



**UNIVERSITY OF  
KWAZULU-NATAL<sup>TM</sup>**  

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**INYUVESI  
YAKWAZULU-NATALI**

**Teachers' experiences of working with Learner - Teacher support material  
resources in the 21<sup>st</sup> century**

**By**

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of**

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**School of Education**

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**FEBRUARY 2022**

## **SUPERVISOR'S DECLARATION**

As the candidate's supervisor, I agree to the submission of this dissertation.

**Supervisor:** Dr. V. Jairam

**Signed:**

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

**Date:** 23/02/2022

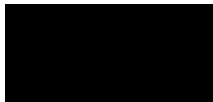
## DECLARATION

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## DEDICATION

I dedicate this work to my Grandmother, Therese Madonda, who passed away on the 29<sup>th</sup> of January 2021 due to Covid-19 complications. Thank you gogo. I am because you were.

## ACKNOWLEDGEMENTS

2021 has been a very difficult year for me. I was diagnosed with Covid-19 in the beginning of the year, then I subsequently passed it on to my grandmother which led to her untimely death. After struggling to come to terms with my grandmother's death, I was diagnosed with mild depression and anxiety and hypertension. Obtaining this Master's degree is going to feel like my victory in the year 2021.

I would like to thank:

- God for pulling me through my slump. I don't think I would have been able to pull myself out of the constraints of my own mind had I not searched deep enough to pray for strength
- My baby girl (Ntandoyenkosi Mthiyane) for reminding me everyday why I pursued my studies further, and my partner (Sifiso Mthiyane) for being consistent in your love, your support, and your understanding.
- My supervisor Dr.Jairam, when I heard she will be my supervisor I was terrified because I knew how strict she is. In hindsight, I realise I couldn't have asked for a better supervisor. Thank you Dr.Jairam for the support and the guidance.
- Last but not least, the principal of the school I used as my study site as well as the participants. Thank you for your enthusiasm and your eagerness to share information.

## ABSTRACT

The Gauteng Department of Education (2011) defines learning and teaching support materials (LTSM) as those resources that help teachers to teach and learners to learn, and which provide support to both the teacher and all the diverse learner needs in the classroom. A variety of research has concluded that having a varied LTSM in schools positively impacts academic performance (test scores). Research has also revealed that the Department of Education in South Africa supplies schools under section 21 with LTSM. Despite this, no research has been conducted that explores teachers' experiences of LTSM. Experiential learning theory was chosen as a theory that underpinned this study, because the theory states that prior knowledge plays a significant role in the learning process, where people have two modes of taking a hold of experiences and two modes of changing experiences. Teachers, although they are seen as authority figures in the classroom, are still learners in their field of work and their experiences during the teaching process informs how they proceed going further. The study was underpinned by a qualitative approach to research, and fell within an interpretivist paradigm. The study utilised a phenomenological research style, and a purposive and convenient sample of eight full-time teachers were sampled from a section 21 public school in Umlazi. The data was generated using zoom scheduled focus group discussion and telephonic standardised open-ended interviews. Findings revealed that LTSM positively shape the way lessons progress in the classroom, however LTSM are not updated on a regular basis, and teachers are still using old LTSM. It is recommended in the study that the school finds ways to not rely on LTSM brought by the Department of Education alone furthermore teachers need to find ways in which they prolong the life of the LTSM.

## LIST OF ABBREVIATIONS

AC	Abstract Conceptualisation
ACEP	African Coelacanth Ecosystem Program
AE	Active Experimentation
CAPS	Curriculum and Assessment Policy Statement
CE	Concrete Experience
DOE	Department of Education
ELT	Experiential Learning Theory
GDE	Gauteng Department of Education
KERP	Kolb Educator Role Profile
KZN	KwaZulu-Natal
LTSM	Learning and teaching support material
NCSNET	National Commission on Special Needs Education and Training
RO	Reflective Observation
SASA	South African Schools Act
SGB	School Governing Body

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## **CHAPTER ONE: BACKGROUND AND INTRODUCTION TO STUDY**

### **1.1. Introduction**

This chapter will provide background information on the phenomenon of learning and teaching support materials (LTSM). The rationale and significance of the study will be presented, as well as the problem statement, the purpose of the study, the objectives of the study, the research questions, the location of the study, the theoretical framework, the research methodology, ethical considerations, limitations of the study, and finally the arrangement of the chapters to follow.

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

Education White Paper 1 changed the focus of the curriculum to a more learner centered approach (Department of Education, 1995). Kunene (2005) states that learning and teaching support materials play a key role in the teaching, learning and assessment process of the school curriculum. Furthermore, when educators rely solely in the use words and voices as a form of relaying information, only fourteen percent of awareness and sensing takes place, where as a result, learners face difficulty in constructing meaning (Kunene, 2005, as cited in Motloun, 2008). Material resources were identified by Olagunju and Abiona (2008) as instruments that a teacher uses to improve learning. The term material resource has since been amended, as identified by Sedibe (2011) to learning and teaching support material (LTSM), and thus extending the definition to include facilities and structures that ensure that the school functions smoothly.

Padmanabhan (2001), as cited Okongo, Ngao, Rop and Nyongesa (2015), directly relates inadequate learning and teaching support materials to the inability of teachers to portray content in an interesting way. Strauss (2006) meanwhile shows that less than half of Grade 6 learners in South Africa get their own copies of Mathematics and Literature textbooks. Johnstone and Chapman (2009) conducted research in Lesotho, uncovering that lack of material resources affected inclusive education. Furthermore, Sedibe (2011) states that previously disadvantaged schools do not have learning and teaching support materials that are adequate for teaching and learning. Similarly, Du Plessis (2014) states that challenges in rural schools stem from a number of sources within the school structures and the school setting. Sedibe (2011) further states that learner teacher support materials are important, as they encourage learner achievement and

inadequate resources are likely to produce poor academic performance. Lyons (2012) views learning as a complex activity that encompasses student enthusiasm, facilities, teaching resources, teaching skills, and the curriculum. Du Plessis (2014) views language, particularly English, as a barrier to learning in rural schools, as most learner materials are written in English, making it hard for learners to understand. Similarly, Okongo, Ngao, Rop and Nyongesa (2015) view a textbook as a cost-effective form of input that affects student performance. Maddock and Marouns (2018) on the other hand state that poor academic performance is a result of OBE, as well as the newly introduced CAPS system. The CAPS document places greater focus on subject knowledge. Furthermore the key issues identified in the research of Maddock and Marouns (2018) is the lack of strong foundation and structure in primary schools. Research conducted by Mestry and Ndhlovu (2014) indicates that the South African government is working hard to ensure that equity in public schools is achieved; however, their initiatives are unable to address educational outcomes and learner achievement.

### **1.3. Rationale**

I am a primary school educator and the Department of Education makes sure that schools receive material resources yearly. Section 34 of the Schools Act of South Africa stipulates that the government has an obligation to provide funding to public schools in a fair manner in order to ensure that every learner's right to education is exercised. The national norms and standards for school funding classified schools into quintiles, and subsidises them according to the environment of the school, meaning that schools in poorer communities receive more funding than those in well of communities (South Africa, 1998a). The school governing body is also given permission in the South African Schools Act to supplement resources supplied to schools through fundraising in order to improve education (South Africa 1996a, section 21). Regardless of this effort, 22.9% out of 24.2 % of learners list poor academic performance as their reason to drop out of schools (South African Government, 2019). As an educator, I am questioning my abilities, because learners are not meeting the standards at the end of the term, despite the fact that resources are provided to them. A lot has been written about having adequate material resources in schools, as well as how effective teaching and learning is achieved by those material resources but my experience with these material resources provided by the Department is not one that is reflective of the outcomes detailed in most research on material resources. I am interested

to determine how fellow teachers are experiencing working with these material resources that are provided to them in the 21<sup>st</sup> century.

#### **1.4. Significance of study**

There is currently no research that focuses on teachers' experiences with working with learning and teaching support materials as mentioned in the introduction. This research is of significance, as it will be of benefit to the Department of Education, along with teachers, learners, and parents. Teachers' experiences are rarely represented, and these experiences will bring to light how teachers work with the material resources that is provided by the government, as well as providing insight as to whether these LTSM are doing the job they are intended for, which is to help learners learn better, and teachers to teach better. Furthermore, as will be detailed in the theoretical framework, experiences are a form of learning for an individual. Hence, they have the ability to shape the way a person proceeds in the future. As stated by Kolb (1984), experiential learning theory highlights the role that prior knowledge plays in the learning process. The experiences that are detailed by the teachers will bring to light the areas of development that teachers require in order to best perform their duties. I am hoping that the experiences uncovered in this study will enable the Department of Education to understand the classroom environment, understand the struggles that teachers deal with in the classroom, as well as provide alternative material resources in classrooms in order to cater to the needs of learners, and not provide a simply one-size-fits-all learner-teacher support material resource. Parents will also see the pressures that teachers experience in the classroom, and try to alleviate that pressure by becoming more involved in their children's lives.

#### **1.5. Problem Statement**

An examination of the above-stated literature indicates a direct relation between academic achievements, and the adequate provision of resources. Research has not yet been conducted that examines how teachers experience working with the material resources provided by the Department of Education. It is with this understanding that I realised a gap in research, where a great deal has been said about adequate LTSM increasing learner performance. This gap evoked in me the curiosity to bring to light some of the experiences of working with LTSMs in the 21<sup>st</sup> century. Learner-teacher support materials are a vital aspect of the teaching and learning process,

as they help to establish the level of participation and the attitudes of learners towards each subject taught (Kunene, 2005 as cited in Motloun, 2008). Furthermore, Kunene (2005), as cited in Motloun (2008), states that having learner-teacher support materials in school does not necessarily mean they are useful. It is with this understanding that I have chosen to highlight teachers' experiences using a reflective approach to learning for the teacher, in the sense that teachers will be able to understand why they make the choices they make when choosing which learner teacher support materials to use in the teaching and learning process.

## **1.6. Purpose of study**

The purpose of this study was to unearth as well as explore the material resources that a teacher chooses to personally use in the classroom. Ngala (1997), as cited by Ngala and Odebero (2010), has stated that the use of resources available is more important than the quantity of resources.

Inasmuch as the Department of Education provides learning and teaching support materials in the school, it is generally up to the teacher to choose what works for his or her classroom, what they are comfortable with, as well as what they feel will relay their lesson in the most efficient and effective manner. Furthermore, the study explored the experiences of working with the chosen LTSMs by the teacher, as well as how these experiences have shaped the way they teach in terms of the methods they use when teaching, how they structure their lessons and the general attitudes or approach towards teaching based on the chosen LTSMs.

## **1.7. Objectives**

### **1.7.1. Main objective**

The main objective of the study was to explore teachers' experiences of working with learner-teacher support material resources in the 21<sup>st</sup> century.

### **1.7.2. Secondary objectives**

- Explore the type of material resources teachers personally use in the classrooms.
- Explore their experiences with using these material resources.
- Explore how their experiences with these material resources has shaped the way they teach.



## **1.8. Research questions**

- These are the following research questions the study planned to answer:
- What type of material resources do teachers personally use in their classroom?
- What are their personal experiences with using these material resources?
- How have these experiences shaped the way they teach?

## **1.9. Location of study**

The study was located in a primary school that is in Umlazi Township on the South Coast of Durban. The school was previously a junior primary school, which at first consisted of only the Foundation Phase but as the demand and need increased over the years, more grades were introduced. Currently, the school caters for pre-grade (crèche) learners right up to Grade Seven. All primary school phases are catered for; this includes Foundation Phase (grades R-3), intermediate phase (grades 4-6) and senior phase (Grade 7). The school is relatively small, as each grade has one class, and some of the classrooms overflow. There are a total of 374 learners that are registered in the school, and nine classrooms. The school is in Quintile 3, making it a non-fee-paying school. There is no hall, no library, no playground, and very limited extra-curricular activities. The school has a feeding scheme, funded by the Department of Education, and there is also a programme where learners are given porridge every morning that is funded by a private donor. The school boasts teachers who have very lengthy experiences in the education field, as well as novice teachers. There are 10 permanent teachers employed by the Department of Education, including the principal. There is one cleaning lady also employed by the Department of Education, and there are two ladies who work in the kitchen, who assist in cooking the learners' food.

## **1.10. Theoretical framework**

The theoretical framework that underpinned the study was the experiential learning theory by David Kolb. The experiential learning theory offers a model of how people learn and how they develop. It is rooted in the works of Dewey (philosophical pragmatism), Lewin (social psychology) and Piaget (cognitive development) to create a special perspective on learning and development (Kolb, 1984). The experiential learning theory views learning “as a process where

knowledge is created through the transformation of experience” (Kolb, 1984, p. 41). Teachers are seen as authority figures in the classroom, but can still be considered learners in their field of work, and their experiences during the teaching process informs how they proceed going further. The theory proposes two modes of taking hold of experience, Concrete Experience (CE) and Abstract Conceptualisation (AC), and two modes of changing experience, Reflective Observation (RO), and Active Experimentation (AE) (Kolb, 1984). The four proposed stages of experience is that they reveal how experience is interpreted through reflection into concepts and that reflection serves as a steering that influences the choice to try new things in order to experience new experiences (Healy & Jenkins, 2000). These four stages follow one another in a cyclical way, where the cycle maybe entered at any point as long as the stages follow a sequence (Healy & Jenkins, 2000). Following a circular motion enables there to be feedback in the learning process, which in turn serves as a source for a new act and assessing the outcomes of that act (Healy & Jenkins, 2000).

## **1.11. Methodology**

### **1.11.1. Paradigm**

This study followed an interpretivist paradigm. An interpretivist paradigm as outlined by Terre-Blanche and Durheim (2004) refers to the way a researcher describes and interprets human emotions and experiences. An interpretivist researcher does not predict human feelings, but has an interest in describing and understanding the way humans make sense of their world (Bertram & Christiansen, 2014). Furthermore, an interpretivist paradigm takes into account all factors that form part of the context in which a participant is coming from as that shapes the participants’ responses (Bertram & Christiansen, 2014). The purpose of this paradigm is to understand how humans make sense of a phenomenon (Prasad, 2005). This paradigm was an ideal approach to the type of study I conducted, as it enabled me to portray teachers’ experiences with working with material resources in the classroom. This is a type of information that is subjective, and therefore the teachers guided me to gain a deeper understanding of their experiences. As stated by Bertram and Christiansen (2014), participants will be in their natural surroundings and the findings in this research acknowledged the beliefs and behaviour of the participants.

### 1.11.2. Research Design

#### 1.11.2.1. Qualitative Research Approach

The research design is characterised by presenting the type of data the researcher wants to generate and further guides the researcher's decisions, the study's purpose and the methods that will be used (De-Vos, Strydom, Fouche & Delport, 2005). This study used a qualitative research approach. A qualitative approach to research, as described by McMillan and Schumacher (2006), is a study that generates data on a phenomenon that occurs naturally and is translated into words. Furthermore a qualitative approach is helpful in giving answers to questions that pertain to the participants and their context (Mills, 2003). Qualitative research aims to study participants in an environment that is not controlled or manipulated by the researcher; which is why this researcher gathered data from participants in their natural setting at their respective schools (Dubose, 2010). I chose a qualitative approach to research, as it enabled me to adequately receive answers on teachers' experiences with working with material resources, and how those experiences have shaped the way they approach teaching and learning. A qualitative research approach enabled me capture the meanings and experiences through verbal and interpretive descriptions (Mills, 2003). A good qualitative research study is more concerned with what the participants have to say (Sullivan & Sergeant, 2011). This is important because participants' understanding varies immensely from one another and they operate very differently (Dubose, 2010).

#### 1.11.2.2. Research Style

I had chosen to use a phenomenological research style. This type of research style describes as precisely as possible a phenomenon, without examining any pre-ordained framework, but remaining nonetheless true to the facts (Groenwald, 2004). A phenomenological researcher is interested in understanding psychological and social phenomena from the perspective of people involved, in addition it is concerned with people's quotidian experiences (Groenwald, 2004). Similarly Kafle (2011) states that the focus of this type of research style is placing a lens on the way things appear through experiences. This manner of research is experiential and qualitative, where Moustakas (1994) defines a phenomenological research style as one that involves allowing participants to return to their experiences of a particular phenomenon, in order to get an

accurate understanding of the essence of an experience. I chose a phenomenological research style, as I felt it was best suited to bring to light teachers' experiences when working material resources. The perspective of teachers who are actively involved with this type of phenomenon enabled me to adequately understand and describe it.

#### 1.11.2.3. Sampling strategies and sample size

The unit of analysis in this study was teachers and their experiences with working with material resources. The study was conducted in a township primary school in Umlazi District; a no-fee-paying school with not more than 400 registered learner's. The school has large class sizes, but a very limited number of teachers. This study required participants that are actively involved in the classroom in terms of lesson preparation and conduction. It is with this reasoning that I have chosen to use purposive sampling. Leedy and Ormrod (2001) describe purposive sampling as a sample that does not represent the population, where in this case, participants does not represent all teachers, but rather stands on their own. Furthermore it is based on the type of information the researcher wishes to be generated, and relies on the judgment of the researcher (Bertram& Christiansen, 2014). The participants I have chosen for this study are novice and experienced teachers in the foundation and intermediate phases. I used convenience sampling when choosing my research site, defined as a sample that is easy for the researcher to reach (Bertram & Christiansen, 2014). I have chosen to conduct my study in a primary school in Umlazi Township, was convenient for me to access, as I am also teaching in Umlazi and frequent the area on a daily basis. These two sampling methods best answered the research questions as Buchanan and Bryman (2009) state that sampling methods must be suited in terms of generating information that will answer the research questions. The sample size was eight teachers, which means I had three teachers in the foundation phase and five teachers in the intermediate and senior phase. The teachers were representative of novice and experienced teachers. I chose eight participants, as Groenewald (2004) states that in a phenomenological study a sample size maybe up to ten people.

### 1.12. Data generation Methods

Two data generation methods were used.

#### 1.12.1. Telephonic Standardised open-ended interviews

All eight participants were interviewed on a one-on-one basis. I used standardised open-ended interviews. Turner (2010) describes standardised open-ended interviews as interviews that have structured questions, where all participants are asked the similar questions, but the responses of participants are open-ended, meaning that it is unlimited. The settings of the interviews were in the participants' natural environment, as all interviews were telephonic. Having open-ended responses allowed participants to provide rich and detailed accounts of their experiences while working with material resources, and also gave me, as the researcher, leeway to probe further in order to follow up. Standardised open-ended interviews give participants the opportunity to freely share their experiences and in a way that best suits them. Since my research style was phenomenological, I gave the participants an opportunity to respond to the interview questions in a language in which they felt most comfortable.

#### 1.12.2. Zoom scheduled Focus Group

I had opted to utilising zoom scheduled focus group as a data generation tool. In light of the Covid-19 pandemic, face-to-face contact has been restricted. Leung and Savithiri (2009) define a focus group as a discussion that is carefully planned to gather perceptions on a specific area of interest in a non-threatening environment. A focus group will also help participants to loosen up, since it will be like a discussion amongst peers. According to Leung and Savithiri (2009), a focus group is characterised by having eight to twelve members. The people in the group ought to be similar in demographic and socio-economic status, but have different views of the world. The focus group on this research study had eight participants. All participants were full-time educators, but of different age groups, and with different levels of experiences in the field. Interaction amongst participants was encouraged, where the aim was not to reach a point where everyone is in agreement, but instead to promote reflection on a given research topic. Opinions were shared and opportunities for responses were given. Focus groups use audio recorders to gather information from participants and the researcher transcribes the information recoded in order to analyse it (Sullivan & Sargeant, 2011).

