TEACHERS' COMPETENCIES IN THE DEVELOPMENT OF ECONOMIC AND MANAGEMENT SCIENCES FORMAL ASSESSMENT TASKS

by

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DECLARATION

This thesis has been submitted in fulfilment of the requirements for the degree of Masters in Education in the Postgraduate Programme of the College of Humanities, University of KwaZulu-Natal, Pietermaritzburg, South Africa.

I, BHEKUMUZI CLEMENT NTSHINGILA, student number 217076766, declare that:

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As the candidate's supervisor, I agree/ ~~do not agree~~ to the submission of this Dissertation.

_____ 2 February 2022

Dr Jaqueline Naidoo Date

Signature

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DEDICATION

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ABSTRACT

The main purpose of this qualitative case study was to examine competencies of Grade 7 Economic and Management Sciences (EMS) teachers in designing formal assessment tasks in the Umzinyathi District. The study was conducted in five primary schools. Five Grade 7 EMS teachers and two Departmental Heads were sampled for the study. Purposive sampling was used to select the five teachers and the two Departmental Heads. This was done because these participants would be representative of the population and would provide valuable information about the phenomenon that was examined.

This study was located in the interpretive paradigm as it examined the competencies of Grade 7 EMS teachers in the development of formal assessment tasks. Data was generated using three data generation methods, namely, document analysis, semi–structured interviews and questionnaires. Data was analysed using an inductive and thematic methods of data analysis. This study was underpinned by two conceptual frameworks: Bloom's (1956) theory of educational objectives, which classified thinking according to six cognitive levels of complexity and Grossman (1990) Model of teacher knowledge, outlining four categories of teacher knowledge.

Findings of the study revealed that teachers designed diverse formal assessment tasks and also developed informal assessment tasks to prepare learners for formal assessment. The study also found that both teachers and Departmental Heads made an effort to comply with both Bloom's Taxonomy of cognition as well as CAPS. Findings revealed that the tasks teachers designed were not balanced, did not cover a range of cognitive levels as outlined by Bloom's Taxonomy and did not comply with the recommendations of CAPS in terms of the spread of cognitive levels in an assessment task. It was also evident that there was a lack of or inadequate moderation of these tasks. Finally, the study found that teachers faced several challenges which resulted in them not designing balanced assessment tasks.

Several recommendations were made by this study to develop and strengthen teacher knowledge on both content and development of assessment tasks. Both findings and recommendations of this study may assist the Department of Education to ensure and maintain effective teaching and assessment practices in schools.

Key words: Teacher competencies, Economic and Management Sciences, formal assessment, informal assessment,

ABREVIATIONS

AfL Assessment for learning
AoL Assessment of learning
ATP Annual Teaching Plan
CAO Chief Accounting officer
CAPS Curriculum and Assessment Policy Statement
CK Content Knowledge
CPD Continued Professional Development
CPTD Continued Professional Teacher Development
DA Developmental Appraisal
DBE Department of Basic Education
DH Departmental Head
EFL English First Language
EMS Economic and Management Sciences
FET Further Education and Training
GCK General Content Knowledge
ITE Initial Teacher Education
IT Information Technology
IQMS Integrated Quality Management System
LoLT Language of Learning and Teaching
MRR Monitor, report and respond
NCS National Curriculum Statement
OBE Outcomes Based Education
PAM Personnel Administrative Measures
PCK Pedagogical Content Knowledge
PLCs Professional Learning Communities
PoA Programme of Assessment
SBA School Based Assessment
SMK Subject Matter Knowledge
SMT School Management Team

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CHAPTER 1

INTRODUCTION

1.1.Introduction

This study aimed to examine EMS Grade 7 teachers' competencies in designing quality formal assessment tasks as well as the extent to which they cover a range of cognitive levels when designing formal assessment tasks. This chapter begins by outlining the background, rationale and purpose of the study. Next, the key concepts, conceptual frameworks and methodological approach are discussed. To conclude, an overview of the dissertation chapters is presented.

1.2 Background of the study

According to Moghtadaie and Taji (2018, p.565), "teacher competencies are a set of cognition, orientation and skills that a teacher can achieve in the process of education to promote the physical, intellectual, emotional, social and spiritual development of students". They further point out that the term competence means, "a person is worthy for the purpose, … or has the ability to enter a special job, which has a direct relationship with a certificate of knowledge and/or attestation in that occupation". Teacher competencies in this regard refer to their abilities, knowledge and practices relating to the process of developing formal assessment tasks. According to DeLuca and Klinger (2010), competency in assessment requires the understanding and correct use of assessment practices coupled with the knowledge of the theoretical and philosophical underpinnings in the measurement of students' learning. However, an inappropriate and ineffective use of classroom assessment led to reduced reliability and validity, culminating in educational decisions which are misdirected and inappropriate. Therefore, teachers must be able to maximise their potential of assessment while also monitoring learner progress. As a result, comprehensive pre-service training on assessment is essential to provide a strong foundation for future professional learning and practice.

Teacher competency in the execution of their duties and especially in developing and administering good quality assessment is dependent on teacher training, teacher professional development and teacher knowledge. Cochran-Smith (2003) notes that discrepancies on the training of teachers, teacher professional development and teacher learning defeat the ultimate goal of teacher education which is student learning According to Day and Sachs (2004) and Kelly (2004), to enhance teacher quality and competence, it is imperative for practicing teachers to work collaboratively with others through professional development activities to

share new ideas and learn from one another's experiences. This will enable teachers to enhance their knowledge in content delivery and assessment practices in the classroom.

Assessment in the classroom, both formal and informal, plays a significant role in student learning. Assessment should provide learners with a foundation to build a lifetime of learning both in the workplace and other social settings. It must provide learners with skills that will enable them to survive beyond the school where teachers and formal assessments will no longer be available. Stiggins, (2004, as cited in DeLuca & Klinger, 2010) maintains that very few teachers are prepared to face the challenges relating to classroom assessment because they were not given an opportunity to do so.

Teacher competency cannot be limited to the teachers' ability to design quality assessment tasks, but also includes competency in lesson planning and lesson preparation. Sural's (2019) study highlighted incompetency of pre-service teachers in lesson planning and lesson preparation after undergoing pre-service training. The study revealed that the competency levels of pre-service teachers in lesson planning were not satisfactory which was also the case with public and private service teachers. Furthermore, the responses of public and private sector teachers to open-ended questions showed that the theoretical and practical skills of teachers in lesson planning were not reliable.

To this end, there is a close relationship between teacher competency in lesson planning, lesson preparation and assessment practices in the classroom, particularly designing quality assessment tasks.

1.3 Purpose of the study

Assessment plays a crucial role in the teaching-learning process and it is essential that teachers are competent in designing a range of quality assessment tasks. The purpose of this study was to examine EMS Grade 7 teachers' competencies in the development of quality formal assessment tasks. This study also aimed to examine whether Grade 7 EMS teachers covered a range of cognitive levels when designing formal assessment tasks as well as the challenges they experience when designing formal assessment tasks.

1.4 Rationale

The concept of assessment and its importance are widely discussed in a variety of literature (Boud, 1995; Boud & Falchikov, 2006; William, Lee, Harrison & Black, 2004; & Thomas, 2012). Irrespective of what assessment achieves, it must enable learners to learn beyond formal

education activities when teachers, courses and formal assessment are no longer available to provide support. However, some gaps still exist in respect of strategies used in improving learner performance. The gaps exist because most available literature is concerned with differences between assessment for learning and assessment of learning (Bound, 1995; Boud & Falchikov, 2006). In addition, Volante and Fazio (2007) assert that there is little research directed at understanding the literacy of teachers on classroom assessment. Due to such criticism, Boud and Falchikov (2006) advocate for the reappraisal of assessment practices in school to enhance teacher competency on assessment and ensure effective assessment in the classroom. Furthermore, while literature exists about various teacher experiences, there is a lack of studies on the experiences of EMS Grade 7 teachers in the development of the formal assessment tasks. This study is important and necessary because it explored the competency of EMS Grade 7 teachers in the development of formal assessment tasks. While it is indisputable that the Department of Basic Education (DBE) has devised strategies to train educators as part of the processes designed to prepare them for implementation of the Curriculum and Assessment Policy (CAPS), challenges still exist. Teachers are still struggling to design assessment tasks that adhere to Economic and Management Sciences assessment policy requirements. Assessment practices that are performed in schools, particularly formative assessment, seemed to be inadequate to help student learning during their course of learning. According to Pittaway and Edwards (2013), student assessment is the means through which educators can measure the relationship between desired educational outcomes and actual achievement of learners. Summative assessment is criticised for its negative effects on student learning such as its inability to assess at higher cognitive levels. Pittaway and Edwards (2013) and William, Lee, Harrison and Black (2004) suggest that assessment tasks should assess creativity and evaluation as cognitive skills. This view is enshrined in the general aims of the CAPS document (Department of Education, 2011, p.4), which states that, "High knowledge and high skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, achievable standards in all subjects". However, gaps still exist, as the aims have not yet been achieved at the required levels as revealed in the assessment practices performed in schools.

Literature suggests that discrepancies in teacher competencies in designing assessment tasks may be attributed to a lack of emphasis on assessment literacy in pre-service training. Thomas (2012) argues that many teacher education programmes do not make taking up courses in classroom assessment, particularly student-centred assessment, a requirement for pre-service teachers. Furthermore, in-service teachers reported that they were not well prepared to assess

students' learning. This results in teachers neither having knowledge of classroom assessment nor knowledge of large-scale testing.

Adams (2015) contends that studies have shown that the focus of learning objectives in many training programs and pre-service training of teachers on the curriculum are overwhelmingly on the lower levels of the taxonomy, that is, knowledge, comprehension and application. This confirmed the theory-practice divide as mentioned in the studies above, namely, Fazio (2007), DeLuca and Klinger (2010) and Korthagen (2017). Therefore, to address this gap, all teacher training programs must extend their focus to the highest levels of Bloom's Taxonomy, that is, analysis, synthesis and evaluation. Thompson, Luxton-Reilly, Whalley, Hu and Robbins (2008) assert that it is difficult to apply Bloom's Taxonomy consistently to both formal and informal assessment tasks. They further point out that is a valuable tool that could enable analysis and discussion of all formal tasks if it can be interpreted and applied consistently. Using Bloom's Taxonomy to help design examinations can greatly improve the quality of assessment in the classroom.

Volante and Fazio (2007) highlight the gaps in assessment literacy from pre-service training and transferred to practice of pre-service teachers in North American Universities. The study found that despite being subjected to training on assessment, self- efficacy remained low across four years of their study. Pre-service teachers were not confident to implement assessment methods in their classrooms. The study also found that further training on the utilisation of various assessment methods is required beyond pre-service training. Emphasis on methods for promoting literacy on assessment at university and during practice teaching settings was found to be crucial to improve assessment practices. This draws attention to the importance of this study which aimed to examine teacher's competencies to develop quality formal assessment tasks.

The observations that I made, as an Economic and Management Sciences (EMS) Subject Advisor (Grades 7 to 9), during the curriculum support visits and school-based assessment moderation processes served as the rationale and motivation for this study. It was evident from my observations that Grade 7 EMS teachers experienced difficulty in developing quality formal assessment tasks. Evidence also suggested that some teachers could not clearly distinguish between different forms of assessment that were administered in the Senior Phase. For example, some teachers could not differentiate between the assignment and the project despite

their different features. To some teachers, the nature of an assignment was not different from the test. These were forms of assessment that formed part of the formal program of assessment.

My observations also revealed that some of these formal assessment activities did not assess the required skills as required by the Curriculum and Assessment Policy (CAPS). While teachers aimed to develop learners' skills at the higher levels of Bloom's taxonomy that required demonstration of deeper cognitive processing such as critical thinking and evaluative judgments, such aims are not translated in to practice during assessment activities.

Teacher qualification in teaching EMS also complicates the existing discrepancy. Some teachers teaching EMS in the Senior Phase (Grades 7 to 9) were not qualified to teach the subject as for some of them EMS was not part of their programme during their teacher training. They were teaching EMS as part of their duty load and not because they were qualified to teach it. This resulted in poor assessment processes as these teachers initially struggled with the content knowledge (CK) but were also expected to design quality formal assessment tasks. Thompson *et al*. (2008) suggest that to effectively design an assessment task, the person undertaking the activity must have an in-depth knowledge of the subject.

In addition to failure to comply with cognitive levels, discrepancies between the assessment tasks and the marking guidelines were also observed. These include, model answers not responding to questions in the assessment task and inability of the marking guidelines to cater for the learners' alternative responses. Mark allocation was also a challenge, where more marks were allocated for low order questions and mark allocation in the assessment task did not correspond with that of the marking guideline or assessment tools such as memoranda, rubrics, checklists, etc. Furthermore, during curriculum support workshops, orientation workshops and during curriculum support visits, teachers also acknowledged their incompetence regarding setting standardised assessment tasks. Teachers also requested continuous support from Subject Advisors about setting quality, balanced and standardised assessment tasks. During meetings and reporting sessions of Subject Advisors, poor quality assessment tasks were regarded as one of the major discrepancies in the system of education.

Therefore, this draws attention to the gap that exists between the theory teachers learnt about assessment in workshops and institutions of higher learning and their competence in setting assessment tasks in practice. This study aimed to address this gap. In addition, this study aimed to examine Grade 7 EMS teachers' competency in developing quality and standardised

assessment tasks. This study will therefore contribute to knowledge in the field of teacher learning and assessment.

1.5. Key research questions

This research study aimed to address the following research questions:

1. To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?
2. What challenges do Grade 7 EMS teachers encounter when designing the formal assessment tasks?

1.6 Overview of key concepts and conceptual frameworks

Thomas (2012) asserts that assessment is a challenging task and for teachers to conduct effective classroom assessment, they require knowledge of the methods of assessments and to master assessment strategies. As a result, teachers must be educated and skilful when applying classroom assessment. Teacher knowledge of assessment methods and strategies is largely dependent on the training teachers receive before their first employment into the teaching profession. The quality of training therefore determines the extent to which they can develop and effectively administer both formal and informal assessment tasks.

The following key concepts formed the core of the study:

a) **Assessment**: According to the Department of Basic Education (2011, p.3), "assessment is a process of collecting, analysing and interpreting information to assist teachers, parents and other stakeholders in making decisions about the progress of the learners". Assessment plays a crucial role in curriculum delivery and student learning.

b) **Assessment for learning:** Braun, et al, (2006) define assessment for learning as the monitoring and improvement of the progress of learners through properly chosen assessment activities.

c) **Assessment of learning:** According to the Department of Education (2011), this type of assessment constitutes a formal programme of assessment for purposes of promotion and progression of learners from one grade to the next.

d) **Competencies:** Competencies that were referred to in this study were competencies of Grade 7 EMS teachers to develop quality formal assessment tasks. This included their ability to cover a range of cognitive levels when developing formal assessment tasks.

This study was underpinned by two conceptual frameworks, namely, Bloom's (1956) theory of educational objectives and Grossman's (1990) framework on teacher knowledge. Bloom categorises levels of thinking and /or reasoning that are required in a classroom situation. Bloom's Taxonomy is a multi-tiered model of classifying thinking according to six cognitive levels of complexity (Forehand, 2011), namely, knowledge; comprehension; application; analysis, synthesis and evaluation. It is aimed at making teachers help their learners to reach the highest level of thinking and comprehension. This conceptual framework was used to analyse the first research question which examines the extent to which Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks.

Grossman's (1990) model of teacher knowledge outlines four general areas of teacher knowledge. These knowledge areas serve as a foundation to the emerging work on professional knowledge for teaching. These areas are general pedagogic knowledge (GPK), pedagogical content knowledge (PCK), subject matter knowledge (SMK), and knowledge of context (KC). While all these knowledge areas are important and critical for the teacher to have, this study focused on subject matter knowledge (SMK). The Grossmans's (1990) model of teacher knowledge was used to analyse the second research question on the challenges the EMS Grade 7 teachers face when designing formal assessment tasks.

1.7 Methodological Approach

This study was located in the interpretive paradigm as it aimed to examine the competencies of Grade 7 EMS teachers in the development of quality formal assessment tasks. Mack (2010) defines a paradigm as a collection of assumptions which are logically related as well as concepts or propositions that align thinking and research. According to Creswell (2014) and Mackenzie and Knipe (2006), interpretive researchers seek to understand the world in which they live and work. Data collected in this paradigm is qualitative, from a small number of participants, since the aim is to explore the meanings which the participants place on the phenomena under investigation. Both the interpretive paradigm and a qualitative methodological approach were suitable for this research study which aimed to examine and understand the competencies of EMS Grade 7 teachers in the development of formal assessment tasks.

A descriptive case study research design was suitable for this study as it aimed to examine the competencies of EMS Grade 7 teachers in designing quality formal assessment tasks. It helped me to describe in detail how teachers experienced the design of formal assessment tasks and how they were able to deal with any complexities that arose from their teaching and assessment processes in their schools. Baxter and Jack (2008) contend that descriptive case studies describe an intervention or a phenomenon in its real- life context in which it occurred. The cases in this study were Grade 7 teachers who teach the subject EMS and Departmental Heads who supervise the EMS teachers.

In this research study, purposive sampling was used to select seven participants. According to McMillan and Schumacher (2014), purposive sampling occurs where the researcher selects certain elements from the population that are representative or provide valuable information about the topic examined. This study involved five EMS Grade 7 teachers and two Departmental Heads who were sampled purposively as they would provide relevant information and lived experiences as they were directly involved in the delivery of EMS in the classroom. This means they were central to the phenomenon under investigation by this study

Data was generated using three data generation methods, namely, document analysis, semi-structured interviews and questionnaires. The three data collection methods enabled me to assess various competencies and further verify and authenticate data generated.

1.8 Overview of the dissertation

Chapter One discusses the background, purpose and rationale of the study. The chapter further outlines the research questions, a brief outline of key concepts related to assessment and an overview of the theoretical frameworks which underpin the study. The chapter also includes a description of the methodological approach used in the study. Chapter One concludes with an overview of chapters one to five.

Chapter Two presents an in-depth literature review of the concepts on assessment in the classroom and policy provisions in respect to assessment in EMS Grades 7 to 9. The following are the key concepts discussed in Chapter Two: assessment for learning; assessment of learning; school- based assessment; policy provisions on assessment in EMS; teacher attitudes and beliefs towards classroom assessment; teacher competencies on classroom assessment; curriculum management in schools and mentoring in schools. These key concepts were examined in line with scholarly debates. Chapter Two concludes with an outline of the conceptual frameworks that underpin this study, drawing on Bloom's (1956) theory of

educational objectives and Grossman's (1990) model of teacher knowledge which outlines four general areas of teacher knowledge, namely, general pedagogic knowledge (GPK), pedagogical content knowledge (PCK), subject matter knowledge (SMK), and knowledge of context (KC).

Chapter Three focuses on the methodological approach used in the study. It further elaborates on the interpretive paradigm that underpins the study. A detailed description of the case study and collective case study as research design of the study is presented including the data collection methods, namely, document analysis, questionnaire and semi-structured interviews. The purposive sampling procedure and sample size of seven EMS Grade 7 teachers and two Departmental Heads are also explained in this chapter. In addition, the chapter discusses the method of data analysis, ethical considerations, validity and trustworthiness.

Chapter Four presents the results obtained from analysing the data. Results are presented according to the research questions for this study. This chapter includes the interpretation of the data and an explanation of the findings of the study, using Bloom's (1956) theory of educational objectives and Grossman's (1990) model of teacher knowledge which outlines four general areas of teacher knowledge.

Chapter Five presents the summary of the findings, recommendations for further research, limitations of the study as well as the conclusions of the study.

1.9. Conclusion

In this chapter, I explained the background and purpose of the study. I further discussed the rationale of the study and elaborated on key issues relevant to the study. I also presented the research questions which guided data collection. A brief outline of key concepts related to the study, the conceptual frameworks guiding data analysis as well as the methodological approach used in the study were discussed. The chapter concludes with an overview of the chapters in this dissertation.

CHAPTER 2

REVIEW OF LITERATURE AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This chapter begins with an outline of assessment and highlights the importance of assessment. This is followed by a discussion of assessment of learning / formal assessment, assessment for learning / informal assessment and school- based assessment. A review of literature on teacher beliefs, attitudes and competencies follows. Next, the review on policy provision and implementation as well as the effects of mentoring on teaching and assessment in the classroom is discussed. The chapter concludes with a discussion of the conceptual framework.

2.2. Defining assessment

The major concern of an education system is whether learners achieve the objectives of their course of study or curriculum objectives, scope and sequence. Assessment therefore plays a crucial role in addressing this concern. According to the Department of Basic Education (2011, p.3), "assessment is a process of collecting, analysing and interpreting information to assist teachers, parents and other stakeholders in making decisions about the progress of the learners". Assessment plays a crucial role in relation to curriculum delivery and student learning. Msomi (2013) contends that assessment is a communication process that informs teachers, learners, parents and policymakers and other relevant stakeholders about what learners have learnt. Jabbarifar (2009, p. 2) asserts that "assessment is a process that includes four basic components:

a) Measuring improvement over time.

b) Motivating learners to study.

c) Evaluating the teaching methods.

d) Ranking the learners' capabilities in relation to the whole group evaluation".

A good assessment closely reflects desired learning outcomes and has a directly beneficial influence on the learning process. Jabbarifar (2009) and McMillan (2000) contend that classroom assessment and evaluation are concerned with qualitative judgments which are used to improve learners' learning and knowledge. The essence of the process is making professional interpretations and decisions. Assessment and evaluation further provide teachers with useful information about how to improve their teaching methods. DeLuca and Klinger (2010, p. 10)

assert that “teachers are expected to use a variety of assessment instruments to measure learners’ learning and integrate various forms of assessment to not only support their instruction but also measure learners’ progress”. Therefore, teachers must develop and maintain a proper understanding of assessment practices and theories so that assessments can meaningfully support and measure learners’ learning while providing valuable feedback for teaching.

Boud and Falchikov (2006) point out that assessment must equip learners to learn beyond the academy once the infrastructure of teachers, courses and formal assessment is no longer available. William (2011) highlights that there is a growing interest in understanding assessment activities and forms of assessment that guide learning towards the intended goal, which occur during the teaching and learning process. In contrast, McLachlan (2006) argues that assessment does not drive learning in all contexts because there are several factors that influence assessment, including among others, learners’ different learning styles and anxiety over assessment. Despite these arguments, literature focuses mainly on the distinction between the two types of assessment and not how classroom-based assessment activities or assessment for learning build up towards formative assessment in terms of them meeting required assessment standards.

The purpose of this case study research project was to examine EMS Grade 7 teachers’ competencies in designing quality formal assessment tasks as well as examine the extent to which they cover a range of cognitive levels when designing formal assessment tasks. Boud and Falchikov (2006) argue that while assessment helps learners to improve their content knowledge, there could also be unintended consequences such as using rote learning to maximise their marks even if this would obstruct them from learning important aspects of their subject. This is influenced by the form of assessment used and the assessment experiences that learners have had in the past. According to the Department of Basic Education (2002, p.5), assessment aims to achieve the following: “developing learners' knowledge, skills and values; identifying the needs of learners; enabling teachers to reflect on their practice; identifying learners' strengths and weaknesses”. Furthermore, assessment helps the education system to monitor itself against the developmental and critical outcomes. Finally, assessment helps the school to monitor progress as defined by the Curriculum and Assessment Policy Statement (Department of Basic Education, 2011). Similarly, Aswegen and Dreyer (2004) contend that the major role of assessment is to provide a balanced methodology for monitoring, confirming, and improving student learning. According to Braun, et al, (2006), assessment is not only seen

as a tool to measure the progress of individual learners, but it also enables individuals, communities, and countries to measure the quality of schools and educational systems. This, therefore, suggests that assessment policies and practices are critical to any successful educational improvement strategy. Assessment data is essential to teaching and learning and is needed to monitor, evaluate, and improve the education system.

Thomas (2012) highlights the gradual movement or reform of the international educational assessment scenario from the traditional examination culture to a more flexible assessment culture. As a result of this global reform, Asian countries have been encouraged to replace rigid, high stake testing with a flexible culture of assessment. Price, et al, (2011) describe the following categories of effective alternative assessment strategies: The first category is the **Rubric**, an assessment tool used to assess learners' knowledge and skills. A rubric depicts the criteria of knowledge and abilities that cannot be assessed by standardised testing. The rubric is an inclusive tool which can be used for both formative and summative assessments. Rubrics can revitalise the teaching learning process because they serve multiple purposes which include clarifying expectations for an assignment and providing focused feedback on a project still in progress. In addition, they enable self-monitoring and self-assessment and give structure for a final product, that is, an assessment task. The second category is **Performance based assessment,** which is also known as the project based or authentic assessment. Project based assessment assesses whether learners can apply their knowledge and skills in a real life situation. The third category is **Portfolio assessment**, which helps teachers to assess learners' effort, development as well as achievement over time. The fourth category is **Student self-assessment**, which allows learners to identify their own strengths and weakness and work towards making improvements to meet specific educational needs or objectives. The last category is **Peer-assessment** which occurs when learners consider and give feedback to other learners about the quality and value of their work. When used correctly, peer assessment can open constructive dialogue on how learners learn including their learning needs and formulating personal goals in their learning trajectories. This enables the teacher to design the next lesson taking into consideration the learning needs and goals of the learners.

The following discussion distinguishes between assessment of learning and assessment for learning.

2.3. Assessment of learning/ formal assessment

Formal assessment is defined as all assessment tasks that make up the formal programme of assessment for the year. These assessment tasks are used for progression and promotion purposes and vary from one subject to the next (Department of Basic Education, 2011). Dunn and Malvenon (2009, p.3) define assessment of learning as "the evaluation of assessment - based data for the purposes of assessing academic progress at the end of a specified time period (i.e. a unit of material or an entire school year) for the purposes of establishing a learners' academic standing relative to some established criterion". Similarly, Widiastuti, et al, (2020, p.72) define summative assessment as "a procedure to make a judgment or to summarize all the evidence up to a given point of the learners' achievement, or what a student has grasped at the end of a course or unit of instruction". According to Thomas (2012), summative assessment compels teachers to encourage learners to practice before writing tests to raise their marks. Assessment of learning gives a general picture of learner's progress at a given time, for example, at the end of a term or year, or on transfer to another school (Department of Education, 2004). Garrison and Erhinghaus (2007) assert that the core is to consider summative assessment to gauge, at a given point student learning relative to content and curriculum standards. However, they argue that, while the information that is derived from summative assessment is important, it can only help in evaluating certain aspects of the learning process. Assessment procedures are administered such that the focus of the exercise is on assessing specific competencies of the learners taking into consideration principles of assessment such as validity, fairness, reliability and sufficiency. Assessment of learning may include a variety of assessment tasks such as controlled tests and examinations, case studies, oral examinations, assignments, projects, etc.

The major challenge associated with assessment of learning is giving feedback as it usually faces negative reception. This is because it gives judgement on performance and determines progression or promotion to the next grade. Harrison and Wass (2016) suggest that teachers or assessors must be careful when giving feedback on summative assessment as it is usually not regarded as relevant for future learning but for subsequent summative assessments. Feedback on summative assessment is viewed as only giving the pass or fail decision which is received negatively and creates tension. To avoid this, a positive environment must be created for learners to receive such feedback. Harrison and Wass (2016) advocate for the avoidance of unintended consequences brought by feedback on summative assessment to encourage positive

receptivity. They further suggest that the environment and culture in which assessment and feedback is taking place must be taken into consideration.

2.4. Assessment for learning (AfL)/ Informal assessment

Informal assessment for learning or daily assessment is the monitoring and enhancing of learners' progress. This is done through teacher observation and teacher-learner interactions, which may be initiated by either teachers or learners (Department of Basic Education, 2011; Braun et al., 2006; Green, 2018). Furthermore, the Department of Basic Education (2011) points out that informal assessment builds up to assessment of learning (summative assessment) and is aimed at improving teaching and learning. According to Green (2018, p.10), 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". The intention is to bridge the gap between current and intended levels of performance using appropriately chosen activities. Nicol and Macfarlane-Dick (2006) define formative assessment as an assessment that is intended at generating feedback on performance to improve and accelerate learning.

Assessment for learning supports teaching and is concerned about the development of effective learning. Assessment for learning strategies such as classroom questioning and discussion support sharing and clarifying important aspects and concepts. It supports feedback which is fundamental to deciding what should happen next to progress learning. Finally, assessment for learning is fundamentally linked to determining the learners' learning styles. Reza, Zeraatpishe and Faravani (2019) suggest that to progress learning, teaching must be consistent to the learning styles of learners, therefore, assessment for learning must not be divorced from how learners learn. Raselimo and Mahao (2015, p.9) assert that "assessment for learning creates learning opportunities which incorporate practical skills that cannot be adequately assessed through tests and examinations… and bring about quality in the teaching and learning processes by adapting instructional processes to meet the needs of individual learners, and also increase parental involvement.".

Nicol and Macfarlane-Dick (2006) point out that formative assessment and feedback should be used to empower learners to become self-regulated learners. Effective self-regulation occurs when the learner remembers some goals to be achieved against which performance is assessed. Self-regulation causes learners to take control over their learning and become less dependent on external teacher support when they engage in regulatory activities. Harrison and Wass

(2016) contend that while learners always demand feedback from their teachers, regarding formative assessment, they seem to have difficulty in using it formatively. Therefore, providing feedback after assessment does not ensure that learners will use it in the way that programme designers and teachers intend to use it, that is, enhancing learning. However, learners should be capacitated to take responsibility of their own formative assessment route and be offered supportive mentorship.

