy and fairness in working with others
- Good stewardship of research on behalf of others

Consequently I will also adhere to the following ethical responsibilities:

1. I will take responsibility for the originality and trustworthiness of my research.
2. I will stay abreast of and adhere to all institutional, national, and international laws, regulations, and policies applicable and related to my research.
3. I will at all times employ appropriate research methods, base my conclusions on critical analysis of the evidence and report my findings and interpretations fully and objectively.
4. I will keep clear and accurate records of all research that I have conducted in a manner that will allow verification and replication of my work by others, if applicable.
5. I will, where applicable, share my data and findings openly and promptly, in line with external funding rules. This will be done as soon as possible after I have had an opportunity to establish priority and ownership claims.
6. I will take responsibility for my own contributions to publications, funding applications, reports and other representations of my research. I will also and only include authors who meet valid authorship criteria.
7. I will acknowledge the names and roles of those who made significant contributions to my research in publications, including writers, funders, sponsors, and others, but do not meet authorship criteria.
8. In my peer reviews, I will provide fair, prompt and rigorous evaluations and I will respect confidentiality when I review others' work.
9. I will disclose all conflicts of interest (financial and other) that could compromise the trustworthiness of my work in research proposals, publications, public communications, and in review activities.
10. When I publically address a community in the spirit of academic freedom, I will in all stages base my professional comments on research findings (if applicable) and my expertise. I will distinguish between professional comments and opinions based on personal views.
11. Should any irresponsible research practices and/or research misconduct become known to me or brought under my attention, I will report such irresponsible research activities to the appropriate authorities.
12. I will respond to irresponsible research practices or conduct, by taking prompt actions as set out in the procedures of the university. I will also protect those who report misconduct in good faith, to the best of my abilities.
13. I will endeavour to create and sustain an environment that encourage research integrity through education of students, research teams and peers, as well as abide by policies, and reasonable standards for advancement.
14. I will at all times weigh societal benefits against the risks inherent in my work.

Name: *A. Petzer*

Signature:



Date:

19/4/2017