### **1.13. Data analysis**

Analysing and interpreting data is a way of finding meaning, systematically arranging and presenting data in a way that will help the researcher to develop themes in order to create meaning (McMillan & Schumacher, 1997). I used an inductive process of organising data into categories, and identifying patterns among the categories. According to Thomas (2003), an inductive approach starts from raw data, examining patterns within the data in order to find similarities and differences, as well as assigning codes and themes. It seeks out the parlance common amongst participants. The data was also analysed through open coding. Onweuegbuzie, Dickinson, Leech, & Zoran (2009) state that constant comparison analysis is characterised in three stages: the first of which is open coding. This is when the data is sorted into small units, in the second stage termed axial coding, where the group codes are put into categories, and then in the final stage, called selective coding, the researcher develops themes that show the content of the group. The purpose of utilising the constant comparison method is that it enables the researcher to uncover both similarities and differences in the data.

### **1.14. Ethical considerations**

Ethical principles that guide the research protect participants involved in it (McMillan & Schumacher, 1997). Furthermore, McMillan and Schumacher (1997) describe confidentiality as no one being able to identify the institution or participants that form the subject of study. When interacting with participants prior to the data generation process, I explained what the research topic was, what the aims objectives and rationale behind the research was, as well as assured them that their confidentiality will be respected. This enabled the participants to give informed consent without their names or that of the school being revealed by the research process.

The KwaZulu-Natal Department of Education was approached, and an application form was completed requesting permission to conduct the research in the school. The permission was granted. The researcher also met with the school principal in order to request to use the school as the study site, and to select educators that formed part of the sample population. The telephonic interviews and zoom scheduled focus group were scheduled for after hours at a time convenient for everyone.

### **1.15. Limitations**

Denzin and Lincoln (2005) describe study limitations as possible hurdles that could hold back the researcher from achieving the desired outcomes. Limitations expected in this research study constituted being able to schedule appointments with participants in times that suited all of the participants. The reason for this was that the participants are full-time employees of the department, and all data generation was done remotely, where consideration of the home schedules of participants had to be considered. This limitation was rectified by rescheduling a more convenient time for both the participants and the researcher. Another limitation was that teachers were highly reluctant to share information, in fear of being exposed, but this limitation was rectified by assuring the participants that their privacy would be guarded, and the descriptions of the school would be undertaken in such a way that any school in Umlazi may be identified as taking part in the research.

### **1.16. Overview of research study**

The dissertation consists of six chapters, these chapters include:

Chapter One has introduced and detailed the background of the study. Furthermore the chapter has detailed the purpose, rationale, significance, objectives of the study, the research questions, an introduction of the theoretical framework, and the methodologies.

Chapter Two will be the literature review. The literature review will provide the definition of learner-teacher support material, the purpose and role of LTSM, the types of LTSM, how LTSM are selected and used, how public schools acquire LTSM in South Africa, the formation of a LTSM committee in schools, and the acquisition process. Furthermore, the literature review will bring to light research that has been conducted on LTSM, the criteria used to access LTSM, and finally a discussion on research based learning.

Chapter Three will outline the theoretical framework. The theoretical framework that underpinned the study was the experiential learning theory. Chapter Three will provide an explanation of the theory, discuss the experiential learning cycle, explain the modes of taking a hold of experiences, and detail the different learning styles and the role that teachers play within the experiential learning cycle.

Chapter Four will discuss the research methodology. This methodology includes details of a qualitative research design, an explanation of an interpretivist research paradigm, an explanation of a phenomenological research style, the sampling styles, and sampling size used in the research study, the data generation methods used in the study, which include telephonic standardised open-ended interviews and zoom scheduled focus group, ethical considerations, and the issues of validity and trustworthiness.

Chapter Five presents and discusses findings, which will include a transcription of the interview and focus group discussion. Furthermore, an analysis of the data generated in the study will be provided, using an inductive method, and constant comparison analysis.

Chapter Six is the concluding chapter, presenting recommendations as well as final discussion on the findings.

## **1.17. Conclusion**

This chapter has detailed the background of the study, the rationale of the study, the significance of the study, the problem statement, the purpose of the study, the objectives of the study, the location of the study, the theoretical framework that underpinned the study, the methodologies used in the study, the ethical considerations, the limitations expected in the study and finally the chapter to follow in the dissertation. The chapter to follow is chapter two; chapter two will unpack the literature based of learning and teaching support materials (LTSM).



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Introduction**

The previous chapter focused on introducing the research study by revealing the study's problem statement, background, research questions, rationale, literature review, methodology and theoretical framework. Chapter Two is the literature review, which will define Learning and Teaching support Materials (LTSM), detail the purpose and role of LTSM in schools, show how LTSM can be selected and used; how LTSM are acquired in schools, explore the relationship between LTSM and learner achievement, and detail criteria for assessing LTSM. Finally, it will unpack resource-based learning.

### **2.2. Definition of learner-teacher support materials (LTSM)**

The Gauteng Department of Education (2011) identifies learning and teaching support materials as resources that help educators to teach and learners to learn and they provide support to both the teacher and the learners, as well as help learners with special needs to meet their educational needs. Furthermore Phakati (2015:6) "LTSMs are all materials that facilitate learning, including electronic materials and all learning materials that aid teaching and learning. LTSMs include textbooks or learners' workbooks or teachers' manuals."

These LTSM include textbooks, video recorders, video tapes, home economics equipment, science laboratory equipment, musical instruments, learner desks, and chairs (Gauteng Department of Education, 2011). Non-learner support materials include paper copy machines, telephone sets, fax machines, intercom systems, equipment for connectivity within the school and to the internet, hardware tools, cleaning equipment, first aid kits, overalls for cleaners and ground staff, sporting equipment, and electrical accessories (Gauteng Department of Education, 2011). According to Atkinson, Derry, and Wortham (2000) another category of material resources consist of paper supplies and writing materials, such as pens, eraser, exercise books, crayon, chalk, drawing books, notebooks, pencils, rulers, slate, and workbooks.

### **2.3. Purpose and role of LTSM**

#### **2.3.1. Purpose of LTSM**

Bušljeta (2013) states that LTSM serves the purpose of assisting the teacher with the relaying of educational content, in order to achieve the objectives intended, as well as help the learners to gain knowledge by highlighting their different abilities. Furthermore Etesike (2017: 8) states that “learners generally remember twenty percent (20%) of what they hear, thirty percent (30%) of what they see, fifty Percent (50%) of what they see and hear and ninety percent (90%) of what they see and do.”

According to Bušljeta (2013), LTSM serves the following goals:

- student drive;
- expand creativity;
- stir up prior knowledge;
- contribute to the development of different skills and the gaining of values of students, as well as the retention of desirable knowledge, skills and attitudes; and
- Understanding, interpreting, sorting and creating the educational content, logical thinking and reasoning, communication and interaction.

Bušljeta (2013) states that the purpose of LTSM is to help teachers to reach each of the following critical results:

- spot and solve problems;
- work well in a group setting;
- organise and manage activities and themselves in a responsible way;
- communicate effectively;
- use science and technology effectively and critically; and
- Understanding that solving a problem does not exist in isolation.

The Department of Education (2000) states that the school management team needs to encourage teachers to use a variety of LTSM and to develop themselves by sharing ideas as well as LTSM with other teachers. Furthermore, the school management teams need to ensure that teachers require training on how to create and design a learning environment that is supportive of teaching and learning receive it. The training could focus on ways to find resources that are useful in class, how to use overhead projectors, video machines and computers, how to use

libraries and laboratory facilities and making their own LTSM based on the learners they have in their classrooms. Maimela and Wotela (2021) state that in a school where resources are available and in a good state being used by a qualified and motivated teacher they form the requirements for an effective teaching and learning environment.

### **2.3.2. Role of LTSM**

Lotz-Sisitzka and Raven (2001) note that after democracy, a new need for LTSM arose as there was less dependence on textbooks. Curriculum 2005 and outcomes-based education (OBE) required teachers to re-evaluate the way in which they teach, and resources were a strong requirement as learning became learner-centred. Haulle and Kabelege (2021) state that learning and teaching support materials particularly textbooks play an important role as they enable learners to better understand the content taught in a particular subject. This is because a textbook that is well written is able to encourage thinking and promote problem solving skills.

The National Commission on Special Needs in Education and Training (NCSNET) and the National Committee for Education support Services (1997) advise that LTSM used in schools must address the diverse needs of the learners. The DoE (1997) states that LTSM play the role of enhancing the way a teacher teaches and provide information on how a learner is learning. This is why all LTSM ought to be assessed in order to make sure that they are suitable to all the needs of all learners. They further need to be modified so that they are able to cater to all abilities and disabilities. LSTM also plays the role of addressing barriers to learning and development in the classroom (DoE, 1997).

### **2.4. Types of LTSM**

Busljeta (2013) identifies LTSM as any resource that allows educators to teach and learners to learn; they also promote the culture, attitude and ambiance of teaching and learning in the classroom. According to the Department of Education LTSM has a broad definition, where the terminology has even been adapted from teaching aids, which usually included a textbook or a chart. Currently, LTSM even refer to materials not originally created for the purpose of teaching and learning, but which can assist with the learning process. Similarly, Nkombela (2003) as cited in Motlounge (2008), identify LTSM as teaching aids, audio and visual materials (radio and television). Brainard (1996) as cited in Motlounge (2008) states that LTSM ought to include

teaching and learning equipment and consumables such as textbooks, print and non-print materials, educational technology and computer software, and supplementary learning and teaching support materials, as well as curriculum guidelines and teaching equipment. Busljeta (2013) states that the most important LTSM is in fact the teacher, where teachers play the role of modeling learning through motivational, behavioural and meta-cognitive involvement in the teaching and learning environment. Furthermore, teachers' experiences, their expertise and creativity have greater value than every other LTSM available in the classroom (Busljeta, 2013).

The Gauteng Department of Education (2011) categorises LTSM in the following way:

**Textbooks-** this is a category of LTSM that comprises of printed texts for and by publishers. This also includes books used by learners, workbooks or activity books, readers, teacher guides and reference books as well as DBE workbooks (Gauteng Department of Education, 2011).

**Stationery-** this category of LTSM includes materials used by learners for writing with and writing on. Such as exercise books, pens, pencils, crayons, drawing paper, tracing paper, glue (Gauteng Department of Education, 2011).

**Consumable materials-** these include chemicals used in schools in order for the teaching and learning outcomes to be achieved for example glue and nails (Gauteng Department of Education, 2011).

**Non-consumable materials-** these are materials that last for a long time at school and are bought once off but require maintenance, for example pianos (Gauteng Department of Education, 2011).

**Other materials-** these are any other materials out of a wide range that help teachers and learners reach the desired conclusion, for example science equipment, overhead projectors, and photocopying papers (Gauteng Department of Education, 2011)

**E-learning materials-** these are LTSM that provide support when learning is conducted electronically for example electronic textbooks, smart boards and data projectors (Gauteng Department of Education, 2011).

**Library materials/resources-** these are materials that learners and teachers use in the library for the purpose of conducting research. For example, fiction, non-fiction books, and audio visual software (Gauteng Department of Education, 2011).

Landsberg (2000), as cited in Motloun (2008), further identified other materials that fall under the category of LTSM, which includes assistive devices and appropriate technology.

These are equipment that facilitates learning. Access to these assistive devices is essential for people with disabilities in order for them to have opportunity to participate in the classroom environment, for instance, hearing aids, or wheelchairs. These assistive devices ought to be made available especially when reading, writing, and numeracy is conducted in class. The National Department of Education made the following recommendations with regards to the Department of Health being responsible for the provision and maintenance of assistive devices that help learners with disabilities become more independent (Landsberg, 2000, as cited in Motloun, 2008).

The community, the media, and waste materials as LTSM

According to Busljeta (2013), there are many other different kinds of LTSM that can be used as opposed to those provided by the government. These include using people in the community when having career day at school, senior citizens when conducting a history lesson, motivational speakers to encourage learners, the media making use of learning programmes that play via the television to teach from a different perspective, playing games that encourage movement, and using materials that are considered as waste such as bottle tops, eggshells, and boxes.

Landsberg (2000, as cited in Motloun, 2008) states that LTSM need to be able to meet the needs of the diverse learners in the classroom. Sometimes the prescribed LTSM may need to be modified in order to cater for learners with special needs. For example, a learner who cannot read may require the use of pictures when learning. It is important that LTSM are free from bias, where as a result, Landsberg (2000, as cited in Motloun, 2008) makes the following recommendations in order to help teachers to use LTSM that are able to cater to the diversity in the classroom:

Textbooks, study guides and worksheets must be tailored in a way that is able to address and show the diversity of needs of the learners;

Means need to be developed by the DoE to ensure that LTSM are free from bias and are not discriminative to any individual; and

Educational departments that cannot develop customise and produce LTSM such as Braille and large print ought to outsource.

## **2.5. LTSM selection and usage**

Fourie (2004, as cited in Motloun, 2008) states that the most important aspect of using LTSM is being able to select books that are appropriate to the socio-cultural interest of learners, because it helps to motivate the learners to read the book as often as possible. The right LTSM is a powerful tool that helps in building interest and improving learning (Fourie, 2004 as cited in Motloun, 2008). Haulle and Kabelege (2021) further reiterate the relevance of LTSM as being an essential component in learner achievement.

The DoE (2003) states that the teacher has the liberty to use LTSM that are designed for specific skills that a learner might be lacking and the teacher can source these LTSM within commercially available platforms, or it can be created by the teacher. The Department of Education (2002) stipulates guidelines that a teacher needs to consider when selecting and buying certain types of LTSM, these include:

The teacher needs to ensure that the selected LTSM are going to be enough and available for all learners (DoE, 2002);

The LTSM must be respectful of learner's human rights irrespective of gender, race, and disability (DoE, 2002);

Learners must be able to understand the selected LTSM (DoE, 2002);

Teachers need to select a variety of LTSM (DoE, 2002); and

The LTSM purchased must meet curriculum needs (DoE, 2002).

Fourie (2004), as cited in Motloun (2008), established criteria that teachers can use when selecting books:

Books selected by the teacher should look like the books found in the library, they should have an author, illustrations and texts, as well as come in different shapes and sizes;

The story in the book should have a beginning, middle, and an ending;

The books selected should tie in with the learners' cultures and social life so they can be able to identify with what they are reading;

The illustrations in the text should present similar information when the book is audio-visual;

All words and pictures in the story need to be age appropriate, meaningful, and evoke interest in the learners;

The learner should be able to interpret and predict the story;

Developing readers need books that use words that are predictable and repetitive;

Learners enjoy stories that are funny and scary but still maintain a genuine story.

Stein, Stuen, Carnine and Long (2001) proposed guidelines that teachers can use when selecting LTSM; these are:

- First guideline

Is content arranged around big ideas?

Stein et al. (2001) notes that in many printed and published materials a significant number of topics got very little coverage. Teachers need to examine carefully the phenomenon that will be discussed by analysing the way in which content is arranged, and how much is covered.

Furthermore, teachers need to examine the range and series in the LTSM chosen. Close examination of selected LTSM reveals the limitation of knowledge that an LTSM has on a single topic. Teachers need to organise the content around this "big idea". Big ideas are critical concepts that are important for the learners to master the subject and it (Stein et al., 2001) for example when the core concept that is being taught in a geography lesson is on places and where people live, the chosen LTSM must show different settlements that people live in, how those settlements are identified, what each place is used for in a particular settlement. All of these must be centred on places and where people live and not deviate from that. Similarly Haulle and Kabelege (2021) state that when selecting a textbook to use in the classroom the teacher needs to consider the contents of the textbook, the contents in the textbook must cover all topics, have clear illustrations and should not have errors but also promote positive social values and attitudes.

- Second guideline

Do the curriculum materials contain explicit strategies?

Once the teacher has established that the content in the textbook is organised in a sensible manner, there needs to be an evaluation of whether the LTSM provided to teachers offer teachers different explicit strategies that assist in relaying the information to learners (Stein et al., 2001). Haulle and Kabelege (2021) state that a textbook should have learning and teaching activities which promote confidence, interaction, gender neutral and enhance cognitive skills. Generalisation of concepts and skills ought to be promoted by these strategies. An example of explicit strategies is that of decoding when beginning a reading programme. Once learners know the letter or sound, they are then able to use the strategy to decode new words. Self-editing is another explicit strategy used in written expression, but depends on whether the learners have prior knowledge necessary when editing (Stein et al., 2001).

- Third guideline

Do the curriculum materials provide opportunities for teachers to scaffold instruction?

The thing with an explicit strategy is that they are clear steps that help support learners as they move towards mastering skills and concepts. Once a particular strategy has been identified, the early stages of achievement are based on applying the strategy in a way that gives instructions, but in a sequence that gives learners a lot of support, as well as encourages them to be more independent (Stein et al., 2001). Bušljeta (2013) distinguishes between three phases of LTSM usage. These stages are as follows:

The first phase, also termed the selection and early evaluation phase, refers to when the appropriate teaching and learning resource is selected. The selection process is based on the objectives and the tasks the teacher plans on giving the learners and the personality of the learners. During this process, the educator needs to keep in mind the varying needs that are prevalent in the classroom when selecting LTSM; the teachers own level of education and his or her abilities also need to be considered (Bušljeta, 2013). The teacher also needs to establish their role in the classroom, for example will they lead, direct, or monitor the teaching process in order to choose a LTSM that will suit their role. The characteristics of the LTSM chosen ought to be



interesting, educational, provide clarity, and enhance the quality of teaching and learning (Bušljeta, 2013).

The second phase includes presentation and interpretation. This phase is intended for the sole purpose of encouraging communication and interaction between the teacher and the learners. This process can be done in three easy steps: a) by the teacher understanding why they are using the LTSM they have chosen for the teaching process; b) the type of resource they have employed; c) the teacher also needs to collect and organise the LTSM so that it is relevant to the teaching task, combining the information that is gathered and drawing conclusions (Bušljeta, 2013).

The third phase in the usage of LTSM is based on final evaluation. This final phase occurs when the teacher assesses the usefulness of the LTSM chosen in phase one and answers questions based on the LTSM contribution to the achievement of the goals set in the initial phase while Using a variety of teaching strategies and material content, along with LTSM (Bušljeta, 2013).

Busljeta (2013) further states that during the planning process of the choice of LTSM to use the teacher need to take into account another of curriculum issues. According to Busljeta (2013), teachers need to acquire as much information as they can about certain groups, because learners bring a range of learning strategies to the classroom. According to the DoE (2000), learners use different languages and have different life experiences, which are usually influenced by the environment they grow up in, their culture, family history, socio-economic environment, and their social and physical characteristics; as a result, one learner may be good at reading, while another is good at mathematics. King-Sears (1996) states that, in order for teachers to meet their curriculum goals they need to develop an organisational sense in order to make the content written in the textbook more appealing to learners. When teachers fully understand what they are going to teach, this makes it easier for them to select the best LTSM to use.