Price, Pierson and Light (2011) maintain that assessment for learning is underpinned by the idea that classroom assessments should support continuous teaching and learning. In the process, it highlights the vital role that teacher-made classroom-based formative and process-focused assessments could play in improving the entire education system. According to Nicol and Macfarlane-Dick (2006, p.205), the following are the principles of effective feedback:

1. "Helps clarify what good performance is (goals, criteria, expected standards).

2. Facilitates the development of self-assessment (reflection) in learning.

3. Delivers high quality information to learners about their learning.

4. Encourages teacher and peer dialogue around learning.

5. Encourages positive motivational beliefs and self-esteem.

6. Provides opportunities to close the gap between current and desired performance.

7. Provides information to teachers that can be used to help shape teaching."

2.5. School based assessment (SBA)

School Based Assessment refers to all assessment tasks or activities administered at school level. The results of the informal daily assessments are not formally recorded unless the teacher is willing to do so. Biggs (1999, cited in Jabbarifar, 2009) suggests two major functions of classroom assessment: firstly, to show whether the learning has been successful, and secondly, to clarify the expectations of the teachers from the learners. Formal assessment enables teachers to systematically evaluate how well learners are progressing in a grade and in a subject. Examples of formal assessments include tests, examinations, practical tasks, projects, oral presentations, demonstrations, performances, etc. Formal assessment tasks form part of a formal Programme of Assessment for the whole year, in each grade and subject (Department of Basic Education, 2011). Msomi (2013) contends that expectations for success or design of

tasks, can be influenced by the desire of teachers to produce best results at the expense of legitimate assessment. With particular reference to assessment in Economic and Management Sciences, the policy document outlines that knowledge, skills and values acquired should promote entrepreneurial initiatives, sustainable enterprises and economic growth, financial and managerial skills that prepare learners for success in different economic and business environments (Department of Basic Education, 2011).

To administer good assessment in the classroom, Brualdi (1998, p.2) suggests that a teacher must have a clearly defined purpose and address the following important questions:

a) "What concept, skill, or knowledge am I trying to assess?

b) What should my learners know?

c) At what level should my learners be performing?

d) What type of knowledge is being assessed? i.e., reasoning, memory, or process"

While assessment was broadly explained in this review of literature, the aspect of assessment that this study focused on was formal assessment, also referred to as assessment of learning. Although there is a wide range of formal assessment activities, this study focused on controlled tests as an area of focus.

2.6. Teacher attitudes and beliefs towards classroom assessment

The beliefs of teachers about assessment greatly influence how they make classroom decisions regarding the teaching and learning experiences for learners and assessment administered for making judgment about learners' learning.

Thomas (2012) asserts that teachers' attitude, prior knowledge and beliefs about learners, learning, classroom instruction and assessment provide the foundation for their philosophy of teaching. Teachers' beliefs about learners, learning and classroom teaching result from their knowledge and experiences. According to Clark (2012) and Thomas (2012), teachers' beliefs about classroom assessment also influence how they select and conduct their classroom assessment. It is therefore imperative to ascertain the extent to which teachers' beliefs impact on their classroom teaching and assessment practices. Jansen (2001, cited in Vandeyar, 2008), asserts that teacher beliefs are powerful in determining whether learners have successful experiences in the classroom. Teachers' knowledge base and prior experiences help to create individual assumptions and values about assessment.

In a survey study by Thomas (2012) conducted in Pakistan, involving 88 trained teachers (who had undergone formal university or college training) and 35 untrained teachers' (who had no regular or formal training), beliefs of the two groups of teachers on classroom assessment were compared. The results of the study revealed that that there were no fundamental differences between the beliefs of trained and untrained teachers regarding classroom assessments and their selection of classroom assessment strategies. Both the groups believed that informal assessment was the best way of assessing learners' performance. The results also showed that trained and untrained teachers believe that both parents and teachers have a significant role to play in learners' assessment and it was a tool for learning. Both groups of sampled teachers believed that assessment enabled learners to critically look at their own classroom performances and work towards improvement. In addition, Allen, Ort and Schmidt (2009, p.72) contend that "as instruction is occurring, teachers need information to evaluate whether their teaching strategies are working. They also need information about their current understanding of individual learners and groups of learners so they can identify the most appropriate next steps for instruction." Therefore, assessment does not only help learners to reflect on their performance, but also enables teachers to reflect on their teaching as well as assessment strategies. The study further revealed that trained teachers agree that classroom-based assessments, particularly tests and examinations, put pressure on teachers to complete their Annual Teaching Plans while the larger percentage of untrained teachers disagreed. In the end such pressure results in teachers neglecting assessment of skills. This therefore suggested that both trained and untrained teachers believe that alternative learner centered assessment is effective in enhancing learner attainment. Allen *et al.* (2009) argue that teachers with less practice and experience from their teacher preparation courses in both developing and administering assessment tasks, need a great deal of support to effectively develop and administer both summative and formative assessments.

A similar study was conducted in Indonesia by Widiastuti *et al.* (2020). In this study, an investigation into multi-cases of junior high school English teachers to reveal the variance between teachers' beliefs and practices of formative assessment in EFL classes viewed from different Continuing Professional Development (CPD) was done. The objectives of this study were to identify the teachers' beliefs about formative assessment, to investigate how EFL teachers conduct their formative assessment practices related to their beliefs and to establish the relationship between CPD participation levels and EFL teachers' beliefs and practices.

Findings revealed that it is imperative for teachers to develop their skills in conducting formative assessment. In addition, they must always take into consideration factors which may influence the implementation or administration of formative assessment and that there is a close relationship between teacher beliefs and how they administer formative assessment. In addition, the study revealed that formative assessment helps learners to focus on their learning which leads to improved performance in summative assessment. It further improves the learning abilities of learners and enables teachers to improve and contextualise their teaching strategies to accommodate learning needs of learners and ensure that learning reflects the learners' real conditions.

Regarding the relationship between teacher beliefs and their participation in CPD programmes, the study found that teacher beliefs greatly influence implementation of formative assessment regardless of the extent of their participation in CPD programmes.

In the first case, the study revealed that the CPD programme enabled teachers to design formative assessment according to learning objectives and learners were informed of the expectations at the end of the lesson. In another case, while the teacher had substantial experience in teaching and participated in many CPD programmes, the teacher still improperly administered formative assessment. The teacher believed in remediating only those who had very low scores because of insufficient time but neglected other learners. Feedback was also not given to learners based on the learning objectives which were also not outlined. Finally, the study revealed that teachers may not believe in the CPD programme, hence their poor participation in such programs, but they rely on what was taught at university or college.

Vandeyar (2008, p.700) asserts that "student teachers tend to use their personal experiences as critical filters in accepting and integrating course content that is intended to develop professional decision-making frameworks." This results in low knowledge of both administering formative assessment and managing assessment practices. This consequently leads to improper implementation of both formative and summative assessment respectively. However, not all teachers who have low CPD participation conduct assessment improperly.

Vandeyar (2008) examined the beliefs, perceptions and attitudes among student teachers towards diversity in their classrooms. Evocative case studies were used to determine the understanding of diversity in education by White South African student teachers given the policy reforms after the termination of apartheid. This was drawn from the learners' every day classroom practices.

Although the study was not about assessment in the classroom, it revealed that acknowledging diversity in education, particularly in the classroom, has a significant impact on student learning, language of learning and teaching (LoLT), classroom practices and learner attainment. Vandeyer's (2008) study is relevant to this study given that it acknowledged that diversity in the classroom influences teachers' assessment practices in the classroom. It compels teachers to use a differentiated approach to assessment which improves learner attainment.

After the student teachers had received tuition on diversity, the study found that it was unfair for learners to receive education in a strange language resulting in them being unable to express themselves freely. This impacted negatively on learner attainment since the language of instruction was a foreign language, that is English or Afrikaans. Adding marks for learners who are taught in a foreign language would not solve the problem or perhaps could be a short-term solution. A long-term solution was found to be either all languages be available as medium of instruction or the system of education ensured that learners were able to express themselves in the language in which examinations were set and administered.

2.7. Teacher competencies on classroom assessment

Clark (2012) contends that for learners to become effective learners it was important that they were taught by teachers who had received initial and continuing training on instructional methods which helped them to adapt their teaching to meet the needs of their learners. To a greater extent, this determines the level of competency expected to be displayed by teachers when executing their classroom activities, particularly assessment. DeLuca and Klinger (2010) assert that competency in assessment requires the understanding and correct use of assessment practices together with the knowledge of the theoretical and philosophical underpinnings in the measurement of learners' learning. Therefore, an inappropriate and ineffective use of classroom assessment leads to reduced reliability and validity, leading to misdirected and inappropriate educational decisions. Consequently, teachers must be able to maximise their potential of assessment while also monitoring learner progress. As a result, a comprehensive pre-service training on assessment is necessary to provide a strong foundation for future professional learning and practice.

According to the study by Macintyre, Buck and Beckenhauer (2007), although there is thorough in-service training on student teachers' reasoning and multiple methods for

connecting content and the learner, teachers lacked the artistic understanding to visualise how to link process, product, and learner to conceive of a holistic schematic for effective teaching. Kelly (2010) claims that there is a great neglect of teachers, in most cases, by their institutions, as a result they lacked training or exposure to similar situations or conditions they encountered in their classrooms. The lack of or insufficient exposure of teachers to existing classroom conditions or situations has a negative impact on assessment practices in the classroom. This does not only affect novice teachers, but also experienced and long serving teachers as they are also expected to mentor new entrants in the teaching profession. They eventually use knowledge they may have gained in- practice or through situated learning. Correspondingly, Orland-Barak and Yinon (2007) conducted a study on three student teachers who reflected on their understanding of the connection between their theory and practice in their teaching and learning environments. The study concluded that the connection was important in any process that is intended to put the curriculum into practice. In addition, their study revealed that the connection between theory and practice assisted teachers to develop grounded theories of practice and practical theories of the curriculum.

Korthagen (2017) agrees that there is a huge gap that still exists between theory and practice and that many attempts that promote innovation in schools have failed. He further asserts that continuous teacher professional development is required. However, he argues that the theory - practice gap exists because of insufficient research on teacher learning resulting in continuous failing attempts to influence teacher behaviour.

DeLuca and Klinger (2010) found that there is a historical benefit of direct assessment instruction in pre-service, on-campus, teacher education programs. However, such instruction may not develop pre-service teachers' knowledge, skills, and confidence in assessment and evaluation consistently. Secondly, the study found that pre-service teachers seek more practical knowledge and skills which are supported by theory. Thirdly, the results of the study showed that pre- service teachers were more confident in tasks related to assessment of learning (summative assessment) as opposed to assessment for learning (formative assessment). However, the study found that most mentor teachers who mentor pre-service teachers also lack the required assessment literacy and skills. This resulted in the decline of confidence of pre-service teachers as they began their practice.

Van der Mars, Timkenn and McNamee (2018) conducted a study in the United States of America to evaluate competencies and formal and informal teacher assessment practices in

physical education in schools. An instrument referred to as The Systematic Observation of Formal Assessment of Learners by Teachers (SOFAST) was used to collect data. The focus of the study was on teachers' primary teaching functions, which included formal and informal assessment, the focus of their assessment, and common contextual dimensions of lessons. Van der Mars, Timkenn and McNamee (2018) point out that, while summative assessment is essential for learner promotion and progression, teachers disliked it. This could be attributed to the lack of timely information on student learning and records of learner progress as well as teachers believing it was time consuming. In addition, it could be because of the lack of quality and quantity of engagement of learners in the learning task as a reflection of their learning. Therefore, this suggests that the negative attitude of teachers towards formal or summative assessment has a bearing on their competency to develop quality formal assessment tasks.

In addition, the study revealed that teachers conduct formal assessment, however, it concentrated on performance, dress and timely arrival to class. This reflected a lack of change in formal assessment as it did not assess content sufficiently. This also demonstrated the lack of relationship between the informal assessment and formal assessment. The study revealed that teachers viewed formal assessment as time consuming, unnecessary or lacking relevance. This was attributed to how they conceptualised assessment in general and formal assessment in particular. Physical education teachers did not view formal assessment as a day-to-day process that occurs throughout the unit of instruction. Improper classroom management was found to also have a negative impact on administering quality formal assessment tasks. Finally, the physical education teachers indicated that they felt ill equipped to conduct quality assessment of their learners.

2.8 Policy provisions on Assessment in EMS

Raselimo and Mahao (2015) contend that a policy document carries messages about norms and values that dominant groups consider desirable for bringing about required change in society. This suggests that a curriculum policy is not completely neutral, but a political document which represents the interests of dominant groups. In the South African context, Blacks would represent the dominant group and curriculum policies developed through reforms over the years (since 1994) aimed to redress the imbalances of the past and pushing back the frontiers of apartheid education. This section analyses policy provisions regarding assessment and pedagogy which teachers are expected to implement in the classroom when teaching EMS.

"Economic and Management Sciences is a practical subject that equips learners with real life skills for personal development and development of the community. The tasks set should contribute to personal development and should promote the idea of sustainable economic growth and the development of the community" (Department of Basic Education, 2011, p. 8). The description of EMS as a subject as per the Department of Basic Education guides teachers in terms of the expectations regarding the level of assessment administered to learners. Palmer and de Klerk (2012) assert that the Curriculum and Assessment Policy Statement (CAPS) seeks to enhance social justice principles of equity, redress, social transformation, quality and efficiency as a way of contributing towards the development of individuals in South African education. Dewey (1983, cited in Raselimo & Mahao, 2015) viewed schools as democratic spheres, where individuals could be empowered to effectively deal with practical life challenges. This could be done through learner centred pedagogy and assessment, where the learners' real life and community experiences are integrated with school experiences. Therefore, should assessment not lead to personal development, sustainable growth and community development as well as solving practical life challenges, then such assessment contravenes the provisions of the CAPS. It would not produce the kind of learner envisaged by CAPS, that is, a learner who is able to "identify and solve problems and make decisions using critical and creative thinking" (Department of Basic Education, 2011, p.5). For this to happen, schoolteachers are expected to teach context-specific content, skills, attitudes and values relating to life challenges such as entrepreneurship and sustainable use of resources, which are identified as policy imperatives for curriculum and assessment reforms.

In terms of CAPS, as amended by the Department of Basic Education (2020), the topics making up the Annual Teaching Plan (ATP) for EMS are weighted in order to comply with the policy outcomes and the amount of content that should be taught and assessed. According to the Department of Basic Education (2020), Economy (Economics) weighs 25%, Financial Literacy (Accounting) weighs 50% and Entrepreneurship (Business Studies) weighs 25%. These weightings are applicable across the Senior Phase, Grades 7 to 9. This means that one of the requirements for the balanced test or examination question paper is that 50% of the paper should assess Financial Literacy and 25% should assess Economy and Entrepreneurship respectively. In addition, the Department of Basic Education (2020), amended the CAPS document, and prescribed that cognitive levels be spread in the assessment task as follows: 30% low order questions, 50% middle order questions and 20% higher order questions. This distribution of cognitive levels is applicable to both formal and informal assessment tasks,

which allows teachers to prepare learners for formal assessment. It must be noted that initially, the CAPS provision regarding cognitive levels was 30% low order questions, 40% middle order questions and 30% higher order questions (Department of Basic Education, 2011). An additional feature on assessment is the weighting of formal assessment tasks comprising of SBA and final examination. All formal assessment tasks making up SBA weigh 10% each. This means SBA contributes 40% to the learners' final marks and final examination contributes 60%. Therefore, the equal weighting of SBA is intended reduce the undue influence of summative assessments on classroom teaching, which has long been identified as a major constraint to curriculum reform (Raselimo & Mahao, 2015).

Due to the number of concerns received from teachers, subject specialists, parents and education stakeholders regarding the challenges in the implementation of CAPS in many subjects across the grades, there was a need to implement amendments in the CAPS policy documents in order to address the following issues:

a) Curriculum overload -many topics to be taught as opposed to the available notional time.
b) Assessment overload- number of formal assessment tasks to be administered in a year.
c) Poor curriculum coverage- ability to cover all the required topics within the given notional time.
d) Poor quality of formal assessment tasks.
e) Lack of guidance on the use of cognitive levels and
f) The need to create more time for teaching and formative assessment, (National Curriculum and Assessment Task Team Meeting, 17 May 2017).

To address assessment overload, the number of formal tasks in EMS were reduced from seven to five to increase teaching time and allow more time to conduct informal assessment. CAPS amendments also outline that Term one controlled test in EMS should as far as possible be structured as the final examination. This aimed to enable learners to develop test and examination writing skills required to complete future examinations (Department of Basic Education, 2020). The emphasis on quality informal and formal assessment activities CAPS amendments seeks to address the following General Aims of the South African curriculum, namely:

1. “High knowledge and high skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, achievable standards in all subjects.
2. Active and critical learning: encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths” (Department of Basic Education, 2011, p 4).

A study by Moodley (2013), conducted on two focus groups in KwaZulu-Natal, found that CAPS is consistent with its general aims and principles and that children were exposed to a wide range of skills that strengthened their physical, social, emotional and cognitive development.

While policy reforms have been undertaken, from Outcome Based Education (OBE) to National Curriculum Statement (NCS) and eventually to CAPS, with an intention to strengthen and improve the curriculum, implementation has since been found to be a major hindrance in achieving policy objectives. Raselimo and Mahao (2015) argue that while new policy reforms may create opportunities, they are also likely to introduce certain threats and challenges which can negatively affect the achievement of the expected policy outcomes.

A study by Kokela (2017), analysed the implementation of the Curriculum and Assessment Policy Statements in the Further Education and Training (FET) phase. The study was conducted on DBE Officials, Subject Specialists and Phase Specialists in the FET Band. Firstly, the study found that there was misunderstanding of the policy by the school workforce. This required school management to report such complexity in understanding CAPS by teachers, while encouraging teachers to work collaboratively to address such complexities. Correspondingly, a study by Reynek, Meyer and Nel (2010) which was conducted in all the nine provinces in South African schools firstly analysed the teachers’ perceptions in the implementation of SBA in English First Additional Language (EFAL). Secondly the challenges they faced in the implementation of the curriculum that call for drastic changes in assessment practices. The study found that there was poor understanding of the curriculum and assessment by the teachers in the FET Band. This was because of the following reasons: firstly, was inadequate training on the curriculum reforms. Secondly was the lack of support of teachers by Subject Advisors during the implementation process. Thirdly was the lack of resources and support material. Fourthly were heavy workloads, a lack of standardisation and poor moderation. Lastly was the illiteracy of learners coming through the system.

Similarly, Raselimo and Mahao (2015) point out that when curriculum reforms were implemented in Lesotho, evidence of a lack of common understanding of the reforms by education stakeholders was observed. This led to serious challenges of implementation. Another major finding was the lack of commitment to implement by teachers and finally the lack of stakeholder involvement particularly in the form of parents. Correspondingly, Zano (2015) conducted a study on twenty teachers from selected schools in the Free State Province and found that teachers displayed negative attitudes towards the implementation of CAPS. Moodley (2013) and Zano (2015) also found that learners did not consider assessment for learning as necessary and considered it to be a waste of teaching time. In addition, Moodley (2013) and Zano (2015) found that inadequate training of teachers on CAPS implementation posed a threat towards proper curriculum delivery and implementation. Although there were mini-workshops and support by Curriculum Specialists as well as School Management Teams (SMTs), Moodley (2013) and Zano (2015), found that teachers struggled to implement CAPS especially in conducting learner centred assessment. These findings suggest that assessment practices in the classroom were affected, leading to under assessment or poor assessment. The poor state of readiness for teachers to implement CAPS, is complicated by the fact that teachers also received inadequate pre-service training on assessment as revealed by studies conducted by Volante and Fazio (2007); DeLuca and Klinger (2010); Thomas (2012) and Korthagen (2017).

Inadequate resource provisioning regarding learners' textbooks and teachers' guides further complicates the issue of implementation of CAPS (Moodley, 2013; Zano, 2015; Kokela, 2017). These also constrain the administering of both informal and formal assessment in the classroom (Raselimo & Mahao, 2015). In some schools, learners shared textbooks which made it difficult for them to study and do assessment activities at home. Moodley (2013) found that the number and the type of assessments were prescribed but not the actual assessment topics. In the amended CAPS document (Department of Basic Education, 2020), in EMS, both the number of assessments and assessment topics are prescribed in the Programme of Assessment (PoA), see Table 2.1 below.

Economic and Management Sciences, Grade 7

Programme of Assessment

	TERM 1		TERM 2	TERM 3	TERM 4
Form / Types of Assessment	**Task 1 Assignment /Poster/ Case Study**	**Task 2 Controlled Test**	**Task 3 Mid-Year Examination**	**Task 4 Project Entrepreneurs Day**	**Task 5 Year-End Examination**
Tool(s) of Assessment	Memo/ Rubric	Memo	Memo	Rubric	Memo
Total Marks	50	50	100	50	100
Time Allocation	60 minutes	60 minutes	90 minutes	--	90 minutes
Date Of Completion	Week 6	Week 9	Weeks 9 - 10	Weeks 8 - 9	Week 7 - 8
Content Focus: Knowledge and Skills	The economy History of Money Needs and Wants	Content covered in Term 1 The Economy Goods and services Inequality and poverty	Term 1 & 2 work Term 1: 30% Content Term 2: 70% Content	Entrepreneurship The entrepreneur Starting a Business Entrepreneur's day	Financial Literacy: 50% Economy 25% Entrepreneurship 25%
Per Term Reporting Weighting %	50%	50% 100%	100%	100%	
Annual Reporting: Weighting	10%	10%	10% SBA = 40%	10%	60%

Table 2.1 Programme of Assessment for EMS Grade 7 (CAPS, 2020, p.84)

Khoza (2015) examined student reflections of teachers on their practices of the Curriculum and Assessment Policy Statement. The study revealed that student teachers did not link assessment to learning objectives. However, they did administer both assessment for learning and assessment of learning activities. Raselimo and Mahao (2015) caution that curriculum implementation at school level might be constrained by various school and classroom contexts such as large class sizes and teachers' high workloads. These factors likely made it difficult to conduct and monitor assessment and the progress of individual learners

2.9 Curriculum management in schools

Naidoo and Petersen (2015) assert that curriculum management entails setting up management systems, structures, processes and procedures as well as management of people to execute tasks effectively. The aim of curriculum management is to ensure that successful learning and teaching take place and to promote increased levels of learner attainment in a school. Curriculum management in schools also entails leading and managing a subject or phase.

Curriculum delivery in schools is core and the reason why schools exist. The expectation from the Department of Basic Education and all other stakeholders and interested parties in the education fraternity is that teachers must be able to teach all aspects or topics in the subjects allocated to them. An additional expectation is that teachers use pedagogy that yields good learner attainment, is learner-centered and achieves the goals of the curriculum. However, during all this, teachers need to be monitored, supported and guided by SMTs, Principals, Subject Advisors and other officials who play a vital role in ensuring that curriculum delivery occurs. The Personnel Administrative Measures (PAM) document outlines the roles of the Principal, Departmental Heads, Senior and Master Teachers and Office Based Educators in curriculum management in schools (Department of Basic Education, 2016). However, for purposes of this discussion the focus will be on Principals, Departmental Heads and Subject Advisors.

2.9.1 The role of the Principal in curriculum management

The school Principal as part of the SMT has a specific role to play in the management of the curriculum in a school. The Principal as a 'Chief Accounting Officer' (CAO) of the school, must ensure that all systems are in place for curriculum delivery to take place. Principals must ensure that performance targets are set and monitored and subject improvement plans as well as school assessment plans are in place. Muller, Orkin and Robertson (2017) contend that Principals, as instructional leaders, must build a conducive environment for teaching and learning to take place. The PAM document (Department of Basic Education, 2016, p.30) outlines that Principals of schools should among other responsibilities:

a) "Provide professional leadership within the school, thus ensuring that teachers and all other members of the school community maintain their professional conduct.

b) Give guidance, supervise and offer professional advice on the work and performance of all staff in the school and, he or she must discuss and write reports on teaching, level of support given by other stakeholders to improve teaching and learning.

c) Ensure the equitable distribution of workloads among the staff members.

d) Be responsible for the development of staff training programmes, as required by the Continued Professional Teacher Development (CPTD) programme. In addition, he or she must assist educators, especially new and inexperienced educators to develop and achieve educational objectives in accordance with the needs of the school.

e) Participate in agreed school/educator appraisal processes in order to regularly review their professional practice with the aim of improving teaching, learning, teaching and management." This means he or she must ensure that the Integrated Quality Management System (IQMS) takes place at school.

Ayeni (2012) conducted a study in Nigeria involving sixty (60) Principals and five hundred and forty (540) teachers. The purpose was to identify the nature of Principals' supervisory roles and their effectiveness in the supervision of the instructional tasks of teachers. It further investigated the constraints which Principals face when they perform their supervisory duties in the teaching-learning process. Ayeni (2012) found that a large percentage of Principals gave desired attention to monitoring of teachers' attendance, preparation of lesson plans and adequacy of written of work. However, tasks such as the provision of instructional materials, reference books, feedback and review of activities with stakeholders were found to be least performed by many Principals in secondary schools. The conclusion of the study was that the challenges that Principals faced in the execution of their tasks required effective collaboration and goal-oriented symbiotic interrelationship between the school and the relevant stakeholders in its environment. These tasks include institutional governance, resource inputs, curriculum delivery and learners' learning. In addition, Ayeni (2012 recommended that Principals must provide constant and adequate feedback to the teachers on their instructional task performance. The aim is to ensure periodic review and facilitate further improvement in the teaching-learning process in secondary schools. Furthermore, Wanjiku (2012) suggests that Principals should create, promote and maintain a system of communication that provides for an upward flow of communication to benefit decision making. A downward flow must be created to ensure the implementation of policy by the staff members. Finally, to facilitate coordination of all departments of the organisation, a horizontal flow of communication must be created.

2.9.2. The role of the Departmental Head (DH) in curriculum management

Shoba (2009) contends that Departmental Heads (referred to as Heads of Departments in the PAM document) are part of the school leadership who are required to ensure that the school curriculum is planned accordingly. To plan for the curriculum, they must use collaborative approaches and interpret the curriculum to meet the school's needs according to policy. DHs are required to assist educators with planning for classroom implementation and in the process address the design features underpinning the curriculum policy, CAPS in this context. DHs are also supposed to address problems that teachers encounter in teaching certain topics and plan development programs for them. Additional support could be sourced from nearby schools through cluster support, Lead Teachers and Professional Learning Communities (PLCs) to guide teachers in delivering the curriculum as per policy requirements.

The PAM document (Department of Basic Education, 2016, p.27) specifies, among others, the following roles of Departmental Heads in managing the curriculum in schools:

a) "To co-ordinate evaluation/assessment, homework, written assignments, etc., of all the subjects in that department.
b) To provide and co-ordinate guidance on the latest ideas on approaches to the subject, method, techniques, evaluation, aids, etc. in their field, and effectively conveying these to the staff members concerned.
c) To induct and co-ordinate guidance to new and inexperienced staff members. Guidance is also given on the educational welfare of learners in the department.
d) To control the work of educators and learners in the department. Moderate all formal tasks including test and examination papers, memoranda as well as mark or SBA sheets.
e) To control the administrative responsibilities of staff members.
f) To advise the Principal regarding the division of work among the staff in that department.
g) To participate in agreed school/educator appraisal processes in order to regularly review their professional practice with the aim of improving teaching, learning and management.
h) To co-operate with colleagues in order to maintain a good teaching standard and progress among the learners and to foster administrative efficiency within the department and the school.
i) To collaborate with educators of other schools in developing the department and conducting extra-curricular activities
j) To meet parents and discuss with them the progress and conduct of their children."

Departmental Heads are faced with all these responsibilities which they are expected to execute with diligence. However, Urio (2012) and Wanjiku (2012) contend that school Principals must make sure that DHs' duties and responsibilities are clearly defined so that they carry out these tasks accordingly and make them accountable for their duties. There must also be proper delegation and shared leadership and responsibility to enhance a sense of belonging for DHs. For this to be a success, school leaders must make resources and support structures readily available to ensure effective management (Urio, 2012; Ayeni, 2012; Bantwini & Diko, 2011). This would also ensure that monitoring of the work of teachers occurs and proper keeping of records to ensure that learner performance is effectively improved. However, Jaca (2014) argues that DHs are expected to be more knowledgeable about curriculum management while they do not receive specific training to manage the curriculum and are also trained simultaneously with teachers whom they are supposed to lead and support. It is therefore evident from local and/or international literature that DHs, while they are teachers with teaching loads, they have extra duties of curriculum management to perform.

2.9.3 The role of Subject Advisors in curriculum Management

Policy on the organisation, roles and responsibilities of education districts (Department of Basic Education, 2013) and the PAM Document (Department of Basic Education, 2016) respectively outline the role of Districts and Office based Educators on curriculum management. According to the Department of Basic Education (2013), that is, the policy on the organisation, roles and responsibilities of education districts, Education District Offices play a pivotal role in ensuring that all learners have access to education of progressively high quality. This suggests that District Offices are the link between Provincial Education Departments, education institutions within their jurisdiction and the public. The policy on the organisation, roles and responsibilities of education districts further states that Education Districts are part of the provincial sphere of government. They have no original powers or functions prescribed by law but operate in terms of national and provincial legislation and delegations. Therefore, District Offices are the local hubs of Provincial Education Departments and provide the essential lines of communication between the provincial head office and the education institutions for which they are responsible.

