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**INYUVESI  
YAKWAZULU-NATALI**

**TITLE OF DISSERTATION:**

**FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY  
SCHOOLS IN NKOMAZI IN SOUTH AFRICA**

by

**THOBEKA FAITH NSINGWANE**

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## **LIST OF ACRONYMS**

BED--- Bachelor of Education  
DBE---Department of Basic of Education  
DOE---Department of Education  
GET--- General Education Training  
MDoE---Mpumalanga Department of Education  
USA--- United States of America  
FA--- Formative Assessment  
SA---Summative Assessment  
NCS---National Curriculum Statement  
CAPS---Curriculum Assessment Policy Statement  
RSA---Republic of South Africa  
NST--- Natural Sciences and Technology  
CA---Curriculum Assessment  
ECD---Evidence Centered Design  
KSA---Knowledge Skills and Abilities  
MAT---Mathematical Achievement Test  
EO---Educational Officers  
ODL---Open and Distance Learning  
MP—Mpumalanga Province  
SADoB---South Africa Department of Education  
PPN—Post Provision Norm  
EEA---Employment of Education Act  
HOD---Head of Department

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## **DECLARATION**

I, Thobeka Faith Nsingwane, hereby declare that:

I have familiarised myself with the University's code of conduct and have fully adhered to it.

I undertake that this research study is my original work. Where the work of others has been used (in the form of electronic and printed sources), it has been appropriately and accurately acknowledged with referencing that follows the university's requirements. All text, diagrams, and tables adapted or used in their original form have been specifically acknowledged. The source is detailed in text and within the reference sections of this thesis.

Research has been conducted in the form of data generation. It has met the university's ethical requirements.

This dissertation has not been submitted to any other university for another degree.

I have not handed over work that another person/s or student once produced to advance as my own.

I have not allowed, and will not allow, any other person/ student to duplicate my work with the intent to advance it as their work.



**Signature of Student**

**Thobeka Faith Nsingwane**

**30 November 2021**

**Date**



### **DECLARATION BY SUPERVISOR**

I agree to the submission of this dissertation.

A solid black rectangular box used to redact the signature of the supervisor.

**Signature of Supervisor**

**Dr. L. R Maharajh**

**30 November 2021**

**Date**

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- My mother, Ntiwane Thulisile Constance, for trusting, believing, and having faith in me, as well as my brothers
- My spouse Chauque Banele S for support, patience, inspiration, and co-operation through my studies.

## **ABSTRACT**

The study aims to explore the formative assessment practices of teachers in selected primary schools in Nkomazi in South Africa. The research sought to determine whether teachers practice formative assessment in selected schools in Nkomazi in South Africa.

The study was qualitative. A purposive sample of five schools was selected from the Nkomazi West circuit in the Ehlanzeni District. Five teachers (one teacher from each school) were selected to be part of the study. The interpretive paradigm guided the study. The data of the study was generated through interviews and observation. The interviews were recorded and transcribed. The data was generated, analysed, and reported.

The study findings indicate that the participants were not able to share their understandings about formative assessment. The participants lacked knowledge of formative assessment. Consequently, they did not plan to practice formative assessment. The participants also indicated that they never attended any training based on formative assessment. Through the study, the participants had elaborated on factors that inhibit them from implementing formative assessment: overcrowding in their classrooms and lack of resources. And other challenges were insufficient feedback to the learners due to excessive workload and learners' absenteeism.

The implication of the study is that schools and districts need to play their vital role in investing in a high-quality, sustained formative assessment professional to develop teachers. The Department of Education in Mpumalanga should train teachers on forms of assessment and types of assessment. They should also provide teachers with relevant resources at school. There is a need to reallocate resources to ensure that teachers have concentrated time and support to build their knowledge of implementing formative assessment in their daily lessons. Teachers need to play their role to be lifelong learners since the system changes through them empowering themselves. Higher education institutions should develop a module on assessment and implement the formative assessment.

## CHAPTER ONE

### BACKGROUND AND INTRODUCTION TO THE STUDY

#### 1.1. Introduction

Teachers assessing pupils could replace formal exams, study says

Research recommends wider use of teacher assessment, saying it accurately reflects ability



Teachers and parents have complained in recent years that the level of testing has led to high stress. Photograph: MBI/Alamy Stock Photo/Alamy

**Richard Adams** *Education editor*

Mon 13 May 2019 00:05 BST

<https://www.theguardian.com/education/2019/may/13/teachers-assessing-pupils-could-replace-formal-exams-study-says>[2020/05/21 12:00:30]

The above caption was taken from The Guardian (13 May 2019). It reports on a study conducted in England where the researchers have called for more teacher assessments than once-off formal assessments such as the examination.

**There are better ways to assess students than with high-stakes standardized tests. These schools are using them with success.**

In April 2018, The Washington Post used the above caption to report how schools in the USA were finding success with assessment alternatives (instead of only standardised tests). The

Conversation<sup>1</sup> reported that schools need assessment models that will capture the achievement progress and long-term learning progress. The journal further reported that regular ongoing formative assessments and feedback were fundamental to supporting learners to perform better in school.

The purpose of beginning this chapter with the above quotations is to introduce my study on the FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA. As the aforementioned indicates, more and more, there is a global call for more formative assessments to be conducted in schools. The recent corona virus pandemic that has plagued the world has compelled us to rethink how we will assess our learners. We can no longer rely on once-off standardised assessments to determine a learner's future at the end of a course. As we are reading daily in newspapers, “it can no longer be business as usual”. This could not apply more to assessments in schools.

This chapter introduces the study on teachers' formative assessment practices in selected primary schools in Nkomazi in South Africa. This study focuses on teachers' formative assessment practices in primary schools around the Nkomazi circuit in South Africa. The study used five teachers from five different schools.

## **1.2. Background to the study**

The Department of Education (1997) maintains that summative assessments (SA) are intended to provide information on whether learners will progress to the next grade or not. So while the SA is an important indication of which learners have failed and which have passed, it does not reveal to us “the kind of instruction the learners need to master the outcomes or what errors in thinking led to the incorrect answers in the tests” (Burns, 2005, p. 37). However, that kind of information may be provided by consistent classroom-based formative assessment (FA).

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<sup>1</sup> <https://theconversation.com/explainer-whats-the-difference-between-formative-and-summative-assessment-in-schools-97441> Louw (2015)

During apartheid, there was a strong emphasis on final (summative) assessments (Kanjee and Sayed (2013). Formative assessments, though in use, were not the determining factor in whether learners progress to the next level or not (OECD/CERI International Conference “Learning in the 21st Century: Research, Innovation, and Policy”). After 1994, with introducing a new curriculum (C2005, NCS, and CAPS), formative assessment became a prominent feature in South African classrooms (Molepo, 2014). However, the literature indicates that teachers may not be familiar with formative assessment practices (Moodley, 2013), (Molepo, 2014); (Louw, 2015) and that in many cases, formative assessment is being implemented as continuous assessment (Pinchock and Brandt (2009), (Kapambwe, 2010), (Jacob and Issac, 2014) in our South African classrooms.

It is against those above that I decided to study teachers' formative assessment practices in South Africa.

Furthermore, before the COVID-19 crisis, assessment in South African classrooms required the physical presence of learners. This physical presence was required for administration and for observing the learners' daily progress. However, schools have been closed since March 2020 in South Africa. This has necessitated the development of alternative approaches to assessment. At the same time, I acknowledge that all types of assessments are important for learners to learn. The current critical situation we find ourselves in points to the need for formative assessment, which will take place outside the physical classroom. This means that parents (who have become teachers in the home) must understand whether their children are absorbing the content. However, before teachers can make parents understand formative assessment practices, it is crucial to understand their formative assessment practices. Hence my study.

Vandeyar and Killen (2007) have reported on a study in which three grade 4 Mathematics teachers held a very strong teacher-centred conception of assessment. Their classroom practice conflicted with the outcomes-based approach to assessment. Quite often, in conversations with teachers, I have heard them say that they do not have time to assess learners along the way. Teachers are constantly in fear of sacrificing coverage of the content. In my teaching experience, most teachers traditionally teach during the school day and then give learners homework to do at home in the evening. FA, however, is supposed to be done in the classroom

using classroom time. FA has been described as central to everyday classroom practice as it involves both teachers and learners in reflection, dialogue, and decision-making (Angelo & Cross (1993). According to Horst and McDonald (2008), teachers tend to focus on the SA at the end of the lesson, a unit, or a course.

FA in the classroom needs to be continuously adjusted as teaching and learning are still happening. The FA process in the classroom assists in checking for understanding during the learning process. The FA process guides teachers in making decisions about future instruction. Against this background, this study explores the FA practices used by teachers in selected primary schools.

### **1.3. Rationale**

I have been teaching for ten years. In my years of teaching, I have experienced several curriculum changes. These curriculum changes have also brought about changes in assessment. Indeed, Earl (2006) was correct when he proclaimed that we are heading towards a new era of assessment. Since 1994, I have created a differentiated view of assessment in terms of policy, practice, and research. The history of assessment McArthur (1987), Malinowski (1993)

Earl (2006), Brink (2011) shows that between the 1970s and 1980s, teachers were introduced to the terms formative and summative assessment methods. Given the changes that have taken place in assessment methods and practices since 1994, I was motivated to undertake this study on teachers' formative assessment practices.



“... assessment is a powerful tool for raising the quality of teaching and learning. It should be used diagnostically and interactively, not as a form of autopsy.”

- Shulman, 2009, p. 237

Further motivation to conduct this study came from the image above. Shulman (2009) warns about using assessment as a form of an autopsy. An autopsy is performed to determine if death was natural or unnatural. It is also performed to determine the manner of death. Autopsy means to see for oneself. An autopsy is performed after a person has passed on. This means assessment should not lead to death. Neither should the assessment be a cause of death. Assessment, as Shulman says, should be used to improve teaching and learning. “If learning is the goal, then dramatic changes need to be made in how assessment is used in class” Earl and Giles (2011). Hence, a study on formative assessment practices was necessary.

A study on teachers' formative assessment practices may prove beneficial to teachers, policy makers, academics at higher education institutions, and parents (who, given the COVID-19 crisis, are becoming teachers).

#### **1.4. Location of the study**

This study was conducted in five different schools in the Mpumalanga Province. These schools are situated in the deep rural areas of the Nkomazi area under the Nkomazi west circuit in the Ehlanzeni District. This area is called Nkomazi municipality (refer to map below), where most families still live under the umbrella of poverty. I conducted the study in this location because I did my teaching practice for four years here, and I have been working in this area for nine years since then. I have observed that teachers in these schools are experiencing challenges in implementing FA effectively.





### **1.5. Key research questions**

The purpose of my study was to explore the formative assessment practices of teachers in primary schools. To achieve this purpose, my study focused on two questions:

- What are primary school teachers' practices of FA?
- How do primary school teachers implement FA?

### **1.6. Overview of the research design and methodology**

This study employed a qualitative inquiry approach to understanding teachers' formative assessment practices in a primary school. I wanted to understand the FA practices of primary school teachers. Therefore, the qualitative approach allowed me to understand how primary school teachers practice FA in a rural area. According to Opoku, Ahmed and Akotia (2016), the qualitative approach is well suited to uncovering problems in education and enables researchers to better understand the total environment in which education occurs. I generated information in person by interacting with participants in their settings. Cohen, Manion and Morrison (2011) assert that qualitative data often focus on smaller people than quantitative data, yet the data tend to be more detailed and richer.

The interpretive paradigm guided the study. The interpretive paradigm stresses the way people shape society Merriam (, 2002). This study falls under the interpretive paradigm because it understood human actions, individual perspectives, and personal constructs. In Christiansen, Bertram and Land (2010), interpretivism was described as a paradigm in which researchers do not aim to predict what the people will do but rather describe how people make sense of their worlds and make sense of their meaning particular actions. (Christiansen et al., 2010) believe that how we see the world influences how we research the world. This is why each study needs to define which paradigm it uses for its research. Therefore, the FA of selected primary school teachers was explored to see how they implement FA in their classrooms. This paradigm believes that interactions of individuals create the social world; therefore, there is no fixed structure of society. An advantage of using interpretivism is that the researcher gets data and even the person's emotions through interaction.

A purposive sample of five r schools was selected from the Nkomazi west circuit in the Ehlanzeni District. Five teachers (one from each school) were selected to be part of the study. I selected my sample from the population of Natural Science and Technology teachers at Ehlanzeni District. The population is the total number of cases from which a representative sample is drawn for research investigation (Cohen et al., 2011). The population of this study includes Grade Five Natural Science and Technology teachers in public schools in the one circuit of Ehlanzeni District, under the Nkomazi west circuit in the Mpumalanga province in South Africa. In my study, I purposively selected one circuit under the Ehlanzeni District, the Nkomazi west teachers that teach Natural Sciences and Technology in grade five. They belong to a common group which is regarded as a cluster with their cluster leader. This cluster helps them have common tasks, and they make sure that they write their task on the same date, which also helps them ensure that quality and the uniform task occur within their cluster. Within this cluster, I selected five primary schools as my research sites.

The data generation methods that were used in this study are interviews and observations. Observations were being used in this study to corroborate the data generated through other means. In this study, data was generated during the second school term of 2018. Interviews were also used to collect data because they allowed room to explore interesting targets as they developed. Observation recordings were reviewed.

I asked for permission from the University of KwaZulu-Natal (Edgewood Campus) by submitting the Research Proposal with the Ethical Clearance, which helped me observe all the ethical restrictions and regulations based on the research study. As soon as I received the ethical clearance, I wrote a letter to the principals of the four schools of Ehlanzeni District, the letter requesting permission to conduct the research study within the schools they are managing. I requested permission from the principals of sampled schools to conduct the interviews with Grade Five Natural Science and Technology teachers. And the requests were in the form of a consent letter. I then set up an appointment with the teachers that teach Natural Sciences and Technology.