## **2.6. Acquiring of LTSM in public schools in South Africa**

Munzhedzi (2016) defines the process of procuring products and services as one that looks at how much something costs, as well as whether the quality and quantity of that product and service is available at the required time. Furthermore the goods that are obtained assist the organisation to push their aims forwards (Munzhedzi, 2016). During the procurement process,

businesses select suppliers through a tender process, in order to meet their needs (Jefferies & Rowlinson, 2016). The public sector, on the other hand, previously used a reactive process of procurement and was required to adopt a tactical and strategic approach to procurement (Miszczak, 2014). Policies and regulations with regards to what occurs during the procurement process were brought in to serve the purpose of being a guiding framework for all public procurement activities (Quinot & Arrowsmith, 2013). The South African Schools Act (SASA, Act 84 of 1996.) governs funding in public schools (Naude, Ambe & Kling, 2013). The National Norms and Standards for School Funding (NNSSF) policy was promulgated to regulate and guide monetary allocations by provinces to individual schools, and the utilisation as well as the monitoring of school funding (Mestry & Ndlovu, 2014). The LTSM Retention and Retrieval policy is aimed at regulating and setting parameters for the effective use of teaching and learning resources (KwaZulu-Natal (KZN) DoE, 2013).

The DOE handles the public procurement of LTSM. Government procurement procedures and practices are used when obtaining LTSM in varying public schools. LTSM budget is 50% of the schools total allocation (Maimela & Wotela, 2021).

According to Simayi (2008), LTSM orders are divided into three groups:

Group 1- new materials that were never ordered before and are new because of change in the curriculum or book replacement.

Group 2- orders that are meant to replenish book stocks to match the increasing learner numbers (also called top-up orders).

Group 3- the mop-up order option that is used to order and provide books to all schools which did not record their orders.

#### 2.6.1. The formation of a school LTSM committee

Maimela and Wotela (2021) states that lack of planning, monitoring and control of learning and teaching resource materials makes it difficult for schools and teachers to offer effective teaching and learning. Each school needs to form an LTSM committee in order to develop and implement the LTSM management and maintenance plan in the school (Eastern Cape Department of Education, 2018). The members in the LTSM committee may include subject or phase

specialist, teacher librarian or library assistant, members of the SGB and a member of the school's senior management. All members of this committee need to sign a declaration of interest form that will make sure that: All details are kept confidential (Eastern Cape Department of Education, 2018).

No prejudice and unfair treatment of providers and potential providers occur (Eastern Cape Department of Education, 2018).

All details with regards to the relationship each member has with a person of business interest will be disclosed and if a member has relations with a business interest they will withdraw from the procurement process (Eastern Cape Department of Education, 2018).

The members in the committee need to ensure that the LTSM chosen are in line with the curriculum by getting guidance from subject specialist and curriculum advisers. Furthermore the allocated LTSM budget needs to be used in full and all department guidelines need to be followed (Eastern Cape Department of Education, 2018)

#### 2.6.2. The acquisition process

- The school's role

Schools are given a national catalogue, where they select the required materials for the year that is to follow. The school requiring LTSM firstly needs to conduct a needs analysis for every subject. This is done through stock taking to see what they have in stock in order to determine what they need. Thereafter a list of the LTSM they require is done based on the budget that is allocated for the school. Schools are required to ensure that only LTSM that are relevant to the curriculum are selected, and that the materials are from the provincial and national catalogues (GDE, 2011). Once the school is clear of what they require, they start the requisitioning process. This is when the requisitioning forms are received and completed in full. Schools without connectivity send the completed requisitioning forms to the DoE in order to generate orders. Once the LTSM have been ordered, they are then delivered to schools and proof of delivery is signed by the service provider and the school (GDE, 2011). When the LTSM arrives at schools the titles and quantities need to be entered into the school's LTSM inventory, the LTSM

committee needs to ensure that all books are stamped in three places and are kept safely when not in use (Eastern Cape Department of Education, 2018).

- The school's responsibilities

Eastern Cape Department of Education (2018) states the effective management of LTSM is central to the school; as a result schools have the responsibility to do the following:

All schools ought to have a LTSM committee that is responsible for the LTSM management and retention plan (Eastern Cape Department of Education, 2018).

The LTSM management and retention plan must have all procedures that are important in order to enable effective management of LTSM, included in the policy is how damaged or outdated LTSM will be disposed (Eastern Cape Department of Education, 2018).

The school needs to create an environment where teachers, learners, parents/ care givers are encouraged to care for all LTSM (Eastern Cape Department of Education, 2018).

The LTSM ordering system needs to be developed so that it is effective as well as keep an inventory system for all LTSM in school (Eastern Cape Department of Education, 2018).

The school needs to develop an advocacy campaign that aims to involve the school governing body (SGB) and the community on how to manage and retain LTSM (Eastern Cape Department of Education, 2018).

An annual audit needs to be conducted of the LTSM and do stock taking at the end of the year to see how many are damaged, lost, and remain in school (Eastern Cape Department of Education, 2018).

An annual report needs to be developed and submitted to the districts and the SGB (Eastern Cape Department of Education, 2018).

- The DoE's role

The Department approves all requisitions and the service provider places an order with publishers and manufacturers of resources on behalf of DoE (GDE, 2011).

- DoE responsibility

The support, monitoring and reporting on LTSM is the responsibility of the districts as stated by Eastern Cape Department of Education (2018). The Districts LTSM committee is expected to:

Develop the school management team on how to manage LTSM resources and retention in the form of workshops (Eastern Cape Department of Education, 2018).

Conduct periodic visits, audits, and written reports in order to provide support and monitoring, as well as to make sure that schools have and are putting into practice LTSM management and retention plan (Eastern Cape Department of Education, 2018).

The districts also need to report yearly to the Province through developing and keeping a LTSM inventory as well as LTSM yearly audit (Eastern Cape Department of Education, 2018).

Put into place a support plan for schools that experience challenges with LTSM maintenance (Eastern Cape Department of Education, 2018).

Conduct a report of LTSM retention in schools in the district and plans put in place to improve the maintenance of LTSM in the year to follow and send to the Province and DBE (Eastern Cape Department of Education, 2018).

### 2.6.3. Problems experienced in the procurement process

Public sector procurement is operated under a progressively stricter environment, coupled with fast technological changes and political scrutiny (Bolton, 2007). Providing textbooks is a lengthy process that requires consideration of many parts; these include ensuring that the books/textbooks are aligned to the curriculum, they feature languages that are used in schools, they are appropriate to the subjects allocated in schools and the organisation selling and supplying the books/textbooks are appropriate. Maimela and Wotela (2021) the allocation of funding in previously disadvantaged schools has steadily increased during the post apartheid regime however the gap between rural/township schools and urban schools still exists.

The quality of teaching and learning is impacted by the availability of funds, a timely procurement process, and the delivery of LTSM (Bolton, 2007). There are problems encountered within the process of procurement and the delivery of LTSM, these are due to structural and

system arrangements used in the procurement of LTSM. Other problems arise from not adhering to relevant procurement policies and procedures in place (Zitha, Sebola & Mamabolo, 2016). To achieve success, the stakeholders involved should have a clear understanding of their responsibilities and the value they bring into the process, while governed by the relevant policies (Simayi, 2008). For all the nine provinces, R3.2 billion is spent a year on LTSM but this public money is not spent effectively, consequently, it does not add much value to the learners' lives, due to the poorly managed LTSM procurement process (Bush, Joubert, Kiggundu & Van Rooyen, 2009). According to Themane and Mabasa (2002) some LTSM were stored by DoE officials instead of being delivered to the deserving schools. In some cases, schools are unable to make precise projections of the number of learners expected to enroll in the following year in each grade; this was a generic problem faced by various schools in South Africa (Chisholm, 2013); as a result, LTSM run short in schools, and not all learners are able to access and use a textbook. A study conducted by Browne (2015) revealed that there is limited literature on the transportation and delivery of LTSM, which forms part of the procurement process.

## **2.7. LTSM and learner performance**

Maimela and Wotela (2021) poor performance in learners is rooted in the scarcity of resources and that comes from poor management of resources. The availability of LTSM has an influence on learner performance. Mwiria (1985) noted that institutions with ample LTSM, such as textbooks, have a better chance of performing well during examinations as opposed to poorly equipped ones. Similarly, Babayomi (1999) conducted a study which revealed that private schools produced better results than public schools due to the resources available, and the adequacy of how they are used. Miles and Darling-Hammond (1998) conducted a case study that looked into how schools can organise teaching resources in a way that is effective for the school. The study was conducted of five high-performing public schools that have organised professional resources in an original way. Data was collected by looking at the school's expenditure, staffing and student scheduling. Findings in this study revealed that all five of these schools reshaped the way they allocated teaching materials to meet the student's needs and to create the time teachers need to implement a new vision of schooling. These changes showed an improvement in student performance.

Material resources have an impact on a learner's academic performance as identified by Greenwald, Hedges and Laine (1996), who studied the outcomes of school resources on student achievement. Two meta-analytic methods combined significance, testing and effect magnitude estimation that were used in the analysis. The study findings showed a wide range of resources were positively related to student's outcomes, where an increase in spending maybe associated with an increase in achievement. However, publication bias was seen as a limitation for this research, because unpublished papers were used. This means that the information provided might have been different from that which was available, and they may have changed the results for analysis.

Adeogun (2001) uncovered that there is a strong and positive relationship between the materials teachers and learners use in the classroom and academic performance. According to Adeogun (2001), schools that have more LTSM performed better than schools with less LTSM. Olagunju and Abiona (2008) conducted research on the development and use of resources in biology education; where 450 teachers from 150 randomly selected secondary schools in some states of Nigeria were given two questionnaires. The study revealed that less than average number of teachers produced material resources, a few teachers use microscopes and magnifying glasses, specimen etc. Male teachers' perception of the utilisation of resources is significantly higher than female teachers.

Guloba, Wokadala and Bategeka (2010) conducted research to determine whether teaching methods and the availability of teaching resources has an influence on pupil performance. A baseline survey of data was collected under a three-year collaborative education project between the economic policy research centres. Four districts were selected, where, in each district, 25 schools were randomly sampled, bringing the total to 100 schools in rural environments. Teachers were given questionnaires, and the findings revealed that supplying more resources is not the number one intervention to improve quality of education. Teaching resources were found to have an opposite effect on the quality of education. Yara and Otieno (2010) conducted a study on the effects of teaching and learning resources and academic performance in Mathematics. Secondary Schools in Kenya were handed a descriptive survey, with a total of 405 senior teachers, and 242 students were randomly selected from nine schools out 24 schools. A student questionnaire on performance was developed for the study. The study outcomes revealed a

positive correlation among the eight independent variables i.e. parents/guardian, financial support, achievement, lack of trained teachers, stationary and the dependent variable measure i.e. Mathematics performance. Sedibe (2011), on the other hand, conducted research on the differences that are apparent when it comes to access to resources in previously disadvantaged South African high schools. Grade 12 learners and teachers in the North West Province were interviewed. These teachers and learners were from three different high schools. The study was conducted under a qualitative research paradigm. Findings revealed that there is still no equality in access to resources in previously disadvantaged high schools.

Mudulia (2012) conducted a study to determine the relationship between availability of teaching and learning resources and performance in secondary school science subjects in Kenya. A stratified random sampling method was used to draw a sample of 14 head teachers, 56 teachers, and 308 form three students. The outcomes revealed that the availability of resources was higher in high-performing schools than in low-performing schools. All of the five low performing schools had a laboratory, but did not have a laboratory technician, and only one laboratory was fully equipped.

Benjamin and Orodho (2014) conducted a study to determine the relationship between the availability of teaching and learning resources and effective classroom management and content delivery in secondary schools in Huye District, Rwanda. They used a descriptive survey and a stratified sampling technique to select a sample size of 619 respondents. A questionnaire was used as the main research instrument. The study conclusions revealed that the level of teaching and learning resources was insufficient, compromising the effectiveness of classroom management and content delivery. The relationship between most of the teaching and learning resources and level of classroom management and content delivery was both positive and significant (Benjamin & Orodho, 2014).

Ezeliora, Nnanna and Maxwell (2021) conducted a study that examined the comparative effects of teaching with improvised instructional materials and standard instructional materials on secondary school student's academic achievement in chemistry. The findings of the study showed that students taught chemistry with improved instructional materials achieve a higher percentage than those taught with standard instructional materials.



## **2.8. Research conducted on LTSM**

Thamane and Mabasa (2002) conducted a study entitled Breakdown in the system of learner support materials supply in the Northern Province, South Africa: A case study of Region 2 of the Northern Province of South Africa. A qualitative research approach was employed, and a purposive sample of five schools was used. Data was collected using three methods, which included: interviews, observation, and documentation. The findings revealed that the system of supply of learner support materials in the Northern Province was in a chaotic state (Thamane & Mabasa, 2002).

Kunene (2005) conducted a study on the impact of resource provisioning in the implementation of curriculum 2005. The study objectives were to analyse the resource provisioning of schools and to investigate resource management at schools in order to determine what informs provisioning systems, and what training is given to teachers to incorporate resources into the teaching and learning process. The research adopted a quantitative approach and questionnaires were used to collect data. A random sampling method of 12 districts in Gauteng was used in this research and a probability sampling procedure was followed. The findings revealed that there are three factors that affect the provisioning systems and the incorporation of the resources into the teaching and learning process. These factors include: teacher development; alignment of administrators and curriculum specialists' roles and functions; clear lines of accountability; and clear control measures between different structures of the department (Kunene, 2005).

Joorst (2010) conducted a study titled the implementation of learning support strategies by teachers in the intermediate phase of a school in the Western Cape. The purpose of the study was to investigate the implementation of learning support strategies by intermediate phase teachers. The study site was a primary school in the Western Cape and a sample of 10 teachers was employed. Focus group discussions and in-depth interviews were used to collect data and a thematic analysis approach was used. Findings in this study revealed that there is a huge gap between inclusive education policy expectations and the actual manifestation of teachers support to learners with learning difficulties. Furthermore, a combination of external, internal, and systematic factors working in conjunction and culminating in a lack of capacity amongst teachers (Joorst, 2010).

Van der Merwe (2010) conducted research on the use of learning support materials in rural schools in Maputaland, KwaZulu-Natal, South Africa. The study followed an interpretive research style. The aim of the study was to uncover the use of learning support materials in the rural schools of Maputaland. A case study of four schools, using workshop questionnaires as a method of collecting data was used. Findings revealed that the use of materials by teachers is not fully realised in the classroom practice. Furthermore, there is no culture of use of materials in the schools following the introduction of the African Coalacanth Ecosystem Program (ACEP) (Van der Merwe, 2010).

Bojuwoye, Moletsane, Stofile, Moolla and Sylvester (2014) conducted a study titled learners' experiences of learning support in selected Western Cape schools. A qualitative interpretive approach was adopted, and focus group interviews of 90 learners were used. The findings revealed that learners received and used various forms of learning support from their schools, teachers and peers. Furthermore the learning support assisted in meeting learners' academic, social and emotional needs by addressing barriers to learning, creating favorable learning environments, enhancing learner's self-esteem, and improving learner's academic performance (Bojuwoye, Moletsane, Stofile, Moolla& Sylvester, 2014).

Phakathi (2015) conducted a study entitled *the management of learning and teaching support material in public schools: A comparative case study*. The objectives of the study were to examine the role of the school management team in the management of textbooks in schools, to understand the challenges faced by the school management in the management of textbooks in schools, and to understand how challenges are addressed in schools. A case study was adopted as the research design. Data generation methods were semi-structured interviews. Data was analysed using a thematic approach. The findings revealed that the school management team comprises the LTSM committee, and it is the LTSM committee's responsibility to procure and manage school textbooks. A number of challenges were also revealed, one of these being inadequate LTSM budget allocation (Phakathi, 2015).

A study conducted by Osaat (2017) used a quantitative approach to investigate the availability of resources for managing functional secondary education in River state, Nigeria. The results revealed that the availability of resources in schools in River state in generally low. The study

concluded that the government should adequately fund the educational sector. Parents and community leaders should provide support in the form of donations and contributions.

An empirical study conducted by Mudenda and Changala (2019) which explored the challenges faced by schools management in the procurement of teaching and learning material and their perceived effect on pupils academic performance in selected secondary schools in Zambia. The qualitative results revealed that strategies employed by school management in LTSM procurement included facilitating the planning and budgeting process, approving budgets, allocating funds and financial resources, sourcing for funds and monitoring the purchase of materials. The challenges faced by school management in the procurement of LTSM included severe conditions attached to allowances from government , which downgraded the purchasing of LTSM as well as absence of full time and trained procurement officers.

Mkhasibe, Khumatake, Olaniran and Maphalala (2020) conducted a study that investigated the availability of and access to LTSMs in teaching the accounting component of Economic and Management Sciences (EMS) in South African Schools. The study adopted a qualitative research design. Nine participants who are teachers of EMS were purposively selected from seven high schools within the King Cetshwayo District, in the Kwa-Zulu Natal Province of South Africa. One-on-one interview Served as the data collection instrument, and data collected was analysed thematically based on the major variables of the study such as the availability of, types and access to LTSMs, as well as the challenges faced by teachers in their attempt to access and use LTSMs to teach the accounting component of EMS. Findings of the study revealed the engagement of unqualified teachers teaching EMS, low access to charts and other visual LTSMs, over-dependence on textbook as LTSM, and willingness of teachers but lack of access to the relevant visual LTSMs. The study recommends, among others, the appointment of EMS trained teachers to teach the subject, training and re-training of current teachers of EMS, and extended collaborations between schools, Banks and other financial institutions that can provide useful tools and materials to aid the teaching and learning of EMS in schools, especially the Accounting component of the subject.

Mbuqe (2020) conducted a research study entitled *Procurement of learner teacher support materials in east London district public secondary schools*. The objective of the study was to determine the efficiency at which the procurement process of LTSM is managed at public

secondary schools in the East London district. A qualitative research approach was employed. The target population for this study was the Department of Education in the Eastern Cape Province and a sample of 19 participants was employed. Interviews were used as a method of data collection and a thematic analysis process was adopted. The findings in the study revealed that the procurement process of LTSM is centralised at the head of level of DoE, the district and school levels play a significant part. Furthermore, it was revealed in the study that although there are rules, regulations, and policies that work as guidelines in the procurement process, the implementation and monitoring is flawed (Mbuqe, 2020).

## **2.9. Criteria for assessing LTSM**

An evaluation instrument was published by the Gauteng Department of Education Circular 40 (2000c) that was intended for evaluating LTSM. These instruments detail criteria teachers and schools can use to evaluate, review, and select LTSM that are developed. Berhard, Lernhardt and Miranda-Decker (1999) cite the following criteria for evaluating LTSM:

### **2.8.1. Criteria to evaluate content**

- Covering appropriate content

Does the LTSM cover and emphasise the topics appropriately? Are they at the appropriate level for the age group in the class? Is the information accurate? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Challenge all learners

Is the content in the LTSM challenging and expands learner's knowledge? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Integrates subjects or learning areas

Is the LTSM content using real life examples and is there integration with other subjects? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Develop concepts clearly

Is there a clear and concise introduction of the subject and are there examples as well as different representations of content? Is the vocabulary clearly explained and reiterated with examples? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Allow for flexibility

Is the LTSM flexible enough for the teacher to make it their own? (Berhard, Lernhardt& Miranda-Decker, 1999)

### 2.8.2. Criteria to evaluate learner LTSM

- Develop reasoning skills

Does the LTSM provide learners with enough chances to develop reasoning skills such as inductive and deductive reasoning? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Develop communication skills

Does the LTSM promote listening and speaking? Can learners ask the teacher questions and is there an opportunity to use a variety of apparatus within the classroom? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Develop problem-solving skills

Are the problem situations vigorous and encourage learners to explore the subject? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Activities are meaningful

Are there physical activities that will have meaning to all learners regardless of background? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Promote equality

Are the diverse backgrounds, races, ethnicity, gender, health, religion, social class, and age represented in the LTSM? The person evaluating the LTSM needs to put into consideration issues such as familiarity of content, the language that is used for all learners, for example a

South African learner cannot understand content based on another country. There also needs to be different ways to know and do the subject (Berhard, Lernhardt& Miranda-Decker, 1999).