Subject Advisors (Office Based Educators, including Circuit Managers) are responsible for curriculum management, and are located in the Education Districts. The Policy on the organisation, roles and responsibilities of education districts, (Department of Basic Education,

2013) and the PAM Document, (Department of Basic Education, 2016, p.36) outline the following provisions or roles that must be played by Subject Advisors and Education Districts in curriculum management:

a) "Provide an enabling environment for education institutions within a district area to do their work in line with education law and policy.
b) Assist Principals and educators to improve the quality of teaching and learning in their institutions.
c) Hold education institutions in a district area to account for their performance.
d) Account to the Provincial Education Department for the performance of education institutions in a district area
e) Account to the Provincial Education Department in terms of performance agreements that stipulate the roles, functions and responsibilities of district officials in line with relevant policies.
f) Develop systems for monitoring and recording progress made by learners towards achievement of targets set.
g) Support initiatives to improve numeracy, literacy and information technology as well as access to the wider curriculum.
h) Facilitate curriculum development at institution/district/provincial/national level.
i) Provide guidance/assistance in learner assessment.
j) Contribute, implement and participate in staff development programmes."

From this discussion, it is evident that education policies are clear in terms of what specific role players must do to ensure proper curriculum management. It is evident that an enabling environment in terms of policy framework has been provided. However, there are two questions that remain to be addressed. Are all these duties correctly executed by the respective personnel as outlined in the policy? What is the influence of contextual factors in enabling all the stakeholders mentioned to manage curriculum as required? McLennan *et al.* (2017) suggest that districts, particularly empowered Circuit Managers and Subject Advisors, are important levers for change in complex, unequal and dynamic contexts. McLennan *et al.* (2017) argue that institutional structure, as well as bureaucratic, compliance-driven working cultures limit the ability of districts to monitor, report and respond (MRR) proactively in support of schools. While districts are also faced with limiting contextual and scarce resource conditions, they can and should drive and support curriculum management and coverage in schools as a strategy to

increase the capacity and internal coherence as 'middlemen' to achieve greater system performance. In contrast, Bantwini and Diko (2011) argue that while the policy on the organisation, roles and responsibilities of education districts, (Department of Basic Education, 2013), reinforces the role of districts in the delivery and monitoring of quality education, however, it does this without due consideration of the capability and reality of district officials.

2.10. Mentoring in schools as a support to assessment practices

Awaya, et al, (2012) describe mentoring as a unique relationship that is characterised by trust, sharing of expertise and giving moral support and knowing when to assist and when to sit back. Therefore, mentoring should be viewed as a relationship between the mentor and the mentee as opposed to a specific role with a set of preconceived duties.

Pather (2010) asserts that mentoring enhances professional development of an organisation and its participants. Pather (2010) further points out that the Department of Education has put in place the Master Teachers (as enshrined in the PAM document), who over and above the Principals, Departmental Heads and Deputy Principals, play a role in mentoring of novice teachers in particular. The Principal, Departmental Head and Deputy Principal form part of the School Management Teams (SMTs). SMTs have a crucial role to play, of developing a culture of mentoring in a school. While Master Teachers are entrusted with this duty of mentoring, this cannot materialise if mentoring is not part of the school culture. Engels, Hotton, Devos, Bouckenooghe and Alterman (2008, p.3), define school culture as "the basic assumptions, norms and values, and cultural artefacts that are shared by school members, which influence their functioning at school". A positive school culture creates an environment which enables professional development which leads to achievement - oriented behaviour, and transformational leadership. Positive school culture further creates a preference for tasks related to education matters and people management as well as effective time management.

School Management Teams (SMTs) as part of their roles, must develop formalised programs of mentoring which are sustainable and goal oriented. Such programs must extend over a considerable period to yield desired results and lead to sustainable professional development. (Urio, 2012; Wanjiku, 2012). The newly qualified teacher is expected to display several competencies after completion of the Initial Teacher Education (ITE). The policy on The Minimum Requirements for Teacher Education Qualifications (Department of Education, 2011, p.53), outlines the following, among others, competencies that novice teachers must show at the beginning of their teaching career:

a) “Know how to teach their subject(s) and how to select, determine the sequence and pace content according to both subject and learner needs.

b) Know their learners as well as their learning styles; they must understand their individual needs and design their teaching accordingly.

c) Effective communication in general, as well as in relation to their subject(s), to facilitate learning.

d) Develop literacy, numeracy and Information Technology (IT) skills.”

The Department of Education’s policy of Integrated Quality Management System (IQMS), (Department of Education, 2006) emphasises the need for structured and formalised mentoring programs in schools. IQMS integrates three complementary components of quality management which is Developmental Appraisal (DA), Performance Measurement (PM) and Whole School Evaluation (WSE). In addition, according to Ncube, Mammen & Molepo (2012), mentoring as an integral part of IQMS was intended to enhance the professional growth of educators in line with the IQMS system including lesson preparation, presentation and assessment. Furthermore, I suggest that in the mentoring process, the focus should be activities relating to pedagogy and assessment as the core of the mentoring process. Teachers should be allowed to collaborate with others to develop their pedagogical content knowledge and thus improve their practice. To further strengthen mentoring in schools, SMTs should be open to suggestions and allow new teachers sufficient time and space to show their abilities under guided, healthy and carefully monitored conditions. This will enhance both teaching and assessment practices in schools.

2.11 Conceptual Framework

This study was theoretically underpinned by two conceptual frameworks, namely, Bloom’s (1956) theory of educational objectives and Grossman’s (1990) model of teacher knowledge. These conceptual frameworks were relevant as assessment protocols enshrined in CAPS are guided by Bloom’s Taxonomy. CAPS requires teachers align their assessment activities to Bloom’s Taxonomy. Grossman’s (1990) model of teacher knowledge was relevant as it guided the kind of knowledge teachers require develop quality and balanced formal assessment tasks and also align such tasks to Bloom’s Taxonomy. Both conceptual frameworks will be used to analyse data generated from both research questions guiding this study. Bloom categorises levels of thinking and /or reasoning that are required in a classroom situation. Forehand (2011)

defines Bloom's Taxonomy as a multi-tiered model of classifying thinking according to six cognitive levels of complexity. It is aimed at making teachers help their learners to reach the highest level of thinking and comprehension. Adams (2015, p.152) points out that "Bloom's taxonomy differentiates between cognitive skill levels and calls for attention to learning objectives that require higher levels of cognitive skills and, therefore, lead to deeper learning and transfer of knowledge and skills to a greater variety of tasks and contexts."

According to Bloom (1956), the following are the six cognitive levels of complexity in which thinking is classified:

1. **Knowledge-** in this category questions are asked solely to test whether a student has gained specific information from the lesson. Adams (2015) asserts that knowledge can be assessed by objective assessment items, such as, multiple choice or short-answer questions that require the retrieval or recognition of information.

2. **Comprehension** – in comprehension, learners go beyond simply recalling facts and instead require them to understand the information. At this level, they must be able to interpret the facts. To show comprehension of the meaning of the information, learners must paraphrase it in their own words, classify items in groups, compare and contrast items with other similar entities, or explain a principle to others (Adams, 2015).

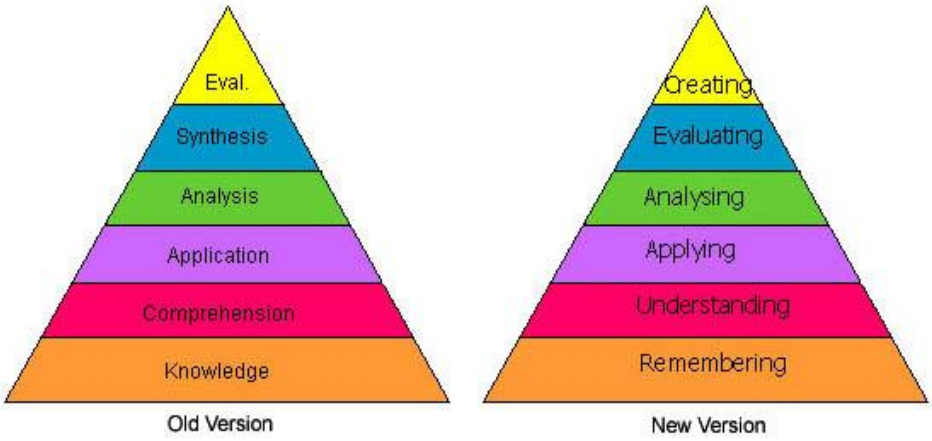
3. **Application**- at this level, learners are asked application questions where they must actually apply, or use, the knowledge they have learned. They might be asked to solve a problem with the information they have gained in class being necessary to create a possible solution. Application enables learners to use knowledge, skills, or techniques in new or unfamiliar situations. Knowledge, comprehension and application are the lowest levels of thinking. The highest three levels of Bloom's Taxonomy are analysis, synthesis and evaluation where learners are expected to apply critical thinking skills.

4. **Analysis-** when analysing, it is compulsory for learners to go beyond knowledge and application but see patterns that they can use to analyse a problem (Thompson *et al.*, 2008). Adams (2015) contends that during analysis, learners must distinguish between a fact and an opinion. They must also identify claims on which an argument is built. Contrary, learners must also be able to break down information into its components allowing them to identify the most appropriate search terms.

5. **Synthesis-** learners are required to use the given facts to create new theories or make predictions. They might have to obtain knowledge from multiple subjects and synthesise this information before concluding. Synthesising assesses learners' innovative skills. Learners may be asked to invent, create, predict, etc. Adams (2015).

6. **Evaluation-** Here learners are expected to assess information and reach a conclusion such as its value or the bias behind it. Questions like select, judge, debate, recommend, etc. may be asked from learners to assess their ability to evaluate. Teachers also engage in evaluation to reflect on a teaching session and use learner feedback and assessment results to judge the value and impact of the teaching session (Adams, 2015). It must, however, be noted that higher-level skills in the taxonomy constitute many lower-level skills as well to critically appraise the education literature. Amer (2006) affirms to think at the highest level, a learner must have mastered all the lower cognitive skills.

As education systems undergo several reforms, other educational taxonomies and hierarchical systems have also been developed alongside the Bloom's Taxonomy. However, Forehand (2011, p.2) asserts that Bloom's Taxonomy remains the "de facto standard." According to Forehand (2011), Blooms' Taxonomy has maintained its position in identifying, classifying and demystifying educational goals. It is widely used by university examiners, curriculum planners, administrators, researchers and classroom teachers at all levels of education. Adams (2015) contends that Bloom's Taxonomy encourages users to think of learning objectives in terms of action verbs to consider what the learner can do because of the instruction or question. When learning objectives are written using action verbs, they indicate the best method of assessing the skills and knowledge taught. Bloom's Taxonomy has also been revised resulting in the change in terminology used to describe the categories of thinking. New terms are remembering, understanding, applying, analysing, evaluating and creating (Forehand, 2011). Creating was moved to the top of the hierarchy while evaluating moved to second from the top.



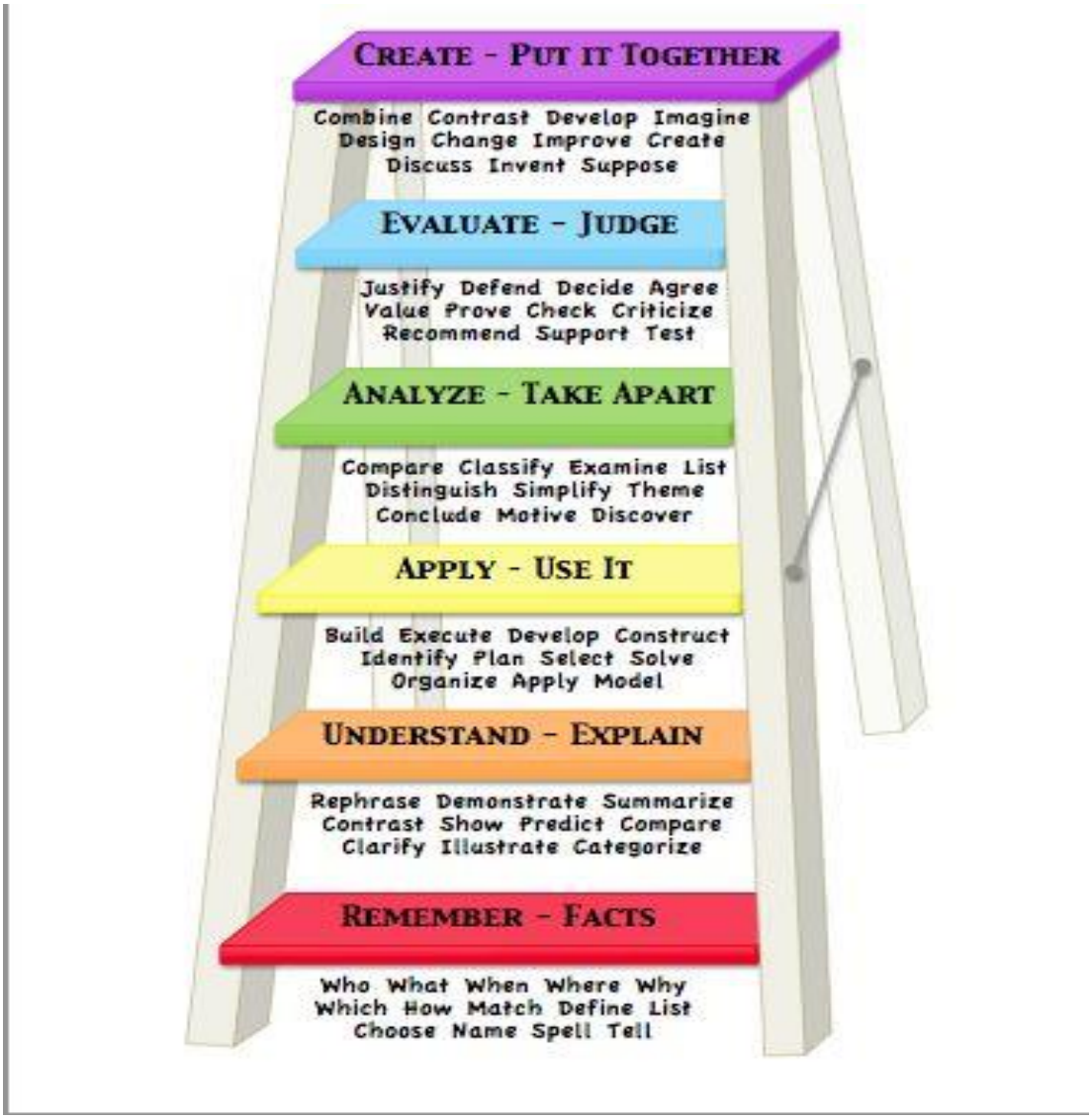


Figure 2.1: Comparison of Bloom's original and revised taxonomies *Source: Forehand (2011,* p.3)

While Bloom's Taxonomy has received worldwide acceptance, it has also received some criticism. Furst, (1994 as cited in Amer, 2006) notes that the Original Taxonomy is weak in assuming that cognitive processes are ordered on a *single* dimension of simple-to-complex behaviour. In terms of the cumulative hierarchy, the categories were presumed not to overlap. Likewise, Soozandehfar and Adeli (2016) argue that the structure of the Taxonomy, which is, moving from the simplest level of knowledge to the most difficult level of evaluation, is not based on research. Anderson, (2002, cited in Amer, 2006) affirms that the cumulative hierarchy which indicates that before a complex category can be mastered, a less complex category below it must be mastered prior is a stringent requirement. He further states that all complex learning activities require the use of numerous and different cognitive skills. While Bloom's Taxonomy's weaknesses have been identified, Anderson (2000, cited in Soozandehfar & Adeli, 2016) points out that its greatest strength is that it has taken the crucial topic of thinking and put a structure around it that is used by practitioners worldwide. Criticism of the Original Taxonomy emanate from the fact that the cognitive demand from *Knowledge* is higher than the cognitive demand from *Analysis*. The same became applicable to *Evaluation* whose cognitive demand was found not to be more complex than *Synthesis* (which is Create in the revised taxonomy). It is against this background that the Revised Taxonomy moved *Synthesis* to the top of the hierarchy.

Bloom's Taxonomy, both original and revised versions, have been criticised for inconsistency in application by the multiple designers and practitioners. Soozandehfar and Adeli (2016) argue that there is a need to separate objectives and assessment items (practice) into those that measure or assess conceptual knowledge from those that measure or assess task performance and/or procedural knowledge. The revised version has also been criticised for not providing an assessment tool for an integrative thinking skill (the ability to face constructively the tension of opposing ideas). Therefore, teachers find it difficult to decide on the amount of classroom time to spend in a dynamic and integrative way.

The relationship between designing an assessment task and the knowledge of the subject matter cannot be disputed. Thompson *et al*. (2008) point out that an effective design of an assessment task requires that teachers undertaking the activity should have comprehensive knowledge of the subject, that is, subject matter knowledge. Grossman's (1990) model of teacher knowledge outlines four general areas of teacher knowledge. These can be seen as fundamental to emerging work on professional knowledge for teaching. These knowledge areas are general pedagogic knowledge (GPK), pedagogical content knowledge (PCK), subject matter

knowledge (SMK), and knowledge of the context (KC). While all these knowledge areas are important and critical for the teacher to have, the focus of this study was on subject matter knowledge (SMK). Subject matter knowledge is also referred to as content knowledge. Kleickmann, et al. (2013, p.91) contend that "teacher knowledge develops through pre-and in-service teachers' engagement with a variety of explicit and implicit learning opportunities." Teachers' content knowledge not only impacts what teachers teach, but their knowledge also influences how they teach and a complex set of understandings that guides what learners learn. Grossman (1990) and Ball, Thames, and Phelps (2008) assert that subject matter knowledge includes content (facts and concepts of the subject) and its organising structures, that is, syntactic structures (ways of knowing in the subject) and substantive structures (how knowledge is organised).

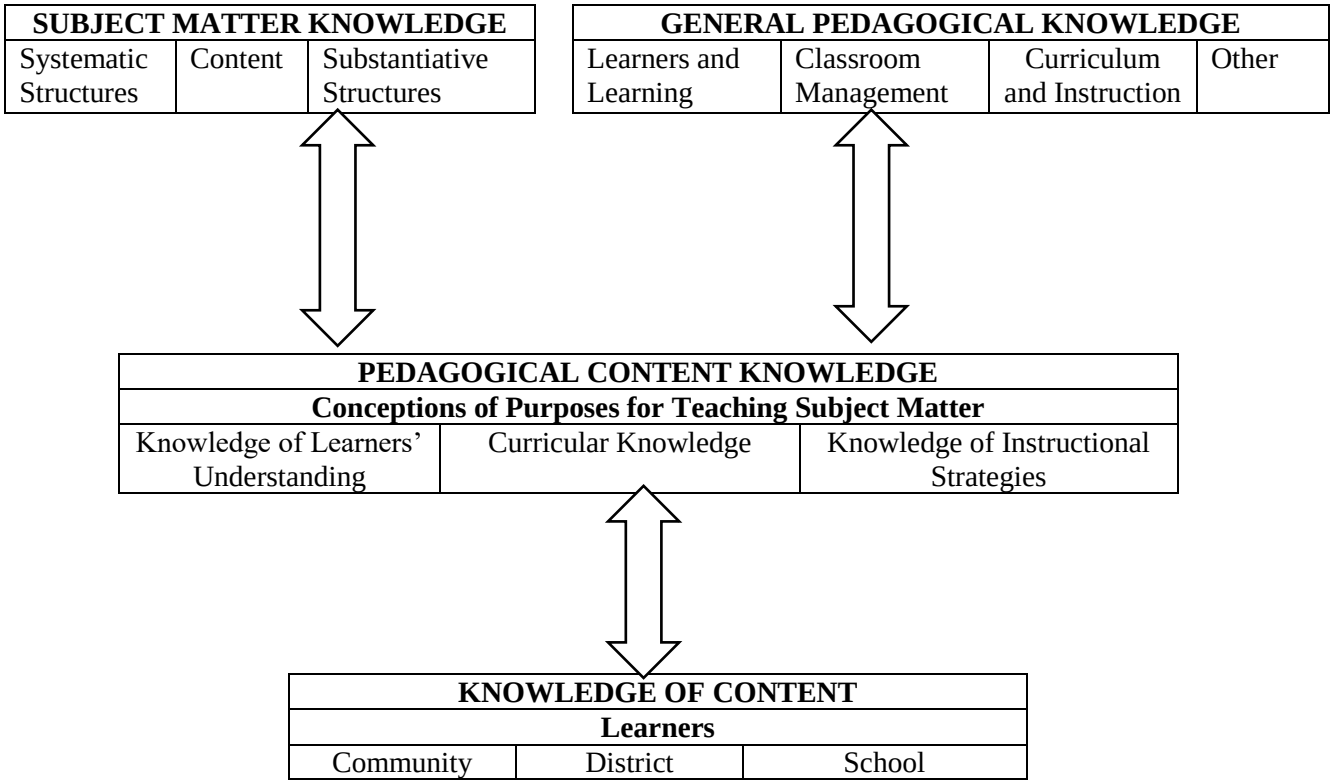


Figure 2.2: Model of Teacher Knowledge adapted from (Grossman, 1990, p.5)

Ball *et al.*,'s (2008) study of the mathematical demands of teaching made significant findings which may be transferable to the teaching of Economic and Management Sciences. Firstly, the study revealed that there is a wealth of tasks that require mathematical knowledge and skill. Since EMS incorporates three disciplines in one subject, that is Economics (Economy),

Accounting (Financial Literacy) and Business Studies (Entrepreneurship), it is imperative for teachers to have knowledge and skill of teaching concepts from the three disciplines. Ball *et al.* (2008) battled with how much purely mathematical knowledge was required to many everyday tasks of teaching Mathematics. The same is applicable to EMS as to how much content knowledge of the three disciplines is required in assigning student work, listening to student talk, grading or commenting on student work.

Secondly, Ball *et al*. (2008), found that in many of the tasks administered in the classroom, teachers do require mathematical knowledge independent of knowledge of learners or teaching. For effective classroom teaching and assessment, teacher knowledge should be above that of the learners. Among other things, ability to decide on methods and procedures requires knowledge independent of the learners and actual teaching because SMK has a decisive impact on key aspects of instructional quality.

Kleickmann *et al*. (2013) assert that recent studies have provided concrete evidence that teachers' SMK influences their instructional practice as well as learner achievement although SMK has lower predictive power of learner attainment than PCK. Teachers must be able to sequence particular content for instruction, decide which example to start with and which examples to use to take learners deeper into the content. Finally, the study revealed that teachers must have content knowledge or subject matter knowledge plus pedagogical content knowledge (useful ways of representing and formulating the subject that make it comprehensible to learners), Shulman, (as cited in Ball *et al*., 2008).

This conceptual framework is suitable for this study as it fits the purpose of the study. This study seeks to examine the challenges EMS Grade 7 teachers encounter when designing formal assessment tasks and the extent to which they use a range of cognitive levels when designing such tasks. This conceptual framework is therefore suitable for this study because to examine teacher competencies, it is imperative to understand and analyse teacher knowledge as it underpins teacher competence. This conceptual framework will be used to analyse the first and second research questions.

2.12 Conclusion

This chapter reviewed the relevant literature on assessment and discussed focusing on the points of view held by different researchers on this topic. A broad discussion on assessment was done as encompassing definition and importance of assessment as well as several assessment strategies. Different methods of assessment such as formative assessment

(assessment for learning), summative assessment (assessment of learning) as well as school-based assessment (SBA) were discussed.

Literature on the beliefs and attitude of teachers towards assessment; the competency of teachers in administering assessment in the classroom; the provisions of policy (Curriculum and Assessment Policy Statement); role of Principals of schools, Departmental Heads and Subject Advisors on curriculum management and the role of mentoring in schools were reviewed. The two conceptual theories underpinning this study are Bloom's (1956) theory of educational objective and Grossman's (1990) theory on teacher knowledge.

The next chapter describes the appropriateness of research design and methodology. The sampling strategy used, selected research instruments and issues of credibility and trustworthiness of the data collected, data analysis, ethical issues and limitations of the study are also discussed.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This study focuses on the examination of teachers' competencies when designing formal assessment tasks and assessment tools for Economic and Management Sciences in Grade 7. In terms of CAPS, assessment cannot be divorced from teaching and learning. To this end, I examined the processes the teachers followed when engaging in the assessment practices in their classrooms. Their experiences and the challenges they encountered were also examined in this study.

This chapter begins with an outline of the interpretive paradigm in which the study was located. I then discuss the qualitative research approach which was most suitable for this study followed by a discussion of the case study research design, as well as the research contexts in which the study was located. I also describe the purposive sampling strategy that was used to select participants in this study. Subsequently, there is an in-depth discussion of the data collection instruments, namely, document analysis, questionnaires and semi-structured interviews. A brief explanation of how the data was analysed and a discussion of how this study ensured credibility and trustworthiness follows. The procedure followed to gain access to the schools where the study was undertaken is also outlined as well as the positionality of the researcher. Finally, ethical issues and limitations of the study are discussed.

3.2. Interpretivist research paradigm

It is imperative for researchers to outline the lens through which he or she views the world as this defines the methodology that is used in the study. Krauss (2005) and Durant-Law (2005) assert that the lens refers to the philosophical underpinnings or dimensions of the study which includes the ontology, that is, the nature of reality or the truth. Wahyuni (2012) notes that one may perceive the existence of reality as external and independent of the social actors and their interpretations. Alternatively, the other may discern reality as dependent on social actors and thus assumes that individuals contribute to the social phenomena. In addition to ontology, there is a philosophy of knowledge, known as epistemology which outlines how people come to know the reality. Wahyuni (2012) contends that epistemology is beliefs on how the knowledge that is considered to be acceptable and valid is generated, understood and used. Besides ontology and epistemology, Durant -Law (2005) adds axiology as the third philosophical

assumption. Axiology deals with values and ethics of a research study hence it is referred to as a value theory. In simple terms, axiology defines the purpose or the aim of the research study. Durant-Law (2005, p.4) refers to ontology, epistemology and axiology as the "philosophical trinity" of research. These philosophical assumptions about the nature of reality are essential to understand the perspective from which the study is designed and conducted. This is referred to as the paradigm.

Wahyuni (2012) emphasises that it is important to first question the research paradigm to be applied in conducting research because of its substantial influence on how one undertakes a social study from the way of framing and understanding social phenomena. According to Cohen *et al.* (2018), a paradigm is a way of looking at the world, different assumptions people have about what the world is like and how they can understand or know about it. Guba and Lincoln (1994, as cited in Krauss, 2005, p.759) assert that a paradigm in the research study can be defined as "the basic belief system or world view that guides the scientific investigation". Similarly, Mack (2010, p.5) defines a paradigm as "an overall theoretical research framework". Mack (2010) further describes a paradigm as a collection of logically related assumptions, concepts or propositions that align thinking and research. In addition, Krauss (2005) defines the paradigm as the belief system or the view of the world which guides the investigation.

Kuhn (1962, as cited in Durant -Law, 2005, p.4) asserts that there are two crucial qualities of a paradigm, namely, that the paradigm must be "sufficiently unprecedented to attract the enduring group away from competing modes of the scientific activity. Secondly, that it must be "sufficiently open ended to leave all sorts of problems for the redefined group of practitioners to resolve". A paradigm therefore serves as the basis from which a scientific investigation is constructed. It must allow new things, based on a particular theory, to be researched to add to the body of knowledge and enable researchers to come up with solutions to societal problems.

This study is located within the interpretive paradigm as it aimed to examine the competencies of Grade 7 EMS teachers in the development of quality formal assessment tasks. According to Creswell (2014) and Mackenzie and Knipe (2006), interpretive researchers believe that individuals adopting this paradigm seek to understand the world in which they live and work. They develop subjective meanings of their experiences which are directed toward certain objects or things. Interpretive researchers rely largely on the participants' views of the phenomenon being studied. Knowledge in the interpretive paradigm is socially constructed

through interaction, historical and cultural norms operating within the individual. Photongsunan (2010) points out that interpretive researchers believe that the social world is constructed by humans. Mack (2010) contends that researchers located in the interpretive paradigm view social reality as multiple and different people interpret events differently resulting in multiple perspectives of a phenomenon. Cohen *et al.* (2018) assert that the interpretive paradigm emphasises how people differ from insentient natural phenomena and from each other. Therefore, it is very important to consider the context in which the subjects or participants operate.

3.3 Qualitative research approach

This research study used a qualitative approach to inquiry. Many qualitative researchers believe that for the researcher to best understand a phenomenon, he or she must view such phenomenon within its context. Kraus (2005) claims that qualitative researchers view quantification (post-positivism) as only looking at one or a small portion of reality while they look at multiple realities of a particular phenomenon under study. This means that qualitative researchers operate under different epistemological assumptions as opposed to quantitative researchers. The different ontological assumptions (the constructivist ontology) under which qualitative researchers operate suggest that there is no single and objective reality.

Yin (2011) outlines four features of qualitative research. Firstly, it studies the meaning of the lives of people under real-world conditions. The qualitative researcher, in this regard, studies how people make meaning of their lives. Conditions under which the study is conducted are real and not simulated. The researcher captures the performance of people in their everyday lives. Intrusion by artificial research procedures to social interactions should be minimal if they occur. Participants should say what they want to say and not be limited to respond to the researcher's pre-designed questionnaire or interview questions. However, Yin (2011) cautions of the multiplicity of interpretations of same events. Yin (2011) asserts that a qualitative research study captures the meaning of the real world from the perspective of the participant through whom the phenomenon is studied and the meaning of the real world from the perspective of the researcher. Correspondingly, Jason and Glenwick (2016) contend that qualitative research gives attention to the iterative nature of the processes involved in knowledge generation as well as the standpoint or position of the participant and that of the researcher in both the production and discovery of such knowledge.