To increase the level of trustworthiness, I triangulated the data generation methods. Triangulation is the use of various data generation methods to increase the level of validity and reliability. As it goes hand in hand with trustworthiness, validity is a characteristic that refers to the appropriateness of inferences, uses, and consequences that result from methods of collecting assessment data Maree (, 2007). In simple terms, validity refers to the extent to which something is sound or can be justified or trusted (Cohen et al., 2011). I piloted the data generation instruments to ensure the trustworthiness of the data to be generated. My research questions can justify the methods of collecting data that I employed in the study. I used the interviews and observation to make sure that the data that was generated was a true reflection of what is happening in the Natural Science and Technology classrooms in the schools that I sample .and I made sure that I did not use their names as I have mentioned before that I will refer to them as Teacher A, B, C and D. The selection of data generation methods is very critical in such that it should be appreciated methods and reliable data from the participants. The primary and/or secondary sources. As equated with dependability in qualitative studies, reliability refers to generalising from a sample to a domain, that is, the level at which something can be trusted Maree (, 2007). The purpose of my study research is to find out how Natural Science and Technology educators implement formative assessment in their classrooms

Reliability refers to the likelihood that a given measurement procedure will yield the same description of a given phenomenon if that measurement is repeated Maree (2007). In short, reliability refers to the extent to which the research can repeat the research and still expect to find similar results.

### **1.7. Organisation of the dissertation**

This research study is composed of five chapters. Below, a snapshot discussion of each chapter is provided.

**Chapter one** presented the contextual background and introduction to the research study. This included the focus and purpose of the study, which put forward the research questions that this study attempted to answer, the rationale and overview of the research methodology, and the overall organisation of the study.

**Chapter two** presents the relevant literature reviewed, giving insight into what scholars have written about formative assessment practices within a national, Africa, and international context.

**Chapter three** carefully structures the qualitative research design and methodology applied to this study. It focuses on the explication and justification of the research approach and research paradigm used, the location of the study, the sampling procedures, and methods for data generation and data analysis. It goes on to explore how rigour through validity, trustworthiness, and reliability was established. Which also includes the ethical considerations and limitations of the study.

**Chapter four** is the core of the study, as it presents the main qualitative data findings acquired through the interviews and observation. Further, this chapter analyses and discusses the findings in light of the research questions that guided the study.

**Chapter five** puts forward the concluding discussions through a summary of the main findings. This study is drawn to a close through recommendations for further studies and areas for future research.

## **1.8. Conclusion**

Chapter one provided the background and introduction to the study. In brief, it discussed the location and focus of the study. After that, the key research questions were mentioned, along with an overview of the design and methodology. Finally, the organisation of the dissertation concludes this chapter.

## ***CHAPTER TWO***

### ***LITERATURE REVIEW***

#### **2.1. Introduction**

This study is on the FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA. Formative assessment provides teachers with feedback on learners' progress, motivates the learners, and assesses readiness for future learning, and verifying that learning is occurring and the curriculum is appropriate Mkhwanazi (2014). Formative assessment operates in a short cycle and stays close to the classroom rather than reporting for school. It allows the teacher to determine the learners' performance within the classroom Hill (2009). This implies that formative assessment takes place in a short space in a classroom and may not operate outside the classroom situation. If it were to be applied beyond the classroom situation, it becomes remedial work Mkhwanazi (2014).

My study aimed to explore teachers' formative assessment practices in selected primary schools in Nkomazi in South Africa. Most of the research studies on formative assessment are about the aim of formative assessment and neglect formative assessment practice. It is not clear how to implement formative assessment strategies; therefore, this study explored the implementation of formative assessment strategies with the following research questions:

- What are primary school teachers' practices of formative assessment?
- How do primary school teachers implement formative assessment?

#### **2.2. Assessment**

##### **2.2.1. What is assessment?**

According to Walani (2009), assessment generates, interprets, records, and uses information about learners' responses to educational tasks. Majola (2014) further defines assessment as a process of observing information that could be used to decide about a learner, curriculum and programme, and educational policy. Assessment is one of the types of evidence source that can evaluate the learners' level of competence. Mkhwanazi (2014) argues that assessment is a

continuous, planned process of identifying, gathering, and interpreting information about learners' performances in terms of outcomes or results placed or seen through the learners' work.

Newton (2007) suggests that the concept assessment purpose may be explained in various ways. Newton (2007) identifies three levels to explain the purposes of assessment. The first level is the judgement level which is the technical aspect of the assessment. This means that a grade is given after judgement is made against a criterion-referenced standard. The second level is the decision level associated with the use of the judgement. This is made to aid learning in support of entry to higher education. The third impact level is concerned with ensuring that all students learn a common core and remain motivated Newton (2007, p. 149-150). Since this study aims to explore the formative assessment practices of teachers in selected primary schools in Nkomazi in South Africa, the levels of assessment as shown to us by Newton (2007) will be relevant to my study. (Fletcher, Meyer, Anderson, Johnston, & Rees, 2012) agree with Newton (2007) that assessment has multiple purposes. Among the multiple purposes are its ability to provide information on learners' learning and progress, the quality of teaching, and the programme and institutional accountability. This definition indicates that assessment affects both learning and teaching (Fletcher et al., 2012).

Furthermore, Earl and Giles (2011) suggest that there are many purposes of assessment, one of which is that it provides information that could help learners' learning and teachers' teaching. The New Zealand Ministry of Education (2007) (as cited in Earl and Giles, 2011) asserts that learners and teachers respond to the information gathered through assessment. Once again, the implication that assessment is related to both teaching and learning is evident.

Harlen (2007) expresses the view that assessment has many purposes. However, Harlen argues that the two main purposes of assessment are to inform decisions about learning experiences and report learners' achievement. Similarly, Hill (2009) agrees while emphasizing the learner reaching their potential goal.

Assessment requires teachers to use different methods or a variety of strategies to allow them to provide good feedback or frequent feedback. This definition allows teachers to gather

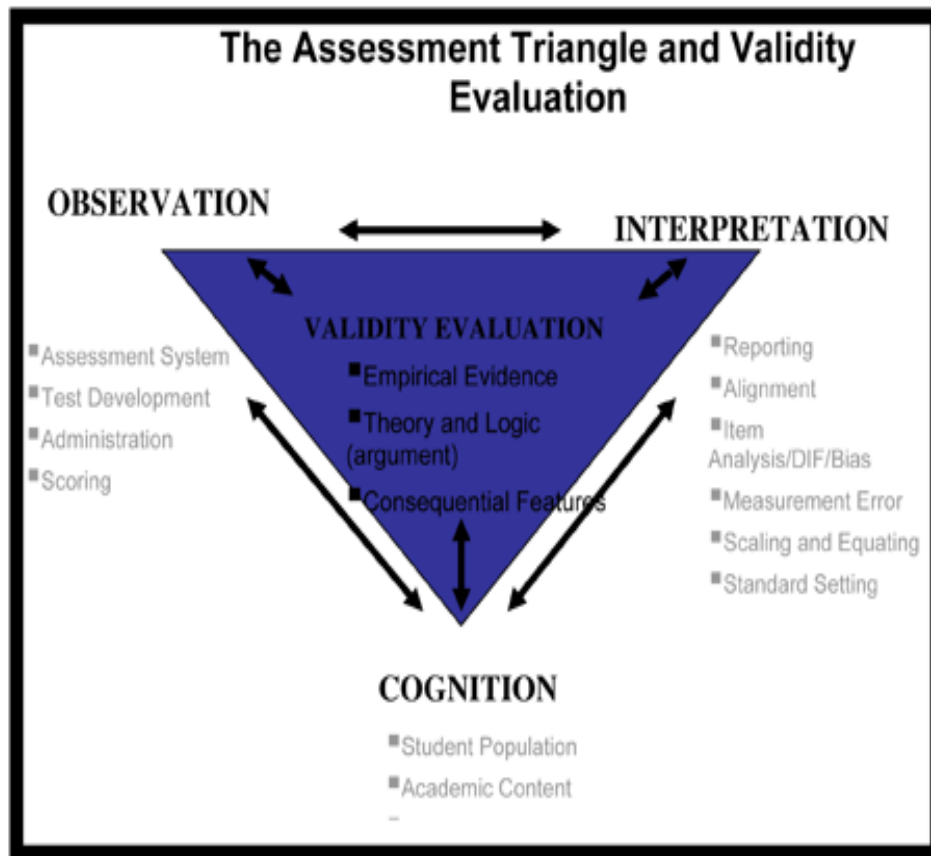
information based on the assessment about an individual learner to ensure that every learner achieves the desired outcomes. It also allows teachers to treat each child uniquely and an individual irrespective of the outcomes since each learner is so different from the other learner.

According to Majola (2014), the assessment allows the teacher to decide on the learner's work. Assessment is more like judging a learner, which can be used by using specific weightings, comparatives, or numerical ratings. Assessment is an important tool of education as it is used to help determine the learning process, shape learners, self-monitoring, and find learning opportunities. The results could be a true reflection of the learners' work or not the true reflection of the learner.

Ratnawati, Hadi and Nugraha (2016) assert that assessment is a very important aspect. Assessment serves as an assistant for the teachers to group the learners in a situation where they have to work in certain groups, improving the teaching method, measuring the learners' readiness (attitudinal, mental, and material readiness), providing guidance and selection to determine the level of competence for every single learner and the progress of the learner to the next grade. Furthermore, they argue that assessment assists the teacher in providing information that will assist the teachers in better education. Majola (2014, p.59) stated that assessment should be conducted to measure the learners' learning achievement, and such assessment has been known as authentic assessment. Therefore, the assessment should be different, and the aim should be only to make a judgment, certify and justify learners' performance. Still, students should be able to learn from their assessment tasks.

The scholars mentioned above have understood assessment purposes as integral to teaching and learning. The three main purposes are Assessment of Learning (Summative Assessment), Assessment for Learning (Formative Assessment), and Assessment as Learning (Self and Peer Assessment). The focus of my research was on assessment for learning or formative assessment. However, to understand the difference between formative and summative assessments, one must understand what summative assessment entails.

Understanding principles of assessment design can be useful to teachers for obtaining high-quality information from students. One useful principle is an assessment triangle that shows the three elements present in any type of assessment:



- Learner cognition describes how learners develop competence academically and organize their knowledge at different levels of development.
- Observations, which are the tasks or activities in which learners performance can be observed, scored and evaluated to gather evidence of learning
- Interpretation involves making sense and drawing conclusions from the evidence gathered

These elements are equally present in any form of assessment. The effective linking of these three elements guides the quality of conclusions drawn from the assessment. The fourth element of formative assessment is the effective translation of the interpretation of assessment performance to instructional decisions and actions. One approach to assessment development



that makes explicit and links the three elements of the assessment triangle is Evidence Centred Design (ECD). ECD provides a framework for building valid and fair assessments. The assessment developers identify the nature of the evidence that is needed to make a judgment of student learning. They proceed to examine any assessment task to ensure that it does not reduce the opportunity for any student to participate in the task and show certain knowledge, skills, and abilities (KSAs). Sometimes an assessment may bring up non-target KSAs. This can affect the students' understanding of the assessment. Hence actual targets of the assessment are not reached. Non-target KSAs are most commonly introduced by unnecessarily complex language.

Harlen (2007) explains that summative assessment provides information regarding the student's achievement of outcomes at a particular point in time. For example, at the end of a unit, term, or year. Summative assessment permits communicating with students' progress to their parents, lecturers, and other higher education institutions. (Siebörger, 2004) too declares that summative assessment measures and reports students' progress to others. Criticos, Long, Moletsane and Mthiyane (2005) consider summative assessment as an assessment used to judge whether or not students may progress to the next year of study.

The aim of conducting summative assessments is to get a clear picture and understand learners' progress or learning. Decisions are based on the learner progressing to the next grade, selecting educational opportunities, placing learners on certain educational programs, and certifying the level of competence of the learner Majola (2014).

Having explained the concept assessment, this chapter progresses now to discuss the different types of assessments.

## **2.3. Types and forms of assessment**

### **2.3.1. Four types of assessment**

Horst and McDonald (2008) indicate the four types of assessment: baseline, diagnostic, summative, and formative assessment. Baseline assessment normally occurs at the beginning of the lesson to establish what learners already know about the theme or the content to be taught by

the teacher. Diagnostic assessment is conducted to identify the strengths and weaknesses of the learners or barriers to learning.

Coetzee and Wydeman (2004) argue that summative assessment provides an overall picture of intervention or remedial action. It can be conducted at the end of the lesson, unit, or course. For example, an examination is written at the end of the term or year normally determines whether the learner progresses to the next grade. Horst and McDonald (2008) stated that summative assessment is a summary of all the assessments added up together at the end of the term or year to allow the learner to progress or not to progress.

Since this study is centered on formative assessment, the next section explains this concept more fully.

### **2.3.2. Formative assessment**

According to Black and William (2006), the literature contains many definitions of formative assessment, and there is no one widely accepted definition of formative assessment. Taras (2009) stated that researchers have a common view that formative assessment supports teaching and improves learning and learner performance.

Formative assessment is now being seen as an important part of the South African classroom. (Retnawati et al., 2016) state that formative assessment is a crucial aspect of classroom practice. The sub-routines focus on the quality of learning, providing advice and feedback for improvement, and a strong emphasis on cooperative learning and effective learning interactions in the classroom. There are many definitions of formative assessment. They all share a common purpose: that improving and informing teaching and students' learning. According to (Retnawati et al., 2016), formative assessment refers to all those activities undertaken by teachers and the learners in assessing themselves, which provide information to be used as feedback to shape the teaching and learning activities. According to Walani (2009), assessment becomes formative when the evidence adapts the teaching to meet needs.

One important aspect of formative assessment is that it may be beneficial to the learner. Majola (2014) explains that formative assessment serves learners' learning needs. (Ní Chróinín & Cosgrave, 2013) assert that formative assessment is a planned process in which educators draw assessment as evidence of learners' status and is used to adjust their teaching processes and/or for the learners to adjust their current learning techniques. Formative assessment involves collecting evidence of learners' learning, providing feedback to learners, and the teacher trying to change their teaching methods while enhancing each learner's achievement Majola (2014). Formative assessment is a simple idea that includes being responsive to them and informing next moves (Ní Chróinín & Cosgrave, 2013).