- Promote positive values

Learners need to be taught to respect one another's ideas, the way another person thinks, and the nature of the subject. Is respect for the environment, the rights and property of others encouraged in the LTSM? (Berhard, Lernhardt& Miranda-Decker, 1999)

### 2.8.3. Criteria to evaluate teachers' LTSM

- Empower teachers to make communication in the classroom better

Does the LTSM allow for teacher to make positive judgment about communication in the classroom; this includes when to give learners information, when to clarify issues, when to allow learners to struggle with a problem, and when to have learners support their ideas in writing and orally? Is the teacher encouraged to promote active participation of learners? (Berhard, Lernhardt& Miranda-Decker, 1999)

- Empower teachers to make curriculum decisions

Is the teacher given the liberty to make changes about the content, work learners do and the types of assessment to be conducted? Are alterations prohibited in order to discuss issues that come up in the classroom in order to reflect what is of interest to the learners?(Berhard, Lernhardt&Miranda-Decker,1999).

- Provide adequate teaching materials

Is the LTSM clear and helpful to enable the planning and preparation of lessons on time? Do teachers gain knowledge from the LTSM in order to ask learners interesting and important questions? (Berhard, Lernhardt & Miranda-Decker, 1999).

- Are the LTSM differentiated?

Is there enough assessment material to allow for extra practice assignments, challenging assignments? Does it cater for advanced learners and gives extra examples and solutions? Does

the LTSM give suggestions on how to engage learners? (Berhard, Lernhardt & Miranda-Decker, 1999).

## **2.10. Resource based learning**

Czerniewicz, Murray and Probyn (2000) define resource-based learning as structured, supportive learning that requires resources in order to have a planned educational programme, it involves the use of diverse resources in order to achieve both subject and information literacy. Resource-based learning follows the premise that learning is learner-centered, and it should be an active process. A variety of learning tactics need to be employed. Resource based learning believes that learners learn better if they physically do tasks as it allows them to differ in the speed in which they learn (Czerniewicz, Murray &Probyn, 2000) . Furthermore it helps encourage learners to be creative, imaginative and curious about what they are learning. Learners create their own understanding through reflection and self-assessment. The teacher steps away from being the giver of information, and takes up the stance of a motivator and facilitator, while giving learners the momentum to find information and solve problems in a creative manner (Czerniewicz, Murray &Probyn, 2000). Resources in this type of classroom environment are selected and adapted not only for content, but for the ways in which they encourage independent learning. Teachers are encouraged to engage with one another across all subjects and grade levels (Czerniewicz, Murray &Probyn, 2000). Resource-based learning programmes help learners to gain thinking skills, obtain information, and use resources in order to develop themselves as individuals. Furthermore, learners learn:

How to select, arrange and share information with others as well as to identify a need to get information, where and how to find the information (Czerniewicz, Murray &Probyn, 2000).

To examine, understand, create and classify information and also learn the skill to read, write, view, speak, and listen (Czerniewicz, Murray &Probyn, 2000).

To be critical thinkers and problem-solvers (Czerniewicz, Murray &Probyn, 2000).

Knowledge acquisition, comprehension and skills learning during a lesson that is resource-based is established experimentally, and at small intervals (Czerniewicz, Murray &Probyn, 2000).

When developing these skills, teachers combine different factors, that include what is expected

by the curriculum, what each learner needs, and what other sources of information suggest (Czerniewicz, Murray & Probyn, 2000). Resource-based learning looks at the learner holistically and tries to tap into how each learner acquires knowledge. This type of learning not only highlights the importance of LTSM, but it further reiterates the notion that learners are not a one-size-fits-all pair of gloves, but they are different and multifaceted, where it is the role of the teacher to ensure that he/she taps into the part of the learner through using resources that enables them to learn better. As stated by Czerniewicz, Murray and Probyn (2000), the core of resource-based learning is resources, which it can be dangerous to underestimate. Carefully planned, well-structured and gradually linked learning programmes are the requirements of resource-based learning, and without these three components, the learning may be random, and superficial (Czerniewicz, Murray & Probyn, 2000).

#### 2.10.1. The role of each component in a resource-based learning classroom

- Teachers

Resource-based learning requires teachers to shift the way they approach teaching by being able to expand the outcomes outlined in the curriculum, and play a role that steps away from what is expected of a traditional teacher (Czerniewicz, Murray & Probyn, 2000).

- Learners

Learners also need to change their attitude and abilities, as resource-based learning requires having new skill set, thinking, and reading (Czerniewicz, Murray & Probyn, 2000).

#### Access to resources

Resource-based learning requires teachers to have access to a range of resources that also includes the school library or the community library. Since we are living in the 21<sup>st</sup> century where technology rules our lives, access to the internet is also expected (Czerniewicz, Murray & Probyn, 2000).

#### The complexity of materials development

Since they are the core of resource-based learning, resources need to be adapted so that they also include print formats that develop and support learning (Czerniewicz, Murray & Probyn, 2000).

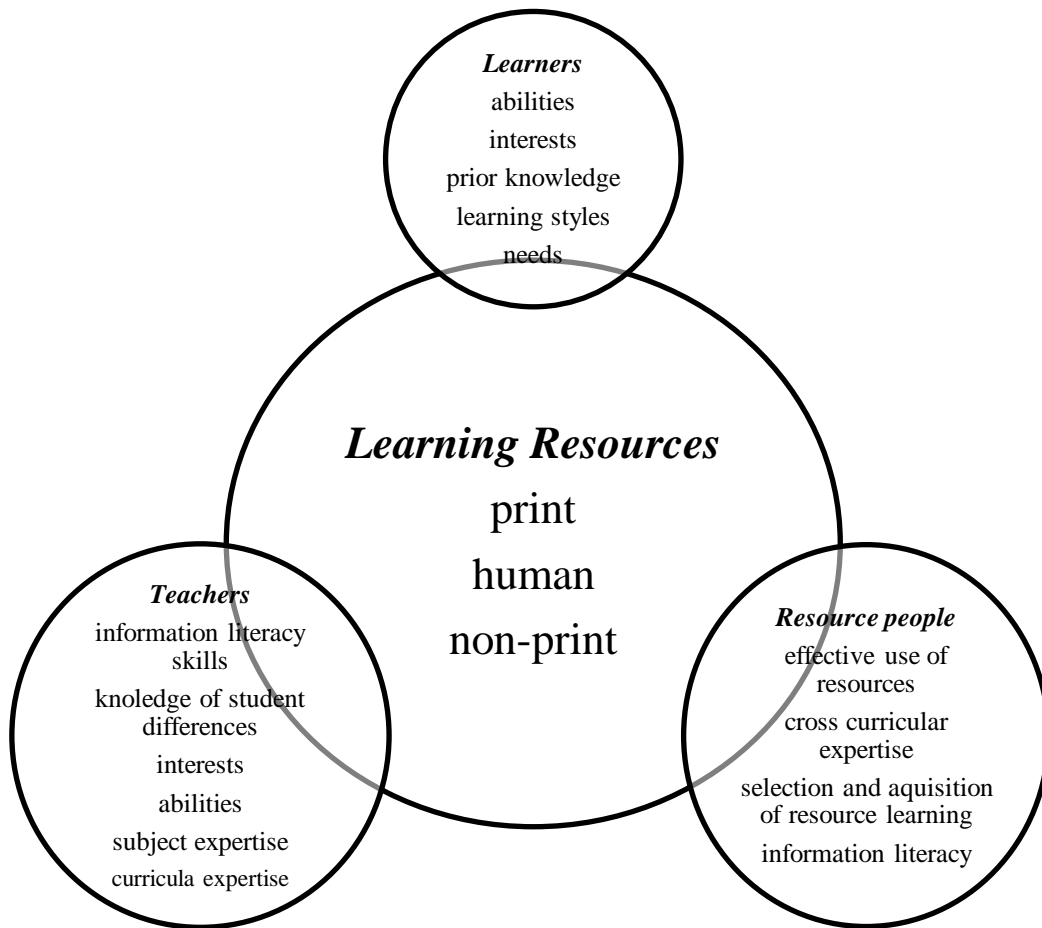


For this to happen, considered designs, proper planning, sufficient preparation, and good funding is required, as well as continuation in the evaluation and development process (Czerniewicz, Murray & Probyn, 2000).

#### An enabling environment

Merely providing resources in a resource-based learning programme is insufficient; there further needs to be an environment that stresses the importance of resource-based learning, as well as the development and implementation of resource based programmes that are planned by classroom teacher as this increases the effect of resource based learning (Czerniewicz, Murray & Probyn, 2000).

**DIAGRAM 1 -KEY ELEMENTS OF RESOURCE BASEDLEARNING**



Adapted from Czerniewicz, Murray and Probyn (2000)

## **2.11. Conclusion**

LTSM are an integral part of school life. It is necessary to understand which to use, as well as how and when stands between success and failure in the classroom. The literature review has defined LTSM, looked at their purpose and role in the classroom, and identified how teachers can select and use LTSM. Furthermore, the literature review has unpacked how LTSM are acquired in schools, as well as how LTSM impact learner achievement, and finally, it has revealed criteria to assess LTSM .Finally it resource-based learning, and how this type of learning has the potential to change the way teachers teach. The chapter that will follow will divulge the theoretical framework that underpins the research study.

## **CHAPTER THREE: THEORETICAL FRAMEWORK**

### **3.1. Introduction**

The previous chapter considered extant literature, whereas this chapter will present the theoretical framework for the study, viz. experiential learning theory. This chapter details the essence of the theory, as well as how it relates to the study. This will be done by looking at the experiential learning cycle, the different learning styles that work hand-in-hand with the theory, the role a teacher has to play when teaching within the experiential learning cycle, and finally, a display of figures that depict the core of the theory.

### **3.2. The experiential learning theory (ELT)**

The theoretical framework that underpins this study is the experiential learning theory proposed by David Kolb. Experiential learning theory offers a model of how people learn and how they develop. It is rooted in the works of Dewey (philosophical pragmatism), Lewin (social psychology), and Piaget (cognitive development) to create a special perspective on learning and development (Kolb, 1984). Experiential learning theory views learning “as a process where knowledge is created through the transformation of experience” (Kolb, 1984, p. 41). Kolb and Kolb (2017) define experiential learning theory as dynamic and holistic learning process that is based on experiences, and the multi-faceted process of adult development. Teachers, however, are seen as authority figures in the classroom and remain learners in their field of work, where their experiences during the teaching process informs how they proceed going further. The experiential learning theory highlights the role that prior knowledge plays in the learning process. The theory proposes two modes of taking hold of experience, namely Concrete Experience (CE) and Abstract Conceptualisation (AC), and two modes of changing experience, namely Reflective Observation (RO), and Active Experimentation (AE) (Kolb, 1984). The four proposed stages of experience reveal how experience is interpreted, through reflection, into concepts, and that reflection serves as a form of steering that influences the choice to try new things, in order to gain new experiences (Healy & Jenkins, 2000). These four stages follow each other in a circular motion however the cycle maybe entered at any point as long as the stages

follow a sequence (Healy & Jenkins, 2000). Following a circular motion enables there to be feedback in the learning process, which in turn serves a source for a new act and assessing the outcomes of that act (Healy & Jenkins, 2000).

### 3.2.1. Experiential learning cycle

Collaboration between action, reflection, experience, and concepts is what drives the learning cycle (Kolb & Kolb, 2017). The four stages that follow a circular motion in experiential learning theory are as follows:

- Two modes of taking hold of experience

The concrete experience stage (CE)

This is the stage where the learner is doing a task, while the teacher conducting a lesson using a specific learner-teacher material resource (Healy & Jenkins, 2000).

The abstract conceptualisation stage (AC)

This refers to where the learner now thinks about the experiences (Healy & Jenkins, 2000).

- Two modes of changing experience

Reflective Observation (RO)

This is the stage when the learner is now looking back on their experiences with the task, while the teacher now has a mental observation of how the lesson went (Healy & Jenkins, 2000).

Active Experimentation (AE)

This stage is when the learner now plans for new experiences, while the teacher at these two stages is thinking about the experiences he/she observed or felt during the lesson and plans on how to change those experiences or enhance them (Healy & Jenkins, 2000).

The experiential learning theory holds that we learn through our perception of a particular experience, in the sense that we dive into an experience using our senses and feelings in a “concrete” manner when we think about the experience “abstractly” using logic and reasoning, and we ultimately understand the experience by changing it (Fielding, 1994).

This theory best suits the current study because it explains how experiences are not just subjective accounts of human emotions, but are a way that individual learners actively make sense of the situations in their lives. This is of importance to the study, as it serves to examine teachers' experiences with material resources. The theory will help make sense of the choices that teachers make in the classroom, based on their experiences.

The experiential approach places the subject to be learned in the centre, to be experienced by both the educator and learner. Using the cycle of learning, all participants receive information through concrete experience of the subject matter, and transform it through reflection and conceptualisation, thereafter transforming it again by acting to change the world including what information is attended to in the new experience. They are both receivers of information, and creators of information. This has a leveling effect on relationships, to the extent that all can directly experience the subject (Kolb & Kolb, 2017).

### **3.3. Learning styles**

Kolb (1984) further states that learners have four different learning styles, where each learning style has a different way of solving problems. The choice of learning style is a reflection of a person's learning history, their abilities, and their environment (Nulty & Barrett, 1996 as cited by Healy & Jenkin, 2000). ELT identifies learning as having a way of determining how humans develop, and how people shape their personal development (Kolb & Kolb, 2011). Research conducted by Kolb (1984) reveals how learning styles are affected by an individual's personality type, choice of career, and the job they have at work.

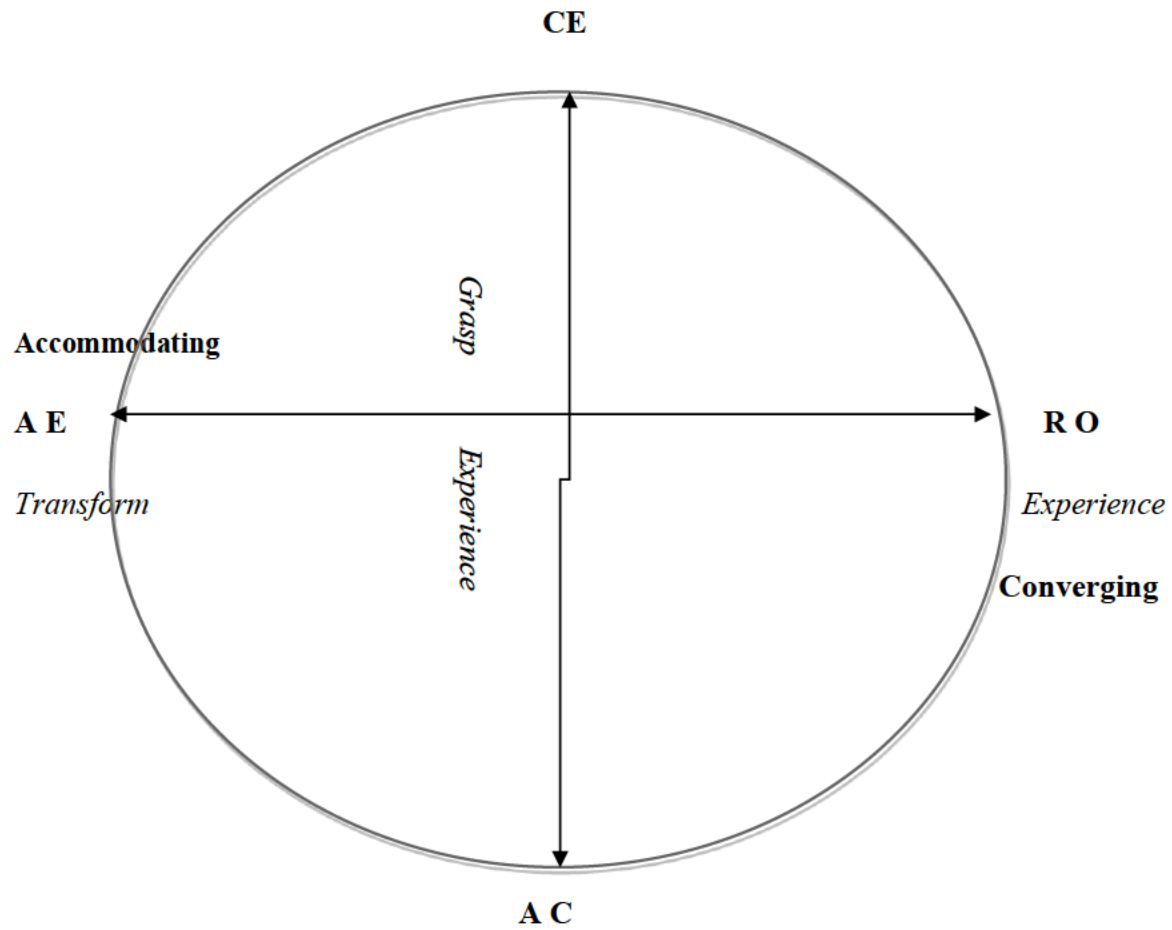
#### **3.3.1. The learning styles include:**

- Divergers examine circumstances from many different angles, and generate ideas through brainstorming (Healy & Jenkins, 2000). Divergers learn best when they are given permission to study and collect a variety of information as possible. A person with diverging style has CE and RO as dominant learning abilities (Kolb & Kolb, 2011).
- Assimilators use experiences and proven observations to guess the outcomes and can create theoretical models (Healy & Jenkins, 2000). Assimilators learn best when given clear hypothesis to work with. A person with an assimilating style has AC and RO as dominant learning abilities (Kolb & Kolb, 2011).

- Covergers formulate a hypothesis that can be tested, where the outcome is not yet known (Healy & Jenkins, 2000). Covergers learn best when given a hypothesis that can be practically tested. A person with a converging style has AC and AE as dominant learning abilities (Kolb & Kolb, 2011).
- Accommodators plan and carry out a task and are able to adjust to any circumstances arising (Healy & Jenkins, 2000). Accommodators learn best when they are provided with physical experiences of something. A person with an accommodating style has CE and AE as central learning abilities.

Looking at the teacher as a learner in their field means understanding how they learn and process information, hence, knowing the different learning styles enables myself as the researcher to form a basis for the choices each teacher makes when choosing their LTSM.