Secondly, it represents the views and perspectives of the people in the study. Yin (2011) points out that a major purpose of a qualitative study is to capture the perspectives of the participants in the study. Yin (2011) and Shoaib and Mutjaba (2016) agree that the events and ideas that emerge from qualitative research can represent the meanings given to real-life events by the people who live them. These are not the values, preconceptions, or meanings held by the researchers. Similarly, Jason and Glenwick (2016) contend that a major goal of qualitative research methods is discovery. This means that qualitative research develops holistic and comprehensive descriptions of systems, theories and processes, and further identifies factors and working hypotheses that require further research. Johnson and Christensen (2014) further assert that qualitative researchers use is a wide and in-depth lens to examine the breadth and depth of the phenomenon to learn more about it.

Thirdly, it covers the contextual conditions within which people live. Yin (2011) points out that qualitative research covers the social and environmental conditions in which people live. These contextual conditions may influence human behaviour and performance in various ways. According to Johnson and Christensen (2014, p.85), "qualitative researchers often view human behaviour as being fluid, dynamic, and changing over time and place, and they usually are not interested in generalizing beyond the particular people who are studied".

Fourthly, qualitative research contributes insights into existing or emerging concepts which may help to explain human social behaviour. Yin (2011) asserts that the desire to explain these events, through existing or emerging concepts is basically what drives qualitative research. He further states that qualitative research provides an opportunity to develop new concepts and thus contributes to the body of knowledge and knowledge creation.

Lastly, qualitative research uses multiple sources of evidence instead of relying on a single source. In qualitative research, data is collected, integrated and presented from many sources of evidence which form part of a given study. This is done through triangulation due to the complexity of the research setting and the extent of the diversity of the participants to the study. Yin (2011); Creswell (2009); Bertram and Christiansen (2014); Jason and Glenwick (2016) and Cohen *et al.* (2018) contend that using a variety of sources adds to the credibility and trustworthiness of the study.

In a qualitative research study, questions asked are often more probing, process-driven research questions which may change over the course of the research, as the researcher finds out more about the research setting, participants, context and phenomena under investigation. In this instance, it does not suggest that qualitative research is aimless, incoherent and unprincipled. Cohen *et al.* (2018) point out that it occurs because the researcher is sensitive to the situation

that emerges and finds himself or herself in, which eventually steers the research questions. Similarly, Creswell and Creswell (2018) assert that in qualitative research, the plan for the research study cannot be tightly prescribed right from the initial stages because some or all phases of the research process may change or shift after the researcher enters the field and begins to collect data. Therefore, Msomi (2013) contends that in cases where a phenomenon must be explained, explored or examined in full detail through collecting and analysing rich and thick descriptive data, qualitative research inquiry is used. Correspondingly, Creswell and Creswell (2018) agree that qualitative methods rely heavily on text and image data, apply unique steps in data analysis, and draw on diverse designs.

The qualitative approach was most appropriate for this study as the researcher wanted to establish not only what happened but also how and why it happened in the way that it did (Cohen et al., 2018). According to Creswell (2014) and Mackenzie and Knipe (2006) the interpretive approach is qualitative in nature; therefore, the study is based on how individuals use interaction to make meaning of their world. The qualitative approach is also suitable for this study because it allowed me to explore and gain insight into what teachers knew about assessment and how they designed the assessment tasks. The qualitative approach, as it is used in this study, is also informed by McMillan (2007) who defines qualitative research as inquiry in which researchers collect data in face-to-face situations by interacting with selected persons in their settings. It is also informed by Creswell (2014) who maintains that in qualitative methodology, researchers gather information from the field of the location where participants are involved in the phenomenon under study. Therefore, Cassim (2010) contends that qualitative inquiry is an approach where a researcher pays more attention to the context where data gathering occurs with the intention of enhancing the value and quality of the data.

3.4 Case Study research design

The study was conducted using a case study research design as it sought to provide a general understanding of EMS Grade 7 teachers' competencies in designing quality formal assessment tasks. Creswell (2014) defines a case study as a qualitative design in which the researcher makes an in- depth exploration of a program, event, activity, process, or one or more individuals. The case(s) are bounded by time and activity. Researchers collect detailed information using various data collection methods over an extended period. Similarly, Bertram and Christiansen (2014) define case studies as systematic and in-depth inquiry into one particular case done in its context. Cohen *et al*. (2018, p. 375) assert that a "case study might

include experiment, action research, survey, naturalistic research, participatory research, historical research etc., and case study research uses multiple methods for data collection and analysis". Punch (2005, as cited in Cohen *et al*., 2018) notes that a case may constitute an individual, a group, an organization, a community or a nation. Likewise, Shoaib and Mutjaba (2016, p.84) define a case study as "a holistic inquiry that investigates a contemporary phenomenon within its natural setting." Therefore, the researcher cannot detach a phenomenon from its natural setting or context to analyse its 'how' and 'why'. Doing so may make it impossible to understand how it works and/or how it should work.

Case studies may be descriptive in nature and used to generate claims for future investigation. The case study methodology has flexibility in terms of the types of research questions that can be addressed and the data collection methods that can be employed (Pearson, Albon & Huball, 2015). According to Yin (2011, as cited in Pearson *et al.,* 2015, p.1) "a case study methodology should be considered when the goal is to investigate "how" and "why" questions about contemporary events and where there are many variables of interest and limited ability to exercise control in the setting." That is, case studies examine the cause and effect and provide an in-depth understanding of the phenomenon under investigation. Case studies are further able to establish the influence of the context on the phenomenon being studied. Baxter and Jack (2008) add that a case study research method should be considered if boundaries between the context and the phenomenon are not clear. Cohen *et al*. (2018) contend that case studies can explain, describe, illustrate and also enlighten. They further suggest that a case study approach to research is highly valuable when the researcher has little or no control over events, that is, a researcher cannot manipulate or control the behaviours of the participants. Yin (2011) points out that a case study enables the researcher to use various variables for analysis as opposed to other methods that limit the use of one variable.

However, Pearson *et al.* (2015) and Shoaib and Mutjaba (2016) caution researchers about the extent to which findings of the case study are generalisable or transferable to different settings. It must be noted that this depends on the context, nature of the case as well as how the case was selected, although case studies to a particular extent are representative of a population. Cohen *et al.* (2018) argue that because generalisabity of a single experiment (in quantitative studies) can be extended by the replication of multiple experiments, similarly a pool of data drawn from multiple case studies contributes to greater generalisabity. According to Yin (2011, as cited in Cohen *et al.,* 2018), generalisation in case studies is more analytic than statistical.

Therefore, the concern is not much on the representative sample but the extent to which researchers are able to understand similar cases, phenomena or contexts. The connection between a case and a broader theory is therefore logical as opposed to being statistical. Yin (2011) argues that case studies can help to generalize to a broader theory which can be tested in one or more empirical cases similar to a single experiment or quasi-experiment.

3.4.1 Types of case studies

Baxter and Jack (2008) outline the different types of case studies:

Exploratory case study: Baxter and Jack (2008) assert that exploratory case studies are used when exploring situations where a researcher explores an intervention and has no clear single set of outcomes. Cohen *et al*. (2018) contend that exploratory case studies are used when generating hypotheses that were tested in large experiments, surveys and other forms of research.

Explanatory case study: Baxter and Jack (2008) contend that explanatory case studies are used in real life interventions that are interventions that are too complex for the survey and/or experimental strategies. This type of case study is used if the researcher seeks to explain presumed causal links. Similarly, Pearson *et al.* (2015) contend explanatory case studies shed light on causal factors which lead to particular events and are useful for characterising case studies and assessing the extent to which findings are applicable in other settings. Hancock and Algozzine (2006) note that the main purpose of exploratory case studies is to determine how events occur and the influence they may have on particular outcomes.

Multiple case studies: Baxter and Jack (2008) contend that in a multiple case study the researcher can differentiate between cases and within cases to reproduce findings across the cases. It is imperative that cases be chosen carefully to enable the researcher to draw comparisons and to predict either similar or contrasting results based on the theory. Cohen *et al.* (2018) assert that in this type of case study, the researcher intends to gain a fuller or more general picture.

Intrinsic case study: Stake, 1995 (cited in Baxter and Jack, 2008) and Cohen *et al*. (2018) maintain that this case study is used if the researcher intends to better understand the case. Stake further suggests that a researcher who has a genuine interest in the case should use this approach. In addition, Pearson *et al*. (2015) affirm that intrinsic case studies are applicable if the case is given, as opposed to being chosen, as it is common in program evaluation. Intrinsic

case study approach is not used essentially because the case represents other cases, but because of peculiarity and uniqueness. Therefore, the case itself is of interest. Likewise, Hancock and Algozzine (2006) assert that researchers in an intrinsic case study are not interested in having the findings generalised to the larger population nor creating general theories.

Instrumental case study: Baxter and Jack (2008) and Cohen *et al*. (2018) affirm that an instrumental case study examines a particular case to gain insight into an issue or help to refine a theory. The case plays a supportive role in facilitating an understanding of something and is of secondary interest. There is an in depth look into the case, its context is scrutinised and its ordinary activities are detailed. Hancock and Algozzine (2006) posit that an instrumental case study aims at a better understanding of a theoretical question or problem. This assists the researcher to pursue the external interest.

Collective case study: Cohen *et al*. (2018) assert that in collective case studies, a case is selected for its ability to contribute to a general, in-depth understanding of a phenomenon. Hancock and Algozzine (2006) note that a collective case study design usually involves several instrumental cases performed to improve the ability to theorize about a larger collection of cases. Two or more representative cases are selected to participate in the study. Cohen *et al*. (2018) and Pearson *et al.* (2015) and Miles (2015) suggest that collective case studies are more suitable to investigate curriculum or pedagogical practices and they dominate as a methodological approach in educational research. However, care should be taken especially if participants are one's students or colleagues. Hancock and Algozzine (2006) further claim that findings from collective case studies may substantiate the theory but concurrently provide insights into how people think and behave in a particular situation.

Collaborative case study: In this case study the researcher works with others within and across institutions to collect various perspectives and contexts of the phenomenon being investigated.

Descriptive case studies: According to Baxter and Jack (2008), in descriptive case studies, an intervention or a phenomenon is described in its real-life context in which it occurred. Likewise, Sharan (2009) asserts that in descriptive case studies, the end product of the phenomenon under study is rich and complete. This is because a thorough and a contextualised description of a phenomenon is provided.

A descriptive case study research design was suitable for this study as it aimed to examine the competencies of EMS Grade 7 teachers in designing quality formal assessment tasks. It helped me to describe in detail how teachers experienced the design of formal assessment tasks and how they were able to deal with any complexities that arose from their teaching and assessment

processes in their schools. This study examined competencies of five EMS teachers and two Departmental Heads from different sites or schools.

3.5 Key research questions

This research study was guided by the following research questions:

3. To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?
4. What challenges do Grade 7 EMS teachers encounter when designing the formal assessment tasks?

3.6 Research context

The study was conducted in five schools in the Umzinyathi District in the Province of KwaZulu-Natal. The Umzinyathi District is situated in the northern part of the Province of KwaZulu-Natal. The District comprised of three Circuit Management Centres (CMCs), namely Endumeni/Nquthu; Umsinga and Mvoti. The schools which formed part of the study were selected from Endumeni/Nquthu CMC. This CMC consisted of seven Circuits, namely, Endumeni South, Endumeni Central, Hlazakazi, Jama, Mkhonjane, Nondweni and Nkande Circuits. Four of the five schools comprised learners from the rural areas. The fifth school comprised learners from the location and the informal settlement. All these schools were ranked as Quintile 1 by the Department of Basic Education. Two of these schools had an enrollment of approximately eight hundred learners. The other two schools had over four hundred learners while the last one had just under three hundred learners. These schools had a reasonable and established infrastructure but with less resources than the urban schools. They also usually took part in co-curricular activities, such as Olympiads and quizzes, in addition to the activities of their Professional Learning Communities in which they participated. This suggests that they were also taking strides to improve the quality of teaching, learning and assessment.

3.7 Researcher's positionality

To conduct an ethical research study, it is imperative for the researcher to take into consideration his or her positionality, reflexivity, knowledge production as well as power relations (Holmes, 2014). Positionality and reflexivity of the researcher, in particular may either have a positive or negative influence on the study. According to Holmes (2014), the

researcher's positionality refers to the beliefs of the researcher, the social and political influence the researcher may have on the study as well as the researcher's position in respect of the participants. Similarly, Jason and Glenwick (2016, p. 14) assert that "researchers' backgrounds and positions will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions".

As a Subject Advisor for EMS (Grades 7 to 9), I have ensured that my position and power dynamics between myself and the participants (Grade 7 teachers and Departmental Heads) does not negatively influence the results of the study. This occurred in several ways, among others, that the participant offered positive responses so as to not appear as a bad teacher to me as his or her supervisor. Alternatively, participants may conceal some important and useful data thus leading to the results of the study not being a true reflection of the experiences of the participants.

The researcher must ensure reflexivity to counter the influence he or she may have had on the study (Bourke, 2014). This involves self-scrutiny on the part of the researcher and consciousness of the relationship between the researcher and the subjects. Holmes (2014) suggests that reflexivity requires self- consciousness, self -assessment and sensitivity of the researcher about his/her own views, position, political, cultural and social contexts which may influence the design, data collection and interpretation of the research findings. Therefore, instead of trying to eliminate his or her effect on the research process, the researcher acknowledges and discloses his or her influence on the research study. I therefore acknowledge that in this research study I am an insider since part of my work is to monitor assessment practices in schools.

3.8 Purposive sampling

According to Jason and Glenwick (2016, p. 345), "a sample is a set of elements taken from a larger population according to certain rules." The element in this case refers to the basic unit of study selected from the population whereas the population refers to the large group about which a researcher wants to learn more. Yin (2011) notes that sampling challenges arise from the need to know the specific units of study to be selected, the reasons for selecting them and the number of units included in the study. The method of sampling used in this research study was purposive sampling. Etikan, Musa and Alkassim (2016) define the purposive sampling technique as an intentional choice of a participant due to the qualities he or she possesses.

Bertram and Christiansen (2014, p.60) contend that purposive sampling means that "the researcher makes specific choices about which people, groups or objects to include in the sample". Similarly, McMillan and Schumacher (2014) and Yin (2011) maintain that purposive sampling occurs where the researcher selects certain elements or units from the population that are representative or provides valuable information about the topic examined. Likewise, Cohen *et al.* (2018, p.219) point out that purposive sampling is used to access "knowledgeable people." These are participants who, by virtue of their professional role, power, connections, expertise and/or experience, can provide in-depth knowledge about the issue or topic being studied. They argue that although purposive sampling ensures high participation rate at low cost, generalisation to other subjects or contexts is difficult and there is a greater possibility of error or subject bias. However, Yin (2011) suggests that to avoid bias in the study, it is important when selecting participants for the researcher to deliberately include some people whom he or she suspects might hold different views in relation to the topic of study. Bias may occur or appear in the study if the researcher chooses only those sources or participants that confirm the researcher's preconceptions. In addition to knowledge and experience, the availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner are critical elements of purposive sampling. Yin (2011) further notes that having many participants in the study is not the only way of boosting the confidence in the findings of the study, but composition of the sample should be a critical consideration. However, the researcher should deliberately find data which would protect against viral explanations or objectionable biases.

Five Grade 7 teachers from five different schools within the Umzinyathi District in the Province of KwaZulu-Natal, were purposively selected from a broader population. Creswell (2009) asserts that purposeful sampling is used because the individuals selected have experienced the central phenomenon. The sample of five Grade 7 teachers was chosen because they were teaching EMS Grade 7 in their schools. It was expected that they were conducting assessments in their classrooms and developed assessment tasks to administer to their learners. In addition to the five Grade 7 EMS teachers, two Departmental Heads were also sampled from two of the five schools selected. The Departmental Heads were sampled because they were expected to be playing a role in management of the subject including moderation of the assessment tasks. Therefore, the role they played in enhancing teacher competencies is vital for this study.

3.9 Methods of data generation

Before the different methods of data generation used in this study are discussed, it is imperative that a definition of data is provided. In addition, it is also necessary to provide a description of research methodology. According to Yin (2011, p. 130), "data refers to a collection of organized information, usually the result of experience, observation, experiment. ... this may consist of numbers, words, or images, particularly as measurements or observations of a set of variables". Hetherington (2013) claims that research methodology is the link between ontology, epistemology and theory which informs the research study. This also includes the practice of conducting the research study. Hetherington (2013) further states that methodology refers to a logical set of ideas about the philosophy, data generation methods and the data that underpins the research process as well as knowledge production. In this case study research project, I examined the competencies of EMS Grade 7 teachers in the development of formal assessment tasks.

Three data generation methods, namely, document analysis, semi – structured interviews and questionnaires were used to generate data.

3.9.1 Document analysis

The first method of data generation was document analysis. Bowen (2009, p. 29) defines document analysis as a "systematic procedure for reviewing or evaluating documents—both printed and electronic (computer-based and Internet-transmitted) material." Similar to other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to extract meaning, gain understanding, and develop empirical knowledge. Bowen (2009) and Owen (2014) contend that documents give evidence to past events and provide background information as well as historical insight information prior to designing the research project or prior to conducting interviews. In addition, documents provide supplementary research data, and such information and insights can be valuable additions to a knowledge base. Documents may confirm data generated from observation and interviews or they may refute them. This means that findings from document analysis verifies data generated and may contradict or confirm the data provided by the participants during an interview, questionnaire or other form of data generation method. Hancock and Algozzine (2006) point out that while document analysis is a common method in case study research, the researcher must be clear about why the method is appropriate. Furthermore, the researcher must ascertain that the data available provides meaningful answers to the research question.

Hancock and Algozzine (2006, p.52) further suggest that among other things, the researcher should consider the following aspects when deciding to use document analysis in case study research:

a) "The history of the document used.
b) The guarantee that the document is accurate, appropriate and timely.
c) The integrity of the document used.
d) Determine if there were any changes made on the document and the extent thereof.
e) The person who created the document and the intention.
f) Determine if the sources used to create the document were original or secondary data.
g) Availability of other sources to confirm the data obtained in the document being analysed."

Owen (2014) draws attention to various reasons for which documents could be used. He points out that some documents are used to aid one's memory, some serve as reports to others, some as justification of one's conduct, some documents are used to spread propaganda, and so on. However, what makes the document more dependable is the extent of the seriousness of the writer's intention to make a particular record.

In this study, the focus of the document analysis was on the controlled tests and their marking guidelines coupled with the informal assessment teachers had set and administered to learners. The purpose of analysing informal assessment was to establish the extent to which teachers prepared learners for summative assessment using informal assessment. However, due to the Covid-19 pandemic and the need to adhere to all protocols and exercise safety precautions, it was difficult to obtain learners' exercise books for analysis and determine the effectiveness of informal assessment practices on formal assessment. The controlled test and the marking guidelines were analysed. During this process I focused on the following aspects:

a) The utilisation of the cognitive verbs when setting questions.
b) The quality of individual questions, that is, if they were clear, precise, unambiguous and appropriate for the grade. The availability of subtleties that could have caused confusion and change the meaning resulting in learners responding incorrectly to the questions.
c) The extent to which the range of cognitive levels were covered in each assessment item.

d) The relationship between the cognitive verb, level of difficulty and mark allocation to the question.
e) The relationship between the assessment tasks and the marking guideline, that is, if the model responses in the marking guideline corresponded with the questions as well as if the model answer met the cognitive demand as required by the question.

The above aspects that were covered during document analysis were used to address the first research question: To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?

While document analysis has various benefits to research, it also has limitations such as deliberate blocking of the material and insufficient detail or information may not be available for public consumption. (Bowen, 2009; Creswell & Creswell, 2018). However, findings from this analysis may be transferable to other formal assessment tasks. In addition to Bowen (2009), Creswell and Creswell (2018) note the following limitations of document analysis as a method of data collection. Firstly, documents may not be authentic or may be inaccurate. Secondly, the document may require transcribing, alternatively optical scanning for computer entry. Thirdly, material utilised may be incomplete, thus unable to provide sufficient detail.

3.9.2 Questionnaires

The second method of data generation was questionnaires. According to Bertram and Christiansen (2014), a questionnaire refers to a list of questions to which a respondent must respond. Questionnaires could have either closed-ended or open-ended questions. The closed-ended questions are questions where the respondents are required to choose an answer from possible answers that are given. Johnson and Turner (2003) assert that in open -ended questionnaires, also referred to as qualitative questionnaires, the participants may answer in their own words and may fill the items in any order they choose. They further point out that qualitative questionnaires are usually unstructured, exploratory and typically in-depth as they seek to elicit as much information as possible from the participants. Correspondingly, Cohen *et al*. (2018) state that, as a benefit, questionnaires offer standardized and open responses to a variety of topics from a large sample or population. An open ended or qualitative questionnaire was used to collect data in this research study.

Besides the informed consent by the respondents or research participants, Cohen *et al*. (2018) alert researchers to the ethical considerations in respect of the administering of questionnaires since they can be an intrusion in the life of the respondent. This is because the respondent must take time to complete the instrument. The following are the ethical considerations in respect of

questionnaires: Firstly, the extent to which the research can improve the situation (beneficence) and the guarantee that the study is not harmful (non-maleficence). Secondly, the degree of anonymity, non- traceability and confidentiality in the research. Thirdly, the level of threat or sensitivity of the questions. This may lead to over responding or under responding by the respondents. Fourthly, the methodological rigour and fairness which is the need to avoid bias but ensures validity and reliability in the questionnaire. Fifthly, the degree of the respondents' reactions. If the respondents consider an item to be insensitive, irritating, inconsiderate, offensive and biased, they may react strongly to that particular item. It is therefore imperative that the items in the questionnaire be as considerate as possible of the feelings and emotions of the respondents. In addition to ethical considerations, Cohen *et al*. (2018) note that researchers must plan the questionnaire with data analysis in mind. This allows the data analysis to proceed as planned by the researcher.

The questionnaire was first piloted to determine if it was able to collect relevant data for the research study. The questionnaire was used to address both research questions 1 and 2, as there were overlaps of questions relating to both research questions.

3.9.3 Semi – structured interviews

The third method of data generation used was semi-structured interviews. This is a research method in which participants are questioned orally. Bertram and Christiansen (2014) assert that semi-structured interviews enable the respondents to talk freely and provide details. Similarly, Creswell and Creswell (2018) point out that interviews enable participants to provide historical information. According to DiCicco-Bloom and Crabtree (2006, p. 315), in semi-structured interviews "the interviewer elicits information about the meaning of observed behaviours, interactions, artefacts and rituals, with questions emerging over time as the investigator learns about the setting." Creswell and Creswell (2018) contend that interviews are useful when the participants cannot be observed in action and further enable the researcher to exercise control over the line of questioning.

Hancock and Algozzine (2006) suggest that it is advisable for a researcher, when using interviews as a method of generating data, to follow certain guidelines. Firstly, is the identification of key participants who, through their knowledge, can provide valuable insight regarding the research questions. It must be noted that the selection of participants has a direct influence on the quality of data obtained. Participants may either be interviewed as a group or as individuals. Hancock and Algozzine (2006) caution that while individual interviews may be time consuming, they are able to elicit a considerable amount of information from the

individual's perspective. Similarly, group interviews may enable sharing and creation of new ideas which would not occur if the researcher opts for individual interviews.

Secondly, is the development of interview guidelines or protocols. Hancock and Algozzine (2006) claim that this allows the researcher to design appropriate open-ended questions that enable the researcher to gain insight into the study's fundamental research questions.

Thirdly, Hancock and Algozzine (2006) suggest that the researcher must take into consideration the setting in which the interview takes place. To enhance the comfort of the participant and to obtain high quality information, the researcher may seek a location that is private and free from distraction.

Fourthly, to avoid losing valuable information during the interview, the researcher must develop means to record the interview data. Hancock and Algozzine (2006) suggest that, after obtaining the participant's permission, the researcher should audiotape the interview. After the interview, the researcher transcribes the interview data for closer scrutiny and comparison with data derived from other sources.

Fifthly, it is imperative for the researcher to comply with all legal and ethical requirements for research that involves people. Hancock and Algozzine (2006) suggest that interviews should be free from any form of emotional, physical and mental injury. In addition, anonymity and confidentiality of participants should be maintained.

However, Creswell and Creswell (2018) warn against the disadvantages associated with interviews. Firstly, the information provided is filtered through the views of the participant being interviewed. Secondly, the presence of the researcher may lead to biased responses. Thirdly, some participants may not be articulate and perceptive, that is, ability to figure things out may compromise the quality of data collected. Lastly, the information provided is in a designated place as opposed to the natural field setting.

For purposes of trustworthiness and validity, data generated from interviews was audio-recorded. The researcher kept a journal to document things that occurred during the interview that could not be recorded by the audio device, e.g., facial expressions and body language, critical for the research. The data generated from the semi-structured interview was used to respond to both research questions one and two.

3.10 Data analysis

Marshall and Rossman (1999, cited in Attride-Stirling, 2001) point out that in conducting data analysis, the researcher must identify patterns in the data generated and work systematically toward identifying significant and useful truths. When planning data analysis, Cohen *et al.* (2018, p. 186) advise researchers to consider the following questions a) "What will be done with the data when they have been collected – how will they be processed and analysed? and b) How will the results of the analysis be verified cross-checked and validated?" They further note that the criteria for determining the method to be used in data analysis is determined by its fitness for purpose and legitimacy. This means that the form of data analysis chosen by the researcher must be appropriate for the data gathered.

Data was transcribed verbatim from the audio recording device into written form. Data generated from document analysis, questionnaire and transcripts from semi-structured interviews were read many times to identify codes. Data was coded and organised into themes, referred to as thematic analysis. Jason and Glenwick (2016) define thematic analysis as a method for analysing qualitative data by searching for recurring ideas, also known as themes, in a data set. This was subjected to qualitative analysis. Braun and Clarke (2006) assert that in qualitative analysis, there is no specific amount of data set that needs to display evidence of the theme for it to be considered a theme, it rests on the researcher to use his or her judgement in determining what constitutes a theme from the data set. Creswell and Creswell (2018) state that qualitative researchers typically work inductively, building patterns, categories, and themes from the bottom up. This is done by organising the data into increasingly more abstract units of information. The inductive process illustrates working back and forth between the themes and the database until the researcher has established a comprehensive set of themes. Themes may either be implicit or explicit ideas that are contained in the data set. Jason and Glenwick (2016) point out that themes should capture something that relates to the research question or something salient to the participant guided by the conceptual or theoretical framework of the study.

Thematic analysis was done in stages as described by Braun and Clarke (2006). *Stage 1: Engaging oneself in the data.* At this stage I was involved in transcribing data from semi-structured interviews and repeatedly reading the transcripts. I was also able to familiarise myself with all the data, including data generated through the questionnaire and document analysis. In this process, I was able to think about possible codes. Jason and Glenwick (2016) cautioned that transcribing data from interviews may be time consuming.

Stage 2: Generating initial codes. This stage occurs once the researcher has become familiar with the data, therefore he or she can identify an initial list of codes. Codes enabled me to organise data into meaningful units as opposed to themes that are broad and contain various codes (Marshall & Rossman, 1999; Braun & Clarke, 2006 and Bhengu & Myende, 2016). Data was coded manually using coloured stickers and highlighters to enable visual identification of the repetitions.

Stage 3: Searching for themes. Once data was coded and material falling under the same codes were brought together, then a search for themes was done. Different codes were then categorised under different broader themes thus also determining sub-themes (Braun & Clarke, 2006).

Stage 4: Reviewing themes. Once a set of potential themes was identified, they were reviewed and refined. In this process, themes not relevant to the research questions were removed, while others were combined into broader ideas or themes (Braun & Clarke, 2006). Therefore, areas of commonality as well as areas of discrepancy were determined (Marshall & Rossman, 1999; Bhengu & Myende, 2016). This means that an inductive method of data analysis was used.

Stage 5: Defining and naming themes. At this stage, because a thematic map of the data had been drawn, further refinement of the themes occurred. The major task here was to identify the central idea in each theme and provide a name that precisely captured that idea. This included the description of sub-themes (Braun & Clarke, 2006). Once all data was analysed and cross-checked the information, findings and conclusions were drawn.

3.11 Validity, reliability and rigour

According to Cohen *et al.* (2018), validity in qualitative research is underpinned by several principles: data is presented in terms of the participants as opposed to those of the researcher; the researcher must see and report through the eyes of the participants; the validation by the participant is important and catch agency, meaning and attention. Validity of the study is determined by the extent to which it brings about transformation and change in the development of assessment tasks in Grade 7 EMS (Bertram & Christiansen, 2014). Similarly, Yin (2011) cautions qualitative researchers to reveal that the data and interpretations are accurate, leading to a researcher being sensitive to report in a self-reflexive manner. Yin (2011) further notes that research should be based on explicit evidence expressed in the language of the participant which serves as the representation of reality. Subsequently, the conclusions made in the study should be based on the data as reflected in the evidence from the participants.

Lincoln and Guba (1994, cited in Jason & Glenwick, 2016) contend that when judging trustworthiness in qualitative research, the criteria used are to evaluate credibility, transferability, dependability, and confirmability. According to Jason and Glenwick (2016), credibility refers to determining if the participants believe the results of the study. I ensured credibility by reflecting the actual findings or reality of the participants. I used the triangulation of data and methods to cross check information and correlations. According to Creswell (2009), triangulation serves to offset the weaknesses inherent within one method with the strengths of the other, or alternatively, the strength of one method adds to the strength of the other. By examining data generated through different methods, the researcher can confirm findings across data sets and thus minimise the impact of potential biases that can exist in a single study (Bowen, 2005). Triangulation enhances the credibility of the study. According to Hlela (2016, p.5), "credibility in qualitative research refers to the accurate representation of multiple realities of the phenomenon by the participants".