According to Walani (2009), formative assessment refers to all those activities undertaken by teachers and the learners in assessing themselves, providing information to be used as feedback to change the teaching and learning methods. Such assessment becomes formative when the evidence is used to change the teaching and meet teaching needs. Formative assessment is used to adapt the teaching to meet needs. Walani (2009) further argues that formative assessment as assessment for learning is any assessment for which the priority is made and practice is to let learner progress in learning. It thus differs from assessment designed primarily to serve the purposes of accountability, ranking, or certifying competence. An assessment activity can help learn if it provides information to be used as feedback by teachers and their learners in assessing themselves and each other to shape up the teaching and learning activities they are dealing with. Such assessment becomes 'formative assessment' when the evidence adapts the teaching work to meet learning needs.

For Husain (2013), formative assessment is an ongoing assessment process for learning, and this term is based on the evaluation used in evaluating programmes or projects. It focuses on allowing learners to develop and often attends to a programme to provide immediate feedback, leading to their improvement.

Formative assessment, according to Majola (2014), produces a great insight into learners' understanding. What can be deduced from the definitions by different scholars is that application of formative assessment is about evidence about learners' achievement, improving instructional

methods and practice, identifying learning needs, and helping learners to learn and be able to understand their weak points and be able to ratify and learn from them. Majola (2014) further defines formative assessment as practice or method used by teachers and learners to identify and take action to learner learning to improve learning when learning and focuses on the extent to which the learners have learnt what the teacher planned for the learners to learn. Majola (2014) also contends that formative assessment is concerned with determining the extent to which the learners have obtained the objectives of the curriculum. Objectives are not observable or measurable, but learning outcomes are used to determine the learners' ability and express what is expected in terms of what they should do at the end of the instruction. This means that learning outcomes are very important in assessing learners more practically in formative assessment because it is during the lesson where the learners learn the content.

According to Majola (2014), formative assessment is being created to improve learners' learning, not judgmental. Still, it pays more focus on encouraging the learners so that they are willing to learn more each time. Marzano and Pickering (2010) argue that formative assessment means information generated and reported to develop knowledge and skills. Knowledge could be the content that is delivered to the learners. Skills are based on what the learners can do with the knowledge being obtained during the lesson. In other words, formative assessment practice, strategies, and tools will explore how knowledge is developed and how learners obtain the skills.

Formative assessment has an instructional as well as an accountability principle. As an *instructional purpose*, formative assessment is used:

- To provide information to be used as feedback to modify the teaching and learning.
- To help form or shape a student's learning during the learning process.
- It must provide actionable information for teachers and learners
- It must provide feedback that will provide data about the gap between a learner's current understanding and the desired level of understanding. Referred to Vygotsky as 'zone of proximal development.'

As an *accountability purpose*, formative assessment is used to:

- To provide numeric values for the department of Education.
- Quantifiable scores
- Statistical needs on how the discipline is performing.

Formative assessment is not necessarily associated with any particular theory of learning (Wiliam (2010)). However, current conceptualisations of formative assessment are typically rooted in a sociocultural constructivist view of learning. Learners are seen as actively constructing knowledge and understanding through cognitive processes. These and other understandings about learning and development have implications for formative assessment in classroom instruction. Vygotsky refers to learning as a “joint productive activity” within a social setting, like the classroom. Teaching the teacher serves as a mediator between the learners and the learning goal, providing scaffolding to aid in attaining the goal Black and Wiliam (2009). The teacher uses the information about the learners’ performance (feedback) to adjust his instruction. Learning progressions or trajectories can help teachers anticipate and identify common misconceptions learners may have and, thus, shape feedback, which reshapes learning (Sztajn, Confrey, Wilson, & Edgington, 2012) . The **aim** for one using formative assessment results is to reason from evidence—to make an inference about what a student knows and can do, based on assessment information

Harlen and James (1997) define formative assessment as criterion-referenced and pupil-referenced. This means that consideration and focus are given to where the learner is learning specific content or skills when the assessment is being designed. Furthermore, (Siebörger, 2004) argues that formative assessment is conducted to inform learners and their progress to improve teaching and learning.

From these explanations, one can conclude the following differences between summative and formative assessment:

*Summative assessment is conducted at the end of the teaching time frame with the express purpose of reporting and communicating the students’ progression with no emphasis on how learners’ learning can be improved, while formative assessment is continuous with clear indications that it aids and improves both teaching and learning.*

While summative assessment has its importance in reporting students’ progress, it is evident from the previous discussion above on assessment purposes that formative assessment is more beneficial to both the learners’ learning and the teachers’ teaching.

Black and William (2006) argue that a teacher should provide very serious feedback to their learners and support learning. Formative assessment means that the teacher should make sure that they provide very effective feedback to the learner so that the learners can improve their performances.

### **2.3.3. Forms (practices) of formative assessment**

(Criticos et al., 2005) opine that there are various assessment practices (forms). According to (Criticos et al., 2005), some tests, written examinations, quizzes, projects, and assignments. Personal observations and experience indicate that the following assessment strategies fit the purpose and are achievable in a classroom.

#### **2.3.3.1. Observation**

The advent of a newly elected democratic government in 1994 led to curriculum reform over the past twenty-six years. According to (Criticos et al., 2005), this implied that assessment strategies changed from assuming that learning involved the ability to remember and regurgitate. This brought about the realisation that different things needed to be assessed and in different ways. (Criticos et al., 2005) express the importance of observation as a good strategy by using the example of assessing whether or not a student could use English in terms of specifically speaking the language.

Further explanation asserts that the learner could not take grammar or essay writing assessment for the teacher to assess the learner's ability to speak English. However, by observing that particular learner in the classroom and amongst their peers, the teacher would assess the learner's ability to speak English. (Criticos et al., 2005) aver that observation and constructive feedback would develop the learner's skills and values more quickly.

Furthermore, McMillan (2011) asserts that observation can be unstructured and structured. Unstructured observation is similar to informal observation. The teacher does not have specific criteria or checklists to make judgements but does have an idea of what behaviours they are looking for. Unstructured observation is open-ended. Structured observation requires more preparation and planning because it is conducted and recorded using specific McMillan (2011) . As opined by the scholars mentioned above and personal experience, one can conclude that

observation is an important assessment strategy as it can be used both formally and informally in one's daily assessment practice. Observation allows the teacher to get to know and understand the student better and question learners about things that were noticed regarding the learners' behaviours and attitudes. Questioning is another assessment strategy.

#### **2.3.3.2. Oral Questioning**

According to McMillan (2011) , a learners' understanding must be monitored closely to ensure effective teaching. This can be done by observing and questioning the learner to know whether or not the learner has understood the content and can perform the skills required using the knowledge presented. Questioning occurs during teaching McMillan (2011). He expounds further that questioning engages the learner better and creates the opportunity to challenge their beliefs, making them think more deeply and critically about what is being discussed.

Wiggins and McTighe (2005) agree when they argue that the learner's reasoning and comprehension are promoted through questioning. It allows them to voice their thoughts and ideas, ensuring active engagement. This ensures that understanding and learning are enhanced McMillan (2011). Furthermore, Airasian (2001) avers that questioning engages the learner that usually does not pay attention in class. This implies that questioning can also be used as a means to maintain discipline during a lesson. Airasian (2001) posits further that observation, questioning, and written tests or quizzes are closely related.

#### **2.3.3.3. Written Tests and Quizzes**

Airasian (2001) refers to written tests as the paper-and-pencil assessment. Paper and pencil imply that it is written as opposed to being answered orally. McMillan (2011) asserts that tests and quizzes can be used both formative and summative assessment. The scholar argues that tests and quizzes are objective, and the use provides quick feedback to the teacher about the learners' current knowledge and skill. The information gathered can help the teacher individualise and personalise their instruction to ensure that optimal learning occurs. This indicates that tests and quizzes are administered closer to beginning a new section or module and guide teaching and learning.

(Criticos et al., 2005) posit that written questions should vary widely. Open-ended and closed questions should be asked. Open-ended questions are less structured and allow the learner to express their opinions and feelings freely. There is a large range of possible answers. Closed questions are highly structured. The learners are limited in the freedom of expressing their own opinions. Answers to closed questions are specific and require the learner to recall knowledge based on research or content taught (Criticos et al., 2005). This indicates that written assessment allows learners to express themselves freely and indicate to the teacher that concepts taught were grasped and understood. Similar to tests and quizzes are in-class assignments.

#### **2.3.3.4. In-Class Assignments**

McMillan (2011) suggests that various in-class assignments should be used. Through a variety of in-class assignments, teachers can obtain information about learners' understanding from different and many perspectives. In-class assignments provide the opportunity for learners to ask the teacher for assistance if it is required. This assessment practice ensures that the teacher constantly monitors learning and allows for frequent feedback to the learners, thereby enhancing teaching (McMillan, 2011). However, practice indicates that other forms of assignments and projects can also be used for assessment purposes.

#### **2.3.3.5. Projects and Assignments**

(Criticos et al., 2005) state that project work comprises different components: research, practical work, presentations, writing, and sketching. This implies that research independent of the teacher's assistance is the content base for the project or assignment. (Criticos et al., 2005) go further by asserting that learners should be provided with detailed instructions and specified criteria of how the project or assignment.

#### **2.3.3.6. Self and Peer Assessment**

According to (Siebörger, 2004), learners can be involved in classroom assessment by being allowed to assess their own and each other's projects or any piece of work according to criteria drawn up by teachers and the learners collaboratively. This is known as self and peer assessment. McMillan (2011) posits that self and peer assessment results in the learners revealing their attitudes and beliefs about themselves and fellow learners. Earl (2006) argues that learners



should be valued participants in their learning. By this, Earl (2006) means that they should identify gaps in their learning and find solutions to their problems by anticipating constructive feedback and feedforward from themselves and peers.

South African classrooms are known to be overcrowded. Hence, I think it is appropriate to allude, somewhat briefly, to assessment in large classes.

## **2.4. Assessment in large classes**

In a study (Adjogri, Adu, & Adelabu, 2014), managing large classes effectively has been a concern and major phenomenon among learning institutions. It is believed that large classes allow someone to improve their teaching and presentation skills as they teach a diverse group with various learning styles. While many teachers think there is no chance of getting so many learners to learn at one time. Gibbs (2006) (as cited by Adjogri et al., 2014) points out that learning is not determined by class size as believed by some teachers, as the emphasis should be placed on quality instead of class size. Shannon (2006) points out that large classes might cause teachers not to be intimate with learners as they might not even remember their names, engage learners actively in the learning process, and this gives learners a place to hide in a crowded class. In addition, Nicol (2010) noted that written feedback was part of a larger coordinated system of a teacher when there were fewer learners in the past. Due to the growth in learner numbers, written comments have become detached from this supportive context. This has resulted in dissatisfaction with feedback by learners and teachers, as teachers spend considerable time carefully constructing feedback comments, and these are often not generated by learners. They often do not seem to act on the feedback provided. Despite the class size, written assessment feedback should be interactive and reflective Nicol (2010).

## **2.5. International perspectives of formative assessment**

### **2.5.1. United Kingdom**

Guthrie (2005) conducted a study with teachers in primary schools in the North East of LEA. The topic of the study was: Teachers' beliefs about adopted formative assessment strategies in teaching writing in the primary school a case study.

This case study is set in an inner-city primary school in a North East LEA. It has 300 pupils on roll, 30% of which have English as an additional language, and 70% are on the Special Educational Needs register. A multi-method approach was used, incorporating positivist and interpretative dimensions. Views of teachers were gathered using a self-completed questionnaire and semi-structured interviews. Views of pupils were generated using pupil response templates.

Further evidence was generated using direct lesson observations and documentary analysis of teachers' short-term planning for Literacy targets and samples of children's writing. Outcomes of the study show that most teachers found that the formative assessment techniques they adopted of sharing learning intentions, planning, and modelling success criteria positively impacted specific teaching elements. Some results highlighted that these formative assessment techniques could not be globally applied across the full primary age-range.

Singh (2015) conducted a study with three secondary schools in the outer London local authority. The topic of the study was: Barriers to formative assessment in school science: A Critical Realist perspective. The data was generated through lesson observations, scrutiny of pupils' books, interviews with teachers and pupils, and discussions with the school, local, and national managers. This study confirms the dominance of tests and examinations. The findings include teachers' lack of subject knowledge, an acute shortage of physics teachers, and the disabling of teachers' agency through 'double triage'- leading to demoralisation. The government and school managers continue to use blunt instruments for monitoring narrowly defined 'standards' while science teachers' professional learning is neglected. Schools are 'marking up' or even 'making up' test and coursework results through dishonest practices, masking that they are failing many of their pupils.

### **2.5.2. Europe**

(Bjørstad, 2016) conducted a study at the lower secondary level in Norway. The topic of the study was: Written formative assessment, a study of how students experience and understand written formative assessment of their written texts in 'English as a foreign language'. This study took a closer look at how 23 students at lower secondary schools experience their teachers' written assessments of a written mock exam in English as a foreign language. The students

attend five different schools, and qualitative interviews were carried out with each of them. The focus has been on finding out what aspects of the assessments the students struggle to understand and detecting possible pitfalls for teachers to avoid in their future assessments. The main findings are that students have problems understanding metalinguistic words and phrases. This often leads to a total lack of understanding of the various comments of the assessments. In addition, students often need a more detailed explanation of the different issues that teachers point out in the assessments. Also, the students do not understand the meanings of some of the assumedly established expressions used in assessments. Teachers should reconsider using much-used expressions or ensure that their students understand them.

Andersson (2014) conducted a study on assessing dance: A phenomenological study of formative assessment in dance education. This article includes a study that examines how formative assessment in dance education is constituted in three Swedish upper secondary schools. The starting point for the study is life-world phenomenology. A Phenomenological way of thinking entails that the human being is inter subjective, linked with and within the world and that learning requires the bodily subject's operational experience. To turn towards the things themselves and be open and adherent to things in the world is a basic rule and the starting point for research within phenomenology. This study is based on empirical material from observations of the phenomenon formative assessment in dance. Spiegelberg's philosophical method was used as a base for phenomenological analysis. The analysis results in three themes: modes of communication, dance-related knowledge, and function of formative assessment. Formative assessment was observed in the study to commonly involve teachers' verbal communication and visualisation. The assessment practice is a continuous activity and very rarely involves any kind of self-assessment or tests. The results were discussed and related to a life-world phenomenological view of learning and earlier research.