**Diagram 2-EXPERIENTIAL LEARNING THEORY CYCLE BY KOLB**



Adapted from Kolb and Kolb (2011)

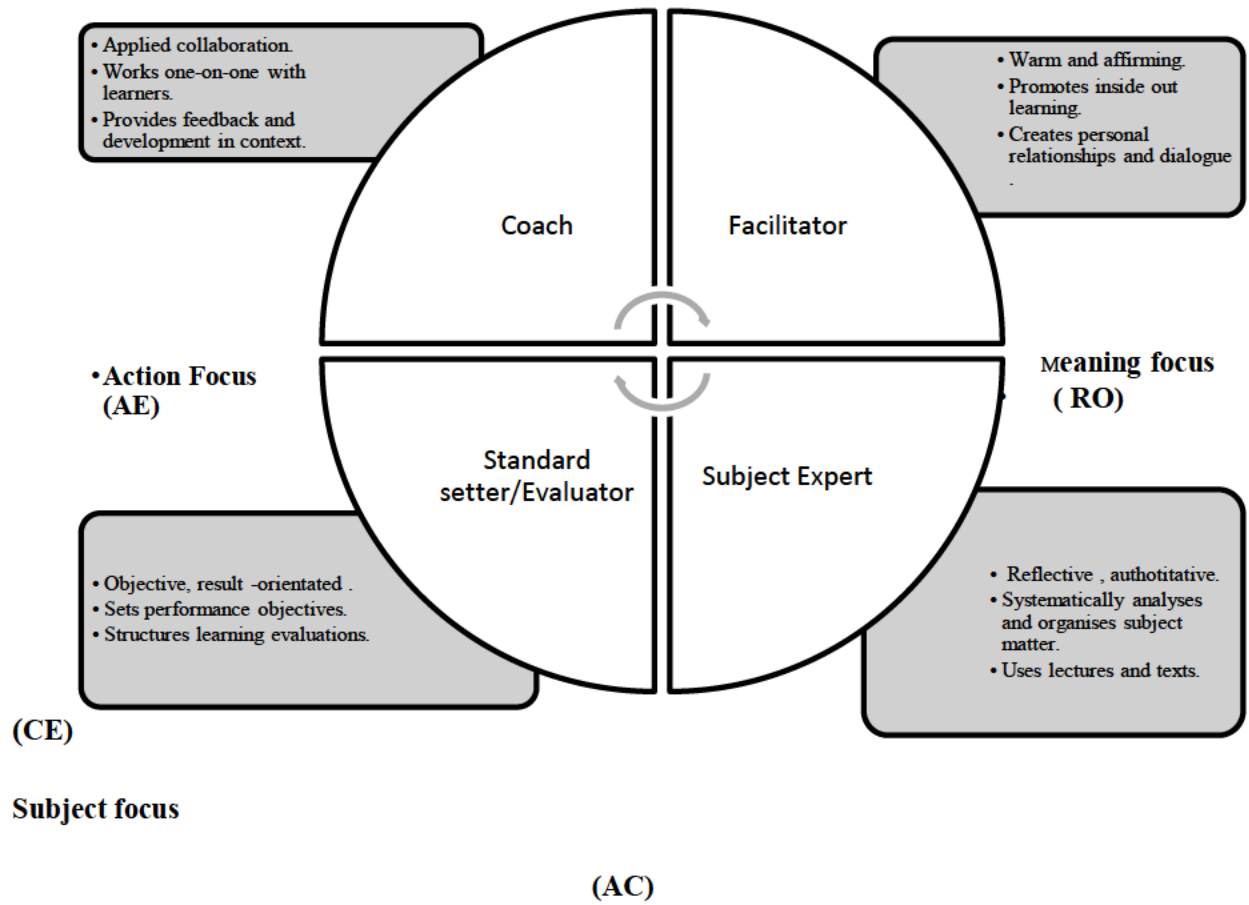


### **3.4. Role of teachers within the experiential learning cycle**

Kolb and Kolb (2017) established a framework to assist teachers in applying ELT within the four stage of the learning cycle, and these include taking on the role of the facilitator, the subject expert, the standard-setter/evaluator, and finally the coaching role (Kolb & Kolb, 2017). They further developed a self-evaluation instrument, termed the Kolb Educator Role Profile (KERP). This self-assessment tool is designed to assist teachers in understanding their personal approach to teaching based on teaching around the learning cycle. In order to allow for circulation around the learning cycle, the teacher needs to constantly change their role from facilitator to subject matter expert to standard setter/evaluator to coach (Kolb & Kolb, 2017).

This KERP assessment tool is a great device for teachers, because it will enable them to evaluate the appropriate LTSM for the role they intend on taking when delivering a particular lesson. Not all subjects require a teacher to take on the role of a facilitator, and similarly, not all subjects require the teacher to take on the role of being a coach, where moving around these four roles will enable the teacher to understand the learners better, as well as to understand what works for a particular subject. In turn, the teacher will then be able to select LTSM that are appropriate for teaching and learning for that subject, and yield positive outcomes, or rather, the intended lesson outcomes.

**DIAGRAM 3 -LEARNER FOCUS**



Adapted from Kolb and Kolb (2011)

### **3.5. Conclusion**

The chapter has explored experiential learning theory. Experiential learning theory views learning as a process that is shaped by experiences because during the learning process an individual moves back and forth between different types of feelings, thinking, and action. The theory further views learning as not just measuring an individual's cognitive abilities, but encompasses an individual's thinking, feeling, perception, and behaviour. Knowledge is created by grasping and changing experiences and all of this occurs in a circular motion, which is called the learning cycle. Every person learns differently, and each learning style describes how each person learns at different phases in the learning cycle. Chapter Four will focus on the methodologies that were used in the study.

## **CHAPTER FOUR: RESEARCH METHODOLOGY**

### **4.1. Introduction**

Chapter Three presented theoretical framework that underpinned this research study. This chapter presents the research methodology used.

### **4.2. Interpretivist Paradigm**

Henning (2004) states that assumptions on how things work and a shared understanding of realities constitutes as a research paradigm. Research paradigms uncover a variety of realities that exist in the world as opposed to just one. This study followed an interpretivist paradigm. An interpretivist paradigm, as outlined by Terre-Blanche and Durheim (2004), refers to the way a researcher describes and interprets human emotions and experiences. An interpretivist researcher does not predict human feelings, but has an interest in describing and understanding the way humans make sense of their world (Bertram & Christiansen, 2014). Furthermore, an interpretivist paradigm takes into account all factors that form part of the participants' context since this shapes the participants' responses (Bertram & Christiansen, 2014). The purpose of this paradigm is to understand how humans make sense of a given phenomenon (Prasad, 2005). An interpretivist approach to research holds that people create a depth of meaning to phenomena instead of giving a general account of them (Alharahsheh & Pius, 2020).

This paradigm was an ideal approach to the type of study I conducted, as it enabled me to describe and understand teachers' experiences working with material resources in the 21<sup>st</sup> century, without predicting their emotions, where teachers guided me to gain a deeper understanding of their experiences. As stated by Bertram and Christiansen (2014) participants will be in their natural surroundings, and the findings of this research acknowledge the beliefs and behaviour of the participants.

An interpretivist researcher treats the context of a specific situation as a distinctive entity, based on the conditions and the participants (Alharahsheh & Pius, 2020). An interpretivist paradigm does not control the participant's environment, but it allows participants to be themselves in their own familiar surroundings, making it easier for them to be relaxed and fully engaged to

participate. Furthermore, information within an interpretivist paradigm is subjective, which means that it is the participant's truth, taken as is, without any manipulation.

#### **4.3. Qualitative Research Approach**

The research design is characterised by presenting the type of data the researcher wants to generate, and further guides the researcher's decisions, the study's purpose, and the methods to be used (De-Vos, Strydom, Fouche & Delport, 2005). This study used a qualitative research approach. A qualitative approach to research as described by McMillan and Schumacher (2006) is a study that generates data on a phenomenon that occurs naturally, and is translated into words. Furthermore, a qualitative approach is helpful in giving answers to questions that pertain to the participants and their context (Mills, 2003). Uncovering teachers' experiences with LTSM in the 21<sup>st</sup> century is something that is immeasurable, where a qualitative approach helps when the researcher is trying to understand the complexity of experience (Mills, 2003). Qualitative research focuses on why and how behaviors happen. This is valuable because the participants will help the researcher acquire a deeper understanding of the research topic.

Qualitative research aims to study participants in an environment that is not controlled or manipulated by the researcher. For this reason, the researcher gathered data from participants in their natural setting at their respective schools (Dubose, 2010). Pius and Alharahsheh (2020) further state that qualitative research conveys an understanding of a problem based on an individual experiences, where that problem may not be scientific.

The qualitative approach to research enabled me to adequately uncover answers on teachers' experiences with working with material resources in the 21<sup>st</sup> century, and how those experiences have shaped the way they approach teaching and learning. A qualitative research approach enabled capturing the meanings and experiences through verbal and interpretive descriptions (Mills, 2003). A good qualitative research study is more concerned with what the participants have to say (Sullivan and Sargeant, 2011), and this holds true because in order to gather rich and fruitful data in this study, it was necessary to observe how participants expressed themselves, not only verbally, but through their body language and facial expressions. This gave a full description of the participants and qualitative research approach enabled me to do so. This is important because participants' understandings vary immensely from one another and they operate very differently (Dubose, 2010).

#### **4.4. Phenomenological Research Style**

This research uses a phenomenological research style, which describes as precisely as possible a phenomenon without looking at any preexisting framework, but remaining true to the facts (Groenwald, 2004). A phenomenological researcher is interested in understanding psychological and social phenomena from the perspective of people involved, where in addition, it is concerned with the experiences that people go through every day (Groenwald, 2004). Similarly, Kafle (2011) states that the focus of this type of research style places a lens on the way things appear through experiences. Research using this style is experiential and qualitative with that being said Moustakas (1994) defines a phenomenological research style as one that involves allowing participants to return to their experiences of a particular phenomenon in order to get an accurate understanding of the essence of the experience. I choose a phenomenological research style as I felt it was best suited to bring to light teachers' experiences when working material resources in the 21<sup>st</sup> century. This research style allowed participants to zoom into how they actually feel about the material resources that are present in their school and they could only do this through reflecting on their experiences. The perspective of teachers who are actively involved with the phenomenon of LTSM enabled me to adequately understand and describe it.

#### **4.5. Sampling strategies and sample size**

The unit of analysis in this study was teachers and their experiences working with material resources. This research study required participants that are actively involved in the classroom in terms of lesson preparation and conduction. Purposive sampling and convenience sampling best answered the research questions as Buchanan and Bryman (2009) state that sampling methods must be suited in terms of generating information that will answer the research questions.

##### **4.5.1. Purposive Sampling**

Leedy and Ormrod (2001) describe purposive sampling as a sample that does not represent the population or in this case does not stand for all teachers, but rather stands on its own.

Furthermore, it is based on the type of information the researcher wishes to be generated and relies on the judgment of the researcher (Bertram& Christiansen, 2014). Participants were chosen

who serve the purpose of preparing and conducting lessons on a daily basis, and were novice and experienced teachers in the Foundation and Intermediate phases.

#### 4.5.2. Convenience Sampling

The study employed convenience sampling when choosing the research site, as a sample that is easy for the researcher to reach (Bertram & Christiansen, 2014). The study was conducted in a primary school in Umlazi Township where it is convenient to access the schools as I frequent the area on a daily basis. The school's name is F Junior Primary School. The school was previously a Junior Primary School, which consisted of only the Foundation Phase (grades R-3), but as the demand and need increased over the years, more grades were introduced. Currently, the school caters for pre-grade (crèche) learners right up to Grade 7, all primary school phases (Foundation Phase, Intermediate Phase and Senior Phase) are catered for. The school is relatively small, as each grade has one class and some of the classrooms overflow. There are a total of 374 learners that are registered in the school and nine classrooms. The school is in Quintile 3, making it a non-fee-paying school. There is no hall, no library, no playground and very limited extra-curricular activities. The school has a feeding scheme funded by the Department of Education and there is also a programme where learners are given porridge every morning that is funded by a private donor. The school boasts teachers who have very lengthy experiences in the education field, as well as novice teachers. There are 10 permanent teachers employed by the Department of Education. There is one cleaner and one administrator also employed by the Department of Education, and there are two ladies who work in the kitchen who assist in cooking the learners' food.

#### 4.5.3. Sample Size

The sample size included eight teachers, which means I had three teachers in the Foundation Phase and five teachers in the Intermediate and Senior phases. The teachers were representative of novice and experienced teachers. I chose eight participants, as Groenewald (2004) states that in a phenomenological study a sample size maybe up to ten people.

**Table 1-PSEUDONYMS AND BIOGRAPHICAL DATA OF PARTICIPANTS**

Participant	Pseudonym	Qualification	Age	Current teaching Phase	Years of experience	Gender
1	LN	Bed	47	Intermediate Phase	26 years	Female
2	NN1	Diploma M+4	46	Intermediate and Senior Phase	15 years	Female
3	TN	Bed	30	Foundation Phase	8 years	Female
4	LM	PTD Senior, HDE & Bed Honours	57	Intermediate and Senior Phase	26 years	Female
5	NL	Junior Primary teachers Diploma, ABET & HDE	48	Foundation Phase	26 years	female
6	NN2	Bed	32	Foundation Phase	2 years & 9 months	Female
7	MN	Bed	26	Intermediate and Senior Phase	3 years	Male
8	PM	PTD Senior & Higher FDE	59	Intermediate and Senior Phase	31 years	female



## 4.6. Data Generation Methods

I had chosen to use two methods to generate data:

### 4.6.1. Telephonic Standardised open-ended interviews

All eight participants were interviewed telephonically in order to allow for social distancing in light of the 3<sup>rd</sup> wave of Covid-19. Although all interviews were telephonic, where I used standardised open-ended interviews. Turner (2010) describes standardised open-ended interviews as interviews that have structured questions, and all participants are asked similar questions, but the responses of participants are open-ended, meaning that it is unlimited.

Participants were called at a scheduled time that was convenient for them, and I allowed them to be fully responsive. I had an interview schedule in order to write down participant's responses, I also downloaded an app that allows one to record telephonic conversations so that I did not miss anything that was said. The interviews with participants were 5 minute duration per participant.

Having open-ended responses allowed participants to give rich and detailed accounts of their experiences with working with material resources in the 21<sup>st</sup> century and gave the researcher, leeway to probe further in order to follow up. Standardised open-ended interviews gave participants the opportunity to freely share their experiences in a way that best suited them. Since my research style was phenomenological, I allowed participants an opportunity to respond to the interview questions in a language in which they were most comfortable.

Table2- Telephonic standardised open-ended interviews answered the following research questions (*see Appendix N1*):

All three research questions	All three objectives
What type of material resources do you personally use in your classroom?	Explore the type of material resources teachers personally use in the classrooms.
What are your personal experiences with using these material resources?	Explore their experiences with using these material resources.

How have these experiences shaped the way you teach?	Explore how their experiences with these material resources has shaped the way they teach.
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#### 4.6.2. Zoom scheduled focus group discussion

Covid-19 has made it extremely difficult to have physical human interaction, where the study opted to conduct zoom scheduled focus group discussion. This was done to ensure that contact with participants was kept to a minimum.

Lueng and Savithiri (2009) define a focus group as a discussion that is carefully planned to gather perceptions on a specific area of interest in a non-threatening environment. It is a relaxed, comfortable and an enjoyable discussion for participants. The focus group discussion was the initial data generation method, where the researcher dug deeper into understanding what teachers understood by the term LTSM, and revealed the LTSM that are present in the school. I chose a focus group discussion because I felt it was going to enable the participants to share their opinions freely and openly, and furthermore, it enabled the researcher to gain a deeper understanding of how teachers view and treat the material resources that they use in their classrooms. A focus group also helped participants to loosen up, since it will be like a discussion amongst colleagues, as stated by Onwuegbuzie, Dinkinson, Leech and Zoran (2009, p. 4) state that “Focus groups can be formed by using preexisting groups(e.g., colleagues at a place of work).”

According to Miller (2020), a focus group is characterised by having six to ten members. The people in the group ought to be similar in demographic and socio-economic status, but have different views of the world. The focus group in this research study had eight participants. All participants are full-time educators, but of different age groups, and with different levels of experience in the field. Interaction amongst participants was encouraged, where the aim was not to reach a point where everyone was in agreement, but instead to promote reflection on the research topic. Opinions were shared and opportunity for responses was given. Focus groups use audio recorders to gather information from participants and the researcher transcribes the information recorded in order to analyse it (Sullivan &Sargeant, 2011). For the purpose of this

research study the researcher had a focus group interview schedule which served as a guide throughout the session. All conversations within the focus group were recorded.

The advantage of a focus group is that it enables participants to respond to each other, where they also support or disagree with each other's opinions, thus creating more data and focus groups allow for perceptions, attitudes, and experiences to be shared (Miller, 2020).

Research questions answered by focus group discussion (*see Appendix N2*):

The focus group discussion set as a foundation to the study, as it gave the researcher a baseline understanding of what teachers know about learner-teacher support materials.

#### **4.7. Ethical considerations**

It is important that all research study follows ethical principles, which include autonomy, non-maleficence, and beneficence (Bertram & Christiansen, 2014). Respecting participants' autonomy involves gaining consent from the participants, where the researcher wishes to take part in the research furthermore ensuring the confidentiality of the participants (Giordano, O'Reilly, Taylor & Dogra, 2007). All participants voluntarily consented to participate in the study, where consent was given after being informed of potential risk (Clark-Kazak, 2017). Furthermore, participants were able to extricate themselves from the research study at anytime. The school principal was approached, and asked for consent to conduct research in the school providing all information with regards to the study. Once the principal of the school approved, the teachers in the school were approached and given a clear, detailed account of the study. All risks were detailed to the teachers, along with expectations of their own commitment. Once participants were well-informed, they were given written consent forms to read and sign. The researcher has an obligation to respect the privacy and confidentiality of participants (Clark-Kazak, 2017). As a result, the participants' names and personal details were not included in the study, and the participants were referred to using pseudonyms.

Research also needs to minimise harm while maximising the benefits of the research (Clark-Kazak, 2017). Bertram and Christiansen (2014) refer to this as non-maleficence. This study did not in any way cause or brought harm to participants whether physically, emotionally, socially and to those related or affiliated to them. Bertram and Christiansen (2014, p. 67) state that

“research must be of benefit to participants”, this is called beneficence. This study is of benefit to all parties involved, bringing to light how teachers view LTSM today and whether the LTSM provided are doing the job they intended to do which is to make teaching and learning a lot less frustrating. Furthermore it gives teachers a voice.

#### **4.8. Validity and trustworthiness**

In order to ensure the validity and trustworthiness of the study, as well as to ensure that teachers' experiences with material resources was accurately described, I used bracketing in the data generation and analysis phase. Bracketing serves to put aside my own belief, or what I already know about the phenomenon I am investigating (Chan, Fung & Chien, 2013). The research process will be as transparent as possible, so that another researcher will be able to reach similar conclusions (Bertram & Christiansen, 2014). Similarly, Shenton (2004) states that ensuring transferability in the research study increases its dependability, in the sense that all the processes in the study were reported in detail, thereby allowing a future researcher to repeat the work. The dependability of this research study is revealed in the consistency of the data presented. The data will be evaluated through research steps and findings that are transparent, and which could be repeated (Sullivan & Sargeant, 2011).

Shenton (2004) states that, in order for the researcher to ensure the transferability of his/her research, they need to provide enough information about the context of the research, such that the reader will be able to apply this to their own lives. Details of the participants and the study site were provided in the research study, making it easier for transferability to occur. Furthermore, Shenton (2004) states that in order for a phenomenon to be compared to another situation, there need to be a broad narrative of the phenomenon that the study plans to explore. The literature review on LTSM gave a broad account on LTSM in public schools in South Africa.

Bertram and Christiansen (2014) state that in order to maintain the validity of the study during the data generation process, the researcher needs to establish the study's credibility. This means that all data generated will be representative of the experiences of the participants. Evidence of this was in the recording device that was used to record the interviews in order to give a more accurate account of the responses. The researcher also showed that the findings articulated in the

analysis were not shaped by bias, motivation, and self-interest, but rather by the participants themselves (Lincoln & Guba, 1985)

This study also used a process of triangulation to increase the credibility of the study, in the sense that participants are representative of different age groups, different qualifications and the different years of experiences, as opposed to using a singular type of participants. As stated by Shenton (2004, p. 66) “another form of triangulation may involve the use of a wide range of informants.”