In respect of dependability or reliability, the report of the study outlined the extent to which the previous studies were found to reflect the voices of the participants. Jason and Glenwick (2016) assert that dependability occurs if findings are consistent and can be repeated from the existing data. Furthermore, at least two independent researchers must find similar themes which were later reviewed by the third researcher. I ensured that the results were consistent with the data generated. However, Sandelowski (1993, cited in Rolfe, 2006) rejects reliability as useful in measuring quality in qualitative research, but favours validity or trustworthiness. She argues that since reality in qualitative research is assumed to be *multiple* and *constructed*, therefore repeatability is not essential. As a result, neither expert researchers nor respondents are expected to arrive at the same themes as the researcher.

Finally, the last criterion for trustworthiness in research is confirmability. Mills (2014, cited in Harzard, 2016, p.38) defines confirmability as "The neutrality or objectivity of the data that has been collected." Likewise, Jason and Glenwick (2016) affirm that confirmability occurs if the findings of the study can be confirmed by others and the values of the researcher did not have any influence on such findings. In other words, research can be confirmed if the opinions of the researcher do not influence the study and are not included in the findings. To ensure confirmability for this study, I practiced triangulation using three data generation methods, namely, document analysis, semi – structured interviews and questionnaires which I then compared to each other. I looked for areas of commonality as well as areas of discrepancy.

Once I had analysed and cross-checked all the data, I drew conclusions which ensured trustworthiness.

3.12 Ethical Issues

Bertram and Christiansen (2014) and Nolen and Vander Putten (2007) assert that it is important for all research projects to meet certain ethical principles. Bertram and Christiansen, (2014, p. 65) refer to ethics as "behaviour that is considered to be right or wrong". Resnik (2011, p.1) defines ethics as "a method, procedure, or perspective for deciding how to act and for analysing complex problems and issues". In research, ethical principles that researchers must comply with are autonomy, non-maleficence and beneficence. I sought informed consent from the participants so that they felt no implicit pressure to participate in the research study. It was critical for confidentiality to be observed by ensuring that the security of data identifying individual participants was not breached at all stages of the research project. Nolen and Vander Putten (2007) contend that confidentiality may be compromised in the research because the researcher may be easily associated with a particular class or school during data generation and members of the community may identify the key role players through the findings in the report. This results in difficulty in reporting regardless of the utilisation of pseudonyms.
Bertram and Christiansen (2014) and Nolen and Vander Putten (2007) assert that the right of the participant not to participate in the research must be respected and the participant should not be penalised for refusing to participate in the research project. However, if the participant agrees to participate in the research project but later decides to withdraw from study, the participant's right to withdraw should be respected without adverse consequences. A researcher must note that the participant participates voluntarily in the research project and should not be coerced because that would result in a breach of ethical principles applicable to the research project. All these ethical principles were clearly stated in the consent letters. This research project was beneficial to all the participants or to the society at large.

To ensure access to the schools and ensure that participants were released when required, Principals of all participating schools were approached to negotiate access to the school, documents, perform any other activity related to the study and to allow teachers and Departmental Heads to participate. Principals were given letters of request detailing the purpose of the study which was accompanied by consent forms for Principals to sign. Also, teachers in charge of Grade 7 EMS and Departmental Heads in all participating schools were requested to participate, letters and consent forms were also issued for them to complete and

sign. It was critical that I disclosed to participants and the Principals all the possible factors that might affect the study. Yin (2011) refers to the disclosure of the conditions that might influence the conduct of a study as research integrity. He claims that it is a standard ethical practice that researchers must disclose as much as possible about the methodological conditions that might affect both the study and its outcomes. Likewise, David and Resnik (2011) emphasises the importance of integrity in research. David and Resnik (2011) describe integrity as keeping promises and agreements, acting with sincerity and striving for consistency of thought and action. An application for ethical clearance was made to the University of KwaZulu-Natal Research Ethics Committee for approval to conduct this study. In addition, I applied for permission to conduct research from the KwaZulu-Natal Department of Education. Once all these ethical issues were addressed, the research study was conducted.

3.12.1 Gaining access to the schools

The first step towards conducting the research study at Umzinyathi District was applying for permission to conduct research. Permission to conduct research in schools was sought from the KwaZulu-Natal Department of Education. I also applied to the University of KwaZulu-Natal Research Ethics committee to grant permission to conduct research as a registered student in the university. This was done after approval of the research proposal by the university's Research Ethics Committee.

To gain access to the schools and ensure that participants were released when required, I also applied for permission to conduct research at schools from the Principals of all schools that participated in the study. Principals of all participating schools were approached to negotiate access to the school, documents, perform any other activity related to the study and to allow teachers and Departmental Heads to participate. Principals were given letters of request detailing the purpose of the study which were accompanied by consent forms for them to sign. After I was granted permission, I met the teachers in charge of Grade 7 EMS and Departmental Heads in all participating schools who were requested to participate. Letters and consent forms were also issued to them to complete and sign. The consent letters clearly stated that the participants were not forced to participate as it was voluntary and they were free to withdraw at any time if they wished to do so without giving any reasons. I also informed them that the information was for the purposes of the research study only and was going to be confidential and their identity would never be revealed. After this, the informed consent letters were signed.

We negotiated the dates and time I was to visit them for document analysis, completion of the questionnaire and interviews.

3.13 Limitations of the study

The ability of the findings of the study to be generalised and /or transferred to other contexts cannot be easily confirmed. This is because the study is limited to five schools in a rural context. Hlela (2016) points out transferability refers to the extent to which the study is applicable to different but similar contexts. This relates to selection of participants as well as the depth of the description of the study. Not all contextual factors were taken into consideration which may have had an influence on the results of the study. The sample does not represent the wider population but itself (Bertram & Christiansen, 2014). Cohen *et al*. (2018) outline two factors that may result in findings or results of the study not being generalisable. Firstly, if the results are not open to cross-checking, then they may be selective, biased, personal and subjective. Secondly, results may be susceptible to observer bias, although attempts were made to address the issues of reflexivity.

However, while each case might be unique to a specific situation or environment, I think this serves as an example within a broader group which may, to a particular extent, have similar contextual factors. Therefore, I suggest that chances of transferability or generalisability should not be completely ruled out.

3.14 Conclusion

In this chapter, the research methodology and design of the study was outlined. The interpretive research paradigm and the qualitative research approach applicable to this study were explained. This was followed by a discussion of the case study research design, its advantages and disadvantages as well as the context in which the study were described. The procedure followed to gain access to the schools where the study was undertaken was outlined as well as the positionality of the researcher. The chapter further described the purposive sampling method employed for selection of the participants in this study. Data generation instruments and methods were further explained in detail. An explanation of how the data was analysed and a discussion of how this study ensured credibility and trustworthiness was outlined. Finally, ethical issues and limitations of the study's methodology were discussed. The next chapter summarises the findings and conclusions of this study and outlines recommendations and areas for further research.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.1. Introduction

This chapter focuses on the presentation of data gathered through document analysis, questionnaires and semi-structured interviews regarding the competencies of Economic and Management Sciences (EMS) Grade 7 teachers in the development of formal assessment tasks. The chapter begins with a brief profile of each participant. This is followed by the presentation and analysis of the results which emanated from the study. To accurately illuminate the views of the participants, data generated was transcribed and coded to generate themes. Excerpts from the questionnaire and semi-structured interviews were included to ensure credibility of the research findings. The conceptual framework and relevant literature were used as a lens when analysing data. Data is presented according to the following research questions which guided the analysis of data:

5. To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?
6. What challenges do Grade 7 EMS teachers encounter when designing the formal assessment tasks?

4.2. Profiles of participants

This section presents the profile of each participant in this study. To protect the anonymity of participants and maintain ethical principles, the real names of participants and their schools have been concealed which was done by using pseudonyms instead of real names. The pseudonyms used in the discussion are as follows: Thenjiwe and Bongiwe are from school A. Bongiwe is a Departmental Head in school A. Phila and Senzo are from school B, where Senzo is a Departmental Head. Vusi is from school C, Rose from school D and Zinhle from school E.

4.2.1. Zinhle

Zinhle is the second born in the family and has two siblings. She is between 30 and 35 years of age. Zinhle did her primary education at Umgabhi Primary School in a rural area from 1994 to 2000. She then moved to Ekudubekeni High School and completed her matric in 2005. She

had a gap year and started tertiary education in 2007. Zinhle graduated with a Bachelor of Education degree from the University of South Africa in 2011, with Economics and Languages as majors. In the same year she started working as a teacher in a school closer to home. She later enrolled for the Bachelor of Education (Honours) specialising in Educational Management and graduated in 2018. Zinhle has been teaching EMS for over five years.

4.2.2. Rose

Rose was born in the deep rural area in Bergville in KwaZulu-Natal. She is the fifth born in the family of seven children. She started her primary education in 1987 and completed her matric in 1998. She then enrolled for the Diploma in Retail Marketing, at the Natal Technikon, which she completed in 2002, although she wanted to do Cost and Management Accounting. Rose could not find employment until 2005, when she got a job at a large retailer where she worked as a Credit Associate and Debt Collector. In 2011, Rose enrolled for a Post Graduate Certificate in Education with Economic and Management Sciences and Business Studies as major subjects. In 2013 she was employed by the Department of Education as a teacher. Rose has four years of experience in teaching EMS.

4.2.3 Thenjiwe

Thenjiwe was born in a rural area in northern KwaZulu-Natal. She is the fourth born in the family of five children. She started her primary education in 1989 which she completed in 1995. She then did her secondary education from 1996 which she completed in 2001. In 2002, she had a gap year as the family could not afford her tertiary education. Thenjiwe then registered with the University of Zululand for a Bachelor of Arts in Correctional Studies in 2003 which she completed in 2007. In 2008, she was employed as a teacher in the KwaZulu-Natal Department of Education. In 2011 she enrolled for a Post Graduate Certificate in Education, with Economic and Management Sciences as the major subject. Thenjiwe has twelve years of experience in teaching EMS.

4.2.4. Phila

Phila is the last born in the family of nine children, four boys and five girls. He started his primary education in 1983 which he completed in 1987 in the rural area. He then moved to a township school in the North Coast of KwaZulu -Natal where he did his secondary education from 1988 until 1990 when he was doing Standard Eight (Grade Ten). Due to political instability, in 1991 he returned to the rural area where he completed Standard Ten (Grade 12).

Political instability forced him to undergo military training as a member of a protection unit in one of the rival political parties. When the political situation became relatively stable, Phila decided to quit political activism and continued with his studies.

He was admitted at a College of Education for a Secondary Teachers Diploma. In 2013 he completed a Bachelor of Education from the University of Zululand with major subjects being Life Orientation and English in the Senior and FET Bands. In 2014 he was employed by the Department of Education as a teacher in a primary school. He later moved to another primary school in northern KwaZulu- Natal where he is currently teaching. Phila has been teaching EMS for six years.

4.2.5. Vusi

Vusi is the first born in the family of four children, two boys and two girls. He started his primary education in 1984 in the rural area of Nquthu, which he completed in 1990. In 1991 he started his high school education and completed it in 1995. Due to financial constraints, he could not go to a tertiary institution but was forced to look for work. In 1996 Vusi was then employed as an unqualified Privately Paid Teacher and worked in several schools. In 1996, he enrolled for a Senior Teachers Diploma which he completed in 2003. He majored in Mathematics, English and Natural Sciences. He taught EMS as part of his duty load since he did not major in it at college. His high school background of Business Economics assisted him in his teaching. Vusi's experience in teaching EMS was four years.

4.2.6 Bongiwe

Bongiwe was born in 1972 in a rural area called Kranskop in KwaZulu-Natal. She is the fourth-born in a family of 5 children, three girls and two boys. Her mother was a teacher at a nearby primary school. She encouraged them to read before going to sleep; therefore, she grew up having a love for reading. Unfortunately, Bongiwe's mother passed on when she was 15 years old, and she was forced to go and live with her aunt in Durban. Due to that, her life was never the same. It changed drastically because her father was a Minister of Religion and did not earn much. He sometimes failed to support them. Bongiwe started her primary education in a nearby primary school in 1979 and finished high school in 1991.

She repeated Standard 10 (Grade 12) because her wish was to get good marks to go to the University to study Medicine. When she was doing matric, her class teacher told her not to go to Medical School but to go to the Teaching College because he felt that teaching was her

calling. She went to Kwa-Gqikazi College of Education to do a Primary Teacher's Diploma (PTD) from 1993-1995. She started teaching in 1996 at one of the primary schools in Nquthu. She furthered her studies in different institutions: Higher Diploma in Education at UNISA, BEd Honours at Rand Afrikaans University, ACE (Maths, Science and Technology) at UKZN. Currently, she is doing a Master's degree in Curriculum Studies at UKZN. She is a Departmental Head at one of the Primary schools in Nquthu. She has four years of experience as a Departmental Head.

4.2.7 Senzo

Senzo is the third born in the family of nine children, six boys and three girls. He did his primary education from 1975 to 1982 at a primary school in Mvunyane area. In 1983, he proceeded to a high school to do Standard six (Grade Eight). Unfortunately, in 1985 he was compelled to leave school due to financial constraints at home and went to seek for job opportunities in Johannesburg. Senzo worked in Johannesburg for seven years, after which in 1992 he came back and completed matric in 1994. In 1995 he was employed in one of the primary schools in Nquthu as a Privately Paid Teacher (unqualified teacher). He then registered with the University of Port Elizabeth and completed his Senior Primary Teachers Diploma in 2001 majoring in IsiZulu and Social Sciences. Senzo has been teaching for more than twenty-five years and is between 51 and 60 years of age. He was blessed with eight children, seven boys and one girl.

4.3 Analysis of data and emerging themes

I used thematic analysis to make sense of and interpret the data generated. Data generated from semi-structured interviews was transcribed and coded as well as the data generated from questionnaires. Key ideas or patterns were used to group the data**.** The inductive method of data analysis was used to examine the data and identify codes**.** Similar codes were grouped into possible categories and the related categories were merged to identify emerging themes**.**

4.3.1 Coverage of cognitive levels

The following themes emerged from the data generated for Research Question 1: To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?

1. Design diverse assessment tasks
2. Link informal assessment tasks to formal assessment.

3. Alignment with Bloom's Taxonomy
4. Compliance with CAPS
5. Provide feedback

This data emerged from the participants' responses from the semi-structured interviews and questionnaires as well as from document analysis.

4.3.1.1 Design diverse assessment tasks

The Curriculum and Assessment Policy (CAPS) (Department of Education, 2020, p. 76) outlines that "assessment in Economic and Management Sciences focuses on the knowledge, skills and values inherent in the activities of production, consumption, exchange and making meaningful and informed financial decisions in economic and social environments". It further prescribes the formal assessment tasks, through a Programme of Assessment, that must be administered to Grade 7 learners throughout the year. CAPS describes that in Grade 7, two formal assessment tasks must be administered in Term 1. These comprise an Assignment/ Poster/ Case study. Teachers may choose to administer one of the three assessment tasks. In addition, a Controlled Test must be administered at the end of the term. Each of these tasks is out of 50 marks. In Term 2, only the Mid-Year Examination, which is out of 100 marks is administered. In Term 3, the policy suggests that a Project which is an Entrepreneurs' Day must be administered. The project is out of 50 marks. In Term 4, CAPS outlines that the Year -End Examination, which is out of 100 marks be administered.

From the data generated, all participants indicated that they were involved in designing different formal assessment tasks. These tasks were recorded and were used for promotion and progression. Thenjiwe elaborated on the formal assessments tasks she designed and said:

> *I design projects, tests and assignments.*

Similarly, Phila said:

> *The formal tasks that I design is the case study, project and the poster.*

Likewise, Zinhle also designed formal assessment tasks. She said:

> *The assessment tasks that I design as a teacher are tests, project, assignments or examinations.*

Vusi indicated that the formal tasks that he designed were those that were recorded and formed part of the continuous assessment. He pointed out that his strength regarding formal assessment was on the project administered in Term 3 of the academic year. He said:

> *I am very good in designing the market day drawing from my experience as a business man. We usually do it successfully in our school.*

Vusi's statement suggests that he has experience of a business environment. His background could assist in demystifying misconceptions about business concepts. It could also help in bridging the gap between theory and practice and expose learners to real life situations. The purpose of the market day, in CAPS referred to as an Entrepreneurs' Day, is to expose learners to the business world. It enables learners to showcase their entrepreneurial skills, enhance competition and instil entrepreneurial knowledge (Department of Education, 2020). This resonates with the study by Moodley (2013), conducted on two focus groups in KwaZulu-Natal. This study found that CAPS is consistent with its general aims and principles and that children were exposed to a wide range of skills that strengthened their physical, social, emotional and cognitive development.

According to Brualdi (1998), projects as part of performance-based assessments provide a set of strategies for the application of knowledge, skills and attitudes through the performance tasks that are meaningful and engaging to learners. Teachers are provided with information about how a learner understands and applies knowledge. Furthermore, teachers are enabled to integrate project-based assessments or performance-based assessments into the instructional process while providing an additional learning experience for learners.

It was further evident that teachers did not work independently, as there was evidence of collaboration when designing formal assessment tasks. Rose pointed out that she worked with other teachers in the cluster. She said:

> *The assignment and project which I set myself, I give them to the members of the cluster to moderate them.*

Rose's response suggested that her school environment allowed teacher collaboration and teamwork. This resonates with Muller, Orkin and Robertson's (2017) assertion that Principals, as instructional leaders, have a responsibility to create a conducive environment for teaching, learning and collaboration to take place. It further resonates with the study by Ayeni (2012) which involved 60 school Principals and 540 teachers. The study found that effective

collaboration and goal-oriented synergetic interrelationship between the school and other relevant stakeholders creates a positive environment for effective curriculum delivery, assessment and institutional governance to take place. Rose's response further suggested that teachers in her cluster had a common vision; that of administering quality formal assessment tasks. Grusenmeyer (2009) contends that a common vision serves as a tool for building a team with a purpose. If a dedicated team of teachers engages in collaboration, it forms its support network to realise its vision. It further enables teachers to solve the challenges they face regarding effective teaching, learning and assessment. Congruently, Jita and Mokhele (2014) posit that clusters enhance both teachers' content knowledge and pedagogical content knowledge. In addition, they improve teacher collaboration, instructional guidance and teacher leadership.

While participants indicated their understanding and involvement in designing different formal assessment tasks, they did not indicate when each of these tasks were administered. In addition, participants like Phila and Thenjiwe, Rose and Vusi, did not mention all the formal assessment tasks that should be administered in an academic year in Grade 7. On the contrary, Zinhle mentioned all the formal assessment tasks that should be administered in Grade 7. However, Zinhle also did not mention when she designed and administered these formal assessment tasks in relation to the formal program of assessment.

Participants' lack of knowledge of the CAPS provisions on assessment could have resulted in them not following the Programme of Assessment and not administering correct formal assessment tasks. It is also possible that participants replaced the prescribed formal assessment tasks with those tasks which they were comfortable with which not necessarily assessed the required skills or could have been of a poor quality. In doing so, it possibly contravened the purpose of assessment in EMS, as outlined in CAPS, (Department of Education, 2020) which is to prepare learners for success in different economic and business environments. According to CAPS, this should underpin assessment practices in the classroom. Similarly, Dewey (1983, cited in Raselimo & Mahao, 2015) affirms that schools as democratic spheres, should empower individual learners to effectively deal with practical life challenges. He further warns that any assessment that does not lead to personal development, growth and development of the community and solving practical life challenges is in contravention of the provisions of CAPS. Furthermore, this contrasts with Aswegen and Dreyer's (2004) assertion that the major role of

assessment is providing a balanced methodology for monitoring, confirming and improving student learning.

Although there were traces of some knowledge gaps among the participants, there was a positive attitude towards implementation of CAPS and its provisions on assessment. Therefore, the findings of this study are contrary to the findings of the study conducted by Zano (2015) that teachers displayed a negative attitude towards the implementation of CAPS. This is also evident in Rose's assertion that the formal assessment tasks she designed were also given to the members of the cluster to moderate.

Data generated from the questionnaire revealed that Vusi's training on designing formal assessment tasks was not sufficient for him to design formal assessment as outlined in the CAPS guidelines. In addition to his ability to design a market day he stated that:

> *I can rate my competency in designing formal assessment tasks as satisfactory. I still need to attend training for designing formal assessment tasks, and also improve on how to conduct the market day in a limited period.*

This study revealed that after administering formal assessment tasks, participants analysed the performance of the learners. This enabled them to identify the causes for failure and success. While participants took into consideration what caused learners to either pass or fail the task, Vusi acknowledged that even a teacher might be a cause of failure or underperformance in the tasks. In addition to that, if learners did not achieve satisfactorily in a task, they had to be given another chance to redo the task until they did better. He highlighted that:

> *If it happens that after writing a formal task and after marking, I find that most learners do not do well, I give them another chance. This is because, if say, 80 percent of the learners are failing, I must point at myself, then give them another chance to do it again because it is about them. I expand opportunities for them.*

Vusi's statement illustrates teachers' commitment to effective teaching, learning and assessment. It is also in line with Biggs' (1999, cited in Jabbarifar, 2009) assertion about the two major functions of classroom assessment: firstly, to show whether the learning has been successful and secondly, to clarify the expectations of the teachers from the learners. Learners were given an opportunity to show that they had or had not learned. Formal assessment

provided teachers with a systematic way of evaluating how well learners were progressing in a grade and in a subject. It further displayed a positive attitude towards learner attainment.
It was also evident from the semi-structured interviews that participants were passionate about their learners by keeping evidence of their assessment in the form of assessment records. While all participants pointed out that they kept evidence of assessment, Vusi explained:

> *In our school we record both formal and informal assessment. Recording of formal assessment tasks is done so that learners can have marks that are kept safely by the system.*

Keeping records of both formal and informal assessment assisted Vusi to keep track of the learners' performance. This enabled the teacher to provide constructive feedback and make necessary interventions to improve performance before learners could be subjected to formal assessment. Green (2018) asserts that assessment for learning is used to seek and interpret evidence for use by learners and their teachers when deciding where the learners are in their learning, where they need to be and what strategies should be employed to get them where they should be with their classroom performance.

This study revealed that school management played an important role in the design of formal assessment tasks in the school. Rose highlighted that before the task was administered to learners, school management had to see it first. She said that:

> *We submit our formal assessment to management for moderation. If they find that something is not clear or right, they come back and support us and tell us how to do it. They also check if we are in line with the programme of assessment.*

While Rose pointed out that she got support from school management about how to design formal assessment tasks, Vusi stated that he got guidance and support from Subject Advisors. He said:

> *In the beginning of each year Subject Advisors offer orientation workshops. It is where we are guided on how to start. There are continuation workshops where we are guided about the nature of all formal tasks. We also have a right to phone our Subject Advisors to give clear directions.*

The statements by Vusi and Rose suggest that both Subject Advisors and the School Management Team played a role in supporting teachers with the intention to improve assessment practices. This affirms the provisions of the PAM Document (Department of Education, 2016), which outlines that the Departmental Heads must control the work of teachers and learners in the department and moderate all formal tasks including test and examination papers, memoranda as well as mark SBA sheets. The PAM Document further suggests that the Subject Advisors' role is to assist Principals and teachers to improve the quality of teaching and learning in their institutions. However, the most critical questions that need to be answered are: To what extent does such support help improve assessment practices in the classroom? and Are teachers able to design balanced formal assessment tasks after receiving support? Allen *et al.* (2009) advocate for the support of teachers, particularly those with less practice and experience. They contend that it assists teachers to effectively develop and administer both formative and summative assessment tasks.

Participants suggested that there was a need to enhance the standard of assessment in the General Education and Training (GET) Band. Thenjiwe suggested that:

> *Provincial Tests must be given throughout the year to maintain the standard of setting as it is done in Grade 10 to 12.*

Thenjiwe acknowledged a gap in the management of the quality of formal assessment tasks being developed and administered by the Grade 7 EMS teachers. This raises a question about the impact of support provided by the SMTs and Subject Advisors to the teachers in respect of the design of formal assessment tasks. However, the standardisation of formal assessment across the grade could assist by ensuring that learners were exposed to quality and standardised assessment tasks throughout their schooling period. This could equip learners for lifelong learning. According to Boud and Falchikov (2006), standardised assessment equips learners to face challenges they experience beyond the school environment. It further equips them with key skills and develops their capacity for employment. In the process, the major goal of education is achieved, that of improvement of the learning process and improvement of learner attainment. In addition, Thenjiwe acknowledged that assessment was not only used to measure learner progress, but also to improve the education system. This resonates with the assertions by Braun, Kanjee, Bettinger, and Kremer (2006) that assessment should not only be viewed as a tool to measure the progress of individual learners, but that it also enables individuals,

communities, and countries to track the quality of schools and educational systems. Therefore, by standardising assessment, not only will it equip learners with key skills, but will also improve the quality of education, as it will be measured against set and approved standards.

Zinhle suggested that making the assessment tasks more practical in EMS could improve both learning and assessment. Her suggestion was:

> *I think if we can have more practical tasks like the Entrepreneurs' Day. There learners may be able to enjoy the lesson while learning, that is, learning by doing. If we can have more projects as part of assessment.*

Zinhle's viewpoint further resonates with Grossman's (1990) Pedagogical Content Knowledge (PCK) domain. According to Grossman (1990. p.7), "pedagogical content knowledge also includes an understanding of what makes learning of specific topics easy or difficult; the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons." Varying instructional strategies and/ or teaching methods enhance the understanding of the concepts being taught, appeal to the different learners' learning styles and have a positive impact on learner attainment. Therefore, teachers must use their knowledge of the subject matter and knowledge of the learners' prior knowledge and conceptions to select appropriate assessment strategies. Furthermore, Dewey (1983, cited in Grossman, 1990. p.7) suggests that teachers must "psychologise" their subject matter to make it accessible to learners. This will in the process enable teachers to make assessment accessible by implementing project-based assessment.

Zinhle's view on making the assessment tasks practical is also in line with Price, Pierson, and Light (2011) who describe the different categories of effective alternative assessment strategies. Among those alternative assessment strategies is performance-based assessment**,** which is also known as the project-based or authentic assessment. According to Price, Pierson, and Light (2011), project-based assessment assesses whether learners can apply their knowledge and skills in a real-life situation. Zinhle's suggestion is further supported by Thomas (2012) who advocates for the gradual movement or reform of the global educational assessment scenario from the traditional examination culture to a more flexible assessment culture. Therefore, Zinhle believed that implementing project-based assessment in EMS brought fun into the classroom while learning takes place. This may have a long-term effect on

both the teaching and learning process and learners' skills acquisition for utilisation at a later stage in life.

In addition, the Department of Basic Education (2011) confirms that EMS is a practical subject. Its objective is to equip learners with real life skills for personal development and development of the community. Therefore, the tasks set should contribute to personal development and should promote the idea of sustainable economic growth and the development of the community.

Grossman (1990) posits that there is a clear relationship between assessment and subject matter knowledge. Subject matter knowledge refers to the knowledge of concepts within a particular field and how these concepts relate to each other. It enables teachers to teach the main points of the subject, clarify the misconceptions and evaluate student understanding of such points or concepts. Grossman's (1990) assertions are in line with the provisions of the National Development Plan, vision 2030 (National Planning Commission, 2013). The National Development Plan outlines that teachers are central to the education fraternity and as a result the teaching profession should be highly valued. It further suggests that teachers must be of high quality and must have good knowledge of the subjects they teach.

Concerning the above, data generated from the questionnaires revealed that participants had obtained content knowledge of EMS in various ways. It further revealed the gaps that some participants had in both delivery of the content and assessment.

Zinhle pointed out that:

> *I received pre-service training on EMS at the university. EMS was a major it is against that background that I can teach and assess effectively. In addition, I teach myself and collaborate with other teachers.*

However, contrary to Zinhle, Thenjiwe said:

> *I did not receive any pre-service training on both EMS content and its assessment. I received content knowledge through self- teaching, collaboration with other teachers, networking and assistance from the Subject Advisor.*

Similar to Thenjiwe, Phila pointed out a gap in knowledge which should have been provided by pre-service training. He said:

I have no pre-service training in EMS. I attended content workshops. I also received content knowledge through self-teaching, collaboration with others and mostly content workshops which are fruitful.

Likewise, Vusi did not receive any pre-service training in EMS. He said:

I have attended workshops (curriculum) that were conducted by the Subject Advisor. With regard to content knowledge, I only master the Financial Literacy part since I've done Accounting at school level and still struggling to teach some content in EMS.

Rose said:

I have a Post Graduate Diploma with EMS and Business Studies as major subjects. My content knowledge is as a result of integration with other teachers, self-teaching, university and through my seniors and Subject Advisors.

From the above discussion, it is evident that participants did not receive pre-service training in EMS. However, in practice they were expected to teach it as part of their duty loads. It is therefore possible that their ability to design the formal assessment tasks had been compromised by the lack of pre-service training in EMS. Grossman (1990) asserts that lack of subject matter knowledge could affect classroom interaction and how teachers critique and use textbook resources as well as assessment. Windschitl (2004) points out that teachers with limited content knowledge tend to put emphasis on memorisation of isolated facts, rely on textbooks while not using student understanding as a guide towards lesson preparation. In addition, such teachers use a lower level of questioning resulting in student development and creating of conceptual connections. Ball *et al*. (2008) contend that teachers need to have a comprehensive knowledge of the curriculum or the subjects they teach. They advise that additional years of further study are required for teachers to strengthen their subject matter knowledge. They further suggest that teachers need to know the curriculum plus the pedagogical content knowledge.