### **2.5.3. Australia**

Kean (2014) conducted a study with teachers. Three teachers and one coordinator of the primary year programme were interviewed. The topic of the study was developing formative assessment strategies in the primary year programme. He used an in-depth case study approach and questionnaire on a well-known primary year program in Australia to identify the key formative

assessment strategies, including stating the learning intentions, developing success criteria, teacher questioning, feedback and feedback, and self and peer assessment. The questionnaire he used is as follows: the question was: How does formative assessment improve student learning in the primary years' programme? And what are the keys of formative assessment strategy that improve student learning? The study results indicated that some teachers lacked the knowledge and understanding of the importance of formative assessment during teaching and learning.

Willis and Adie (2016) conducted a study on developing teacher formative assessment practices through professional dialogue: case studies of Queensland, Australia. Australia's new national curriculum and standards-referenced assessment enable teachers to revisit formative assessment as a philosophy of interconnected educational, curriculum, and assessment practices. Students make meaning about their learning. This research investigated how Australian teachers made meaning of the new national assessment standards as a prerequisite for the formative assessment practice of sharing expected standards with students in responsive ways that respect their diversity as learners. This study examined how teachers recontextualised new assessment standards. Data were generated through audio recording, professional dialogues, and interviews with teachers in five Queensland schools. The thematic analysis incorporated Bernstein's concept of recontextualising to understand how teachers navigated between vertical and horizontal assessment discourses. Teachers needed to develop shared understandings of assessment standards grounded in student performances before their teaching commenced. Findings indicate that opportunities for facilitated professional dialogue need to be incorporated as an aspect of professional practice. Teachers develop shared understandings of a) the policy context in which they work and b) the processes and practices that will include students in democratic processes of knowledge production and meaning-making.

#### **2.5.4. New Zealand**

Perumanathan (2014) conducted a study with primary teachers in the greater Wellington Region, New Zealand. The topic was formative assessment and feedback in the primary classroom: an interplay between teacher's beliefs and practices. Perumanathan (2014) used field notes, observations, and interview questions to collect data. But the main source of the data generation was the interview questions. The research questions that was used was the following:

1. What beliefs do teachers hold about formative feedback in the writing classroom?
2. How do primary teachers provide formative assessment and feedback to their students during the writing lessons?

The study results showed that the teachers in this study were not aware of and did not believe in the feedback that is formative assessment, using the terms consistent with contemporary literature on feedback directed towards improving. They highlight student learning. They also showed that through the students' performance, identifying where they should be heading, and understanding that feedback could benefit students in their learning.

However, teachers had incomplete conceptualisations of formative assessment and feedback, learning intentions or success criteria, and how they should be framed as part of formative feedback. As a result of teachers' behaviorist beliefs, learning intentions and criteria shared by the teachers failed to meet the standards of good feedback practice. These results imply that feedback strategies in some New Zealand classrooms do not allow students to become active participants in their learning, resulting in passive feedback consumers.

Dixon and Williams (2003) conducted a study with teachers and learners in certain primary schools in New Zealand. The topic of the study was: Teachers' understanding of formative assessment. Data was gathered through the use of semi-structured interviews. The interviews were analysed through the use of qualitative and quantitative approaches.

The study results indicated that the study aimed to examine teachers' perceptions about the key differences between formative and summative assessment. In attempting to achieve this aim, teachers in the study were asked "why to assess?" regarding their own and school-wide practice. Their responses indicated that all teachers interviewed regarded the purposes of assessment to be both formative and summative. A further indicated that, in general, few had a broader conception of formative assessment. In general, responses were limited concerning the more recent literature and current notions of formative assessment.

The majority of teachers mentioned using formative assessment information to identify individual needs, plan work programs, identify children's strengths and weaknesses, and group children.

The research mentioned above indicates that formative assessment studies are being conducted in western countries. While these studies provide important insights into formative assessment, their results cannot be unproblematically imported to the South African situation. The study conducted in the United Kingdom showed that formative assessment techniques could not be globally applied. A study done with some Australian teachers showed that the teachers lacked knowledge of formative assessment. I am hopeful that my study on formative assessment practices among teachers in one part of South Africa may add to the existing knowledge.

I proceed in the next section to report on formative assessment studies carried out in Africa.

## **2.6. Africa**

### **2.6.1. Nigeria**

Ugodulunwa and Okolo (2015) conducted a study in Secondary School in Jos in Nigeria where mathematics was compulsory. Their topic was the effects of formative assessment on mathematics anxiety and performance of senior secondary school students in Jos. Teachers and students were involved during in study. A simple random sampling of 110 senior secondary students was selected for the study from a population of 2 326 senior secondary students. A mathematics test anxiety scale and two forms of mathematics achievement tests were used for data generation. Data were analysed using descriptive and inferential statistical techniques.

The study results indicated that teachers should be trained and retrained to gain their knowledge in formative assessment to make teaching and learning of mathematics more interesting and easier for the students.

Moyosore (2015) conducted a study on formative assessment on students' achievement in secondary school mathematics. The study investigated the effect of formative assessment on students' achievement in secondary school Mathematics. Three hypotheses guided the study. The experimental research design was employed. One hundred and twenty (120) Mathematics students in secondary II Art classes in two public schools in Iseyin Local Government of Oyo State, Nigeria selected through purposive technique made up the study sample. Formative Test I,

II, and III and Mathematics Achievement Test (MAT) were used for data generation. Data were analysed using paired sample t-test and independent sample t-test statistical tools.

The analysis revealed that formative assessment has a strongly significant difference in the mean achievement score of Mathematics students exposed to it ( $t = 36.54$ ,  $p = 0.000$ ). At the same time, there is no significant difference in the mean achievement scores of students who are not exposed to formative assessment ( $t=2.053$ ,  $p = 0.045$ ). Also, there is no gender difference in the achievement scores of Mathematics students that are exposed to formative assessment ( $t=0.112$ ,  $p = 0.053$ ). The study recommended that all School Administrators should emphasise the use of formative assessment by all teachers, and they should allow, encourage and provide incentives for them to attend seminars, workshops, conferences, and in-service training to enhance their performance and to acquire the necessary skills to constructing formative tests (Moyosore, 2015).

#### **2.6.2. Ghana**

(Oduro-Okyireh, Akyina, Ansah-Hughes, & Torkornoo, 2015) conducted a study with teachers. Their topic was Formative Assessment practices in Senior High School teachers in the Ashanti Mampong Municipality of Ghana. They used about three questions to collect their data. The study results were that about half of the teachers lacked the conceptions of formative assessment and its sub-concepts. So, the teachers were involved in certain practices unknown to them that it was a formative assessment. They saw the practices as a norm and daily routines that needed to be done to improve teaching and learning.

Bekoe, Eshun and Bordoh (2013) conducted a study on Formative Assessment Techniques Tutors use to Assess Teacher Trainees' Learning in Social Studies in Colleges of Education in Ghana. A case study research design was used. The study was carried out in three Colleges of Education in the Central Region of Ghana. The data were used together to form one case. Both the tutors and the colleges were purposively and conveniently selected for the study. Interview guide and classroom observation checklists were administered to nine (9) Social Studies tutors of Colleges of Education.

The research found that due to the hasty nature in formulating formative assessment and scoring, tutors emphasized cognitive domain to the neglect of affective and psychomotor domains, which are also of paramount importance. Formative assessment should cover the three learning domains, but the importance is attached to the cognitive domain to neglect the affective and psychomotor domains in setting and scoring questions. This makes students pass through the academic system without acquiring needed skills, values, and attitudes that will enable them to correct the wrong in society using appropriate tools.

### **2.6.3. Cameroon**

Akom (2011) conducted a study on using formative assessment despite the constraints of high stakes testing and limited resources: a case study of chemistry teachers in Anglophone Cameroon. A case study methodology was employed to address the research topic. Science teachers in the West African country of Cameroon were engaged in lesson planning and implementation to collaboratively build lessons with large amounts of formative assessment.

Qualitative data from written surveys, group discussions, classroom and workshop observations, and teacher reflections reveal the extent to which lesson fidelity is preserved from views to planning to implementation. The findings revealed that though the teachers possess knowledge of various assessment methods, they do not systematically use them to collect information, which could help improve student learning. Oral questioning remained the dominant method of student assessment.

The study also showed that the teachers made minimal to big changes depending on the formative assessment aspect. The changes were significant for aspects that needed just behavioral adaptations, but for those who needed more pedagogic knowledge and skills, the changes were minimal. Regarding constraints in formative assessment practice, the teachers cited large class sizes and lack of teaching materials as common ones. However, when provided with the opportunity to acquire teaching materials, they did not effectively utilise the opportunity. The study revealed a need to acquire inquiry skills by the teachers, which can serve as a platform for implementing formative assessment. Another implication of the findings is for teacher



professional development to be ongoing and classroom-based, providing teachers with opportunities to experience and try new teaching methods.

#### **2.6.4. Namibia**

Marongwe (2013) conducted a study in grade ten mathematics in the Oshiko region of Namibia. The topic of the study was: An inquiry into the formative, summative assessment procedures, and perceptions thereof, of grade ten mathematics teachers: a Namibia case study. The study was structured in a case study, and two methods were used a qualitative and quantitative approach. A grade ten final examination average marks of the junior secondary schools were used for data generation. Three teachers that teach mathematics and three principals of the schools were observed during the content and interviewed.

The study results showed that grade ten mathematics classrooms' formative assessment practice in Namibia schools is too far from ideal, and teachers are not fully equipped.

#### **2.6.5. Botswana**

Motswiri (2004) conducted a study with the teachers that teach science in secondary schools in Botswana and education officers. The topic of the study was: Supporting chemistry teachers in implementing formative assessment of practical investigative work in Botswana. Data were generated through document analysis, interviews, and lesson observations.

The study involved 27 science teachers and seven Education Officers. Teachers were randomly selected, while Education Officers were selected based on their close involvement with the science curriculum reform and implementation. The seven Education Officers included three from the Department of Secondary Education, two from Teacher Training and Development, and two from Curriculum Development and Evaluation.

The results of the study in the interview indicated the following:

- All teachers were relevantly trained with at least a first professional college degree in chemistry education. Instruction was largely teacher-centered, with much time spent

lecturing, often with the closed question and answer exchanges, emphasising memorisation and recall rather than problem-solving and creativity.

- Resources in terms of equipment in most senior secondary school laboratories were often adequate for implementing practical work investigations in groups. However, laboratory space facilities were not often conducive to group activity.
- Group work activities were used routinely as a strategy to achieve equity in the use of equipment rather than as a social group to encourage effective learning that would encourage the learner-centered practice
- Students' involvement in the practical work was relatively high but was often nullified by a lack of reflection on the process and product.
- Teachers believed that the practical work activities, mostly 'hands-on' rather than 'minds-on, and characterised by ready-made, step-by-step experiment procedures that did not require much thinking, were learner-centre and represented practical investigative work. That is, the procedure (given by the teacher), experimenting (with apparatus and set-up already revealed), generation of results (in a manner pre-indicated to students), analysis of data (also in a manner pre-revealed to students).
- Most teachers believed that they achieved formative assessment practice merely by engaging students in question-answer activities as part of lesson introduction and conclusion. They also believed their strategies

The findings of the study's observation described concerning resources in terms of science apparatus indicated that the labs were generally inadequately resourced. However, basic equipment was available in quantities that could support the initiation and promotion of a learner-centred teaching approach, albeit with some potential challenges. A major resource limitation that was identified included lab space. The amount of work space and spatial arrangements of furniture made learning environments such as group work difficult to implement. A complete list of challenges presented by the context of the implementation of science innovation in Botswana included the following:

- Large classes of students (official 35) of varying abilities;
- Limited laboratory preparation and working space;

- Limited or non-existent laboratory technical personnel;
- High teacher turnover with a loss of experienced staff each year;
- Teacher-centred approach to teaching characterised by chalk and talk;
- Inadequate preparation of teachers in terms of educational philosophy behind their forms and the expected changes and the knowledge and skills to effect change;
- Decisions in reforming the high-stakes assessment procedures.

Gatsha (2010) conducted a study. The topic of the study was: Perceptions and experiences on formative assessment of secondary school courses delivered through Open and Distance Learning in remote settlements of Botswana.

This study aimed to assess how distance and open learning methods and formative assessment processes enhanced the academic performance of remote distance learners. The Botswana Examination Council examines all secondary school courses, including those delivered through Open and Distance Learning modes. The questions that arise are; what types of formative assessment are given to remote distance learners? How have remote distance learners perceived and experienced the formative assessments during their distance learning? A qualitative case study approach was used.

The findings of this study were that formative assessment was very good, difficult, easy, and inadequate. All learners experienced a delay in assessment feedback. Assessment and evaluation issues were also cited as inadequate, and learning support through assignment assessment was viewed as inadequate. Hopelessness and fear of failure characterised most participants. However, the official records of pass rates in the four courses indicated that something was working despite the distance learner perceptions. This paper has suggested effective learning support through formative assessment of secondary school courses delivered through ODL.

## **2.7. South Africa**

Bhoola (2013) conducted a study with four teachers in the township of Soweto in South Africa. The topic was case studies of formative assessment practices: grade four English language

teachers' practices understanding and experiences. Within the case study method, data was generated through observation, interview, and document analyses.

The study showed that three out of four teachers were unsure and lacked the skills to effectively use the evaluation criteria and instructional context. The teachers showed that their conceptualisation of transmission of the evaluation criteria their framing was too weak. Those three teachers were trained in South Africa. One of the teachers was trained during the Apartheid Era and while the other two teachers were trained in the post-Apartheid period. Then the fourth teacher was a Zimbabwean and was also trained and educated in Zimbabwe. He explained and practiced formative assessment to a very great extent compared to the other three teachers.

Mkhwanazi (2014) conducted a study with the University of Pretoria. The study was qualitative and a case study of seven teachers from four primary schools in Mpumalanga teaching grade four in SiSwati as their mother tongue. The topic was: Teachers' use of formative assessment in reading comprehension in grade three. A case study was used, and teachers and learners were involved in the classroom context to collect data.