#### **4.9. Conclusion**

This chapter has discussed the paradigm that underpinned the research study, the research design, the research style, the two sampling strategies, as well as the sample size, the data generation methods and the ethical considerations that were followed in the research study. The chapter that will follow is Chapter Five, which will present the data that was generated, provide an analysis of the data, and discuss the findings.

## **CHAPTER FIVE: DATA PRESENTATION AND DISCUSSION**

### **5.1. Introduction**

The previous chapter outlined the research design and methodology employed in the study. This chapter focuses on data presentation, findings, and the discussion of the findings from the data generated through standardised, open-ended interviews and a focus group discussion, with full service teachers employed by the Department of Education. In light of the Covid-19 pandemic all data was generated remotely through zoom-scheduled focus group discussions, and telephonic interviews. In order to maintain the confidentiality of the participants, they were assigned pseudonyms, namely, LN, MN, TN, NL, PM, NN1, NN2, and LM. The main objective of this study was to explore teachers' experiences of working with learner-teacher support material resources in the 21<sup>st</sup> century. I wanted to understand what teachers in the 21<sup>st</sup> century understand of LTSM, their awareness of the varying types of LTSM, and the role they play in the teaching and learning process. Furthermore, I wanted to unearth their experiences of working with said LTSM, as well as if the said LTSM has any impact in the way they teach. Data generation sought to address the following key questions:

- What type of material resources do teachers personally use in their classroom?
- What are their personal experiences with using these material resources?
- How have these experiences shaped the way they teach?

The analysis, interpretation, and discussions conducted in this chapter will make reference to the literature reviewed in Chapter Two and the theoretical framework that underpinned this study in Chapter Three.

### **5.2. Analysis of data**

I used two methods to analyse the data, namely the inductive process and constant comparison analysis. According to Thomas (2003), an inductive approach starts from raw data and looks for patterns within the data in order to find similarities and differences, as well as to assign codes and themes furthermore looking for regular sayings and terms or information that are common among the partakers. Onweuegbuzie, Dickinson, Leech and Zoran (2009) state that constant comparison analysis is characterised in three stages: the first of three is open coding, when the data is sorted into small units; the second stage is termed axial coding, where the group codes are put into categories; and the final stage is selective coding, where the researcher develops themes that show the content of the group. The purpose of utilising both these methods is that it enables the researcher to uncover similarities and differences in the data. The data generated from the focus group discussion and the interviews was transcribed verbatim so as to ensure that the participant's voices were not lost. Participants were given the liberty to answer in isiZulu to enable them to respond in a manner in which they felt most comfortable. Once the data was transcribed, I started the analysis process by looking for similarities and differences in the participants' responses, thereafter assigning codes to the responses that were similar, as well as those that were different. Once codes were assigned, three themes and subthemes emerged from the data. Table 3 below details the themes and subthemes:

**Table 3-DATA THEMES AND SUBTHEMES**

<b>Themes</b>	<b>Subthemes</b>
<b>Theme 1- An understanding of what the term LTSM resources entails</b>	<ul style="list-style-type: none"> <li>• Defining LTSM resources</li> <li>• Understanding the purpose and role of LTSM resources</li> <li>• Exploring the different types of LTSM resources</li> <li>• Selection process and usage of LTSM resources</li> </ul>
<b>Theme 2- Experiences with LTSM resources</b>	<ul style="list-style-type: none"> <li>• LTSM and academic performance</li> <li>• LTSM acquisition and replenishment</li> </ul>

### **5.3. Data presentation**

The following section will show the main themes that emerged from the data and subthemes. Data will be presented through interpretation first followed by discussion. The responses made in isiZulu are translated into English and highlighted.

#### **5.3.1. Theme 1- An understanding of what the term LTSM resources encompasses**

##### **5.3.1.1. Defining LTSM resources**

The Gauteng Department of Education (2011) identifies learning and teaching support materials as resources that help educators to teach and learners to learn and they provide support to both the teacher and the learners, as well as help learners with special needs to meet their educational needs. Participants' understanding of what defines LTSM appears to be in line with the GDOE definition of LTSM to some extent, because two participants mentioned that they provide support to you as a teacher and they give learners a practical account of what is being taught. Czerniewicz, Murray, and Probyn (2000) state that resource-based learning believes that learners learn better if they physically conduct tasks as this allows them to differ in the speed at which they learn.

*TN-these are materials that support a teacher when they teaching into to provide a practical account of what the learner needs to know and understand.*

*LN- learner-teacher support material, I think as an educator when a child is in front of you, you make things easier. The child quickly sees what the topic is about using teaching aid. The lesson becomes a success.*

Teachers' understanding of LTSM in relation to the teacher is to provide support, but in relation to the learner, it serves to make things easier, and to help learners better understand what is being



taught. This is supported by Busljeta (2013), who states that resources are there to support the teacher by making the content appear less difficult for the learner. This implies that teachers understand LTSM to be anything that enables the life of the learner to be significantly less complicated. The participants' definition of LTSM is embedded in what they have experienced when they used LTSM during their lessons. This is in line with the experiential learning theory that underpins this study, which states that learning "is a process where knowledge is created through the transformation of experience" (Kolb, 1984, p. 41). The participants' understanding of LTSM was created by the experiences they encountered when they used the LTSM in the classroom, the way learners reacted, or rather responded when LTSM were used in the classroom shapes the way participants define or understand LTSM. Participant NL's understanding of LTSM was simple, and where she stated that LTSM are anything that helps a teacher to teach and a learner to learn, is in agreement with the Department of Education (2003, pp. 36-37) that advocates that learning and teaching support materials can be almost anything. The Gauteng Department of Education (2011) gives an example of what that "anything" is by saying that these LTSM include textbooks, video recorders, video tapes, home economics equipment, science laboratory equipment, musical instruments, learner desks, and chairs. This participant's understanding of LTSM does not limit the types of LTSM for the teacher and the learner, as long as the LTSM serves the purpose of helping the teacher to teach, and the learner to learn. What was interesting to note was that participant's definition of LTSM is accompanied by its purpose.

#### 5.3.1.2. Understanding the purpose and role of LTSM resources

Bušljeta(2013) states that LTSM serve the purpose of assisting the teacher with the relaying of educational content, in order to achieve the intended objectives, as well as to help the learners to gain knowledge by highlighting their different abilities. Participants were in agreement with the above statement as participant LN viewed the purpose and role of LTSM as enabling learners of different learning abilities the opportunity to contribute in the classroom. Similarly, the National Commission on Special Needs in Education and Training (NCSNET) and National Committee for Education Support Services (NCESS) (1997, p. 18) recommended that teaching and learning of support materials developed and used must address diverse needs of the learner population. The DoE (1997) also states that LSTSM play the role of addressing barriers to learning and development in the classroom.

Participant LN stated that it makes the lesson interesting and encouraging. This is in line with Modisaotsile (2012), who views that the purpose and role LTSM play as being to improve teaching and enhancing the understanding of the subject content while helping teaching and learning. Participant LM stated that it helps learners not to forget as stated by Bušljeta (2013) that the purpose of LTSM is to contribute to the development of different skills and the gaining of values of students, as well as the retention of desirable knowledge, skills, and attitudes. Busljeta (2013) further states that its purpose is to help teachers to reach the goal of effective use of science and technology. Participant LN stated that

***LN- when we doing experiments they are entertained and encouraged on how it should be done.***

Participant NL and LM state that the purpose of LTSM is not only to help them during the lesson, but also when the work is completed, and helps with integrating with what they have learnt, because subjects link. The two participants' response is in line with what Bušljeta (2013), who states that LTSM ought to enliven prior knowledge, as well as work well in group setting. Participant NL noted that learners are able to help each other. Understanding the purpose of LTSM is very important, as it enables the teacher to know why they are using that particular LTSM and what outcomes they want to achieve. Knowing the purpose of LTSM goes hand-in-hand with knowing the different types of LTSM that a teacher can use.

#### 5.3.1.3. Exploring the different types of LTSM resources

Participants were asked to list at the top of their heads the LTSM that are available in the school. Participants PM stated that she sometimes uses things from nature, this is not your conventional type of LTSM, but according to the Department of Education (1997), LTSM can be anything; even the terminology has been adapted from teaching aids, which usually included a textbook or a chart. Currently, LTSM may even include things that are not created for the purpose of teaching and learning, but which can assist with the learning process.

The school is a no-fee-paying school that falls under Quintile 3, and therefore under section 21. The Department purchases all the school's LTSM on their behalf. The Department of Education separates schools into two sections, namely section 20, and section 21. In order to give more

authority and economic responsibility to the local level, the Department decided to allocate section 21 to schools that fall under quintiles 4 and 5 (Simayi, 2008). In the case of section 20 schools, the Department procures and pays the expenses on behalf of the school. Section 21 schools are given a list of LTSM that they need to choose from, and the Department contacts the suppliers. This puts schools under this section at a disadvantage, because they cannot purchase different LTSM, but merely get added to what they already have.

The Department of Education procures three types of LTSM for the school. These include stationery, workbooks and text books (DoE, 2009). Table 2 below gives examples of the three types of LTSM.

**Table 4-LTSM PROVIDED BY THE DEPARTMENT**

stationery	workbooks	textbooks
<ul style="list-style-type: none"> <li>• learner's exercise books</li> <li>• drawing books</li> <li>• examination books</li> <li>• map books</li> <li>• glue</li> <li>• crayons</li> <li>• pencils</li> <li>• pens</li> <li>• fibre pens</li> <li>• marking pens, newsprint</li> <li>• duplication paper</li> </ul>	<ul style="list-style-type: none"> <li>• supplementary materials that help learners to understand the subject in question better</li> </ul>	<ul style="list-style-type: none"> <li>• play an important role in teaching and learning by helping learners to understand and grasp the curriculum. Textbooks provide teachers with a basis for assessing students and are therefore important in the facilitation of teaching and learning.</li> </ul>

With regard to the stationery listed in the table above, as LTSM provided by the government participants did not list any of these LTSM. I am not sure if participants do not regard these as a type of LTSM, or if they simply thought those pencils, learner's exercise books, and crayons etc. are your typical types of LTSM. This is puzzling, because the stationery portion of LTSM provided by the government is the most basic and important form of LTSM as without an

exercise book and a pen no work can be conducted. However, one participant did list workbooks as a type of LTSM.

#### *LN- workbooks*

Of the three categories of the type LTSM provided by the Department of Education, participants were only able to list one.

According to Busljeta (2013) there are many other different kinds of LTSM that can be used as opposed to those provided by the government. This is true because participant TN listed counters, the recycled and non-recycled kinds. What I understand to be recycled counters is using bottle caps. Similarly, Landsberg (2000), as cited in Motloun (2008), states that LTSM can be found in the community, the media, and waste materials. These include: community members presenting at career day; senior citizens input when conducting a history lesson; motivational speakers to encourage learners; television pedagogy; playing games that encourage movement; and using materials that are considered to be waste, such as bottle tops, eggshells and boxes.

#### *TN- in the Foundation Phase counters recycled and given by the school*

The Gauteng Department of Education (2011) further differentiates other LTSM that are not provided by the Department of Education, which means that the school are obliged to acquire these LTSM on their own. These include:

#### **Table 5-LTSM NOT PROVIDED BY THE DEPARTMENT**

Non-consumable materials	E-learning materials	Other materials	Library materials /resources
<ul style="list-style-type: none"> <li>these are materials that last for a long time at school and are bought once-off but require maintenance, for example pianos.</li> </ul>	<ul style="list-style-type: none"> <li>these are LTSM that provide support when learning is conducted electronically, for example, electronic textbooks, smart boards, and data projectors.</li> </ul>	<ul style="list-style-type: none"> <li>these are any other materials out of a wide range that help teachers and learners reach the desired conclusion, for example science equipment, overhead projectors, and photocopying papers</li> </ul>	<ul style="list-style-type: none"> <li>these are materials that learners and teachers use in the library for the purpose of conducting research. For example, fiction and non-fiction books, audio visual software.</li> </ul>

Of

Under the category of LTSM that are not provided by the government, but are regarded as LTSM by the Department, participant PM listed a photocopy machine. This type of LTSM is considered as a non-consumable material, requiring maintenance for long-term use. No participant mentioned any e-learning materials however more than three participants mentioned having a science kit, mathematical instruments and worksheets etc.

*PM- science kit*

*LN- worksheets*

*MN- instruments e-maths (mathematical instruments)*

*LN – globe*

*LM- charts*

All of these LTSM are regarded as others in the category of LTSM not provided by the government. No participant mentioned a library or library materials, which are listed under the category of library materials/ resources. This is an indication that the school does not have a library. The list of LTSM listed by participants is an indication that participants do not just take LTSM as that which is considered the usual type do not only understand LTSM to be materials stipulated by the Department of Education but they use everything that is around them. Secondly, participants overlook the basic and most important LTSM, which is the stationary. Furthermore,

the Department of Education does supply the school with LTSM, but the school mostly has to purchase their own, or find alternative materials that they use as LTSM. Finally, the school does not have library services or library materials such as books.

The experiential learning theory proposes that learning occurs in four stages of experience, namely the first two reveal how experiences are interpreted through reflection and that reflection serves as a steering that influences the choice to try new things in order to experience new experiences (Healy & Jenkins, 2000). These two stages are the modes of taking a hold of experiences:

- The concrete experience stage (CE) – This is the stage where the learner is doing a task (the teacher conducting a lesson using a specific learner-teacher material resource) (Healy & Jenkins, 2000).
- The abstract conceptualisation stage (AC) – This is where the learner now thinks about the experiences (Healy & Jenkins, 2000).

This theme explored an understanding of LTSM. The understanding of LTSM can be looked at as the concrete experience stage and the abstract conceptualisation stage of learning for the participants. In this sense, that participant's interpretation of what LTSM are, their purpose and type, is based on their reflection of the time they used LTSM, why they used the LTSM, and what type of LTSM they used in the classroom.

#### 5.3.1.4. Selection process and usage of LTSM resources

The right LTSM is a powerful tool that helps in building interest and improves learning (Fourie, 2004 as cited in Motloun, 2008). In order to explore participant's experiences with LTSM, they were asked what type of LTSM they personally use in the classroom. Experiential learning theory highlights the role that prior knowledge plays in the learning process (Healy & Jenkins, 2000). This means that the choice of LTSM made by the participant is based on the reflection of what occurred during the teaching process. The selection and use of LTSM by teachers is purely based on what they need for that particular subject, what is available, as well as what they have experienced when using that part. Participant NN2 agrees with this assertion, because she stated that she uses magazines when teaching languages as this helps them know how to read and bottle caps as counters, as this helps them know how to count, what this participant observed when

learners used these materials (prior knowledge) enabled her to make the choice to continue using these materials.

*NN2- in my classroom, when I teach isiZulu and English I ask them to bring a magazine or newspaper than we read so that they find words for vocabulary we than explain those words. It helps them to know how to read. In maths, I ask them to bring bottle caps that we turn to counters; they able to count with them.*

Furthermore, the DoE (2003) states that the teacher has the liberty to use LTSM that are designed for specific skills that a learner might be lacking, and the teacher can source these LTSM within commercially available platforms or it can be created by the teacher. This statement gives teachers the freedom to utilise whatever is available to them and to think outside the box, which is exactly what participant NN2 is doing.

The Department of Education (2002) stipulates guidelines that a teacher needs to consider when selecting and buying certain types of LTSM. One of those guidelines is that The LTSM purchased must meet curriculum needs (DoE, 2002). Participant's NN1 choice of LTSM is following this guideline, as she stated that she uses charts and a globe when teaching social sciences. The charts that she uses are selected for the purpose of relaying information in fact most participants also stated that she predominantly uses charts because that is what is available, real objects sometimes, workbooks, and books. This supports the guideline stipulated by the DoE (2002) of LTSM selection, which states that teachers need to ensure that the selected LTSM is sufficient and available for all learners. Teachers have so far listed charts as a selected LTSM. This maybe because charts are a form of LTSM that does not need to be supplied individually to each student, where only one chart is needed to be able to cater for a variety of learner needs. In the sense that learners do not learn in the same way, having a chart in front of all of them will enable each one of them to have a chance at participating during classroom discussion. The need to have a LTSM that can support learner's diverse needs is stipulated by the DoE (2002), in the guidelines of LTSM selection, which states that The LTSM must be respectful of learners' human rights, irrespective of gender, race, and disability.

*NL-The resources we use, the teaching aids for maths we use the counting objects, we use the abacus, I use the charts, eerh for English I use the textbooks, I use the charts also, we use the reading material, which are reading books, eerh for life orientation we use the things we create using hands, eerh like draw, we draw build and for isiZulu, we use the letters of the alphabet, we use the charts, we use the, the alphabets where we build words.*

Stein, Stuen, Carnine and Long (2001) under the three guidelines for selecting LTSM stated that teachers need to examine carefully the phenomenon that will be discussed by analysing the way the content is arranged and how much is covered. Furthermore, teachers need to examine the range and series in the LTSM chosen. Close examination of the LTSM chosen reveals the limitation of knowledge that an LTSM has on a single topic. Participant NL examines the topic of discussion before selecting a LTSM, which is evident in her response, where she did not just randomly list the LTSM that she uses, but explained those subjects for which she uses the specific LTSM. This reveals that she examines the phenomenon up for discussion when selecting the LTSM, and makes sure that it is centered on the central idea. Similarly, Bušljeta (2013) mentions three steps that can be used when teachers utilise LTSM a) by the teacher understanding why they are using the LTSM they have chosen for the teaching process; b) the type of resource they have employed; c) the teacher also needs to collect and organise the LTSM so that it is relevant to the teaching task, combining the information that is gathered, and drawing conclusions.

The selection and use of LTSM ought to be well thought out, and in line with the purpose of what an LTSM is intended to do. Bušljeta (2013) states that the teacher also needs to establish their role in the classroom, for example, will they lead, direct, or monitor the teaching process in order to choose a LTSM that will suit their role? The characteristics of the LTSM chosen ought to be interesting, educational and should bring forth clarity and enhance the quality of teaching and learning. When teachers were stating the LTSM they use in the classroom, teachers often used the words “we use”, as opposed to “I use”. That tells me that teachers do not view the use of LTSM during the teaching and learning process as an autocratic transaction, but rather, they take on the role of monitoring the teaching and learning process.



### 5.3.2. Theme 2- Experiences with LTSM resources

#### 5.3.2.1. LTSM and academic performance

Studies show that the availability of LTSM has an impact on learner performance. Most participants noted a change in terms of the learners' behaviour and attitude towards their school work. Participant LM said that she thinks it makes the children understand the lesson better, it makes the lesson fun and the children understand better. Similarly, participant LN noted that they encourage learners to understand and participate during the lesson, and they are able to see how things are done. They make the lesson go well.

*NL-yeah I think, eerh, learners are able to do what is expected of them. They become competent in every activities that there are being given. Eeerh, they don't struggle with activities that they must do on daily basis.*

*PM-They are so useful in such a way that a child can be able to work on his own and be independent, they are able to discover whatever is needed to be discovered, like in Science, they become so excited when they perform the experiments, when it serves the need whatever is being asked.*

Participant MN reported they act as a catalyst for the way he teaches. Notably, every participant's response was in relation to the classroom, and not test scores. Mwiria (1985) reported that institutions with ample LTSM, such as textbooks, have a better chance of performing well during examinations, as opposed to poorly equipped ones. When teachers were asked in the previous theme to name LTSM in the school, textbooks were not mentioned. This indicated that the school has a limited number of textbooks.