Furthermore, Jadama (2014) asserts that the conception of knowledge by the teachers enhances their practice and improves the quality of questions they ask as well as the quality of assessment tasks they design. Therefore, teachers who have less subject matter knowledge experience difficulties in planning lessons and evaluating learners' assessment tasks and possibly they do not understand the level at which both teaching and assessment should be pitched. Jamada (2014) further notes that such teachers find it very difficult to answer or respond to varied

questions from learners about the subject matter if they have insufficient knowledge. It is against this background that Shulman (1986, cited in Jadama, 2014, p.22) argues that "What teachers need to know about the subject matter they teach extends beyond the specific topics of the curriculum." Data generated from the participants indicated that they did not receive any pre-service training on both the teaching and assessment of EMS. Participants pointed out that they obtained their content knowledge through self-teaching and collaboration with others. They further indicated that they also obtained their content knowledge through content workshops or support sessions provided by the Subject Advisors. However, only Zinhle indicated that she received pre-service training. Although Rose stated that she had a Post Graduate Diploma, with EMS as a major subject, it did not equip her with basic skills in both teaching and assessment in EMS. Evidence suggests that, like other participants, she still relied on self - teaching and collaboration with other teachers. Furthermore, Vusi stated that he only mastered the Financial Literacy part and was still struggling with some EMS content. This suggests that the content workshops and other support sessions provided by the Subject Advisors were not sufficient in assisting teachers to acquire content knowledge and develop proper assessment practices in schools. It suggests that pre-service training plays a significant role in teacher preparation.

These findings resonate with studies by Korthagen (2017) and DeLuca and Klinger (2010) which revealed that there was a huge gap between teacher training (theory) and practice. Kelchternans and Vandenberghe (1994, cited in Korthagen, 2017, p.398) contend that "in teacher learning not only the link between practice and theory is important, but connection with the person of the teacher." To achieve connection with the person of the teacher, they further contend that an in-depth analysis of teacher learning processes is an important instrument in establishing prolific connections between practice, theory and the person. Both studies recommended that teachers' continuous professional development (CPD) must be implemented from the time the teachers begin their professional careers. The recommendations by Korthagen (2017) and DeLuca and Klinger (2010) resonate with the findings by Widiastuti *et al.* (2020) which revealed that the CDP programme greatly influences the teachers' implementation of the formative assessment regardless of the extent to which they participated in the CPD programme. The study further revealed that that the CPD programme enabled teachers to design formative assessment and clearly explain the lesson expectations to learners. According to the National Framework on Teacher Education, Department of Education (2006), the Continued Professional Teacher Development (CPTD), ensures that the professional

development of teachers effectively contributes to the quality of teaching. Jita and Mokhele (2014) affirm that intensive CPD programs, although they vary in format, have the potential to change knowledge, beliefs and teacher classroom practices for the better. Apart from the structured CPD programme to which teachers must be subjected, it may be imperative for schools to have a structured mentoring programme. The aim is to bridge the gap that existed from pre-service training which is widened by causing teachers to teach subjects in which they never received initial training. According to Pather (2010), mentoring enhances professional development of an organisation and its participants. Therefore, the SMT in each school has the responsibility to develop and formalise the mentoring programme. Such a program should be part of the school culture for its effective implementation.

The findings of this study revealed that some teachers who teach EMS did not receive any training, but due to the duty load given to them, found themselves compelled to teach the subject without any qualification. In addition, the continuous Redeployment and Rationalisation Programme by the Department of Education exerts pressure on SMTs to give teachers subjects which they are not qualified to teach. The Redeployment and Rationalisation Programme is guided by the Post Provisioning Norm (PPN), which determines the learner-teacher ratio. This results in the rotation of teachers and the movement of teachers due to placement in different schools where there is a shortage of teachers. To this end, the process compromises the quality of teaching as teachers take time to master the subject they teach without qualification.

4.3.1.2 Link informal assessment tasks to formal assessment

According to the CAPS document (Department of Education, 2011), the purpose of informal assessment is to collect information on learners' achievement continuously, which may be used to improve the quality of learning and teaching. CAPS further outlines that informal assessment should not be seen as separate from learning activities taking place in the classroom. To improve teaching and learning, CAPS recommends that informal assessment tasks should be marked and feedback given to learners. In EMS, CAPS outlines that a minimum of two informal assessment tasks should be administered per week and should be reflected in the learners' books. However, informal class tests should be of a high quality and aligned to Bloom's Taxonomy.

Zinhle, Rose, Phila, Vusi and Thenjiwe showed their understanding of the value of informal assessment and the role it played in improving teaching and learning. They further described

the value of informal assessment and the extent to which it improved learner performance. Rose shared:

> *After each lesson I give them an assessment about what I have taught them, such as class activities and homework.*

Zinhle defined informal assessment as tasks given to learners. In addition, she highlighted the importance of remediation after every informal task was written and marked. She pointed out that:

> *Informal assessment tasks are those class work or homework that you give to learners daily. After marking informal tasks, we do corrections to correct and learners will see where did they go wrong. We do not record the informal tasks.*

Similarly, Vusi pointed out that informal assessment tasks provided evidence of how learners understood the teaching and learning processes as they unfolded in the classroom. He said:

> *Informal tasks are those tasks that only give evidence of learners understanding the content and context of what we have been doing in the classroom. There is a time for class work and homework.*

Vusi's consideration of both the content and the context during the teaching and learning process resonates well with Grossman's (1990) conceptual framework. Grossman (1990) affirms that the teachers' knowledge that they impart in the classroom should be context specific as this helped the teacher to understand diversity that existed in the classroom. This further enabled the teacher to determine the level of differentiation that needed to be applied for effective teaching and assessment to take place. Differentiation ensured that learners' capabilities were always considered when teaching took place and during assessment. In the process, it better prepared learners for summative assessment.

Vusi also suggested that remediation was very important to improve learner performance. He said:

> *I mark and do corrections in the classroom so that I can see how their performance is. In our school we record both formal and informal assessment.*

Similar to Zinhle and Vusi, Thenjiwe mentioned that it was important to track the performance of learners by recording both informal and formal assessment tasks. She pointed out that:

> *I record both formal and informal task to check the learners' performance or understanding in the subject.*

Zinhle said that when designing the formal assessment task, she checks what has been assessed before. She said:

> *Firstly, I check my informal task so that I can assess a formal task connected to the informal task that I have designed.*

Vusi mentioned that regular informal assessment tasks assisted learners to understand the subject and it also contributed to the improvement during formal assessment. He asserted that:

> *Assessment helps learners to understand EMS, and when given more informal assessment activities their performance in formal assessment improves.*

Likewise, Rose claimed that:

> *Assessment assists learners to understand the link between formal and informal tasks.*

The above statements by the participants are in line with Bloom's (1956) theory of education objectives. Forehand (2011) asserts that the purpose of Bloom's Taxonomy is to enable teachers to assist their learners to reach the highest level of thinking and comprehension. It was evident from the data generated that the participants were committed to ensuring that learners were assisted to reach their highest level of comprehension. The administering and marking of formative assessment including giving feedback on performance assisted in the effective transfer of knowledge and skills to a variety of contexts. This study found that participants used formative assessment to help learners understand EMS as a subject and the relationship between formative assessment and summative assessment. CAPS (Department of Education, 2011) outlines that informal assessment be of a high quality and be subjected to Bloom's Taxonomy. This compels teachers to formulate learning objectives that lead to deeper learning and to develop assessment tasks that require cognitive skills at the higher level of Bloom's Taxonomy (deeper cognitive processing), namely, critical thinking and evaluative judgements. However, Adams (2015) cautions that studies have shown that the learning objectives in many training programs and curriculum delivery activities focus on the lower levels of the taxonomy, that is, knowledge and comprehension.

The data generated from participants about how they linked informal assessment with formal assessment suggests that participants had a compelling vision to ensure that there was improved learner attainment. Jadama (2014) affirms that it is essential for learners to be prepared for formal assessment through informal assessment activities. Using assessment to help learners understand EMS shows adequate subject matter knowledge and pedagogical content knowledge as explained by Grossman's (1990) conceptual framework underpinning this study. According to Grossman (1990), for effective assessment to take place in the classroom, the teacher must possess both the subject matter knowledge and pedagogical content knowledge. Jadama (2014) affirms that it enables the teacher to impart the subject matter effectively and efficiently. Data further suggests that teachers had knowledge of the level of learners' understanding of the subject. This was evident from the participants' statements that they used informal assessment to assist learners to understand EMS. In this regard, teachers used a variety of informal assessment tasks to determine both the learners' understanding of the content and their level of performance. These tasks were appropriate for both the grade (Grade 7) and the age of the learners. However, Windschitl (2004) argues that for effective implementation of informal assessment, undergraduate preparation, pre-service training and in-service professional teacher development are necessary to influence teacher growth. The main concern is that these vital areas of teacher knowledge growth do not seem to receive the attention they deserve.

The assessment practices mentioned by Vusi, Thenjiwe and Zinhle, on marking and recording of the results of informal assessment, resonate with CAPS (Department of Education, 2011). The CAPS document recommends that the results obtained by learners from informal assessment should not be recorded unless the teacher wished to do so. However, the informal assessment tasks should be marked and feedback should be given to learners in order to improve their performance. Perhaps the recording of the results of informal assessment enabled the three participants to analyse and interpret the performance of their learners. Green (2018) affirms that assessment for learning collects and interprets evidence for use by both learners and teachers to determine how much the learners have learnt; how much they still need to learn and how best they can be taught. This process creates an enabling environment to bridge the gap between the current level of performance and the desired or expected levels of learner performance. In addition to assisting learners to understand the content and interpreting learner performance, Vusi pointed out the importance of the understanding of the context in which teaching and learning occurs.

Emanating from the participants' responses, it became evident that participants believed that it was imperative to prepare learners for formal or summative assessment. According to the Department of Basic Education (2011); Braun *et al*. (2006) and Green (2018), informal assessment or daily assessment is the monitoring and enhancing of learners' progress. Teacher observation and teacher-learner interactions which may be initiated by either teachers or learners are activities that are aimed at improving learner performance. The Department of Basic Education (2011) further asserts that informal assessment builds up to formal assessment (summative assessment) and is aimed at improving teaching and learning. It is therefore imperative that all school-based assessment activities, that is, both assessment of learning and assessment for learning, should be designed in such a way that they both improve teaching and learning as well as learner attainment.

The findings of this study are congruent with the assertions made by Thomas (2012) that summative assessment requires teachers to encourage learners to practice before writing tests to improve or enhance their marks. Informal assessment tasks or assessment of learning enabled learners to practice before writing any summative assessment. Nicol and Macfarlane-Dick (2006) note that formative assessment accelerates learning and closes the gap between actual performance and desired performance.

This study revealed that participants ensured that the informal assessment administered to learners prepared them for formal assessment. This concurs with the provisions of the CAPS document (Department Education, 2011), that the informal assessment builds to formal assessment. Lastly, by administering informal assessment, participants complied with the provisions of the Department of Basic Education (2002) that assessment aims to achieve the following: developing learners' knowledge, skills and values; identifying the needs of learners; enabling teachers to reflect on their practice; identifying learners' strengths and weaknesses.

While this study found that participants used informal assessment to prepare learners for formal assessment which is used for promotion and progression, there was no evidence from the participants that informal assessment was monitored and moderated by the Departmental Heads. There was no evidence that participants received any form of support when designing informal assessment tasks as was evident with formal assessment tasks. The monitoring of informal assessment is critical for various reasons. Firstly, ensuring that informal assessment tasks administered to learners cover a range of cognitive levels as required by CAPS and Bloom's Taxonomy. Secondly, ensuring that the teachers administer a minimum number of informal assessments per term as required by CAPS. A minimum of two informal assessment

activities per week should be administered to give learners considerable amount of practice, given that EMS is allocated two hours of teaching time per week according to the notional time. Thirdly, ensuring that all content topics have been assessed informally before they assess them formally.

4.3.1.3 Alignment with Bloom's Taxonomy

The CAPS document (Department of Education, 2011) outlines that assessment tasks, both formal and informal, should be of a high quality and be aligned to Bloom's Taxonomy. According to Forehand (2011), Bloom's Taxonomy is a multi-tiered model of classifying thinking according to six cognitive levels of complexity which aim to assist teachers to help their learners to reach the highest level of thinking and comprehension. It aims to ensure that learners are subjected to various cognitive skill levels, effective transfer of knowledge and skills that lead to deeper learning.

The Departmental Heads, Senzo and Bongiwe, mentioned that they had the responsibility to ensure that assessment tasks covered a range of cognitive levels. This was done through the process of moderation. According to Dube-Xaba and Makae (2018, p1), "moderation is the cornerstone of quality assurance to ensure that SBA adheres to acceptable standards".
Senzo mentioned:

> *I give support to teachers by ensuring that the paper covers low, middle and high order questions displayed in different action verbs like analyse, compare discuss, etc. In addition, I ensure that the paper is promoting higher order thinking skills.*

While Senzo provided support to teachers, Bongiwe engaged in a moderation process before the task was written by the learners. This was done to check the type of the task and its level of difficulty. She stated that:

> *I conduct moderation before learners undertake a task to check the type of assessment, the form of which could be a project, test or examination; prescribed content, scope and depth, topics covered, mark allocation and level of difficulty as prescribed by CAPS.*

Similar to Bongiwe, Senzo also undertook the process of moderation where his focus was on the three levels of questioning aimed at assessing the learner as a whole. Senzo said:

I moderate the task given to learners where I will concentrate on the three levels of questioning which will assess the learner as a whole.

Furthermore, Senzo also checked whether the learners' daily activities complied with Bloom's Taxonomy. He asserted that:

I check the learners' work on a daily basis to ensure whether activities given to learners have low, middle and higher order questions.

Congruently, Bongiwe also checked the weighting and distribution of cognitive levels as part of her moderation process. This was evident when she said:

I also check whether the weighting of the cognitive levels is correct by ensuring that a task assesses 30% in knowledge and remembering, 40% understanding and application and 30% analysing, evaluating and creating.

The responses from the participants revealed that they aligned their assessment tasks with Bloom's Taxonomy. Data indicated that they understood and applied Bloom's Taxonomy when designing assessment tasks. Vusi said:

I am very good in setting formal tasks because I understand all levels of Bloom's Taxonomy. When I am setting the task, I make sure the all levels appear.

Similar to Vusi, Phila applied Bloom's Taxonomy when designing formal assessment tasks. He claimed that such a task served as a link between theory and practice. He said:

I ensure that questions are set according to Bloom's Taxonomy's levels of cognition. Some questions ask learners to demonstrate, comprehension, application, analysis, synthesis as well as evaluation. In short, all questions must start from low order, middle order to higher order. Learners are exposed to real life situations and assisted to develop problem solving skills.

Statements by the participants showed that they understood that an assessment task in EMS should be aligned to Bloom's Taxonomy. However, Phila's response demonstrated understanding of the different levels of comprehension to which thinking and educational objectives are classified. Exposing learners to real life situations during assessment, as Phila articulated, equipped learners with practical skills which they could use outside the school

context. Phila's assertion resonates with Boud and Falchikov (2006) and Price, Pierson, and Light (2011). They noted that assessment should equip learners with skills to learn beyond the institutional level. At this stage teachers will no longer be available to guide and support these learners as they will be expected to be independent and use the knowledge they gained during the formal teaching and learning process. Phila's exposure of learners to real life situations and developing problem solving skills is in line with Zinhle's suggestion that assessment in EMS should consist of practical projects aimed at putting theory into practice. Zinhle pointed out that having more projects as assessment would enable learners to learn by doing and learners would have fun while learning takes place. Phila further rated his competency in designing formal assessment tasks in EMS Grade 7 as good. He said:

> *I have received an orientation workshop, content workshop and school -based IQMS. I can rate myself as good in designing formal assessment tasks in EMS because I involve Bloom's Taxonomy's cognitive levels.*

Rose asserted that the experience she had accumulated over the years improved her confidence and competency in designing formal assessment tasks. She said:

> *I am very confident because the theoretical knowledge and practical knowledge of the subject that have been accumulated over the four years in teaching EMS enable me to design a balanced assessment.*

She further said:

I check the kind of questions that I put if they are in line with Bloom's Taxonomy.

Likewise, Thenjiwe's years of experience have enabled her to design balanced formal assessment. She said:

> *With the years of experience, I can design balanced formal assessment required by the curriculum using all the cognitive levels.*

Due to years of experience, Thenjiwe further affirmed her competency. She said:

> *My competency is good as I can use all cognitive levels as required by the analysis grid".*

Zinhle indicated that when designing her assessment tasks, she ensured that the formal assessment task she designed covered a range of cognitive levels, from low order levels to higher order levels. She said:

> *I first refer to the percentage that must be met by the cognitive levels. I make sure that low order, middle order and higher order questions are according to the percentages required to*

balance our assessment tasks. Every time I design an assessment task, I make sure that learners will be able to remember, use understanding, apply knowledge and analyse.

Zinhle further elaborated on her competency in designing formal assessment tasks. She said:

My competency in designing formal assessment tasks is good. I am able to balance questions from lower order, moderate order and higher order questions. I can now teach exactly what I want my learners to achieve and assess learners taking into consideration the cognitive levels when assessing the learners.

This study aimed to examine the extent to which Grade 7 EMS teachers covered a range of cognitive levels when designing formal assessment tasks. Data generated from the semi-structured interviews and questionnaires suggested that the participants understood that when designing formal assessment tasks, they should cover a range of cognitive levels. Thompson *et al*. (2008) assert that if Bloom's Taxonomy is used when designing examinations, the quality of assessment could greatly improve. Similarly, Adams (2015) affirms that teachers can use Bloom's Taxonomy to formulate learning objectives that clearly describe the skills and abilities that they wish their learners to master and demonstrate. Congruently, Shulman, (1986, cited in Windschitl, 2004) suggests that teachers should use their pedagogical content knowledge to help learners recognise circumstances under which these skills should be used.

Therefore, it was evident from the data generated, that Bongiwe and Senzo, the Departmental Heads, aspired to have learners mastering and demonstrating some skills. They both pointed out that that they supported teachers and moderated the formal assessment tasks which they designed. The intention was to ensure that the formal assessment tasks covered a range of cognitive levels and thus aligned with Blooms Taxonomy. Also, moderation was done to ensure that low order, middle order and higher order skills were assessed by the formal assessment task.

Data generated from the Grade 7 teacher participants, demonstrated their understanding and application of Bloom's (1956) theory of educational objectives. By aligning their assessment tasks to Bloom's Taxonomy, they demonstrated, firstly, that they desired to have their learners mastering and demonstrating higher order thinking skills as asserted by Adams (2015). Secondly, they demonstrated the desire to improve the quality of assessment tasks which they designed, which resonates with Thompson *et al*. (2008).

It was also evident from the data generated that the participants had received support from the Subject Advisors through orientation workshops and from the school through IQMS process

and moderation of formal assessment tasks by the Departmental Heads. The PAM document (Department of Education, 2016) recommends that school Principals should provide guidance, supervise and offer professional advice on the work and performance of all staff in the school. In addition, school Principals should write reports on teaching and the level of support given to improve teaching and learning. It further outlines that the Departmental Heads should control the work of teachers and learners in the department, moderate all formal tasks including test and examination papers, memoranda as well as mark sheets or SBA sheets. Subject Advisors must assist Principals and teachers in improving the quality of teaching and learning in their institutions.

Data also highlighted that participants relied on their years of experience in the teaching service to design balanced assessment tasks. However, Windschitl (2004) cautions against heavy reliance on experience as it may lead to the neglect of procedural knowledge required to bring learners to performances with important skills. This may further deter teachers from participating in professional discussions aimed at improving their knowledge of assessment thus preventing them from improving their assessment practices.

4.3.1.4 Compliance with CAPS

According to CAPS (Department of Education, 2011), all assessment tasks must cover the content and concepts in the Annual Teaching Plan. They must also include a variety of activities and strategies that assess knowledge and skills. The CAPS document further recommends that controlled tests be structured similar to the end of the year examination. This would equip learners with examination writing skills and techniques which would assist them to write future examinations. To maintain appropriate assessment standards and ensure quality assurance, the policy outlines that all assessment tasks must be subjected to moderation.

To this end, Phila and Senzo demonstrated their understanding that all assessment tasks should comply with CAPS and the Departmental Head must be consulted when designing an assessment task. Senzo, as a Departmental Head, pointed out that he conducted moderation of formal assessment tasks to determine the extent to which they met CAPS guidelines. In addition, he ensured that the examination paper covered a variety of questions. He said:

> *I assess compliance with CAPS by ensuring that the levels of questions are in line with CAPS where all the levels are emphasised to develop the learners' abilities. Furthermore, I ensure compliance with CAPS by ensuring that the paper covers a range of questions and assessment items such as multiple choice, case studies, scenarios, etc.*

Senzo's statement suggests that he understood policy provisions and what was expected of him when ensuring compliance of the assessment tasks with CAPS. CAPS (Department of Education, 2011, p.78) outlines that "The controlled tests and examinations may include a variety of assessment styles such as multiple-choice questions, one-line answers, true-and-false questions, filling in the missing word, written paragraphs, labelling diagrams and doing calculations."

Phila stated that he starts by consulting CAPS when designing assessment tasks:

I first consult with policy document. The starting point is the policy document.

This statement is in contrast with the findings of Reynek *et al*. (2010), Zano (2015) and Moodley (2013). These studies found that there was poor implementation of the curriculum by the teachers and great lack of understanding of the policy. In this regard, Phila showed his commitment to curriculum implementation and implementation of proper curriculum practices in the classroom.

To further assess the extent of compliance of the assessment tasks with CAPS, document analysis was conducted. The following discussion presents the data generated from document analysis which addressed the first research question. The Controlled Test and Marking Guidelines, obtained from the five Grade 7 EMS teachers who were the participants in this study, were analysed. The purpose of the document analysis was to analyse the responses participants made during semi-structured interviews and in the questionnaire. In this section, a comparison is made between what transpired from the document analysis and the responses of the participants. Document analysis was done to address the first research question: To what extent do EMS Grade 7 teachers cover a range of cognitive levels when designing formal assessment tasks? The following criteria was followed during Document Analysis: CAPS (Department of Education, 2011), Rantsu (2018), Dube-Xaba and Makae (2018) and Guidelines for School Based Assessment Moderation in the GET Band (KwaZulu -Natal Department of Education).

a) The utilisation of cognitive verbs when setting questions.
b) The quality of individual questions, that is, if they are clear, precise, unambiguous and appropriate for the grade.
c) The availability of subtleties that may cause confusion and change the meaning resulting in learners responding incorrectly to the questions.
d) The extent to which the range of cognitive levels are covered in each assessment item.
e) The relationship between, the cognitive verb, level of difficulty and mark allocation to the question.

f) The relationship between the assessment task and the marking guideline, that is, if the model responses in the marking guideline respond with the questions as well as if the model answer meets the cognitive demand as required by the question.
g) Evidence of moderation of the assessment task, to quality assure and ensure if it meets policy requirements and if it covers a range of cognitive levels.

The table below depicts the data generated from the analysis of the controlled tests that the participants developed. These tests had already been administered to learners by the time they were analysed.

Table: 4.1 Data generated from document analysis addressing Research Question 1: To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?

PARTICIPANT	**PERCENTAGE COVERAGE OF THE COGNITIVE LEVELS**			
	Low- order	Middle- order	Higher-order	Total %
Rose	24%	64%	12%	100
Zinhle	56%	30%	16%	102
The marks were above the total mark allocation for the paper.				
Phila				undefined
Thenjiwe	68%	24%	8%	100
Vusi	56%	40%	4%	100

Table 4.1 Distribution of cognitive levels in the formal assessment tasks

Document analysis of the controlled test affirmed some of the responses of participants in the semi-structured interview as well as the questionnaire, however, it also revealed contradictions. The analysis of a controlled test designed by Rose revealed that cognitive levels were used throughout the paper. However, the paper was not balanced as per the policy requirements. CAPS recommends that low order questions should account for 30% of the assessment task, the middle order questions should account

for 20% of the assessment task. The spread of cognitive levels in Rose's assessment task was: 24% low order questions instead of 30%, 64% middle-order questions instead of 50%, and 12% higher-order questions instead of 20%. Analysis further showed that in one question, a cognitive verb as per Bloom's Taxonomy, such as "List", was not used. The participant instead used "What", for example, "What are the three sectors of the economy?" In another question, it was not clear if learners were required to explain, discuss or justify since there was no cognitive verb. The question was therefore ambiguous as it was unclear how the answer to the question could be structured. The question was structured as follows: "In your opinion, why can the standard of education that people receive cause socio-economic imbalance?" Similarly, one assessment item had an incomplete instruction which may have caused learners to respond according to what they thought was required of them. While the instruction determined how learners were expected to respond, it also had a relationship to the level at which the question was pitched. The instruction was: "State whether the following statements are true or false". It was unclear how in-depth they should respond to the questions or how they should approach the question leading to the appropriate answer. The marking guideline, showed that there was a relationship between the question, mark allocation and level of difficulty. This was strengthened by the mark distribution shown in the marking guideline. The nature of the questions was appropriate for the grade for which they were set. However, there was no evidence of moderation of the assessment task.

While Rose stated that she was confident in designing a balanced assessment task, however, document analysis revealed that the assessment task she designed had 64% middle order questions as opposed to 50%, as prescribed by CAPS. CAPS further outlined that low order questions should be 30% of the paper and 20% for higher order questions. Contrary to CAPS recommendations, the assessment task comprised of 24% low order questions and 12% higher order questions respectively. In addition, Rose indicated that the assessment tasks were moderated before they were administered to learners. However, document analysis could not establish any evidence of moderation of the task since the errors mentioned could have been noted and rectified during the moderation process.

When analysing Zinhle's assessment task, it was evident that two assessment items had no mark allocation on the question paper. This had a bearing on the relationship between the question, mark allocation and level of difficulty. However, mark distribution in the marking guideline suggested that they were allocated one (1) mark per question, even though there was still no mark allocation in the marking guideline. In addition, the question paper had more

marks as opposed to the total mark allocation in the paper. The paper had a total of 51 marks instead of 50 marks. There was evidence of the utilisation of cognitive verbs throughout the paper. However, distribution of cognitive levels was that low order questions accounted for 56%, middle-order questions 30% and higher-order questions accounted for 16% respectively. Furthermore, instructions were incomplete as they did not guide learners about how to respond to the questions. The paper was indicated as moderated. Nevertheless, the questions in the task were appropriate for the grade.

While Zinhle's assessment task had evidence of the use of cognitive verbs when formulating questions, the cognitive levels were not balanced as per guidelines of CAPS. This is contrary to what Zinhle stated in her interview, that she first referred to the percentages recommended for the cognitive levels in CAPS and made sure that the low order, middle order and higher order questions were according to the percentages required to balance the assessment tasks. Although Zinhle asserted that she allowed her learners to analyse, higher order questions were the least assessed as they accounted for 16% percent, instead of 20 percent, of the assessment task.

The analysis of Phila's assessment task revealed huge deviations from the policy requirements. The document analysis showed that only five questions in the entire paper had cognitive verbs. Given that most questions did not have cognitive verbs, it was unclear what was expected of learners when answering the questions. The questions were therefore ambiguous as they rendered uncertainty as to how the answer to the question should be structured. Furthermore, the lack of cognitive verbs made it difficult to allocate the question according to Bloom's levels of cognition. The document analysis further revealed that there was no mark allocation to individual questions, therefore the relationship between mark allocation, the cognitive level, and the level of difficulty in the question could not be determined. It was further established that the marking guideline did not show both mark allocation and mark distribution. Without the mark distribution on the marking guideline, it was unclear how the marking or assessment of learner evidence was done or how many marks were allocated to each individual point or response. In addition, the lack of cognitive verbs could possibly have caused learners to respond in any way not catered for in the marking guideline and further responses may have been open-ended. Therefore, this suggests that questions were ambiguous. Due to the lack of cognitive verbs, it made it difficult to determine the percentage distribution of cognitive levels in the paper. The assessment task did not show the balancing of cognitive levels in each

assessment item in the question paper, although in terms of language used the paper was appropriate for the grade.

Phila claimed that when he designed formal assessment tasks, he ensured that learners were exposed to real life situations and that questions were set according to Bloom's Taxonomy's level of cognition. However, there were discrepancies with the findings from the document analysis. It was evident that Bloom's Taxonomy's cognitive levels were not applied according to recommendations in CAPS. The requirement of 30% low order questions, 50% middle order questions and 20 higher order questions was not applied. To this end, the findings of document analysis contradict Phila's claims that he consulted with the policy document when designing formal assessment tasks since the task that was analysed did not meet policy requirements.

An analysis of Thenjiwe's assessment task revealed that two assessment items had no mark allocation on the question paper. However, mark distribution and mark allocation in the marking guideline suggested that it was allocated two marks (2) per individual question. The analysis further revealed that the spread or distribution of cognitive levels throughout the paper was 68% for low order questions, 24% middle-order questions, and 8% higher-order questions. However, it is worth noting that cognitive verbs were used throughout the paper. The task also had incomplete instructions in two assessment items. These included: "Use the following words to complete the sentence" and "Say whether the following statements are true or false". Therefore, such ambiguous instructions could possibly result in learners not knowing how to respond to the questions and further compromise the questions' level of cognition. However, the mark allocation matched the level of difficulty of the question and the cognitive verb.