The study results revealed that participating teachers lacked knowledge of formative assessment. They did not plan to use formative assessment to support the teaching of reading comprehension. Teachers were not able to communicate their learning objectives and assessment criteria with the learners. As a result, learners did not know what they should achieve in a lesson and didn't know how to achieve it. Teachers did not provide constructive feedback based on the learning objectives. Teachers did not encourage learners to assess their work or that of their peers. That results in learners not developing the skills of assessing their work, so they rely on the teacher's assessments.

Furthermore, teachers were not trained in the teaching of and formative assessment of reading comprehension. They did not have a variety of materials to teach reading to siSwati-speaking learners. Some of the schools did not receive the workbooks from the department of education. So, they had to do copies from the DOE workbook daily.

Kuze and Shumba (2011) conducted a study. The topic of the study was: An Investigation into Formative Assessment Practices of Teachers in Selected Schools in Fort Beaufort in South Africa. The study sought to investigate how teachers implemented Formative Assessment (FA) practices in Grade 9 Technology classrooms in the Fort Beaufort district. One Grade 9 learner class was purposively chosen because of the time they had spent on the programme.

A sample of 5 teachers and 25 learners were selected from the five schools used in this study. The investigated learning area was Technology. Data were generated from the participants using in-depth interviews, observations, and documents on assessment. Data were analysed using themes and descriptive statistics in this study. These themes were decoded into smaller sub-themes under each main theme. The study found that teachers had no knowledge of implementing Formative Assessment in their classrooms and had a negative attitude towards it. Practitioners need to be re-trained on how to implement the Formative Assessment policy in schools.

## **2.8. Conclusion**

In conclusion, the literature reviewed supports the fact that if teachers' conceptions of formative assessment subject matter and other sub-concepts under it can be influenced rightly to influence their perceptions of the concept in that direction, teachers' formative assessment practices will also be informed rightly. The outcome may be the improvement in teaching and learning. The purpose of formative assessment is to help teachers aim at the instruction that meets specific learning goals and objectives, supports students' learning, checks for growth, determines learning gains, and identifies strengths and weaknesses.

In the next chapter, I will discuss the methodology adopted in this study.

## ***CHAPTER THREE***

### ***RESEARCH METHODOLOGY***

#### **3. Methodology**

##### **3.1. Introduction**

In this chapter, I will describe the instruments and the process followed in conducting this research activity. I will provide details in this chapter on the different methods of data generation. I have used interviews to gather ‘in-depth, rounded and reliable data’ (Cohen et al., 2011). The data generation instrument is described, and the entire research design is discussed. I also discuss the issues of trustworthiness and reliability that I followed in this research study. This chapter will elaborate on the research design and methodology, ethical issues, limitations, data generation plan, sampling and validity and reliability, and data analysis.

##### **3.2. Research Design**

The research design is a plan of how the researcher systematically generates and analyses the data needed to answer the research questions (Cohen et al., 2011). This is qualitative research that was conducted in five different schools in the Mpumalanga Province. The research design in this study can be called a descriptive design in that it addresses what question (*What are primary school teachers’ practices of formative assessment?*). Furthermore, it uses the case study style of research. The design can also be described as exploratory since the study hopes to address the how question (*How do primary school teachers implement FA?*)

##### **3.3. Qualitative Approach**

In generating data on the formative assessment practices of teachers, I chose qualitative research. I did this because qualitative research allows people to actively construct their meanings of situations and make sense of their world (Cohen et al., 2011). Teachers, being human beings, are “deliberate, intentional and creative” in their actions. Hence, I found the qualitative research approach to be most appropriate for my study. The qualitative research approach considers the reality of being multiple and capable of sustaining multiple interpretations.

For this reason, I also selected a qualitative approach to understand the multiple realities and interpretations of primary school teachers’ formative assessment practices. From an

epistemological point of view, I found the qualitative research approach suitable since I wanted to focus on the subjective accounts of the teachers. The qualitative approach allowed me to understand the formative assessment practices of teachers through their own eyes. Methodologically my study fits the qualitative research approach since I researched with teachers in real-world settings with as little intrusiveness as possible (Cohen et al., 2011). The qualitative approach sits more comfortably than quantitative methods in this study since I have used the notion of the human-as instrument (Cohen et al., 2011).

A quantitative research design presents statistical results presented in numbers, while qualitative research presents the data as a narration using words Marongwe (2013). I used a qualitative research approach to generate data and have an in-depth understanding of the study. The qualitative research approach, however, also has its weakness. According to Marongwe (2013), qualitative research is context-bound, not universal. Furthermore, it only offers a holistic approach in which peoples' perspectives, insights, and experiences are considered by studying them and their context, but not what lies beyond them Nyambe (2015).

### **3.4. Interpretive Paradigm**

This study is based on an interpretive paradigm. According to Nyambe (2015) , interpretivism denotes “an approach of social life with an assumption that meaning of human action is inherent in action”. As such, the paradigm allows one to develop a deeper understanding of human action. (Cohen et al., 2011) add that “the main aim of an interpretive research is to provide a detailed description of the phenomenon and, if possible, to develop some explanation for it”. Nyambe's (2015) interpretive deals with human actions, so as a researcher, I chose the interpretive paradigm because I generated the data using the interview and the observation tools. Through these instruments, I attempted to deal with human actions. The interpretive paradigm has helped me in making some of the conclusions.

Marongwe (2013) stated that the researcher could use human perceptions, behaviors, and attitudes to explain how the observable outcomes came about through the interpretive paradigm. Therefore, this study has benefited the researcher since it was easier to make some conclusions by checking the human actions and the behavior and the attitudes of the participants.

Nyambe (2015) stated the role of the researcher in an interpretive paradigm as follows: The researcher attempts to capture data on the perceptions of local actors “from inside” through the process of deep attentiveness, of empathetic understanding, and suspending or “bracketing” preconceptions about the topics under discussion. Marongwe (2013) stated that the interpretive paradigm allows the researcher to use human perceptions, behaviors, and attitudes to explain how observable outcomes were generated while making meaning out of practice.

### **3.5. Case Study**

A case study style of research was adopted for this study. There are several research styles that I could have utilised in my study to fit in with the qualitative research approach and interpretive paradigm. Historical studies could have been used as a qualitative style. However, this would not have been appropriate, especially in comparison to a case study as a qualitative style. The case study was preferred over historical studies since case studies include direct observation and interviews with participants Yin (2009). I said in chapter one that my study on the formative assessment practices of teachers may prove to be beneficial to teachers, policymakers, academics at higher institutions of education, and parents (who, given the COVID-19 crisis, are becoming teachers). Hence the case study approach was found to be suitable since Bassey (1999) comments that “case studies in education can be conducted to inform decision making by policymakers, practitioners and theorists.” As mentioned earlier, the qualitative research approach maintains that there are multiple realities. The case study too allows for the acknowledgment of multiple realities:

A key feature of a case study is its rejection of a single reality; rather, there are multiple, multivalent realities operating in a situation, and the researcher’s view and interpretation is only one of many. Indeed, the researcher has a duty to address reflexivity and to address or report others’, for example, participants ‘views on the case in question (Chen & Andrade, 2018).

According to Nyambe (2015), a case study “is not a methodological choice but a choice of what is to be studied”. In the qualitative part of this study, the case under scrutiny was three purposefully selected Nkomazi west schools in the Ehlanzeni region of Mpumalanga, paying



attention to grade five Natural Sciences and Technology as a subject, as well as the teachers and principal of these selected school.

In this study, it was impossible to generate qualitative data from the entire Nkomazi west circuit schools in the Ehlanzeni region. A case study approach was also chosen as a research style for this study because it poses an advantage of producing context-dependent data that can be used as a foundation for learning instead of simply providing proof of the existence of a problem (Cohen et al., 2011). The theme of this research is to gain a more thorough understanding of formative assessment practices within the entire selected school context rather than simply an identification of problems. Against this background, the collective case study methodology was adopted to generate descriptive information that could help shed light on the causes of a phenomenon Nyambe (2015).

However, case studies are not without their weaknesses. Nisbet and Watt (1984) have argued that the results of case studies may not be generalisable, unless another researcher or researchers can see their application. They also caution that case studies are open to bias and may be subjective.

### **3.6. Sampling of participants**

Due to factors such as expense, time, and accessibility, to mention a few, a researcher is usually prevented from gaining information for the total population s/he wishes to study. To overcome these problems, a sample is selected based on similar characteristics to represent the entire population.

I used purposive sampling to select them based on proximity. My sample includes five participants, one from each school. A sample is a small group or subset of a larger population from which the knowledge gained represents the total population under study (Cohen et al., 2011). The participants were selected purposively based on their teaching Natural Sciences and Technology. I refer to them as Teacher A, Teacher B, Teacher C, Teacher D, and Teacher E. My sampling procedure is consistent with what (Cohen et al., 2011) indicate when they assert that purposive sampling is a feature of qualitative research. The cases are handpicked to be included

in the sample based on their typicality or possession of the particular characteristics being sought. My cases in the sample are the teachers of Natural Science and Technology in Grade five.

Furthermore, (Cohen et al., 2011) argue that purposive sampling, in many cases, is used to access ‘knowledgeable people’, i.e., those who have in-depth knowledge about particular issues, by virtue of their professional role, power, and access to networks, expertise or experience. I selected Natural Science and Technology teachers because of the same reasons. And also noted that none of them have less than five years of experience in teaching Natural Sciences and Technology. Their ages range between thirty and forty-five years and include one male teacher and four female teachers.

### **3.7. Data generation methods**

According to Murrays and Hughes (2008), research methods refer to the different ways in which data is generated and analysed. In my study, I used standardised open-ended interviews. There were several advantages of using standardised open-ended questions. Firstly, I prepared the questions in advance and asked all the participants the same basic questions in the same order (Cohen et al., 2011). This increased comparability of responses from the participants.

Interviews are the dominant method of data generation in qualitative research. The researcher obtains information through direct interchange with an individual or group that has been identified as possessing the knowledge the researcher is seeking Greeff (2011). This can also be regarded as a social relationship designed to exchange information between participants and researchers. Nyambe (2015) defines qualitative interviews as “attempts to understand the world from the participants’ point of view, to unfold the meaning of peoples’ experiences [and] to uncover their lived world before scientific explanations”. According to Nyambe (2015) , interviews are vital tools that help the researcher collect data from participants. I gained a detailed picture of the participant's experiences of the topic. Through interviews, I found out what the teachers do to implement formative assessment in teaching practices. For example, the teachers provided different tasks to the learners during and after the assessment.

I conducted five interviews with five purposively selected Natural Science and Technology educators, one from each school. I used qualitative approaches to elicit in-depth knowledge about the implementation of formative assessment by the participants. I preferred this data generation method because I would be present during the interview session; therefore, I could clarify my questions and even rephrase them to check more descriptive data. Furthermore, interviews are simpler because it is easier for an interviewee to talk than writing down lengthy responses in a questionnaire. I would be very cautious to avoid interviewer bias at all costs. The participants had consented to my request to use a tape recorder to capture the interviews by signing a declaration of consent.

Teaching Natural Sciences and Technology in grade five was one criterion for selection. The interviews with the sampled teachers helped me know whether these teachers conducted the formative assessment in their classrooms and informed me about the challenges that teachers experienced in implementing formative assessment during their lessons. Each interview session lasted more than one hour and was held where the participant was comfortable. Since we share the same profession with the participants, I did not anticipate any threat as far as the economic status of the researcher is concerned. Interview data are analysed in the following chapter.

### **3.8. Data analysis**

Graziano and Raulin (2010) state that data analysis is analysing and interpreting data to make meaning. The generated data were analysed using content analysis. The choice of content analysis was based on (Cohen et al., 2011). They noted that it is a useful method in qualitative research to analyze the contents of interviews or observation.

Maree (2007) and (Elo et al., 2014) state that content analysis enables the data to be condensed to concepts that define the phenomenon under study. According to (Elo et al., 2014), data analysis has three main phases: preparation, organisation, and results.

I conducted five interviews with five purposively selected Natural Science and Technology teachers, one from each school. I used qualitative approaches to elicit in-depth knowledge about the formative assessment practices of the participants.

In keeping with qualitative research, the data generated was textual as opposed to numerical. The data analysis in my study was a reflexive, reactive interaction between myself and the data Chen and Andrade (2018). I followed the procedure set out by (Cohen et al., 2011) to analyse the data.

#### Transcription

I transcribe the interview recording, noting the literal statements. Unfortunately, I was unable to detect non-verbal and paralinguistic communication.

#### Bracketing and phenomenological reduction

In my reading of the transcripts, I made every attempt to enter the world of each teacher interviewed. In the process, I tried to suspend as far as possible my meaning and interpretations.

#### Listening to the interview for a sense of the whole

This step required that I listen to the entire recording several times and read the transcription several times to provide a context for the emergence of specific units of meaning and themes later on.

#### Delineating units of the general meaning

I thoroughly scrutinised the verbal gestures to elicit the participant's meaning, crystallise and condense what the teacher said, and use the teacher's own words as far as possible.

#### Delineating units of meaning relevant to the research question

After I had extracted the general meaning from the teachers' responses, I began to reduce them to units of meaning relevant to the research questions.

#### Eliminating redundancies

I created a table of the responses to get a global view of the interview transcripts. This allowed me to check the table for relevant meaning and to eliminate the redundant statements.

Clustering units of relevant meaning

I then proceeded to determine if any of the units of relevant meaning naturally cluster together; whether there seems to be some common theme or essence that unites several discrete units of relevant meaning.

Determining themes from clusters of meaning

I examined all the clusters of meaning to determine if there is/are one (or more) central theme(s) that expresses these clusters' essence.

Writing a summary of each interview

I went back to the interview transcription and summarized it, incorporating the themes elicited from the data.

Composite summary

I then wrote up a composite summary of all the interviews to capture the phenomenon's essence (formative assessment) being studied, as experienced by the participants, noting relevant, individual differences.