Mudulia (2012) conducted a study to determine the relationship between availability of teaching and learning resources and performance in secondary school science subjects in Kenya. The outcomes revealed that the availability of resources was higher in high-performing schools than it was in low-performing schools.

The reason why participants do not observe an increase in test score performance is that this school is categorized as a previously disadvantaged previously oppressed school, where the distribution of resources is not on par with previously advantaged schools. Sedibe (2011) discovered this when conducting research on the differences that are apparent when it comes to

access to resources in previously disadvantaged South African high schools. Grade 12 learners and teachers in the North West province from three different high schools were interviewed. The study was conducted according to a qualitative research paradigm. Findings revealed that there is still no equality in access to resources in previously disadvantaged high schools. Similarly, Babayomi (1999) conducted a study which revealed that private schools produced better results than public schools, due to the resources available and the adequacy of how they are used.

Teachers acknowledged that LTSM make teaching and learning easier. It encourages participation and incites interest in the learners. It provides learners with a real life account of what is being taught and they are able to work independently. Benjamin and Onodho (2014) conducted a study to determine the relationship between the availability of teaching and learning resources, and effective classroom management, and content delivery in secondary schools in Huye district, Rwanda. They used a descriptive survey and a stratified sampling technique to select a sample size of 619 respondents. The study conclusions revealed that the relationship between most of the teaching and learning resources and level of classroom management and content delivery was positive and significant (Benjamin & Onodho, 2014). Teachers' responses here are in agreement with the study conducted by Benjamin and Onodho (2014), in the sense that participants see an improvement in classroom management and content delivery when they use LTSM, but that this does not reflect in test scores.

#### 5.3.2.2. LTSM acquisition and replenishment

The South African Schools Act (SASA, Act 84 of 1996) governs funding in public schools (Naude, Ambe & Kling, 2013). The National Norms and Standards for School Funding (NNSF) policy was promulgated to regulate and guide monetary allocations by provinces to individual schools, and the utilisation as well as the monitoring of school funding (Mestry & Ndlovu, 2014). This means that schools have a way to retrieve and replenish LTSM that is guided by the Department of Education, but when participants were asked if the material resources they used are ever updated, participant PM said material resources are old and not update. The LTSM Retention and Retrieval Policy is aimed at regulating and setting parameters for the effective use of teaching and learning resources (KZN DoE, 2013). The DoE handles the public procurement of LTSM. Government procurement procedures and practices are used when obtaining LTSM in varying public schools. According to Simayi (2008) LTSM orders are divided into three groups.

- **Group 1**- New materials that were never ordered before and are new because of change in the curriculum or book replacement.
- **Group 2** -Orders that are meant to replenish book stocks to match the increasing learner numbers also called top-up orders.
- **Group 3** -The mop-up order option that is used to order and provide books to all schools that did not record their orders.

These three different groups are the different stages at which each school may acquire resources within the Department. Group 1 are schools that have never ordered, Group 2 are schools whose book stock is increasing and require a top-up, and the final group are schools that do no record their orders. When teachers were asked about the condition of LTSM in the school, all teachers were unanimous in their response that they are old and not in good condition. Participants also revealed that others are short, and insufficient. During the acquisition timeframe, this school would fall under Group 2, as they needed to replenish the stock they already had.

*PM—Others are old.*

*NN1- The ones we have are not enough like charts others are in a good condition others are not. Another thing is the children in the environment we work in do not handle the charts with care. The globe like LN said it's in a better condition, but charts help us a lot, but we not dependent on them because the children destroy them.*

*NN2- Some are short.*

The question that pertains in this instance is that if the Department has measures in place that enable schools under section 21 to order new stock, replenish old stock and start the ordering process again, what causes this particular school not to do so? Mohono (2010) states that a shortage of teaching and learning resources has a negative impact on teaching and learning, it is reasonable to argue that the reason why teachers did not mention a change in test scores implies that the shortage of LTSM is having a negative impact on teaching and learning. The reason for lack of, and bad condition of LTSM in the school could be that the school does not keep a record of the resources they have, making it difficult to know which resources need to be replenished. They could just be replenishing resources they already have. The other reason participant NN1

mentioned is that learners ought not to be taking care of the resources available, since this is the responsibility of the teacher as well. The school is getting resources, but not relevant or required resources. Mohono (2010) states that, in order to prolong the lifespan and ensure the best usage of LTSM, all schools ought to manage them. Resource management involves acquiring resources, allocating resources, and using and evaluating resources. Resources ought to be evaluated in this school to check for their effectiveness, where if they were evaluated, they would know which resources work and which resources do not work for the school, therefore not replenishing things that do not work. I believe that evaluating the resources is the most important part of the resource management cycle.

In order for the school to better acquire, allocate, use, and evaluate the resources, they need to establish a LTSM committee. Each school needs to form an LTSM committee in order to develop and implement the LTSM management and maintenance plan in the school (Eastern Cape Department of Education, 2018). The members of the LTSM committee may include subject or phase specialists, teacher librarians or library assistants, members of the SGB, and a member of the school's senior management. The KZN DoE (2013) stipulates the functions of the LTSM committee, which include:

- helping to create a platform where teachers and learners are able to have a contribution in all matters that pertain to LTSM;
- establishing accountability for people responsible for the LTSM;
- enabling the school in planning how to use the resources in an effective manner; and
- ensuring that the LTSM are used properly, protected, and collected once teachers and learners have finished using them.

### **5.3.3. Theme 3- Attitudes towards LTSM resources**

#### **5.3.3.1. Assessing LTSM**

The assessment of LTSM places the teacher, who in this case is the participant, as a learner. It enables the teacher to reflect on past experiences and help provide a change for those

experiences. The assessment of LTSM falls under the two modes of changing experiences within the experiential learning theory. These modes are:

#### Reflective Observation (RO)

This refers to the stage when the learner is now looking back on their experiences with the task (the teacher now has a mental observation of how the lesson went) (Healy & Jenkins, 2000).

#### Active Experimentation (AE)

This stage is when the learner now plans for new experiences (the teacher at these two stages is thinking about the experiences he/she observed or felt during the lesson, and plans how to change those experiences or enhance them) (Healy & Jenkins, 2000).

These two stages allows participants to look back at everything they experienced when using LTSM in the classroom, in order to assess whether they are fulfilling their purpose or not fulfilling their purpose as well as establishing themselves as teachers. This stage is the reflective observation stage, because participants were asked if they feel there is a difference between LTSM today and in the past. All participants noted that there is a difference in the LTSM today, when compared to the past. Participant NN1 mentioned that although their school is under resourced, there is a significant improvement in the LTSM. Participant LN shared similar sentiments to NN1 noting that even though some materials are in short supply, there is a wide range of LTSM that schools use. Participants felt there is a difference in the quality and quantity of LTSM, as opposed to those from the past. The old education system in South Africa was associated with the political system, which was distinguished by inflexibility, and a top-down approach. Until 1990, South African Education was characterised by a uniform, predictable and centralised curriculum policy system (Jansen & Christie, 1999, p. 4). Tiley and Goldsteyn (1997, p. 3) argue that the previous system did not help people to learn to make sound, compassionate judgments in a changing world. However, norms and standards were developed in terms of section 35 of the SASA, which provided for the Minister of Education to determine norms and standards for funding of public schools (Department of Education, 1998). The principal goal of SASA was to provide for a uniform system of the organisation, governance, and funding of schools (Republic of South Africa, 1996b). The DoE introduced the policies put in place by the SASA so as to ensure that there is a difference in the allocation of LTSM therefore participants'

assessment of LTSM from that which was to today is in line with that of the DoE. All schools within the Department of Education are given a fair share in allocating material resources, hence the participants were able to note a difference in LTSM allocated prior 1994 and those allocated post 1994.

The participants sampled in this study using purposive sampling work with limited resources yet were still able to see a difference from the past. According to the experiential learning theory, what enables participants to see a difference is that they were actively involved when all the changes were happening and their experiences of what things were and how things are today allows them to reflect on the LTSM. PM mentioned that previously, books were very short, but noted that this has improved. Experiences learnt when books were short has made them see that there is a difference in the way lessons occurred in the past to how they take place today. This is further supported by the experiential learning theory that states that experiential learning is learning through our perception of a particular experience, in the sense that we dive into an experience using our senses and feelings in a “concrete” manner, than when we think about the experience “abstractly”, using logic and reasoning, and finally we understand the experience by changing it (Fielding, 1994). LM states that there were no resources in the past, noting how difficult it was to teach in the past as opposed to today. The experiential learning theory explains how experiences are not just subjective accounts of human emotions, but they are a way that individuals actively make sense of the situations in their lives.

The response to how LTSM shape the way the participants teach revealed an active experimentation stage, where teachers ‘minds are turned to how their experiences have been altered by the introduction of LTSM in schools. Participants had positive responses in this regard. NL and TN mentioned that LTSM make them use different methods, and that it enables the learners to be independent. This indicates that the criterion to provide adequate teaching materials has been met, because teachers note that they use LTSM that are appropriate for teaching and learning. Resources in this type of classroom environment are selected and adapted not only for content, but also for the ways in which they encourage independent learning. Teachers are encouraged to engage with one another across all subjects and grade levels (Czerniewicz, Murray & Probyn, 2000). Experiential learning theory identifies learning as determining how humans develop, and how people shape their personal development (Kolb &

Kolb, 2011). This sentiment is shared by participant NL, who stated the LTSM, helped her learn day-by-day, as she uses different methods that suit a learner's individuality, where her past experiences with the lack of LTSM has changed. If educators rely on a small repertoire of teaching strategies in choosing the learning and teaching support materials for their inclusive classroom settings, they may offer effective teaching for only a small sub-set of their class.

#### **5.4. Limitations of the study**

The limitations in this research study included being able to schedule appointments with participants in times that suited all of the participants. The reason for this was that the participants are full-time employees of the Department, where all data generation was done remotely, taking into account consideration of the home schedules of participants. This limitation was rectified by rescheduling a more convenient time for both the participants and the researcher. Another limitation was that participants were reluctant to share information, fearing being exposed, but this limitation was rectified by assuring the participants that their privacy would be guarded, and the descriptions of the school would not reveal the school. A qualitative study cannot be generalisable, as this can limit a researcher and the data obtained from the research (Babbie& Mouton, 2001). The study was done with eight teachers from the same school, in the same province, where, in light of this, the accuracy of the results or findings may not be transferred to teachers other than those originally studied. This study employed two methods of collecting data, both which are of an interview style. This limited the process of triangulation in the data collection methods.

#### **5.5. Conclusion**

This chapter has presented and discussed the data. Teachers understand what LTSM are, how they are used and the role they play in the classroom. The selection and usage of LTSM is highly subjective, and dependent on the subject at hand, even though certain subjects integrate, which makes it easier for the teacher to use the same LTSM for two or more subjects. LTSM have made teaching and learning a lot easier, and give teachers that extra boost that enables learners to engage, participate, and long to know more; with that being said, insufficient LTSM have an impact on learner test scores. However, there is change in LTSM, even though it is slow,

particularly in schools under section 21. On the other hand, there still needs to be a way in which LTSM are updated, especially in township schools, in the sense that schools in townships need to keep up with the technological times, and a child who studies in a township school does not have an interaction with a computer when they reach university.

Chapter Six will provide a summary of the study, conclusions and recommendations.



## **CHAPTER SIX: SUMMARY OF THE STUDY, CONCLUSION AND RECOMMENDATIONS**

### **6.1. Introduction**

The previous chapter presented the data generated and provided a discussion on the findings. This chapter will present a summary of the study, secondly draw conclusions from the findings and finally provide recommendations from the findings and conclusions drawn.

### **6.2. Summary of the study**

This study was divided into six chapters:

#### 6.2.1. Chapter One orientated the reader in respect of the following:

A background of the studies conducted on LTSM which revealed that LTSM are an integral part of teaching and learning. Kunene (2005) states that learner-teacher support materials are a key part in the teaching, learning and assessment process of the school curriculum and the gap in literature, which revealed that there are currently no studies on teachers' experiences of working with LTSM.

The problem statement, which referred to teachers' experiences of working with learner-teacher support materials in the 21<sup>st</sup> century.

The objective of the study which was to explore teachers' experiences of working with learner-teacher support material resources in the 21<sup>st</sup> century

The study answered three questions:

- What types of material resources do teachers personally use in their classroom?
- What are their personal experiences with using these material resources?
- How have these experiences shaped the way they teach?

### 6.2.2. Chapter Two revealed the following:

A definition of learner-teacher support materials (LTSM). LTSM was defined as any materials that provide support to a teacher and a learner during the teaching and learning process.

LTSM serves the purpose of assisting the teacher with the relaying of educational content in order to achieve the objectives intended, as well as to help the learners to gain knowledge by highlighting their different abilities.

LTSM play the role of enhancing the way a teacher teaches and provide information on how a learner is learning, where all LTSM ought to be assessed in order to make sure that they are suitable to all the needs of all learners.

According to the DoE, LTSM can be anything; even the terminology has been adapted from teaching aids which usually included a textbook or a chart; currently LTSM are even those things that are not created for the purpose of teaching and learning, but can assist with the learning process.

The selection and usage of LTSM, as stated by Fourie (2004) and as cited in Motloun (2008) states that the most important aspect of using LTSM is being able to select books that are appropriate to the socio-cultural interest of learners, because this helps to motivate the learners to read the book as often as possible.

The procurement of LTSM revealed that The LTSM Retention and Retrieval Policy is aimed at regulating and setting parameters for the effective use of teaching and learning resources (KZN DoE, 2013). The DoE handles the public procurement of LTSM. Government procurement procedures and practices are used when obtaining LTSM in varying public schools.

The formation of an LTSM committee in the school which exposed that each school needs to form an LTSM committee in order to develop and implement the LTSM management and maintenance plan in the school (Eastern Cape Department of Education, 2018). The members of the LTSM committee may include subject or phase specialist, teacher librarian or library assistant, members of the SGB and a member of the school's senior management.

The problems experienced in the procurement process. The main problem with the procurement of LTSM is that schools are unable to make precise projections of the number of learners expected to enroll in the following year in each grade; this was a generic problem faced by various schools in South Africa (Chisholm, 2013); as a result, LTSM runs short in schools, and not all learners are able to access and use a textbook.

LTSM and learner performance studies showed that the availability of LTSM has an influence on learner's performance. Mwiria (1985) noted that institutions with ample LTSM such as textbooks have a better chance of performing well during examinations as opposed to poorly equipped ones.

An evaluation instrument was published by the Gauteng DoE Circular 40 (2000c) that was intended for evaluating LTSM. These instruments detail criteria teachers and schools can use to evaluate, review and select LTSM that are developed.

Czerniewicz, Murray and Probyn (2000) defined resource-based learning as structured, supportive learning that requires resources in order to have a planned educational programme. It involves the use of diverse resources in order to achieve both subject and information literacy.

#### 6.2.3. Chapter Three revealed the following:

Experiential learning theory offers a model of how people learn and how they develop, describing learning “as a process where knowledge is created through the transformation of experience” (Kolb, 1984, p. 41). Experiential learning theory highlights the role that prior knowledge plays in the learning process. The theory proposes two modes of taking hold of experience, viz. concrete experience (CE) and abstract conceptualisation (AC) and two modes of changing experience, viz. reflective observation (RO) and active experimentation (AE) (Kolb, 1984). The four proposed stages of experience reveal how experience is interpreted through reflection into concepts, and that reflection serves as a steering that influences the choice to try new things in order to experience new experiences (Healy & Jenkins, 2000). Kolb (1984) further states that learners have four different learning styles, with each learning style having a different way of solving problems.

#### 6.2.4. Chapter Four revealed the following:

Chapter Four detailed the research methodology that was employed in the study.

The study followed an interpretivist paradigm. An interpretivist paradigm, as outlined by Terre-Blanche and Durheim (2004), is the way a researcher describes and interprets human emotions and experiences. The purpose of this paradigm is to understand how humans make sense of a given phenomenon (Prasad, 2005). This paradigm was an ideal approach to the type of study being conducted, as it enabled the description and understanding of teachers' experiences with

working with material resources in the 21<sup>st</sup> century without predicting their emotions but the participants guided me to gain a deeper understanding of their experiences.

The study followed a qualitative research approach. Qualitative research guides the researcher's decisions, the study's purpose and the methods that will be used (DeVos, Strydom, Fouche & Delport, 2005). Furthermore, a qualitative approach is helpful in giving answers to questions that pertain to the participants and their context (Mills, 2003). The qualitative approach to research enabled me to adequately receive answers on teachers' experiences with working with material resources in the 21<sup>st</sup> century, and how those experiences have shaped the way in which they approach teaching and learning. A qualitative research approach enabled capturing the meanings and experiences through verbal and interpretive descriptions (Mills, 2003).

The study followed a phenomenological research style. This type of research style describes as precisely as possible a phenomenon, without looking at any pre-ordained framework, but remaining true to the facts (Groenwald, 2004). A phenomenological researcher is interested in understanding psychological and social phenomena from the perspective of people involved, where in addition, it is concerned with the experiences that people go through every day (Groenwald, 2004). I chose a phenomenological research style, as I felt it was best suited to bring to light teachers' experiences when working with material resources in the 21<sup>st</sup> century. This research style allowed participants to consider more closely how they actually feel about the material resources that are present in their school and they could only do this through reflecting on their experiences.

The sampling strategies employed in this study were purposive sampling and convenience sampling, as these best answered the research questions. Buchanan and Bryman (2009) state that sampling methods must be suited in terms of generating information that will answer the research questions.

The sample sizes were eight teachers, with three teachers in the Foundation Phase and five teachers in the Intermediate and Senior Phases. The teachers were representative of novice and experienced teachers. I chose eight participants, as Groenewald (2004) states that in a phenomenological study a sample size maybe up to ten people.

The data generation methods included telephonic standardised open-ended interviews. These are interviews that have structured questions and all participants are asked similar questions, but the responses of participants are open-ended, meaning that it is unlimited. Zoom scheduled focus

group discussion. A focus group is a discussion that is carefully planned to gather perceptions on a specific area of interest in a non-threatening environment. It is a relaxed, comfortable, and enjoyable discussion for participants.

Ethical considerations were detailed. These included respecting participants' autonomy, respecting participants privacy and confidentiality and minimising harm, while maximising the benefits of the research.

In order to ensure the validity and trustworthiness of the study, as well as to ensure that teachers' experiences with material resources was accurately described, I used bracketing in the data generation and analysis phase. Bracketing refers to putting aside personal beliefs, or what I already know about the phenomenon I am investigating (Chan, Fung & Chien, 2013). The research process was transparent. To ensure the transferability enough information about the context of the research so that the reader will be able to apply it to their own lives was given. In order for a phenomenon to be compared to another situation there needs to be a broad narrative of the phenomenon that the study plans to explore. The literature review on LTSM gave a broad account on LTSM in Public Schools in South Africa. The credibility of the data generated was representative of the experiences of the participants. Evidence of this was in the recording device that was used to record the interviews in order to give a more accurate account of the responses.