Thenjiwe mentioned in the questionnaire that due to her years of experience she could design a balanced formal assessment task. On the contrary, document analysis revealed that the assessment tasks assessed more low order questions since they accounted for 68% of the task instead of 30%, while the higher order questions accounted for only 8% instead of 20%. These discrepancies suggest that the paper was not balanced, and cognitive levels were not spread and applied as per CAPS requirements in each assessment item.

Vusi's assessment task showed that cognitive verbs were used throughout the paper. The distribution of cognitive levels was that low order questions accounted for 56% instead of 30%, middle-order questions 40% instead of 50%, and higher-order questions account for 4% instead of 20%. It was further revealed that each assessment item did not contain low order, middle order, and higher-order questions. This suggests that different cognitive levels were not spread

evenly in each assessment item. When juxtaposing between the marking guideline and the question paper, it was evident that mark allocation matched the level of difficulty of the question and the cognitive verb. However, the marking guideline did not show the distribution of marks. This had a negative impact on marking of learner evidence as it was unclear how marks were allocated for each learners' response. Lastly, the analysis revealed that questions were appropriate for the grade.

When comparing Vusi's response in the semi-structured interview and the document analysis, there were contradictions. Vusi stated that he was very good at setting formal assessment tasks because he understood all the levels of Blooms Taxonomy and he made sure that he included all cognitive levels. However, document analysis showed that Vusi's formal assessment task assessed more low order questions, as they accounted for 56% of the paper and least high order questions, which accounted for 4% of the paper. Although Vusi's formal assessment task included all cognitive levels in the paper, however, the task did not meet the CAPS requirements, of 30% low order questions, 50% middle order questions and 20% higher order questions, in respect of distribution of cognitive levels in the assessment task. Therefore, it can be concluded that the paper was not balanced as per policy requirements.

Bongiwe and Thenjiwe were teaching at the same school where Bongiwe was the Departmental Head. Similarly, Senzo and Phila were teaching at the same school where Senzo was the Departmental Head. In both Senzo's and Bongiwe's responses, they pointed out that they conducted moderation of the formal assessment tasks to ensure that the tasks they moderated complied with Bloom's Taxonomy's level of cognition and CAPS. However, this was contradicted in the document analysis where it was noted that in the formal assessment tasks designed by Phila and Thenjiwe, there was little evidence of pre-moderation. Both tasks showed an imbalance in cognitive levels: Thenjiwe's task had 68% of lower order questions, while Phila's task had no clear and relevant mark allocation which made it difficult to determine the percentage spread of the cognitive levels. To this end, it was therefore evident that the DHs failed to comply with the provisions of the PAM Document (Department of Basic Education, 2016, p.27) which outlines that one of the roles of the DH is "To control the work of educators and learners in the department. Moderate all formal tasks including test and examination papers, memoranda as well as mark or SBA sheets".

The data presented and analysed suggested that the assessment tasks analysed through document analysis did not comply with CAPS and were subsequently not aligned to Bloom's (1956) theory of educational objectives. The assessment tasks largely assessed skills at the lowest levels of Bloom's Taxonomy. These skills according to Adams (2015) are: firstly,

knowledge which are the questions which are asked solely to assess whether a student has gained specific information from the lesson. Secondly, comprehension which are questions aimed at assessing learners' ability to understand information and interpret the facts. Evidence points out that there was least emphasis on the assessment of skills at the higher levels of Bloom's Taxonomy. These skills included evaluation, where learners were expected to assess information and make a conclusion, such as its value or the bias behind it. To assess learners' ability to evaluate, questions such as select, judge, debate, recommend, etc., may be asked from learners. Lastly, synthesis where learners are required to use the given facts to create new theories or make predictions, draw on knowledge from multiple subjects and synthesise this information before making conclusions. Adams (2015) contends that synthesising assesses learners' innovative skills where they may be asked to invent, create, predict, etc.

The non-utilisation of cognitive verbs, unclear and incomplete instructions further contradicted the purpose of the Bloom's Taxonomy. These resulted in 'ambiguity' of questions and instructions which could result in learners not responding to questions as required. According to Adams (2015), use of action verbs as applied in Bloom's Taxonomy guides what learners must do because of an instruction. It further serves as a best method of assessing the skills and knowledge taught and puts emphasis on higher levels of cognitive skills leading to deeper learning and effective transfer of knowledge. While the CAPS document (Department of Education, 2011) recommends that assessment should be pitched to the higher levels of Bloom's Taxonomy, studies, including this one, have found that teachers and other assessment programs overwhelmingly focus on the lower levels of the taxonomy, namely, knowledge and comprehension or understanding. The inability of the participants to design balanced assessment tasks and the emphasis on low levels of the taxonomy, perhaps could be attributed to lack of content knowledge and pedagogical content knowledge applicable to EMS. Vusi stated that he was struggling with Economy and Entrepreneurship study areas as he had a better understanding of Accounting or Financial Literacy. As a result, his assessments were inclined to Accounting and assessed less of Economy and Entrepreneurship. Findings of this study affirm Grossman (1990) and Windschitl's (2004) assertions that lack of content knowledge or subject matter knowledge may affect the level of classroom discourse and may cause teachers to assess skills at the lower level of Bloom's Taxonomy. They further strengthen the findings by Thompson *et al*. (2008) that any person undertaking to design an assessment task should have an in-depth knowledge of the subject.

The poor knowledge of the subject is further affirmed by the participants' statements that they had not received any pre-service training in EMS. They largely obtained their content knowledge from collaboration and support sessions organised by Subject Advisors. However, considering the extent to which participants' assessment tasks did not comply with CAPS and assessed more skills at the lower level, this suggests that collaboration with other teachers did not assist them in designing quality assessment tasks. Furthermore, it suggests that all support sessions organised by Subject Advisors, during orientation workshops, content workshops and on-site support also did not help teachers to understand and apply policy provisions. Possibly, this was because the support sessions were either insufficient, lacked follow-up and monitoring or had no impact on teacher learning or in-service training. There could also have been a disjuncture between the participants' pre-service training and in-service training. This contradicts the contention of Kleickmann *et al*. (2013) that teacher knowledge develops through pre-service and in-service training as teachers engage through various implicit and explicit learning opportunities. Should this be the case, it would require the Department of Education to review its teacher support strategy to a more effective teacher support that yields positive results.

The non-compliance of the assessment tasks with CAPS may also be attributed to the poor quality of moderation at school level. Senzo and Bongiwe indicated that they engaged in the process of moderation of assessment tasks, to ensure that they were aligned with Bloom's Taxonomy and also compliant with CAPS. However, findings from this study revealed that the assessment tasks designed by their supervisees, Phila and Thenjiwe respectively, did not comply with CAPS. Grobler, Lock and Govender (2012) posit that the DH has a responsibility of maintaining the standard of assessment practice at school and to ensure that teachers have a good understanding of assessment policies. Therefore, it is not only teachers' conceptual understanding and procedural knowledge, but also the role played by the DH during the moderation process that contributes to schools successfully implementing SBA.

The Department of Basic Eeducation faces the following challenges during moderation processes: poor quality of assessment tasks developed by teachers, low validity of the tasks, incorrect or unreliable marking guidelines, poor mark allocation and mark distribution and poor distribution of cognitive levels and cognitive demands. According to Rantsu (2018) and Dube-Xaba and Makae (2018), many challenges associated with moderation of assessment tasks at school level emanate because some DHs are assigned to supervise subjects of which they have insufficient or no knowledge. This results in DHs checking the work for compliance by tracing

ticks and shadow marking. Another challenge with moderation could possibly be that DHs are specialists in one subject only thus making subject knowledge and pedagogy of EMS a major concern. A similar situation may be applicable to the findings of this study since in the GET Band, DHs were appointed per phase and not per subject. Literature further points to the lack of capacitation of DHs to moderate assessment tasks and ensure quality assurance. There is therefore a need for capacity development of the DHs as they are responsible for moderation. This may be done through mentorship programs and in-service training to help them upgrade their skills for effective moderation

4.3.1.5 Provide feedback

The Department of Education (2020, p.76) asserts that "assessment is integral to teaching and learning. Assessment informs teachers about learners' specific needs. It provides teachers with feedback that enables them to adjust their teaching strategies. Assessment also provides learners with feedback, allowing them to monitor their own achievement." Data generated revealed that participants acknowledged the importance of providing feedback to learners after any assessment task had been administered. Their responses revealed that they gave feedback to learners and parents about learners' performance.

Vusi pointed out that he gave feedback after marking homework and classwork. He said:

> *I make sure that after marking the homework or class work, I give them feedback so that they know how they performed.*

Similarly, Zinhle stated that she recorded the tasks to monitor the progress of the learners and give feedback to parents. She said:

> *We record the formal tests, this is a feedback to learners and also see how they are progressing. We record project, assignments and examination.*

She further said:

> *Recording of tasks is done to monitor the progress of the learners and to give feedback to parents to see how their children are doing at school.*

Similarly, Phila also recorded the tasks to give feedback and monitor performance of the learners. He said:

> *After recording the task, you must give the learners scripts and feedback so that they can check their performance.*

It is clear from the data that the schools from where the participants came, supported learner progress. Participants also demonstrated that giving feedback is not limited to formative assessment but is also applicable to summative assessment. The information about learner performance was also shared with both parents and learners. This would enable parents to be involved in the learning of their children. Ensuring and maintaining learner attainment and parental involvement is what Grossman (1990) described as general pedagogical knowledge (GPK). Grossman's (1990) GPK enables teachers to reflect on their classroom actions, including classroom management. By providing feedback, reflection on the current learner performance was achieved. This also led to creating dialogue among the stakeholders on learner performance with the intention of achieving the purpose of education, which is imparting knowledge and skills and learner achievement. To achieve this, Bartos, Lederman and Lederman (2014) and Grossman (1990) contend that while the teacher might be skilful in getting learners to learn, the quality of teaching depends on the understanding of the subject matter to choose both the appropriate learning and teaching methods to present the subject concepts and appropriate assessment methods. In addition, giving feedback stimulates analytical and greater reflective practice of teachers to transfer the SMK into classroom practice. Providing feedback to learners and parents after an assessment resonates with Nicol and Macfarlane-Dick (2006) who acknowledged formative assessment as an assessment that is specifically aimed at generating feedback on performance to improve and accelerate learning. Similarly, William (2011); Poulos and Mahony (2008) and Nicol and Macfarlane-Dick (2006) assert that feedback on assessment bridges the gap between actual performance and desired or expected performance. They further note that feedback should be designed in such a way that it positively influences future performance and thus improves student learning. William (2011) and Poulos and Mahony (2008), however warn that constructive feedback should not be limited to giving learners scores but outlining clear goals and providing correct answers. In addition, Nicol and Macfarlane-Dick (2006) contend that through feedback, learners become empowered to become self-regulated, thus enabling them to take control of their learning while minimising dependence on external teacher support.

Findings of this study are congruent with the findings of the study by Thomas (2012) conducted in Pakistan, involving 88 trained teachers (who had undergone formal university or college training) and 35 untrained teachers (who had no regular or formal training). The beliefs of the two groups of teachers on classroom assessment were compared. Thomas (2012) found that

trained and untrained teachers believed that both parents and teachers have a significant role to play in learners' assessment and it was a tool for learning.

4.3.2 Teacher challenges when designing formal assessment tasks

The following themes emerged from the data generated for research question 2: What challenges do Grade 7 EMS teachers encounter when designing the formal assessment tasks?

1. Time management
2. Balancing cognitive levels
3. Language as a barrier

The discussion below elaborates the themes that emerged from participants' responses during semi-structured interviews and from the questionnaire.

4.3.2.1 Time management

Time management is regarded as one of the key factors in teaching and learning. This ranges from contact time with the learners to time learners spend on assessment. However, Vusi and Rose stated that they had challenges relating to time management. Their challenges ranged from time available to develop an assessment task, the extent to which the task fits in the duration set for the task to the time required for revision before assessment tasks were administered to learners.

Rose pointed out that due to a huge duty load she did not get sufficient time to develop the formal assessment task. This resulted in her setting an assessment task that was not balanced. She said:

> *I can't manage time in developing the tasks. Actually, at school I have a lot of subjects that I am teaching. So, I don't have much time to give myself to develop the tasks. I am quick and not thorough resulting in an unbalanced task.*

Vusi's challenge emanated from the amount of content that had to be covered before an assessment task could be administered. In his view, this had a negative impact on the time he needed to do revision exercises before administering an assessment task. Vusi stated that:

> *The ATP must give sufficient time for revision. Currently the ATP does not have time for revision. All the weeks are packed with teaching. Some content must be cut down to allow for revision.*

The challenges faced by the two participants, Vusi and Rose regarding curriculum overload and curriculum implementation CAPS had been noted and raised by other stakeholders in the education sector. These included teachers, subject specialists, parents and education stakeholders. The challenges were noted in subjects across all the grades. This compelled the Department of Basic Education to implement amendments in the CAPS policy documents (Department of Education, 2020) to address this issue: curriculum overload-many topics being taught as opposed to the available notional time; assessment overload, that is, the number of formal assessment tasks to be administered in a year; and poor curriculum coverage which is the ability to cover all the required topics in the ATP within the given notional time. I believe that amendments to the CAPS document will address the challenges mentioned by participants such as duty load, curriculum overload and assessment overload.

Vusi's challenges did not end with the packed Annual Teaching Plan, he also lacked confidence in applying Bloom's Taxonomy's levels of cognition when designing formal assessment tasks. He said:

> *I am not yet confident enough as Bloom's Taxonomy levels sometimes confuse my learners in terms of how questions are asked. The question paper become too long for learners to finish in time as a result.*

In addition to Vusi's challenge of the packed ATP, he mentioned:

> *I find it difficult to set a task that fits into the correct duration.*

The Revised Bloom's Taxonomy (Forehand, 2011) acknowledges that there are challenges in the application of the Taxonomy. Although Bloom's Taxonomy has stood the test of time and is widely used as a thinking model, it has its own strengths and weaknesses. One of the major weaknesses associated with Bloom's Taxonomy is that teachers are uncertain of the amount of classroom time to allocate or for learners to spend when responding to questions. Literature also points out that teachers find it difficult to decide on the amount of classroom time to spend in a dynamic and integrative way. This is where learners find time to draw on their skills and apply them in different and complex situations, thus developing critical thinking and problem-solving skills. Challenges faced by the participants have been identified by different scholars when conducting a revision of the Bloom's Taxonomy. Thompson *et al.* (2008) assert that teachers must recognise that the actual cognitive process applied to a specific task depends on the individual solving that task. As a result, the context plays a critical role in assessing the level of the process that teachers think learners will require to answer a given question.

Correspondingly, Grossman (1990) contends that the knowledge teachers use in the classroom should be specific to the context in which they operate. Therefore, to counter the challenges faced by Rose and Vusi, that the task is not completed on time and the confusion about cognitive levels, teachers should consider both the school environment and the abilities of individual students when administering formal assessment. However, the greatest strength of Bloom's Taxonomy, according to Soozandehfar and Adeli (2016), is that it placed a structure around the concept of thinking to be used by practitioners.

McLachlan (2006) concurs with the notion that teachers must consider the school environment and individual factors because there are several factors that influence assessment, including among others, learners' different learning styles and anxiety over assessment. The learners' confusion over cognitive verbs and inability to finish the assessment in time may be because of anxiety over the assessment or the learners were not thoroughly prepared for the assessment through formative assessment and appealing to learners' learning styles. Thomas (2012) contends that summative assessment compels teachers to encourage learners to practice before writing tests to raise their marks. However, this should happen through the assistance of the teachers.

4.3.2.2 Balancing of cognitive levels

The balancing of cognitive levels is crucial when developing an assessment task. Participants also indicated that balancing cognitive levels promoted high order thinking skills and problem-solving skills. While some participants stated that they could develop balanced assessment tasks in respect of cognitive levels, they were not spared of challenges regarding designing assessment tasks. Thenjiwe, Zinhle and Vusi expressed challenges about balancing cognitive levels in the assessment task. Their challenges ranged from the lack of confidence to uncertainty in terms of where the question belonged in respect to Bloom's Taxonomy levels.

Thenjiwe shared:

> *My main challenge when designing formal assessment tasks is balancing of cognitive levels, that is, from low to high order questions as required by the Bloom's Taxonomy.*

While Zinhle could use cognitive verbs throughout her assessment task, she stated that she had a challenge to balance questions in terms of cognitive levels, and further was uncertain about the level of the cognitive verb. She said:

Sometimes when I set a question I am not sure if the question is higher order, middle order or lower order. It is a challenge to balance questions in terms of cognitive levels. Furthermore, I tend to set more higher order questions such as evaluate, etc.

Vusi's highlighted his main challenge:

I am not yet confident enough as Bloom's Taxonomy levels sometimes confuse my learners in terms of how questions are asked.

The purpose of revising the original Bloom's Taxonomy, was to ensure that the cognitive demand is matched at each level of cognition in the taxonomy. According to Anderson and Krathwohl (2001), in the revised taxonomy, each level of knowledge corresponds to each level of cognitive process. This enables learners to remember factual knowledge or procedural knowledge, understand conceptual or metacognitive knowledge and/or analyse metacognitive or factual knowledge. Forehand (2011) contends that teachers must develop the following learners' thinking skills: remembering, understanding, applying, analysing, evaluating and creating. According to Forehand (2011), remembering and understanding are at the lowest level while evaluation and creating are at the highest level of Bloom's Taxonomy. However, while literature suggests that the Revised Bloom's Taxonomy is easy to understand and apply, findings of this study revealed that teachers were still struggling with both understanding and applying the Bloom's Taxonomy during assessment. This study found that teachers were unable to distinguish between different cognitive levels which resulted in them being unable to balance them as required by CAPS. To assist teachers and learners to understand and apply Bloom's Taxonomy, Soozandehfar and Adeli (2016) suggest that there is a need to separate objectives and assessment items (practice) into those that measure or assess conceptual knowledge from those that measure or assess task performance and/or procedural knowledge. This simplification may assist teachers and learners to improve their understanding and application of the Taxonomy as it describes the educational objectives learners should achieve. Despite these challenges in application of the Bloom's Taxonomy, Anderson and Krathwohl (2001) assert that teachers who align their assessment questions to the various levels of Bloom's Taxonomy are doing a better job of encouraging higher order thinking in their learners than those who have no tool.

The challenges faced by participants regarding assessment may be attributed to teacher knowledge and teacher education from both pre-service and in-service training. Evidence suggests that these teachers could not balance the cognitive levels in assessment tasks even

though this was taught during pre-service training. It further suggests that even if there were in-service training within the school or conducted by the Education Department, these were not effective. Evidence from this study revealed that participants did not undergo any pre-service training in EMS. Their struggle with implementing proper assessment practices may be attributed to the lack of pre-service training and inadequate in-service training. Sarason (1962, cited in Grossman, 1990) characterised teacher education and teacher preparation as an unstudied problem. He suggested that a detailed description of how teachers were trained to be conducted. Korthagen (2017) agreed with Sarason (1962) that the theory-practice gap existed because of insufficient research on teacher learning which resulted in continuous failed attempts to influence teacher behaviour.

Teachers' challenges with assessment may further be attributed to the lack of mentoring in schools. Awaya *et al.* (2012) describe mentoring as a relationship between the mentor and the mentee. According to Pather (2010), mentoring in schools enhances professional development. Urio (2012) and Wanjiku (2012) suggest that SMTs must develop formalised programs of mentoring which are sustainable and goal-oriented. These programs must extend over a considerable period to yield desired results and lead to sustainable professional development. This is in line with Korthagen's (2017) findings that teachers seek more practical knowledge and skills which are supported by theory.

DeLuca and Klinger (2010) assert that competency in assessment involves the understanding and correct use of assessment practices together with the knowledge of the theoretical and philosophical underpinnings in the measurement of learners' learning. Therefore, inappropriate and ineffective use of classroom assessment, as revealed in this study, leads to reduced reliability and validity, leading to misdirected and inappropriate educational decisions.

4.3.2.3 Language as a barrier

In South Africa, the Language of Learning and Teaching (LoLT) is English. The former Model C schools use English as the Home Language while the rural and township schools use English First Additional Language (EFAL). In rural and township schools, the Home Language is isiZulu, which essentially means learners use less of the English language at home and in their day-to-day communication. Rose, Phila, and Vusi described language as a barrier or a challenge during assessment activities. In essence, their challenges ranged from an inability of learners to understand the question to understanding English as a language which posed a barrier to assessment.

Rose's challenge was that learners were able to speak during teaching and learning but found it difficult to read questions with understanding: She said:

> *The challenge I encounter is the phrasing of questions. It is easier for our learners if we speak in class, but find it difficult most of the time to read and understand the questions. So, I must find a way to put the question to make them understand.*

Similar to Rose, Phila's challenge was also that learners were unable to unpack higher-order cognitive verbs but were comfortable with questions with low-order cognitive verbs. He said:

> *Learners find it difficult to unpack the questions. Verbs like compare, contrast, evaluate, etc. are difficult for them. They are comfortable with verbs like list, name, etc.*

Vusi's challenge was similar to the challenges described by Phila and Rose, but his challenge was more complicated as it related to the general understanding of the English language by his learners. He said:

> *The understanding of English is a great challenge because questions in EMS need them to be clear in the English language. So, you will find them failing because they do not understand the questions because of the language that you are using in the subject.*

Findings of this study may be attributed to teachers' inability to understand the learners' context as explained by Grossman (1990). Grossman (1990) contends that for teachers to adapt their knowledge to specific settings and individual students, they must draw on their understanding of the contexts in which they teach. Therefore, the knowledge teachers use for classroom practice must be context-specific and be adapted to meet the needs of individual learners. To this end, this may address the challenges both teachers and learners encounter concerning language as a barrier to teaching, learning, and assessment.

The inability of learners to understand the questions and inability to unpack the cognitive verbs, as revealed by this study, may be attributed to shortcomings in the application of Bloom's Taxonomy by both teachers and learners. While teachers who apply Bloom's Taxonomy are commended by Anderson and Krathwohl (2001), as they encourage critical and higher order thinking, they still must apply proper and effective strategies to inculcate such a level of thinking. Therefore, Soozandehfar and Adeli (2016, p.4) suggest that "in the process of teaching and learning, teachers need to evaluate students' skills integratively. In order for this integrative evaluation to be carried out, the level of intellectual behaviour is required to be integratively proposed, not in the form of a cumulative succession which may be far from reality."

To effectively address the issue of diversity and barriers to learning, teachers must apply the principles of inclusivity as provided in the policy on inclusivity (Education White Paper 6, Department of Education, 2001). The Education White Paper 6 outlines, among others, that: all children and youth can learn; there is a need to maximise learner participation in educational culture and curriculum; need to uncover and minimise barriers to learning and foster attitudes, behaviour, teaching methods, curricular and learning environments that meet the needs of all learners. The application of these principles will make teaching and learning context specific, appeal to the learners' learning styles and address most learning needs.

The findings of this study are in line with the study by Vandeyer (2008) that found that it was unfair for learners to receive education in a language that is not their Home Language, resulting in them being unable to express themselves freely. This impacted negatively on learner attainment since the language of instruction was a foreign language, that is, English or Afrikaans. Similarly, the study by Widiastuti *et al.* (2020) found that teachers must always take into consideration factors that may influence the implementation or administration of formative assessment and that there is a close relationship between teacher beliefs and how they administer the formative assessment.

Findings of this study revealed that teachers designed diverse formal assessment tasks. Teachers also developed informal assessment tasks to prepare learners for formal assessment. It was also evident that both teachers and Departmental Heads made every effort to comply with both Bloom's Taxonomy of cognition as well as CAPS. The study further revealed that teachers provided feedback to learners after administering an assessment task.

However, when conducting document analysis, the controlled test designed by teachers and moderated by the DHs, several contradictions emerged. This study revealed that while teachers attempted to cover a range of cognitive levels in the assessment tasks, however, their tasks remained unbalanced. These tasks did not cover a range of cognitive levels as outlined by Bloom's Taxonomy and did not comply with the recommendations of CAPS in terms of the spread of cognitive levels in an assessment task. The two DHs claimed that they ensured that the tasks were balanced and covered a range of cognitive levels through the process of moderation. Contrary to such claims, this study found that there was little evidence of moderation by the DHs since the assessment tasks did not comply with both CAPS and Bloom's Taxonomy.

Concerning challenges faced by teachers when designing assessment tasks, this study found that time management, ranging from available time to design a balanced task to completion time by learners, presented a serious challenge to teachers. Furthermore, this study found that balancing of cognitive levels and language as a barrier posed challenges for teachers when designing formal assessment tasks.

4.4 Conclusion

In this chapter, I presented the data generated from semi-structured interviews, questionnaires, and document analysis. Data was presented and analysed according to each research question. Data was analysed using both the conceptual framework, which was Bloom's (1956) theory of educational objectives (Bloom's Taxonomy) and Grossman's (1990) model of teacher knowledge, as a lens as well as relevant literature. In response to research question one, the following themes emerged from data generated: design diverse assessment tasks; link informal assessment tasks to formal assessment; align with Bloom's Taxonomy; comply with CAPS and provide feedback. When responding to research question two, the following themes emerged from the data generated from participants: time management; balancing cognitive levels and language as a barrier.

From the responses of the participants, it was evident that participants designed diverse assessment tasks, linked informal assessment tasks to informal assessment and provided feedback to learners and parents. However, there were discrepancies with alignment to Bloom's Taxonomy and compliance with CAPS. It was also evident that participants faced challenges with the balancing of cognitive levels, time management and English language as a barrier to learning and assessment. In Chapter Five, a discussion of findings, conclusions, and recommendations for further research will be discussed.

CHAPTER 5

DISCUSSION AND RECOMMENDATIONS

5.1. Introduction

The purpose of this chapter is to discuss the findings in response to the two research questions of this study. The participants in this study were five Grade 7 EMS teachers from five different primary schools and two departmental heads from two of the schools forming part of the study. The schools were located in the Hlazakazi Circuit, Nkande Circuit and Umkhonjane Circuit in Umzinyathi District. To ensure anonymity of the participants and comply with the ethical principles of research, pseudonyms instead of real names of the participants and schools were used.

Chapter One outlined the purpose of this study which was to examine teachers' competencies in designing formal assessment tasks. To accomplish the purpose of this study, the researcher generated data from document analysis, questionnaires and semi-structured interviews. The study aimed to address the following research questions:

1. To what extent do Grade 7 EMS teachers cover a range of cognitive levels when designing formal assessment tasks?
2. What challenges do EMS Grade 7 teachers face when designing formal assessment tasks?

To analyse both research questions, the researcher used Bloom's (1956) theory of educational objectives and Grossman's (1990) knowledge domains as discussed in Chapter Two.

The previous chapter focused on the presentation and analysis of data obtained from document analysis, questionnaires and semi-structured interviews to address the critical research questions. Data analysis resulted in the emergence of several themes forming the basis for the key findings of this study.

This chapter discusses the key findings of this study and the recommendations for further research. This is followed by a discussion of the limitations of this study.

5.2 Discussion of key findings

Research question 1 examined the extent to which EMS Grade 7 teachers covered a range of cognitive levels when designing formal assessment tasks. Administering formal assessment is not only essential to comply with the programme of assessment as prescribed by the Department of Education, but it is also essential to determine if learners progress to the next grade. However, progressing to the next grade requires learners to be subjected to various forms of assessment which assess various skills that learners should display before being promoted

to the next grade. The Table of Themes for Research Question 1 (see Appendix H) provided a summary of the participants' responses and themes generated from such responses. Table 4.1 depicted the data generated from document analysis. Both these data sets were used to address research question 1.

This study found that EMS Grade 7 teachers designed **diverse formal assessment tasks**, namely, tests/examinations, projects (Entrepreneurs' Day), case study, poster and assignments. These tasks also formed part of the Grade 7 program of assessment.

The Department of Education (2020, p.76) asserts that "formal assessment provides teachers with a systematic way of evaluating how well learners are progressing in a grade and in a particular subject." However, competency in designing these formal assessment tasks is crucial because the quality of assessment administered to learners determines the quality of learners an institution produces. According to DeLuca and Klinger (2010), competency in assessment involves the understanding and correct use of assessment practices coupled with the knowledge of the theoretical and philosophical underpinnings of such assessment as well as how learners learn. To this end, should any inappropriate and ineffective assessment be administered, this could lead to the reduction of reliability and validity of such assessment. Correspondingly, Grossman (1990) contends that lack of knowledge may affect the level of classroom interaction. This could possibly affect assessment in the classroom. In addition, the degree of knowledge teachers possess, influences how they present their subject to learners.

Drawing from the data obtained from the participants, it can be concluded that participants considered the issue of competency when designing formal assessment as they drew from the advice and guidance given by Subject Advisors. They also contend that assessment should depict real life situations. Raselimo and Mahao (2015) suggest that this could be done through learner-centred pedagogy and assessment, where the learners' real life and community experiences are integrated with school experiences.

While EMS Grade 7 teachers administered diverse assessment tasks, this study also found that teachers administered **informal assessment activities** to enhance performance in formal assessment tasks. According to CAPS (Department of Education, 2020), the purpose of informal assessment is to collect information on learners' achievement which is used to improve learning. Data from the participants revealed that they acknowledged the significant role played by the informal assessment tasks in learner attainment. Data from participants like Vusi and Zinhle further indicated that informal assessment tasks allowed sufficient time for

discussion which was not available during formal assessment tasks. In addition, this study further revealed that when more informal assessment tasks were administered to learners, their performance in formal assessment tasks improved. This finding is consistent with Raselimo and Mahao's (2015) assertion that during assessment for learning, learning opportunities are created. These opportunities incorporate practical skills that could not be effectively assessed through summative assessment. It brings about quality in the teaching and learning processes by adapting instructional processes to meet the needs of individual learners, and increases parental involvement. Similarly, Nicol and Macfarlane-Dick (2006) contend that assessment for learning enables learners to assume control over their learning and become less dependent on external teacher support.