### **3.9. Trustworthiness**

As equated with trustworthiness, validity is a characteristic that refers to the appropriateness of inferences, uses, and consequences that result from methods of generating assessment data (Cohen et al., 2011). In simple terms, validity refers to the extent to which something is sound or can be justified or trusted. Rosengren, Hartzler, Baer, Wells and Dunn (2008) argue that validity in assessment tasks refers to assessment tasks that measure the performance of the intended learning outcomes specified. I had piloted the data generation instruments to ensure the trustworthiness of the data I sought to generate. My research questions can justify the methods of generating data that I have selected in the study. I used interviews to ensure that the data I generated is a true reflection of what is happening in the sampled schools' Natural Science and Technology classrooms.

Validity refers to the extent to which a specific measurement provides data that relates to commonly accepted meanings of a particular concept. There are numerous yardsticks for determining validity: face validity, criterion-related validity, content validity, and construct validity (Cohen et al., 2011). Hill (2009) describes it as referring to the extent to which the research is trustworthy, sound, or justifiable.

The following measures were put in place to ensure the credibility of this study. I conducted interviews as the data generation instrument to thicken the data and strengthen my findings. I interviewed each teacher to determine the understanding, conceptions, and the practice of formative assessment. Validity in the interview was also achieved through face-to-face interviews with individual teachers on the same topic and posit the same questions to all the interviewees, using the same interviewing methods and analysing all the interviews in the same styles Hill (, 2009).

With all the combination use of measures, I attempt to improve trustworthiness and ensure the credibility findings. The selection of data generation methods is vital because appropriate methods elicit reliable data from the participants, among all the sources. Once the data that have been generated are reliable, it becomes conclusive that the findings also become reliable. Reliability, as equated with dependability in qualitative studies, refers to the ability to generalise from a sample to a domain, that is, the level at which something can be trusted (Cohen et al., 2011). The interview that I have used fits the purpose of the research activity as the type of my research questions determines them. So, the purpose of my study is to explore the formative assessment practices of teachers in selected primary schools in Nkomazi in South Africa that fit the data generation methods I have used.

### **3.10. Ethical considerations**

I requested permission from the University of KwaZulu-Natal (Edgewood Campus) by submitting the Research Proposal with the Ethical Clearance, which could help me observe all the ethical restrictions and regulations binding the scholarly research activities. As soon as I obtained the ethical clearance, I wrote a letter to the Principals and requested permission from the principals of sampled schools to conduct interviews with Grade Five Natural Science and

Technology teachers. My requests were in the form of consent letters. The principals gave me positive responses and advised me to negotiate with the teachers themselves.

Firstly, I made appointments with Natural Science teachers. Hence, explain what it was all about to alleviate all sensitivity and clear up misconceptions and confusion concerning the activity we were going to undertake with them. After we had met, I made formal requests to them to participate in the research activity. The requests were in the form of a consent letter. I pleaded with them (Natural Science and Technology educators) to sign the declaration of consent so that I could also feel secure with their voluntary participation in the research activity as per agreement with them and also made it clear to them that this whole activity is voluntary and they can stop anytime.

Bertram and Christiansen (2014) note that ethics is about people's good or poor behaviour. Given that research involves people, all researchers must heed the ethical codes governing their practices (Cohen et al., 2011).

The researcher received ethical clearance from the University of KwaZulu-Natal. Permission was obtained to conduct the study from the DoE, the circuit manager, principals of schools, and the grade four EFAL teachers interviewed by Lewis, Ritchie, Ormston and Morrell (2003). Silverman (2015) noted that participants have the right to be fully informed about what will happen in the project and to withdraw at any time. Informed consent includes voluntary participation, full information, competence, and comprehension Cohen et al. (2007). In other words, the participant must clearly understand the nature of the research project, be fully informed about what will happen, be responsible for decision-making, and participate voluntarily. The researcher explained the purpose of the study and ensured that no harm was done to the participants.

Two 45-minute face-to-face interviews were conducted (the first for an interview and the second for verification of the transcribed data) conveniently convenient to the participants. The researcher ensured that the functioning of the school was not disrupted in any way. The

participants were reminded of their right to withdraw should they feel uncomfortable Cohen et al. (2007).

The researcher explained that their anonymity and confidentiality and the school would be protected by using pseudonyms (Lewis et al., 2003); Maree (2007). All participants signed the informed consent form after its contents were clearly explained. The generated data will be stored in a safe and secure place for five years and will not be revealed to anyone at any stage (Lewis et al., 2003). The researcher also explained that the data would only be used for academic purposes and not be used against the school.

Anonymity and confidentiality were guaranteed because the questionnaires did not require participants to supply their names. Also, during the interviews, the participants were not asked to state their names. Babbie (2014) states that anonymity means that it should not be possible for any participants to be identified by anyone reading the study. This study ensured the anonymity of participants' identities was protected by the use of pseudonyms.

### **3.11. Limitations of study**

Due to limited time, funding, and the scope of the research, the study was limited to the Nkomazi west circuit, and there are other circuits based in the Ehlanzeni region. Should funding have been allocated, research in the other circuits under Ehlanzeni would have helped provide a full picture of teachers' implementation of formative assessment. The study was further limited by the situation at the schools, where I found that some of the selected schools have two teachers teaching Grades Five Natural Sciences and Technology. This put me where I had to choose only to interview one teacher, one per school.

### **3.12. Conclusion**

My study aimed to explore teachers' formative assessment practices in selected primary schools in Nkomazi in South Africa. Ethical issues were applied. Participants were protected and will remain anonymous. Some limitations of the study have been minimised for the progress of the study. The use of interviews to generate data is very important in a qualitative study like this one.



The chapter concluded by outlining the ethical considerations and measures to ensure the validity and reliability of the research.

In the next chapter, the data generated from observations and interviews will be presented.

## **CHAPTER FOUR**

### **PRESENTATION AND ANALYSIS OF DATA**

#### **4.1. Introduction**

Data analysis involves a process of “classifying data, making connections between and among categories of data and conveying the message/write up Baptiste (2004). In this chapter, I present the data arising from the analysis, which are organised under each research question. I also make use of literature to deepen our understanding of the findings.

I familiarized myself with the data and looked for the main themes and classification of the data Baptiste (2004). After coding the data and putting them into themes, I interpreted and organised the data to arrive at the conclusion Baptiste (2004) .

The data was generated through individual interviews conducted with five teachers from five different schools. The data was used to answer the following two research questions:

- What is primary school teachers’ understanding of assessment?
- How do primary school teachers implement assessment?

#### **4.2. Primary school teachers’ understanding of assessment**

##### **4.2.1. Assessment is formal and informal**

The teachers indicated that assessment is both formal and informal and that assessment is used to determine the level of preparedness in learners.

*Teacher D: I think the assessment is when you assess learners either formally or informally, and it is when you check the level of understanding, you can assess the learner by marking their classwork, test, and all that.*

*Teacher C: Assessment is when we check the learner's understanding and that when we check the learner's readiness.*

Teacher D referred to formal and informal assessments. Formal assessments are data-driven. It could be a test or an assignment. Formal assessments are normally given after completing a section or at the end of the term. The formal assessments may be used to evaluate learners systematically. Informal assessments refer to day-to-day spontaneous observations and activities

in the classroom. Informal assessments may not have any specific plan. They are intended to learn about learners and how they proceed in school daily.

#### **4.2.2. Types versus forms of assessment**

There is a difference between types of assessment and forms of assessment. There are three types of assessment: diagnostic, summative, and formative. Examples of assessment forms are presentations, peer assessments, self-assessments. Teacher B was not clear about the difference between types of assessment and forms of assessment. In response to a question on different forms of assessment, Teacher B said:

*Summative assessment and Formative assessment*

The remaining four teachers were able to list some forms of assessment.

*Teacher A: I use assignments, tests, projects, tests, and practical.*

*Teacher C: Classwork, homework, projects, and test.*

*Teacher D: Formal is when they write tests, exams that are recorded. Informal it is when you give the learners classwork to check the level of understanding.*

*Teacher E: Assignments, tests, examinations.*

According to Race (2001), the teachers must assess their learners' work. However, this may be not easy if the teacher does not know the different types and forms of assessment (as shown in the participant's responses above). Race (2001) continues that the teachers may choose any form of assessment to assess their learners, which is used in education. The assessment forms are examinations, essays, portfolios, project work, work-based learning, review and annotated bibliographies, self and peer assessment, and group work. All forms of assessment have limitations either on teachers marking or learners.

Furthermore, Burns and Sinfield (2012) indicate that assessment forms include assignment, observation of practice, practical assessment, presentation, reports, and reflective journal. Every assessment is very important to the learner. Given that assessment is one of the cornerstones of teaching and learning, teachers need to know that there is a difference between types (summative and formative) and forms of assessment and secondly, what the different forms of assessment are.

#### **4.2.3. Type of assessment**

All five teachers in the study struggled to explain what formative is. This is evident from their responses:

*Teacher A: It is when the teacher gives the learners some tasks to do*

*Teacher B: Formative assessment is another type of assessment*

*Teacher C: Formative assessment - I do not know how to say*

*Teacher D: Formative assessment is when you formally check the learners. I am not sure.*

*Teacher E: Formative assessment I think it is when the learners write their examinations and test.*

Based on the above responses from all teachers, it shows that teachers could not explain what formative assessment is. According to Hanna and Dettmer (2004), formative assessment is when a teacher provides feedback and information during the instructional process while teaching and learning take place. Once again, if a teacher's basic understanding of formative assessment is weak or non-existent, how will such a teacher effectively manage a formative assessment in the classroom? (Wydeman et al., 2008) further explain that formative assessment measures the learners' progress but can also assess the teacher's progress. Coetzee and Wyden are alluding to the importance of formative assessment, which the participants in this study are fuzzy about. Klute, Apthorp, Harlacher and Reale (2017) have argued that formative assessment is a process where teachers and learners gather, interpret, and use evidence about what and how the learners are learning to facilitate further learning during a short period.

#### **4.2.4. Formative assessment tests level of understanding**

The teachers were requested to explain the purpose of formative assessment.

*Teacher A: It is when as a teacher check if your learners understand what they have been taught*

*Teacher B: I am not sure*

*Teacher C: I am not sure about it*

*Teacher D: The purpose of formative assessment... you have to check the level of understanding, record the marks, and have them in writing and your records.*

*Teacher E: The formative assessment is when the teacher informs learners about the upcoming examination.*

Teachers A and D's responses concur with Master's (2015) view that the main purpose of formative assessment is to provide feedback for learning. Teachers C and B were not able to explain the purposes of formative assessment. Masters (2015) contends that feedback assists the teacher about how and where to modify the teaching program to meet the needs of one or more of their learners. Based on the responses from the participants, they all struggle to explain the purpose of formative assessment.

### 4.3. Primary school teachers' implementation of assessment

#### 4.3.1. I think I do use formative assessment in my classroom

The teachers were asked if they do use formative assessment in their classrooms. Their responses are summarised in the table below:

**Table 4.1. Use of formative assessment in the classroom**

Do you use formative in your classroom?	Response
Teacher A	Yes, I do
Teacher B	Yes, I do
Teacher C	Have to explain! No, yes – I am not sure
Teacher D	I think I do
Teacher E	Yes, I do.

The participants were asked as to how they implement formative assessment

*Teacher B: I do give the learners the investigations*

*Teacher C: I am not sure*

*Teacher D: In the classroom, I have different learners, so some learners learn by hearing, seeing, which is the visuals and so in my grade five most of them the learners learn by seeing so I develop charts, and I bring along really life objects in the classroom, some of them learn the best when they can see the real objects.*

*Teacher E: I give the learners test, tasks, examinations*

The responses above indicate that teachers in my study struggle to implement the formative assessment. Master (2015) argues that teachers need to have a deep understanding of the curriculum and a sequence of learners' learning for teachers to implement the formative assessment. Knowing the curriculum includes having a thorough knowledge of assessment.

Teachers have high expectations of their learners and design and modify the learning program as part of a continual process based on its feedback. The teachers in this study may fall far short of the assertions made by Master (2015) since they do not have a clear understanding of the types and forms of assessment.

#### **4.3.2. Apparent lack of training to implement assessment in the classroom**

The teachers have not yet attended any training based on formative assessment. When the teachers were asked what training, they received in the implementation of formative assessment, they responded by saying that they had not attended the training.

According to Alanazi (2017), in Saudi Arabia, some primary school teachers attended a training programme based on formative assessment. Alanazi (2017) research showed that after the training, teachers were able to implement formative assessment successfully, and it brought positive change to their teaching and learning and the findings indicated that the teachers adopted various strategies of formative assessment, which included sharing learning goals, open questions, assessment-based evidence, and teacher-child classroom dialogue. Based on an argument made by Wylie, Lyon and Goe (2009), taking the formative assessment to teachers has brought so much change in such that the teachers find formative assessment as a very simple tool to use every day because most of their learners were so impressed and more involved during their teacher and learning which makes the teaching and learning process easier and very interesting.

#### **4.4. Factors that inhibit implementation of formative assessment**

##### **4.4.1. Overcrowding in classroom**

The teachers were asked to explain any factors that inhibit the implementation of formative assessment in their classroom. Teacher B, D, and E mentioned that there is overcrowding in their classrooms for example

*Teacher B: Overcrowding and lack of apparatus*

*Teacher D: Can you explain the work inhibits for me please- right inhibits it is a barrier that affects the implementation -the barrier that I have is the overcrowding I cannot walk around the classroom while teaching, I have to stand in front since these learners are*

*fully packed in the classroom. Another barrier is that I have about two learners that are deaf. Every time I speak to them, I have to make sure that I keep eye contact so that they can read my lips and my eyes.*

*Teacher E: Yes, during the examination time, it is not easy to conduct the examinations due to the overcrowding, and also, we do not have enough classrooms to let the learners write in a good environment.*

When the teachers were asked to explain any factors that inhibit the implementation of formative assessment in their classroom, Teacher D explained that learning barriers inhibit formative assessment implementation. For example

*Teacher D: The barrier that I have is the overcrowding. I cannot walk around the classroom while teaching. I have to stand in front since these learners are fully packed in the classroom. Another barrier is that I have about two learners that are deaf. Every time I speak to them, I have to make sure that I keep eye contact. So that they can be able to read my lips and my eyes.”*

All five schools have new buildings built during the early years of a decade, but overcrowding in these four schools is a challenge that hinders the implementation of formative assessment during teaching and learning. It is a serious problem for teachers to move through the groups and give individual attention to learners due to overcrowding. Each group consists of more than nine learners in all classes, and each classroom consists of more than eighty learners in all five schools. This hinders the teachers from efficiently reaching all learners and limits the number of assessment tasks to only the prescribed ones. It takes a longer time for the teacher to mark each task. And regular constructive feedback is not met in the process. Poor implementation of formative assessment is further encountered by the fact that each school has four Grade five sections, which makes it difficult to render formative assessment to all individual tasks within the projected time frame. According to Meador (2018), overcrowding means a lack of physical space in the classroom, limiting the forms of assessment to tests and assignments. None of the schools I researched has a laboratory, which contributes to the problem of space that is conducive to the teaching and learning of Natural Sciences and Technology and the completion of practical projects as planned in the teachers’ work schedules. This discourages Natural Science and Technology teachers from assigning tasks in the form of practical as they would not

be efficiently done and produce valid and reliable results. Even if a practical has been given to a group, it does not provide a valid result because not all learners partake equally in its conclusion. Others look on passively and end up doing nothing at all. Tasks that are supposed to be done at home do not receive the necessary attention from the learners.

Meador (2018) argues that overcrowding causes ‘a pedagogic dilemma’. This dilemma comes from the incompatibility between the policy and practice. In the new curriculum dispensation, the education authorities are very cautious about teacher-learner proportions. According to the (South Africa. Department of Basic, 2011) post provision Norm, PPN (determines the number of teachers against the number of learners in a school. This practice emanates from the provisions of the Employment of Educators Act No. 76 of 1998 (RSA, 1998), which focuses on the equitable distribution of both human and material resources. The fluctuations of enrolments influence consequent to this Act, staffing of teachers. The more learners a school enrolls, the more teachers get employed or retained in their respective posts in that particular school. Therefore, schools have developed a tendency to enroll more learners than necessary to keep their teachers employed in those sites. This causes a dilemma because teachers are caught in a difficult position where they have to keep enrolments high to maintain their employment. They sacrifice their classroom capacities to retain their posts. This practice eventually leads to overcrowding that hinders pedagogic interaction between teachers and learners. It is no surprise that all the respondents complained about high enrolments in their classrooms, ranging from eighty-five to ninety learners in each classroom. Meador (2018) says that congestion in the classroom does not only have managerial problems but also has functionality problems. Formative assessment also suffers because individual attention cannot be efficiently given to all learners in large classes.

#### **4.4.2. Inhibiting environment and lack of resources**

When the teachers were asked to explain any factors that inhibit formative assessment implementation in their classroom, Teacher A and teacher E both explained that their learners lack a good learning environment. For example

*Teacher A: There is not enough furniture*



*Teacher E: Yes, during the examination time it is not easy to conduct the examinations due to the overcrowding and also, we do not have enough classrooms to let the learners write in a good environment*

Ngwenya (2012) argues that many schools still experience the same lack of teaching and learning material. The scarcity of resources hinders classroom activities like completing the projects, conducting experiments in Natural Science and Technology. Nevertheless, the Department of Education has put more effort into addressing this problem by introducing packages in Norms and Standards for public schools under the Section 20 category. This allows schools to requisite items they require from the department. These items range from purchasing furniture and stationery to paying electricity, water, and security services bills. The problem lies with the delivery of these services. When I enquired from Teacher A about the efficient delivery of items requested from the department's Norms and Standards section, she said the requested items were either not delivered or delivered too late. It is common in all researched schools that few or no items will reach the schools whenever some items have been requested from the department through Norms and Standards. Even if they do reach their destinations, they are not delivered timeously. However, Teacher C indicated some improvement concerning the delivery of materials for the forthcoming year in his school as it was delivered before the new academic year, 2019, began. All sampled schools fall within the Section 20 category of schools and therefore charge school fees from parents of learners enrolled. These schools cannot rely on the schools' fees because most parents do not pay the fees as expected. Non-payment of school fees causes a lack of funds to help purchase teaching and learning materials. Lack of resources negatively impacts the teaching and learning activities since a teacher needs to explain or describe unknown concepts or processes without reference to any model or facilitative device to help reinforce understanding in learners' cognitive processes. This also negatively impacts the implementation of formative assessment as it leaves no better option to describe or explain abstract concepts and processes. As a result, teachers do not often apply for formative assistance because they spend most of their time explaining processes and concepts. Though the teachers in this study partially attributed the non-use of formative assessment in their classrooms to a lack of resources, I cannot condescend to their perception. Formative assessment merely requires teachers to sequence their instructional activities in a meaningful way, in line with the pre-set learning outcomes and assessment standards. A teacher is then required to provide continuous

feedback and constructive assistance to the learners on the work that they have done. This does not have much to do about the availability of resources in particular.

#### **4.5. Challenges in implementing formative assessment**

##### **4.5.1. Insufficient feedback is given to learners**

When teachers were asked to explain the challenges, they experienced in providing formative assessment feedback to the learner, teachers A, B, and C believed their learners had a negative attitude towards the feedback. For example

*Teacher A: Their attitude in most cases they believe that you are not fair and they deserve better*

*Teacher B: Their attitude sometimes others will be busy playing and making noise while I teach.*

*Teacher C: Some learners do not participate.*

Nyawara (2011) argues motivation of learners to complete assessment tasks is a cornerstone for effective learning. Giving constructive feedback motivates learners because once feedback is given, learners understand their tasks deeper than before. Even those who could not complete tasks are encouraged to complete them because they know what to do. Learners who carefully complete their tasks can accumulate continuous assessment marks to make them progress to the next grade. If they cannot complete the tasks, they will not be able to collect sufficient marks for progression because of the tight programme in school. During my observations in his classroom, I also witnessed when the teacher was returning the learners' tests exercise books. He merely told the class that the performance was poor even though the year was nearing an end. He, nevertheless, cautioned learners about the possibility of repeating the class if they did not improve on the marks they already had. Those were his general comments regarding the class performance. There were no individual comments that could specifically indicate the areas of weakness that caused the individual learners to attain their marks. During the observation in the classroom, I could not witness any continuation of rendering feedback because the teacher introduced a new theme to the class. I assumed that the teachers were done with all the feedback strategies regarding the marked test and that no further comments would be made since she had started on a new theme. I was expecting more clarifications and descriptions of the features where learners were confused, but none took place.

#### **4.5.2. Excessive workload**

The teachers were asked to explain the challenges they experienced in providing formative assessment feedback in their classrooms. Teacher D mentioned that there is a lot of classrooms that He needs to teach in a day. For example

*Teacher D: I have 72 learners in grade 5 and other learners in other grades, which means that it is not easy for me to control the learners' work daily since there are many learners that I have to deal with in a day.*

According to Nyawara (2011), a study was conducted where the findings show that teachers' overload work hinders their performance. And even a teacher admitted that the overload of work contributes to low performance, and others accepted that the job overload negatively influences their performance. A study was conducted by Ayeni and Amanekwe (2018) where the findings show that teachers in a public school have so much workload compared to private schools, and the overload affect their performance very negatively since they perform badly because they need so much time to control their learners' books, task and again to teach so many classes. Overloading it is a challenge for the teacher.

#### **4.5.3. Learners' absenteeism**

When teachers were asked to explain the challenges, they experienced in providing formative assessment in their classroom, teacher E raised the issue where some of the learners were absent during some of their tasks. For example

*Teacher E: Some of the learners do not write their examinations and test due to their level of absenteeism at schools.*

According to Otto (2016), the issue of learners being absent in schools is a very serious problem when a learner is not at school. The learner will not be able to do some of their tasks due to being absent. Coetzee and Venter (2016) argues that learner absenteeism often occurs involuntarily due to the learner's social and economic circumstances, but not withstanding that there is a fact worldwide that is trending towards the challenge of absenteeism since it is a challenge on its own to teachers. Based on a study conducted by (Weideman et al., 2007), absenteeism contributes to poor performance. The causes of learner absenteeism at schools differ based on the learner, including the following: the socio-economic factors concerning food insecurity, problems with transport to school, the impact of HIV\AIDS on children and families, teenage pregnancy, and

situations of child labor. Other causes are based on personal factors which includes the following such as illness, age, gender and learning difficulties.

#### **4.6. Conclusion**

Data generated were analysed. The analysis revealed that participating teachers lacked information on formative assessment, including the understanding of assessment, forms of assessment, types of assessment, types of assessment, the purpose of formative assessment, and the implementation of formative assessment.

In the final chapter, the findings presented in this chapter will highlight the contribution to the knowledge about assessment. I will also formulate the recommendations flowing from the findings to address the implementation of formative assessment.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1. Introduction**

In chapter four, I presented the findings obtained from the interview data. The data analysis was guided by my research focus and the relevant literature that I consulted.

The data from the interviews indicated that all five teachers could not share their understanding of formative assessment. Three teachers were unable to elaborate on what formal and informal assessment was.

In this chapter, I attempt to interpret the findings presented in chapter four. I conclude the chapter by making recommendations that I think may be beneficial to the Mpumalanga Department of Education, Heads of Department (HODs) in the intermediate phase, teachers in the intermediate phase, and teacher training institutions. The contribution of this study to teachers' formative assessment practices and possible future research are also discussed in this chapter.

#### **5.2. Summary of the study**

In this section, I present a summary of the study. In chapter one, I discussed the background to the study, the purpose of the study, and presented the research questions (*What are primary school teachers' understanding of assessment? How do primary school teachers implement assessment?*). I also provided a brief discussion of the methodology.

Chapter two provided a review of the literature relevant to the study on teachers' formative assessment practices. The literature reviewed supported the idea that teachers' conceptions of formative assessment subject matter and other sub-concepts under it may positively influence teachers' formative assessment practices.

Chapter three was a discussion of the methodology utilised in this study. The study used the interpretive paradigm as the aim of this study was to understand the formative assessment practices of primary school teachers. A case study approach was chosen as a research style for this study because it posed an advantage of producing context-dependent data that can be used as a foundation for learning instead of simply providing proof of the existence of a problem (Cohen et al., 2011). I conducted five interviews with five purposively selected Natural Science and Technology educators, one from each school. I used qualitative approaches to elicit in-depth knowledge about the implementation of formative assessment by the participants. I also observed the five sampled Natural Science and Technology teachers in practice. The use of an observation schedule guided me and helped me focus on predetermined aspects of the lesson and the environment in which teaching and learning occur. Observations helped me determine the kinds of formative assessment strategies that teachers applied during teaching and learning.

In chapter four, I presented the study's findings, which came out of the data generated. The findings indicated that teachers struggle to practice formative assessment.

### **5.3. Findings summarised**

#### ***5.3.1. What is primary school teachers' understanding of assessment?***

The theme of the above research question was that the primary school teachers' in this study had a limited understanding of formative assessment. All five teachers failed to explain what formative assessment is. And they also failed to mention the purpose of the assessment. The teachers found it difficult to explain how they implemented the formative assessment. The teachers mentioned that several factors hinder the implementation of formative assessment. These factors were: lack of apparatus, overcrowding, and lack of resources within the school. The teachers in my study are similar to those conducted by Riley (2014) who found that teachers' belief of formative assessment is incomplete. A study conducted by Higgins, Grant and Thompson (2010) concluded that teachers found formative assessment to be a tool to waste time in the classroom. It seems that the teachers in my study are simply going through the motions as far as formative assessment is concerned. This is evidenced by their inability to engage in the concept of formative assessment. Teachers everywhere need to understand that formative assessment needs special understanding. Head of Schools and education departments

too need to support formative assessment efforts in schools. As a future research recommendation, it would be useful to have a study conducted on support offered to teachers to implement formative assessment in schools.

There is a great danger if teachers are left on their own as far as implementing formative assessment is concerned. There might be a negative effect on learners' performance. In this regard, Khairani and Shamsuddin (2016) has warned that teachers who have no or limited understanding of formative assessments may believe that formative assessment is related to continuous assessment. However, in reality, formative assessment is not a continuous assessment. Janeth, Kisilu, Chumba and Speck (2019) found that in most schools, the teachers and administration understood formative assessment as a continuous assessment test and not a process used by teachers and learners during instruction that provides feedbacks to adjust on going teaching and learning to improve learner achievement of intended instructional outcome.

### ***5.3.2. How do primary school teachers implement assessment?***

The implementation of formative assessment was a challenge for the teachers in my study.

Firstly, they all claimed not to have received any training or support for the implementation of formative assessment. (Ní Chróinín & Cosgrave, 2013) researched teachers who did not attend any training based on formative assessment. The Chroinin and Cosgrave study further explained that formative assessment is very complex and time consuming. For teachers to successfully implement formative assessment, support in the form of training is crucial. Tazewell (2018) worked with teachers who shared stories of how they collaborated with their peers in implementing formative assessment and described specific professional development that they received. Both their work with peers and the training they received supported the formative assessment practice. During the training, they learned how to teach and set activities that include the implementation of formative assessment. According to Vingsle (2014), formative assessment is a very difficult task and complex process to be followed by teachers, especially teachers who have not yet attended any training about formative assessment. And again, the teachers need to be provided with proper resources in their various classrooms to implement the formative assessment.

They also cited over-crowding in the classroom and lack of resources as factors that inhibit the implementation of formative assessment in the classroom. As far over-crowded classroom goes, Kidane (2012) indicates that large class size is one of the major challenges during the implementation of formative assessment.

My study also found that the negative attitude of learners also impacts formative assessment implementation to feedback and excessive workloads carried by teachers. The study's finding conducted by Quyen and Khairani (2017) indicated that implementing formative assessment can be time – consuming and demanding. Kenyon (2019) also found that time is part of the barriers that inhibit the implementation of formative assessment.

In summary, my study has reconfirmed the literature that implementing formative assessment was negatively impacted by inadequate teaching, lack of learning materials, and the difficulty with the availability of appropriate teaching and learning materials, especially since the introduction of CAPS in South Africa. My study has shown that teachers need much support in the form of learning materials and equipment.