Effective administering of informal assessment tasks is linked to Grossman's (1990) pedagogical content knowledge (PCK). According to Grossman (1990), PCK involves useful ways of representing ideas, explanations and illustrations, as well as meaningful ways of making the subject comprehensible. In addition, PCK includes having a clear understanding of what makes learning of particular topics easy or difficult and understanding of conceptions brought by learners of different age groups to the classroom. Therefore, such understanding enables the teacher to adapt both instructional strategies and assessment to meet individual learners' needs.

The focus of this study was to examine the extent to which EMS Grade 7 teachers cover a range of cognitive levels when designing formal assessment tasks. Therefore, another key finding of this study related to **teachers' compliance with CAPS** and **alignment with Bloom's Taxonomy** when designing formal assessment tasks. This study found that teachers set formal assessment tasks which covered a range of cognitive levels according to Blooms Taxonomy. However, the study found that low order questions constituted more than 50% while the higher order questions constituted less than 20% of the formal assessment tasks. This was found to be contrary to the guidelines of CAPS, (Department of Basic Education, 2020), as amended. CAPS prescribed that cognitive levels be spread in the assessment tasks as follows: 30% low order questions, 50% middle order questions and 20% higher order questions. Given that low order questions constituted more than 50% of the assessment tasks, it can be concluded that the participants deviated from addressing the following General Aims of the South African curriculum, namely:

3. "High knowledge and high skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, achievable standards in all subjects.
4. Active and critical learning: encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths" (Department of Basic Education, 2011, p 4)."

It was evident that participants focused more on questions on the lowest hierarchy of the Bloom' s levels of cognition which was also inconsistent with Bloom's theory of educational objectives. Adams (2015) posits that while Bloom's taxonomy differentiates between cognitive skill levels, however, it calls for attention to learning objectives that require higher levels of cognitive skills. This would lead to deeper learning and transfer of knowledge and skills to a greater variety of tasks and contexts.

Findings of this study also resonate with the findings from Khoza's (2015) study which examined student teachers' reflections on their practices of the Curriculum and Assessment Policy Statement. The study revealed that student teachers did not link assessment to learning objectives although they administered both informal and formal assessment activities. Similarly, Moodley (2013) and Zano (2015) found that teachers struggled to implement CAPS especially in conducting learner-centred assessment. However, studies by Fazio (2007); DeLuca and Klinger (2010); Thomas (2012) and Korthagen (2017) revealed that the poor implementation of CAPS and inadequate assessment practices in schools were a direct result of inadequate pre-service training on assessment.

Keeping learners and parents informed about the performance of learners has proved to be very important. This study found that EMS Grade 7 teachers **provided essential feedback** to learners and parents, which assisted in collaboration and intervention development. Nicol and Macfarlane-Dick (2006) assert that feedback is fundamental to deciding what should happen to progress learning. Poulos and Mahony (2008) and William (2011) contend that feedback on assessment is the information about the gap that exists between actual performance and desired or expected performance which is used to bridge such a gap. They further note that feedback should be designed in such a way that it affects future performance and improves student learning. Data from the participants revealed that they monitored the progress of their learners and gave feedback to both parents and learners on the performance of learners in various assessment activities. This study also revealed that participants kept records of learners' performance. By giving feedback, teachers were addressing both Grossman's (1990) pedagogical content knowledge and context knowledge (CK). Feedback enabled teachers to

vary teaching strategies while addressing the contextual factors from both the school level and learners' family backgrounds that affect teaching and learning.

Research question 2 examined the challenges that EMS Grade 7 teachers faced when designing formal assessment tasks. The Table of Themes for Research Question 2 (see Appendix I) depicted the summary of responses from participants on the challenges they faced when designing formal assessment tasks. Participants expressed various challenges which significantly influenced their ability to design quality and balanced formal assessment tasks. Their ability to identify challenges suggests that teachers were able to reflect on their practice. The Department of Education (2004) points out that assessment aims to enable teachers to reflect on their practice and identify learners' strengths and weaknesses.

This study found that **time constraints** significantly affected EMS Grade 7 teachers' competence to design and administer formal assessment tasks and do revision before formal assessment tasks. Data from participants revealed that challenges with time management ranged from insufficient time for revision before administering the task to designing a task accommodating all learners to complete it at a required time. Among other factors, curriculum overload was cited as one of the factors that led to time constraints. Soozandehfar and Adeli (2016) found that when teachers design assessment tasks they find it difficult to decide on the amount of classroom time to spend in a dynamic and integrative way.

Another key finding of this study was that **balancing of cognitive levels** in formal assessment tasks was a challenge for Grade 7 EMS teachers. This was evident in data generated through document analysis. As discussed above, all assessment tasks analysed from participants had low order questions constituting more than fifty% of the task. Data generated from the responses of the participants suggested that participants experienced difficulty determining if the question was low order, middle order or higher order. This led to them not meeting policy requirements when designing assessment tasks. To classify the task as balanced CAPS recommends that the quota of 30% low order questions, 50% middle order questions and 20% higher order questions must be met in each assessment task.

According to Adams (2015), teachers must develop learners' skills at the higher levels of Bloom's Taxonomy. Such skills require demonstration of deeper cognitive processing such as critical thinking, evaluation and making judgements. According to Forehand (2011), teachers must develop the following learners' thinking skills: remembering, understanding, applying,

analysing, evaluating and creating, where remembering is at the lowest level and creating is at the highest level of Bloom's Taxonomy. CAPS outlines that assessment tasks must include a variety of activities and strategies that assess knowledge and skills. Failure to instil high levels of cognition may result in learners' inability to synthesise information, think critically and make judgement errors. Thompson *et al.* (2008) contend that an effective application of Bloom's Taxonomy when designing formal assessment tasks greatly improves the quality of assessment. The competency in balancing the cognitive levels cannot be divorced from Grossman's (1990) knowledge domains. The ability to assess the subject content effectively is largely dependent on the level of content knowledge the teacher possesses. Grossman (1990) contends that the degree of teacher knowledge influences how the teacher presents the content to learners and finally how such knowledge is assessed.

The divide between mother tongue and Language of Learning and Teaching (LoLT), which is English may pose challenges during teaching, learning and assessment. This study also found that the **language barrier** was a challenge to phrase questions that learners could understand, unpack and respond to as required. Data from the participants revealed that the English language as LoLT, was a challenge for teachers to phrase questions for learners to understand and respond to them. This had a negative impact on learner performance in formal assessment tasks. This could possibly be attributed to the reading gap that existed from the previous grades. Spaull (2015) asserts that learners who could not read fluently and with understanding by the end of Grade 4, could not have a meaningful engagement with the rest of the curriculum in the subsequent grades. This therefore suggests that there is a need for teachers to understand the background of their learners and the contextual factors affecting them. This knowledge will assist teachers to acknowledge the extent of learner diversity, (Vandeyer, 2008), and consider factors that may impact negatively on both learning and assessment.

The understanding of learners' contexts and how they learn may have a positive impact in the classroom. It may improve classroom engagement, enhance knowledge acquisition and customise the learning experience. In addition, it may minimise the existing learning gap which may be carried over while learners fall behind as they are continually promoted to the next grade. It may further assist teachers to use correct teaching methods that befit the learners' different learning styles and provide a high-quality learning experience for all learners in the school or classroom.

5.3 Recommendations

This study examined the competencies of Grade 7 EMS teachers in the development of formal assessment tasks. Findings of this study indicated that there was a need for a collaborative effort to ensure effective assessment in schools. Issues of teacher learning, knowledge and support were seen to play a vital role in the assessment of learners. In light of these findings, this study suggests several recommendations for implementation and further study to enhance the quality of assessment in schools.

The first recommendation of this study is for the Department of Basic Education to consider replacing the rigid, high stake testing with a flexible culture of assessment. For assessment to be effective and accommodate a different cohort of learners, this study recommends that assessment should be practical and project-based to address different skills, such as entrepreneurship, as required by CAPS in EMS. This will ensure that assessment in schools is learner-centred.

To address challenges faced by teachers regarding the balancing of cognitive levels, compliance with Bloom's Taxonomy and time management, this study recommends further research on the theory-practice gap in the South African context. Findings of this study indicated that there were gaps in teacher knowledge, from pre-service training, which may be because of insufficient research on teacher learning. Therefore, it is recommended that further research should be conducted to address this gap which could influence teacher behaviour and assessment practices. This view is supported by Fazio (2007); DeLuca and Klinger (2010); Thomas (2012) and Korthagen (2017) as they revealed that the poor implementation of CAPS and inadequate assessment practices in schools resulted from inadequate pre-service training on assessment.

This study further recommends research to address curriculum overload on teachers which may significantly improve assessment practices in schools. If curriculum overload on teachers is addressed, then teachers will have sufficient time to design assessment tasks taking into consideration policy recommendations in respect of the application of Bloom's Taxonomy. They may also be able to administer learner - centred assessment as well as a differentiated assessment.

Another recommendation of this study is that further research should be conducted on the competency of SMTs, particularly Departmental Heads, in executing their duty of curriculum management. According to the PAM document (Department of Basic Education, 2016, p.27),

DHs are required "to control the work of educators and learners in the department. Moderate all formal tasks including test and examination papers, memoranda as well as mark or SBA sheets." The finding of this study was that teachers designed formal assessment tasks where low order questions constituted more than 50% of the tasks could possibly suggest that there was a lack of moderation on the part of the DHs.

Furthermore, this study recommends that mentoring of teachers in schools be strengthened and be part of the school culture in all schools. According to Pather (2010), mentoring improves professional development in the organisation and forms part of the schools CPTD program. According to the PAM document (Department of Basic Education, 2016, p.30), the Principal of a school is "responsible for the development of staff training programmes, as required by the Continued Professional Teacher Development (CPTD) programme. In addition, he or she must assist educators, especially new and inexperienced educators to develop and achieve educational objectives in accordance with the needs of the school." School Management Teams (SMTs) must develop formalised programs of mentoring which extend over a considerable period to yield desired results and lead to sustainable professional development. However, it is recommended that those who play a mentoring role are equipped with the necessary skills, particularly in assessment.

Finally, this study recommends that further study be conducted on the extent to which teachers, particularly from primary schools, participate in professional learning communities (PLCs) with the intention of enhancing their CK and PCK. According to Brown and Duguid (2001), participation in such communities and networks gradually maintains learning that is not easily specified in advance, cannot be measured easily and is often unpredictable. Important issues are learned in active communities which complement the formal curriculum. Jita and Mokhele (2014) contend that PLCs enable teachers to deeply engage with the curriculum frameworks. They also identify and attend to their deficiencies in terms of both CK and PCK. PLCs promote a significant and lasting collaboration and provide for an engaged approach to teacher development. Participation in PLCs improves teachers' sharing and exchange of expertise while they solve their problems collaboratively. Finally, it may bridge the knowledge gap that exists between theory (pre-service) and practice (in-service).

5.4. Limitations of the study

The ability of the findings of the study to be generalised and /or transferred to other contexts cannot be easily confirmed. This is since the study is limited to five schools in a rural context.

Hlela (2016) points out transferability refers to the extent to which the study is applicable to different but similar contexts. This relates to selection of participants as well as the depth of the description of the study. Not all contextual factors were taken into consideration which may have had an influence on the results of the study. The sample does not represent the wider population but itself (Bertram & Christiansen, 2014). Cohen *et al*. (2018) point out two factors that may result in findings or results of the study not being generalisable.

Firstly, if the results are not open to cross-checking, they may be selective, biased, personal and subjective. Secondly, results may be susceptible to observer bias, although attempts were made to address the issues of reflexivity. Participants may have offered positive responses so as to not appear as bad teachers to me as the Subject Advisor. Also, participants may have concealed some important and useful data thus leading to the results of the study not being a true reflection of the experiences of the participants.

However, while each case studied was unique to its specific situation or environment, I believe this serves an example within a broader group which may, to a particular extent, have similar contextual factors. Yin (2009) argues that when a researcher does multiple studies, he/she can expand and generalize findings that emerged. Therefore, the concern is not much on the representative sample but the extent to which researchers are able to understand similar cases, phenomena or contexts. The connection between a case and a broader theory is therefore logical as opposed to being statistical. Yin (2011) argues that case studies can help to generalize to a broader theory. Such theory can be tested in one or more empirical cases similar to a single experiment or quasi-experiment. Therefore, findings made by this study are generalisable to different contexts.

5.5. Conclusion

This study examined the competencies of Grade 7 EMS teachers in designing formal assessment tasks. Bloom's Taxonomy theory of educational objectives and Grossman's knowledge domains were used as the conceptual framework, and lens to analyse the data that was generated from participants. Findings revealed that assessment in EMS does take place in schools. Teachers engaged in the design of a variety of formal assessment tasks which were preceded by informal tasks to prepare learners and to expand the opportunities for learners to achieve. It was further revealed that in designing formal assessment tasks, teachers did consider

aligning such tasks with Bloom's Taxonomy and CAPS and provided feedback on performance to learners and parents.

Despite challenges of time management, compliance with Bloom's Taxonomy and language as a barrier, teachers were keen to overcome such challenges. However, strengthening teacher knowledge in respect of CK, PCK and knowledge of context were found to be crucial to enhance teacher competencies in the design of formal assessment tasks. Furthermore, enhancing teacher collaboration and teacher support were found to be essential to enhance teacher competencies. These should form part of future research which this study considers as important for improving teacher competencies in the design of formal assessment tasks.

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APPENDICES

Appendix A: Ethical Clearance

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

22 April 2020

Mr Bhekumuzi Clement Ntshingila (217076766)
School Of Education
Pietermaritzburg Campus

Dear Mr Ntshingila,

Protocol reference number: HSSREC/00001060/2020
Project title: Examining Economic and Management Sciences (EMS) Grade 7 teachers' competencies in the development of formal assessment tasks in Umzinyathi District
Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 24 February 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 22 April 2021.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,

[redacted]

Professor Dipane Hlalele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: http://research.ukzn.ac.za/Research-Ethics/

Appendix B: Permission to Conduct Research by the Head of Department

education

Department:
Education
PROVINCE OF KWAZULU-NATAL

Enquiries: Phindile Duma **Tel:** 033 392 1063 **Ref.**:2/4/8/4012

Mr BC Ntshingila
PO Box 1203
DUNDEE
3000

Dear Mr Ntshingila

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **"EXAMINING ECONOMIC AND MANAGEMENT SCIENCES (EMS) GRADE 7 TEACHERS' COMPETENCIES IN THE DEVELOPMENT OF FORMAL ASSESSMENT TASKS IN UMZINYATHI DISTRICT",** in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the Intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 15 November 2019 to 10 June 2022.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

[redacted]

Dr. EV Nzama
Head of Department: Education
Date: 19 November 2019

Appendix C: Letter to Principals

Letter to Principal

P. O Box 1203

Dundee

3000

22 September 2020

Dear Sir/Madam

My name is Bhekumuzi Clement Ntshingila (Student No. 217076766) a Master of Education student in the School of Education at the University of KwaZulu-Natal (Pietermaritzburg campus). As part of the requirement for this degree, I am required to conduct a research project. The title of my research study is **"Examining Economic and Management Sciences (EMS) Grade 7 teachers' competencies in the development of formal assessment tasks in Umzinyathi District."**

The aim and purpose of this research study is to explore the competencies of Grade 7 Economic and management Sciences teachers in the development of formal assessment tasks. This study is expected to use Five (5) of participants who are teachers in Grade 7 and Two (2) Departmental Heads and will involve the following procedures: As participants, teachers will participate in the exercise of setting a formal task and will also be observed as a data generation method. Analysis of documents such as teacher files and management files will be conducted. Teachers and Departmental Heads may also be required to complete questionnaires or participate in semi- structured interviews that are expected to last between 20 to 40 minutes at a time suitable to them which will not disturb teaching and learning. Follow-up interviews may be conducted if necessary. Each interview will be voice-recorded. The duration of their participation if they choose to participate and remain in the study is expected to be 3 to 4 months.

This study will not involve any risks and/or discomfort to learners. Also, the study will not provide direct benefits for teachers. I will be working collaboratively with teachers by examining the assessment tasks they developed, request them to complete a questionnaire and subject them to an interview process to verify their responses.

In the event of any problems or concerns/questions you may contact me, my supervisor or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

My contact details:

Email: dlabaneb@gmail.com Cell: 0824846562

Supervisor: Dr J. Naidoo Email address: naidooj@ukzn.ac.za Telephone 033 260 5867

UKZN Research Office

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Participation in this research study is voluntary and participants may withdraw participation at any point. In the event of refusal/withdrawal of participation the participants will not be penalised. There are no consequences for participants who withdraw from the study.

No costs will be incurred by participants as a result of participation in the study and there are no incentives or reimbursements for participation in the study.

All names of schools and participants will be changed and pseudonyms will be used so that schools and participants remain anonymous. Information provided by participants will remain confidential and will not be shared with anyone else. Data generated through lesson observations, questionnaires and/ or semi-structured interviews will be stored in my supervisor's office, at the School of Education, Pietermaritzburg campus for five years, and thereafter be destroyed.

Thank you for your cooperation.

Yours in Education

Bhekumuzi Clement Ntshingila

DECLARATION OF CONSENT

I_____ (Full names of the school principal) have been informed about the study entitled: **Examining Economic and Management Sciences (EMS) Grade 7 teachers' competencies in the development of formal assessment tasks in Umzinyathi District.** (the researcher).

I understand the purpose and procedures of the study.

_____ _____

SIGNATURE OF PRINCIPAL DATE

Appendix D: Informed consent letter

Letter to Participant

P. O Box 1203
Dundee
3000
22 September 2020

Dear Mr/ Ms/Mrs_____

REQUEST FOR PARTICIPATION IN RESEARCH PROJECT

My name is Bhekumuzi Clement Ntshingila (Student No. 217076766) a Master of Education student in the School of Education at the University of KwaZulu-Natal (Pietermaritzburg campus). As part of the requirement for this degree, I am required to conducting a research project. I request your assistance in this research project by being granted permission to conduct my study using yourself as a participant in this research study. The tittle of my study is: "**Examining Economic and Management Sciences (EMS) Grade 7 teachers' competencies in the development of formal assessment tasks in Umzinyathi District."**

The aim and purpose of this research study is to explore the competencies of Grade 7 Economic and management Sciences teachers in the development of formal assessment tasks. This study is expected to use Five (5) of participants who are teachers in Grade 7 and Two (2) Departmental Heads and will involve the following procedures: As participants, teachers will participate in the exercise of setting a formal task and will also be observed as a data generation method. Analysis of documents such as teacher files and management files will be conducted. Teachers and Departmental Heads may also be required to complete questionnaires or participate in semi- structured interviews that are expected to last between 20 to 40 minutes at a time suitable to them which will not disturb teaching and learning. Follow-up interviews may be conducted if necessary. Each interview will be voice-recorded. The duration of their participation if they choose to participate and remain in the study is expected to be 3-4 months.

This study will not involve any risks and/or discomfort to learners. Also, the study will not provide direct benefits for teachers. I will be working collaboratively with teachers by examining the assessment tasks they developed, request them to complete a questionnaire and subject them to an interview process to verify their responses.

In the event of any problems or concerns/questions you may contact me, my supervisor or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

My contact details:

Email: dlabaneb@gmail.com Cell: 082484656

Supervisor: My supervisor is Dr J. Naidoo who is located at the School of Education, Pietermaritzburg campus of University of KwaZulu-Natal.

Telephone 033 260 5867, Email address: naidooj@ukzn.ac.za

UKZN Research Office

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Participation in this research study is voluntary and participants may withdraw participation at any point. In the event of refusal/withdrawal of participation participants will not be penalised. There are no consequences for participants if they withdraw from the study.

No costs will be incurred by learners as a result of participation in the study and there are no incentives or reimbursements for participation in the study.

All names of schools and participants will be changed, and pseudonyms will be used so that schools and participants remain anonymous. Information provided by participants will remain confidential and will not be shared with anyone else. Data generated through document analysis, lesson observations, questionnaires and/ or semi-structured interviews will be stored in my supervisor's office, at the School of Education, Pietermaritzburg campus for five years, and thereafter be destroyed.

Thank you for your cooperation.

Yours in Education

Bhekumuzi Clement Ntshingila

DECLARATION OF CONSENT

I_____ (Full names of the participant) have been informed about the study entitled: **Competencies of Economic and Management Sciences (EMS) Grade 7 teachers in the development of formal assessment tasks in Umzinyathi District**

(the researcher).

I understand the purpose and procedures of the study.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at: Email: dlabaneb@gmail.com . Cell: 0824846562.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to: (Please circle response)

Observe lessons and classroom activities	YES / NO
Audio-record my interview / focus group discussion	YES / NO
Complete questionnaires	YES / NO
Document analysis	YES/ NO

_____ _____

Signature of Participant **Date**

Appendix E: The questionnaire

QUESTIONNAIRE

1. Describe the qualifications you have obtained to teach EMS in Grade 7.

_____

2. What kind of pre-service training have you received that enable you to teach EMS effectively?

_____

_____

_____

3. Is there any in-service training that you have received that has increased your ability to teach and administer assessment tasks effectively in Grade 7 EMS? Explain.

_____

_____

_____

_____

4. Given the training you received during both pre-service training and in-service training, how do you rate your competency in designing formal assessment tasks in EMS? Indicate if it is poor, satisfactory, good or excellent. Also give a brief explanation.

_____

_____

_____

_____

5. Indicate your years of experience in teaching EMS.

_____

6. Given your years of experience in teaching EMS in Grade 7, how confident are you in designing a balanced formal assessment task that covers the range of cognitive levels according to Bloom's Taxonomy in all assessment items? Explain.

_____

_____

_____

_____

_____

_____

_____

7. As an EMS Grade 7 teacher, state if you obtained content knowledge in EMS through: (a) self- teaching (b) collaboration with other teachers (c) university /college (d) other (specify).

_____

_____

_____

8. To what extent has the knowledge you have obtained enabled you to teach and assess EMS in Grade 7?

_____

_____

_____

_____

_____

_____

Appendix F: Semi-structured Interview questions

1. TEACHERS' COMPETENCIES IN DESIGNING THE ASSESSMENT TASKS

1.1. WHAT TYPE OF ASSESSMENT TASKS DO TEACHERS DESIGN? capabilities

(i) What type of assessment tasks do you design? Give examples.

(ii) How do you assess learners in your class?

(iii) How do you record all assessment tasks? Why?

(iv) Which tasks form part of your formal assessment?

(v) What assistance or support do you receive when designing assessment tasks? Give examples.

(vi) Which assessment tasks do you have to design on your own?

1.2. WHAT ARE TEACHERS EXPERIENCES?

(i) What challenges do you encounter when designing these assessment tasks? Explain.

(ii) What would you say your strengths are in connection with developing the tasks?

(iii) What would you say your weakness are in connection with developing the tasks?

(iv) How would you like to be developed in your weak areas?

(v) What support have you obtained regarding this assessment since the implementation of the new curriculum? When & How?

(vi) How do these types of assessment tasks impact on learners understanding of the subject?

(vii) What are your suggestions about assessment in Economic and Management Sciences?

1.3. HOW DO TEACHERS DESIGN THESE TASKS?

(i) Which processes do you follow when designing research assignment, research project and presentation?

(ii) How do you ensure that your test/exam covers a range of cognitive levels according to Bloom's Taxonomy?

Semi-structured Interview Questions: **Departmental Heads**

1. EXTENT TO WHICH DEPARTMENTAL HEADS MANAGE THE DESIGN OF ASSESSMENT TASKS

1.1.HOW DO YOU MONITOR CURRICULUM COVERAGE IN THE EMS?

(i) What curriculum coverage tools do you use to monitor curriculum coverage? Explain.

(ii) How do you ensure that the assessment tasks cover all the work for the period under review?

1.2.HOW DO YOU ASSESS THE QUALITY OF ASSESSMENT TASKS?

(i) How do you ensure the task complies with CAPS?

(ii) How do you assess if the task assesses low, medium and higher order thinking/reasoning skills according to Bloom's Taxonomy?

(iii) How do you assess if the questions or tasks are free from subject error from an academic point of view, e.g. scientific facts?

3. SUPPORT FOR TEACHERS WHEN DEVELOPING ASSESSMENT TASKS

(i) What support is given to teachers who have challenges in developing quality assessment tasks?

Appendix: G Document Analysis

Criteria used in Document Analysis

f) The utilisation of the cognitive verbs when setting questions.
g) The quality of individual questions, that is, if they are clear, precise, unambiguous and appropriate for the grade. The availability of subtleties that may cause confusion and change the meaning resulting in learners responding incorrectly to the questions.
h) The extent to which the range of cognitive levels are covered in each assessment item.
i) The relationship between, the cognitive verb, level of difficulty and mark allocation to the question.
j) The relationship between the assessment task and the marking guideline, that is, if the model responses in the marking guideline respond with the questions as well as if the model answer meets the cognitive demand as required by the question.

Appendix H Letter from the Language Editor

Angela Bryan & Associates

6 Martin Crescent
Westville

Date: 28 January 2022

To whom it may concern

This is to certify that the MEd Dissertation: Teacher's competencies in the development of formal tasks written by Bhekumuzi Ntshingila has been edited by me for language.

Please contact me should you require any further information.

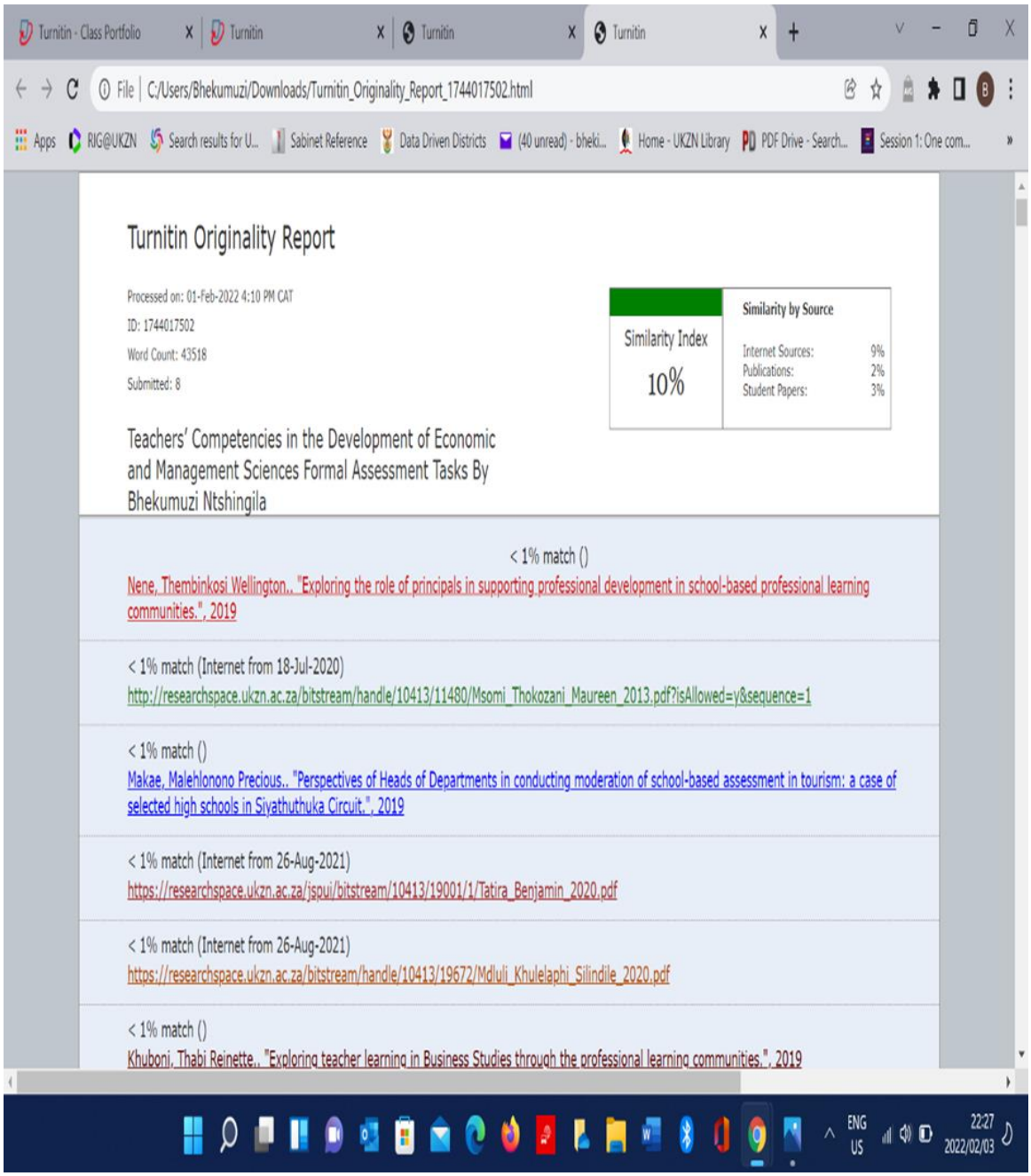
Kind Regards

Angela Bryan

angelakirbybryan@gmail.com

0832983312

Appendix I: Turnitin Report



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