The findings in my study also match that of (Janeth et al., 2019), who concluded that the low utilisation of formative assessment resulted from a lack of teachers' understanding and awareness of formative assessment. My study seems to support anecdotal information that teachers in South Africa inconsistently use formative assessment, lack knowledge, and skills on formative assessment, have poor attitudes towards formative assessment, and lack support in terms of the head teacher support. The introduction of the CAPS curriculum has impacted the implementation of formative assessment since the time to plan for formative assessment is over powered by the emphasis on an exam-oriented curriculum dictating completion of syllabus on time. One of the emerging findings of my study is that there is a need to understand learners' context for the effective utilisation of formative assessment.

It would seem as though teachers in my study are similar to those in a study conducted by Ngwenya 2012 where teachers may have been able to articulate their understanding of formative



assessment, but when observing their practices, it was found that there was difficulty in implementing their understanding.

#### **5.4. Contribution to knowledge about assessment**

From the interview data, I could conclude that the participants face so many difficulties in implementing formative assessment in their classrooms due to the number of challenges they face daily. The challenges include lack of training in formative assessment, excessive workload, learners' absenteeism, inhibiting environment, lack of resources, and overcrowding classrooms. I also realised that there is a lack of understanding concerning the use of formative assessment in using various strategies that sometimes they do not need the use of available mentioned aspects

#### **5.5. Recommendations**

Based on the findings of my study, I would like to recommend the following:

- Schools and districts need to play their vital role in investing in a high-quality, sustained formative assessment professional to develop programs for teachers to make this comprehensive approach work in the classroom Pinchock and Brandt (2009). The Department of Education in Mpumalanga should train teachers on forms of assessment and types of assessment. They should also provide teachers with relevant resources at school.
- There is a need to reallocate resources to ensure that teachers have concentrated time and support to build their knowledge of implementing formative assessment in their daily lessons. They cannot do it without the supportive culture and network to reinforce best practices Pinchock and Brandt (2009).
- Teachers need to play their role to be lifelong learners since the system changes through them empowering themselves. It can be easier for them to understand new theories and new ways within their system Clark (2012). According to the Curriculum and Assessment Policy Statement, the teacher should be a life-long learner (South Africa. Department of Basic, 2011). The teachers should be fully responsible for their learning. It should be their responsibility to enroll at any institution to learn more about the changes and theories that can take place within the education system.

- Higher education institutions should develop a module on assessment and implement the formative assessment. This module should include practical work on implementing formative assessment and the whole theory of formative assessment.

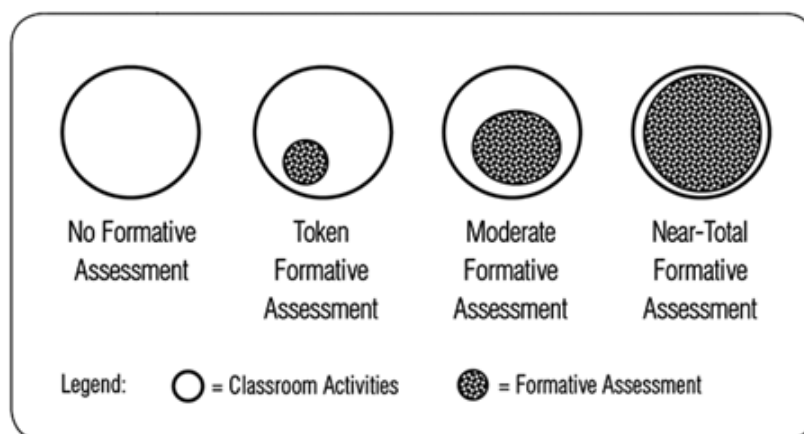
## 5.6. Conclusion

The finding of this study indicates that teachers lack the knowledge and skills about the implementation of formative assessment. By conducting this study, I wanted to know how teachers implement formative assessment in their classrooms and what hinders the implementation of formative assessment. Formative assessment is required if teachers want to ensure that learners are learning. An Austin teacher (Kristy Hobart) once remarked

*I can stand up there and spout stuff all day long. If I don't do anything to figure out who's getting it and who isn't before it is too late, then we have a problem".*

This study has reminded me as a teacher that formative assessment is fundamental to good teaching. The teachers in my study have not fully grasped the idea that formative assessment is a planned process. It requires teachers to understand that formative assessment plays an important role in education but that it is not the process itself. In this regard, Popham (2008) reminds us that “the assessment procedures designed to generate this evidence are an indispensable element of the process.”

**Figure 1.1. Illustrative Proportions of Formative Assessment in Classrooms**



The figure above, taken from Popham (2008), reveals the proportion of formative assessment that might feature in any classroom. The empty circle on the left of the figure is a classroom where assessment focuses on grading rather than improvement. The teachers in my study are most likely to fall in this category since they employ plenty of classroom assessment but almost zero formative assessment (this is evidenced by their inability to define assessment and formative assessment). While we do not want classrooms to be like the circle on the extreme left, we also do not want classrooms to be like the circle on the extreme right where there is an overdose of formative assessment.

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## A. ETHICAL CLEARANCE



02 August 2016

Ms Thobeka F Nslingane 215080006  
School of Education  
Edgewood Campus

Dear Ms Nslingane

Protocol reference number: HSS/1077/016M

Project title: Formative assessment practices of Teachers in selected Primary Schools in Nkomazi in South Africa.

### **Expedited Approval**

In response to your application dated 15 July 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have 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.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shamila Naidoo (Deputy Chair)

/px

cc Supervisor: Dr LR Mahara]

cc Academic Leader Research: Dr SB Khoza

cc School Administrator: Mrs B Bhengu-Mnguni, Mbalenhle Ngcobo, Philliswe Ncayiyana, Tyzer Khumalo

Humanities & Social Sciences Research Ethics Committee

Dr Shemika Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3587/3504/557 Facsimile: +27 (0) 31 260 4609 Email: [shemika@ukzn.ac.za](mailto:shemika@ukzn.ac.za) / [scymkrm@ukzn.ac.za](mailto:scymkrm@ukzn.ac.za) / [mbhengu@ukzn.ac.za](mailto:mbhengu@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



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## **B. LETTERS OF CONSENT**

Dear Sir/Madam

### **RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AT .....**

I am a master's in education curriculum studies student at the University of KwaZulu-Natal. My intention is to conduct research with a Natural science and Technology teacher at Sihlangu Primary School about their formative assessment practices. My research topic is:

### **FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA**

The aim of the research is to gain better understanding of how teachers conduct assessments in the primary school environment, and to what extent assessments are used to further enhance the process of teaching and learning.

Only one teacher from your school will be interviewed, and the interviews will be tape recorded. Classroom observation will also be conducted. I will also need to look at documents of teachers and learners that are used in assessments. Data collected will be confidential and will only be used for the purpose of the study.

Please note that the names of the teacher will not be identified in the findings. I will use pseudonyms to ensure anonymity and confidentiality. The teacher is free to withdraw at any time. Participation is voluntary.

Please find attached an interview schedule that will be used during the interview process as well as the copy of the research proposal that outlines procedure of the research.

Your response in this regard will be highly appreciated.

I can be contacted at:

Cell. No:

076 569 9858

E-mail:

[thobekansingwane@yahoo.com](mailto:thobekansingwane@yahoo.com)

My supervisor is Dr L R Maharajh who is located at the School of Education, Edgewood campus of the University of KwaZulu-Natal. His contact details are:

Telephone: 031 260 3829

E-mail: [maharajhlr@ukzn.ac.za](mailto:maharajhlr@ukzn.ac.za)

You may also contact the research Office through:

Ms Phumelela Ximba

HSSREC Research Office

Tel: 031 260 3587

E-mail: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za)

Yours sincerely

Thobeka Faith Nsingwane

Dear Sir/Madam

**RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AT**

.

I am a master's in education curriculum studies student at the University of KwaZulu-Natal. My intention is to conduct research with a Natural science and Technology teacher at Kwalodakada Primary School about their formative assessment practices. My research topic is:

**FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA**

The aim of the research is to gain better understanding of how teachers conduct assessments in the primary school environment, and to what extent assessments are used to further enhance the process of teaching and learning.

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Your response in this regard will be highly appreciated.

Yours sincerely

Thobeka Faith Nsingwane

Dear Sir/Madam

**RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AT....**

I am a master's in education curriculum studies student at the University of KwaZulu-Natal. My intention is to conduct research with a Natural science and Technology teacher at Phindela Primary School about their formative assessment practices. My research topic is:

**FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA**

The aim of the research is to gain better understanding of how teachers conduct assessments in the primary school environment, and to what extent assessments are used to further enhance the process of teaching and learning.

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Your response in this regard will be highly appreciated.

Yours sincerely

Thobeka Nsingwane

Dear Sir/Madam

**RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AT**

I am a master's in education curriculum studies student at the University of KwaZulu-Natal. My intention is to conduct research with a Natural science and Technology teacher at Ndlavela Primary School about their formative assessment practices. My research topic is:

**FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA**

The aim of the research is to gain better understanding of how teachers conduct assessments in the primary school environment, and to what extent assessments are used to further enhance the process of teaching and learning.

Only one teacher from your school will be interviewed, and the interviews will be tape recorded. Classroom observation will also be conducted. I will also need to look at documents of teachers and learners that are used in assessments. Data collected will be confidential and will only be used for the purpose of the study.

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E-mail: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za)

Your response in this regard will be highly appreciated.

Yours sincerely

Thobeka Nsingwane

Dear Sir/Madam

**RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH AT....**

I am a master's in education curriculum studies student at the University of KwaZulu-Natal. My intention is to conduct research with a Natural science and Technology teacher at Mzinti Primary School about their formative assessment practices. My research topic is:

**FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA**

The aim of the research is to gain better understanding of how teachers conduct assessments in the primary school environment, and to what extent assessments are used to further enhance the process of teaching and learning.

Only one teacher from your school will be interviewed, and the interviews will be tape recorded. Classroom observation will also be conducted. I will also need to look at documents of teachers and learners that are used in assessments. Data collected will be confidential and will only be used for the purpose of the study.

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Your response in this regard will be highly appreciated.

Yours sincerely

Thobeka Nsingwane

### C. Interview questions

TOPIC: FORMATIVE ASSESSMENT PRACTICES OF TEACHERS IN SELECTED PRIMARY SCHOOLS IN NKOMAZI IN SOUTH AFRICA.

#### A. BIOGRAPHICAL DETAILS

1. Age Group:

0-19	20-29	30-39	40-49	50-59	60+
1	2	3	4	5	6

2. Gender:

MALE	FEMALE
1	2

3. Marital Status:

SINGLE	MARRIED	DIVORCED	WIDOWED
1	2	3	4

4. Education:

5.1	Matriculation	
5.2	Diploma (Specify)	
5.3	Undergraduate (Specify)	
5.4	Postgraduate (Specify)	
5.5	Other (Specify)	

5. Number of years teaching:



0-19	20-29	30-39	40-49	50-59	60+
1	2	3	4	5	6

6. Grades currently being taught and subject:

Grade	One	Two	Three	Four	Five	Six	Seven
Subject							

## **B. PARTICIPANTS' UNDERSTANDING OF ASSESSMENT**

1. What is your understanding of the term "assessment"?
2. What are the different forms of assessment that you are familiar with? Please name them?
3. Describe in your own words what you understand by formative assessment?
4. What in your view is the purpose of formative assessment?

## **C. PARTICIPANTS' ASSESSMENT PRACTICES**

5. Name the different forms of assessment that you use in your classroom.
6. Do you use formative assessment in your classroom?
7. If so, how do you implement formative assessment in your classroom?
8. Have you had a training in the implementation of formative assessment?
9. Can you comment on the impact of formative assessment practices on your learners?
10. Are there any factors that inhibit the implementation of formative assessment in your classroom?
11. What kind of formative assessment feedback do you provide to learners?
12. What are the challenges that you experience in providing formative assessment feedback to your learners?

## D. Turnitin certificate

The screenshot shows a web browser window with the Turnitin Originality Report. The report is titled "Turnitin Originality Report" and includes the following information:

- Processed on: 08-Jul-2021 12:47 PM CAT
- ID: 1614541567
- Word Count: 20371
- Submitted: 1

The document title is "Formative Assessment Practices of Teachers By Thobeka Nsingwane". The similarity index is 44%.

Similarity by Source	
Internet Sources:	35%
Publications:	6%
Student Papers:	22%

The report also includes a list of matches with their respective percentages and sources:

- 7% match (student papers from 13-Nov-2016)  
[Submitted to University of KwaZulu-Natal on 2016-11-13](#)
- 3% match (Internet from 05-Feb-2019)  
[https://repository.up.ac.za/bitstream/handle/2263/40237/Mkhwanazi\\_Teachers\\_2014.pdf?isAllowed=y&sequence=1](https://repository.up.ac.za/bitstream/handle/2263/40237/Mkhwanazi_Teachers_2014.pdf?isAllowed=y&sequence=1)
- 2% match (Internet from 18-Jul-2020)  
<http://researchspace.ukzn.ac.za>
- 2% match ()  
[Mngomezulu, Gladys Phumzile., "Assessment methods used by grade four teachers in teaching English First Additional Language.", 2019](#)
- 2% match (Internet from 26-May-2020)  
[https://ris.utwente.nl/ws/portalfiles/portal/6120476/thesis\\_Motswiri.pdf](https://ris.utwente.nl/ws/portalfiles/portal/6120476/thesis_Motswiri.pdf)
- 2% match (Internet from 18-Oct-2017)  
<http://scholar.sun.ac.za>
- 1% match (student papers from 03-Feb-2021)  
Class: Curriculum Studies (Thesis)  
Assignment: Thesis

The browser window shows the URL: [turnitin.com/newreport\\_classic.asp?lang=en\\_us&oid=1614541567&ft=1&bypass\\_cv=1](https://turnitin.com/newreport_classic.asp?lang=en_us&oid=1614541567&ft=1&bypass_cv=1). The taskbar at the bottom shows the Windows operating system with various application icons and a system clock indicating 18:17 on 2021/07/08.