#### 6.2.5. Chapter Five revealed the following:

Chapter Five presented the data and discussed the findings. I used two methods to analyse the data, namely the inductive process, and constant comparison analysis. According to Thomas (2003), an inductive approach starts from raw data and looks for patterns within the data in order to find similarities and differences as well as assigning codes and themes; furthermore, looking for regular sayings and terms or information that are common among the partakers.

Onwuegbuzie, Dickinson, Leech and Zoran (2009) state that constant comparison analysis is characterised in three stages, the first being open coding, when the data is sorted into small units. The second stage termed axial coding, where the group codes are put into categories, and the final stage is called selective coding, where the researcher develops themes that show the content of the group. The purpose of utilising both these methods is that it enabled the researcher to uncover similarities and differences in the data. Three main themes emerged from the data, where beneath those three themes, subthemes were derived. The themes and subthemes are as follows.

- **Theme 1- An understanding of what the term LTSM resources encompasses.** Subthemes were Defining LTSM resources, understanding the purpose and role of LTSM resources, and exploring the different types of LTSM resources.
- **Theme 2- Experiences with LTSM resources.** Subthemes were selection process and usage of LTSM resources, LTSM and academic performance, and LTSM acquisition and replenishment.
- **Theme 3- Attitudes towards LTSM resources.** Subthemes were Assessing LTSM.

### 6.3. Conclusions from findings

Findings uncovered in Chapter Five will be detailed below. The conclusions derived from the findings will be detailed in regards to the three research questions posed to participants during the interviews and focus group discussions in the data generation period.

**6.3.1. What types of material resources do teachers personally use in their classroom? This question's outcomes were uncovered under Theme 1. This involved ascertaining teachers' understanding of LTSM.**

#### **Theme 1- An understanding of what the term LTSM resources encompasses**

##### 6.3.1.1. Defining LTSM resources

Findings revealed that participants have a clear understanding of what defines LTSM and their understanding is in line with the definitions stated by most literature in this study. Participants' definition of LTSM is materials that support both the teacher and the learner furthermore participants also exposed that the definition of LTSM is wider than just stationery, textbook, and workbooks provided by the Department of Education, but incorporates any materials that can enhance, facilitate, and encourage teaching and learning regardless of the initial purpose for which those materials were created.

##### 6.3.1.2. Understanding the purpose and role of LTSM resources

Findings uncovered that the purpose of LTSM is not just to help and support teachers and learners during the lesson, but to also encourage integration amongst subjects, as well as address the diverse needs of the learners in the class.

##### 6.3.1.3. Exploring the different types of LTSM resources

Participants listed the school's LTSM. Out of the list of LTSM provided by the Department of Education, which was stationery, workbooks and textbooks, participants only mentioned

workbooks. The Department has documented policies in place which state that schools under section 21 will receive stationery procured by the Department; however they were able to mention quite a few types of LTSM. In this regard, I can conclude that participants do not have a clear understanding of the various types of LTSM.

#### 6.3.1.4. Selection process and usage of LTSM resources

Participants select and use LTSM based on:

- What they have experienced whilst using them. Whatever outcome is reached whilst using those LTSM determines their use, or consistent use.
- The subject and content at hand. Whatever it is that the subject requires at that particular time determines what LTSM are used.
- They select and use LTSM that will suit both the needs of the teacher and that of the learners.

Participants mostly use charts in the classroom.

### **6.3.2. What are their personal experiences with using these material resources?**

## **Theme 2- Experiences with LTSM resources**

#### 6.3.2.1. LTSM and academic performance

LTSM has an influence in classroom participation, attitude towards school, and general conduct in the class. However, a shortage in LTSM, or rather not having a variety of LTSM at hand affects learner test scores negatively.

#### 6.3.2.2. LTSM acquisition and replenishment

The findings show that LTSM in this school are outdated, and sometimes insufficient for all the learners. Participants were also unclear as to which LTSM were short. The school in which participants work is under-resourced. Participants also revealed that LTSM are often destroyed by learners in the school.

### **6.3.4. How have these experiences shaped the way they teach?**

## **Theme 3- Attitudes towards LTSM resources**

#### 6.3.4.1. Assessing LTSM

Participants felt that there is a change in the quality and quantity of material resources supplied to schools in general as opposed to the past. Even though they acknowledge that their school is under-resourced, and that they have a very limited amount of resources, it is their past experiences of working with LTSM that enables them to perceive a certain change. Participants also revealed that LTSM have made their lives as teacher extremely easy, and enforced a sense of independence in the learners. Furthermore, LTSM challenges them to find varying strategies that enable them to meet the different learning needs in their respective classrooms.

### **6.4. Recommendations**

I have a few recommendations that may benefit the school and the teachers.

#### Recommendations for the school

- The school needs to establish an LTSM committee that will enable them to have a record of all the LTSM the school receives, keep track of how the LTSM are used, as well as know when specific LTSM have depleted or running short. That will help the school know and track all LTSM in the school, and not keep ordering the same LTSM.
- The LTSM committee also needs to find ways of evaluating the effectiveness of the LTSM the school has to hand.
- The school also needs to not relay or wait on the Department for help when it comes to LTSM. A fundraising committee needs to be established with the mandate of fundraising to acquire a variety of LTSM, in that way teachers will not struggle with using outdated LTSM. This will also enhance the variety of LTSM available in the school, thereby making a difference in learner test score performance.
- The school needs to go to advantaged schools to ask for donations of LTSM they no longer use and are in good condition.

#### Recommendations for teachers

- Teachers need to find strategies to prolong the life span of LTSM, for example, charts can be covered with contact adhesive to prolong their lifespan.



- Teachers need to include in their classroom rules the importance of respecting LTSM. Teach children the basics of putting plastic covers on the textbook if they have it for the year, putting charts back on the walls when they fall off, and not touching the charts unnecessarily.

Teachers need to hold workshops with teachers from other schools, in order to gain insight into how they make use of LTSM as well as how to differentiate the uses of LTSM.

## **6.5. Conclusion**

Change has occurred in the South African Education sphere, even though it is slow in section 21 schools. The changes that have occurred are causing a positive impact in the teaching and learning space thus causing teaching to have a successful relationship with LTSM. This chapter has summarised the chapters in the study, detailed findings, and provided recommendations.

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## Appendix 1- Ethical clearance



25 November 2021

**Valentine Nontsikelelo Madlala (209525622)**  
School Of Education  
Edgewood

Campus Dear

VN Madlala,

**Protocol reference number:** HSSREC/00003620/2021

**Project title:** Teachers' experiences of working with learner-teacher support material resources in the 21st century.

**Degree:** Masters

### Approval Notification – Expedited Application

This letter serves to notify you that your application received on 08 November 2021 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

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

This approval is valid until 25 November 2022.

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

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines. HSSREC is registered with the South African National Research Ethics Council

Yours sincerely,

-----  
**Professor Dipane Hlalele (Chair)**

/dd

**Humanities and Social Sciences Research Ethics Committee**

**Postal Address:** Private Bag X54001, Durban, 4000, South Africa

**Telephone:** +27 (0)31 260 8350/4557/3587 **Email:** hssrec@ukzn.ac.za **Website:** <http://research.ukzn.ac.za/Research-Ethics>

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

**INSPIRING GREATNESS**

## Appendix 2- DoE Consent letter



**KWAZULU-NATAL PROVINCE**

EDUCATION  
REPUBLIC OF SOUTH AFRICA

### OFFICE OF THE HEAD OF DEPARTMENT

Private Bag X9137, PIETERMARITZBURG, 3200  
Anton Lembede Building, 247 Burger Street, Pietermaritzburg, 3201  
Tel: 033 392 1051

Email: buyi.ntuli@kzndoe.gov.za

Enquiries: Buyi Ntuli

Ref.:2/4/8/7153

Miss Valentine Nontsikelelo Madlala  
2284 Cecil Mda Avenue

Dear Miss Madlala

#### PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **“TEACHERS’ EXPERIENCES OF WORKING WITH LEARNER-TEACHER SUPPORT MATERIAL RESOURCES IN THE 21ST CENTURY:”**, in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the Intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 02 September 2021 to 31 August 2023.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma at the contact numbers above.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

**Dr. EV Nzama**  
**Head of Department: Education**  
**Date:02 September 2021**

## Appendix 3-Participants Consent forms

### PARTICIPANT'S LETTER

20 November 2021

#### Informed consent

Dear research participant

I hereby write this letter to request your permission to be the participant in my research study that I will conduct in your school. Kindly receive hereof a brief description on how the reach will be conducted. My dissertation topic is: **Teachers' experiences of working with learner-teacher support material resources in the 21<sup>st</sup> century.**

The purpose of the study is to:

- Explore the type of material resources teachers personally use in the classrooms.
- Explore their experiences with using these material resources.
- Explore how their experiences with these material resources has shaped the way they teach.

This study aims to understand:

The study's objective is to unearth as well as provide an understanding of teacher's personal experiences with working with material resources and how these experiences has shaped the way they teach. These objectives will be achieved through individual interviews and focus group.

Data will be collected through the use of:

- Telephonic Standardised open-ended interviews
- Zoom scheduled Focus group



It is important for you as a participant to understand that:

- a) **Your identity and your school will never be exposed. Pseudonyms will be used when writing this report.**
- b) **If during the research study you feel like withdrawing due to certain circumstances, you are at liberty to do so.**
- c) **In cases where you don't want to answer questions posed, you are free to remain silent.**

The information that will be collected will be used for research purposes only.

Kindly receive the research office contact details, my contact details as well as my supervisor's:

Name	Contact Number	Email Address
Research office : Govern Mbeki centre Westville Campus	031-2608350 031-2604557	<a href="mailto:HSSREC@ukzn.ac.za">HSSREC@ukzn.ac.za</a>
Supervisor: Visvaranie Jairam	031-2601438	<a href="mailto:jairam@ukzn.ac.za">jairam@ukzn.ac.za</a>
Researcher : V.N. Madlala		209525622@stu.ukzn.ac.za

Yours faithfully

---

V.N.Madlala (209525622)

## PARTICIPANT CONSENT FORMS

### Consent form

I \_\_\_\_\_ (name and surname in full),  
hereby give consent to be the participant on a study based on :**Teachers' experiences of working  
with learner-teacher support material resources in the 21<sup>st</sup> century**

I fully understand that I am permitted to withdraw from this project if need arises

	<b>Willing</b>	<b>Not willing</b>
Audio equipment (voice recorder)		

Signature: \_\_\_\_\_

## **Appendix 4- Interview Schedule**

### **INTERVIEW SCHEDULE STANDARDISED OPEN-ENDED INTERVIEW**

1. What type of material resources do you personally use in your classroom?
2. What are your personal experiences with using these material resources?
3. How have these experiences shaped the way you teach?  
(Probing Further)
4. Is there a difference between material resources when they first started teaching to material resources today?

## **Appendix 5- Focus group discussion Schedule**

### **FOCUS GROUP DISCUSSIONSCHEDULE**

1. What do you understand by the term learner – teacher support material resources?
2. At the top of your head list some of the material resources that are available in the school?
3. In what condition /state are these material resources in?
4. How often do you use these material resources?
5. Do you feel these material resources are sufficient for the entire class during your lesson?
6. Do you feel these material resources aid you in conducting your lesson in an efficient manner?
7. Do you feel adequately developed /trained in utilising these material resources?
8. How often are these material resources updated?
9. If you had a choice on the material resources you feel would best suit your lesson what would those material resources be?

## Appendix 6- Interview Transcription

### DATA TRANSCRIPTION

#### INTERVIEWS

**Researcher** -What type of material resources do you personally use in your classroom?

**PM**-Amacharts(charts) *what else! urhhh*teaching aids if there are like amaintstruments(mathematical instruments) when it is maths, *urhhh*scientific materials if it is there but not all of it and *urhh*books. I think that's all.

**Researcher** -What type of material resources do you personally use in your classroom?

**NN1**-Sisebenzisamaamchartsnama textbooks no workbooks kodwaangnayokeiworkbookke mina( but I do not have a work book) *ooh*nelokuzanakwa social sciences iglobe (we use charts, textbooks and a globe for social sciences)

**Researcher** -What type of material resources do you personally use in your classroom?

**MN**-*mmmh* I use textbooks,*arh* atlas *mmmh* and mathematical instruments lawaamakhulu (the big ones)

**Researcher** -What type of material resources do you personally use in your classroom?

**TN**-Ama like ama materials okufundisa (teaching materials?)? *oooh* charts worksheets, posters,counters,textbooks just to support ilesson(lesson) yes !.

**Researcher** -What type of material resources do you personally use in your classroom?

**NL**-The resources I use, the teaching aids for maths I use the counting objects,I use the abacus,I use the charts,*eeerh* for English I use the textbooks, I use the charts also, I use the reading material which are reading books, *eeerh*for life orientation we use the things we create using hands *eeerh*like draw, we draw build and for isiZulu we use the letters of the alphabet, we use the charts , we use the thethe alphabets where we build words.

**Researcher** -What type of material resources do you personally use in your classroom?

**NN2**-*Eeerh*in my classroom the material that I use sometime like umasifunda isiZulu ne English (when we learn isiZulu) like umangibafundisaukufunda (when I teach them how to read) sometimes ngyabacelaukuthingcelabaphatheamabukooBona (I ask them to bring magazines, like Bona ) sometime iphepha city press (a newspaper) than sifunde English laphe ( we read English from there) ngenzelaukuthibatholeama words siwabhaleebhodini ( I do that so they can find words and we write them down on the board) than benze vocabulary (we do vocabulary ) than siwa explainer ( we than explain them) . kuyabasizaukuthibakwaziukufunda (it helps them to learn how to read ) . Enye into umasifundaizibalo ( another thing when we do maths)

siyakwaziukuthingibaceleukuthibaphatheama tin tips nomaizivalozama drinks (I also ask them to bring bottle caps) than senzekubeamacontersbakwaziukubalangawo ( we use the bottle caps as counters , the use them to count ). *yes/iyonake* into eke siyisebenzise ( that's all I use ).

**Researcher** -What type of material resources do you personally use in your classroom?

**LM-***Mmmhsisebenzisamamacharts* (we use charts) *arrhsebenzisa yin konjeenyenje?* (What else?) kodwaikhathiesiningiamachartsasuke available ( most of the time charts are available) ngobaamanyeawekho ( others are not available) nama real objects sometimes (real objects) yes workbooks and books yeah.

**Researcher** -What type of material resources do you personally use in your classroom?

**LN-**what type?! I use ama worksheets, I use ama yin konje lento ?! ama flash cards, I use ama charts and also incwadi (I use worksheets, flash cards, charts and a book).

**Researcher** -What are your personal experiences with using these material resources?

**PM-** They are so useful in such a way that a child can able to work on his own and be independent, they ableto discover whatever is needed to be discovered like in science they become so excited when they perform the experiments when it serves the need whatever is being asked .

**NN1-** *Mmhngikubonasekusimplekakhulukunasekuqaleni* because futhingikengasebenzakwi rural area labesingakwaziukutholawonke lama resources (I find it very simple unlike before because ive worked in the rural areas where we could not find the resources we have here). la ngikubonaseku easy like kwi SS iglobeawusagciningokukhombisangokuxoxelainganeuyxoxelaistory( here I find it so easy for instance in Social Sciences the children can actually see the globe and it's not just a fairytale). So kuzenzaizinganezikwaziuku focuser futhizingakhohlwa into zibeziyibona( it helps the children to focus and not forget because they can see it ). Akufaninokuzixoxelaihistiryukuthikunenetoekuthiwaiglobeeyibholabengayoboninje (it's not like telling them about the history of a globe they can actually see a globe).

**MN-***Aarh* they act as catalyst infact they fastern the way that I'm teaching and they make my work seem so easier, *eerh* and yeah and also learners find it easier to understand and yeah everything is simple when I'm using those teaching aids .

**TN-** *Mmmhaarh* I felt that they were easy to use *mmh* to useduring the lesson. They made it easy for the learners to understand the lesson because *aarh* in foundation phase most of the learners need to actually see, see examples of things in order to have a better understanding of the lesson that's taking place.

**NL-***yeah* I think *eerh* learners are able to do what is expected of them. They become competent in every activities that there are being given. *Eeerh*, they don't struggle with activities that they must do on daily bases.

**NN2-**Ngibonaukuthi like ilessoniyenzabayi enjoyer  
ilessonandnanokuthibayayikhumbulamusubuzangakusasauthi let us recap into  
ekadesiyenzaizolothan bayakhumbulaukuthingalokhubesichazeukuthi than  
kuyangisizakakhuluukuthingikwaziukuyi relater nezintoesizaziyovele. (I feel that it makes the  
learners enjoy the lesson as well as helps them remember what was taught the previous day and  
it also helps me a lot because I am able to relate with things that they already know).

**LM-** Ngicabangaukuthienzaifundosibeiyganezi understand better ilesson (I think it makes the  
children understand the lesson better). *Emmhkwenzaifundonjesibemnandinezinganeziya*  
understand better(it makes the lesson fun and the children understand better).

**LN-**they make ilessonyakhoinganezizwekahlezi encourager inganeukuthiziyaphathisiphetha,  
zikwaziukuthiziboneukuthizintozenzekkanjan. njezenzanjeilessonihambekahle.(They encourage  
learners to understand and participate during the lesson and they able to see how things are done.  
They make the lesson go well).

**Researcher** -How have these experiences shaped the way you teach?

**PM-**It makes your teaching easier and relevant to the subject matter which you are delivering .  
It makes it easy for the child to understand.

**NN1-** Ngikubonasekwenzaimpiloibelulakmina (it makes my life easier).Angisadingiukuthi like  
angikho good ekudwebeniangdafuniumuntuzongdwebelaimap of Africa (I am not good a  
drawing I no longer have to find someone to draw the map of Africa).

Angfuniumuntunjenjobasesisebenzisanama overhead projector  
izintoezinjaloangsafuniumuntuzongdizyanelaizintoze technology ngzoybekaenganeni(since we  
have over head projectors I no longer have to find someone to design things for technology to  
put in front of the child) . just  
umangabenginesithombesengiyakwaziukusibekaphambikwabobesiziyabonaukuthisikhulumange  
ntoekanje how are we going to use this(when I have a picture of the object I put it in front of the  
learners and we have a discussion on how we going to use this).

**MN-***uurh*ngingashonjeukuthieyzingenzengawumuntuokwaziyouku deliver imessagekwizingane (I could say that they make me a person who can easily deliver a message to the learners). I don't find any obstacles in my lesson, everything is simple.

**TN-** *uumh* they have helped me in developing many strategies in teaching and learning and as someone who doesn't have many years in the teaching profession. It's helping me regarding teaching development as I'm a teacher who is still being developed in how to teach learners who are diverse because they are not on the same levels some levels are at a lower level, so they take time to understand so you need to accommodate these different types of learners in one class.

**NL-** *urrh* I learn day by day, what I experience that since the learner is unique. I use different types of methods that would suit every child's individuality, so the child learns to be independent I don't spoon feed them. They learn to do things on their own.

**NN2-** Mengbukaizinganeezinyezizamileukuthizipick up.  
yaboomunyeakasafaninendlelaayeyiyonakuqalaunyaka.  
sengithiumangisebenzisangabonaukuthimengsebenzisaamatin tips as benzaama counters  
bebalangaybonaukthiohhseyakwazimanjeukubala. As ngithiakagodukeafundekwi bona  
mhlampebabuyenawongimdwebele underline ukuthiakafunde la agcine la. uyakwazi cause  
nakubobayamsiza, so lokhokuyangsizakakhuluukuthiinganeikwaziukufunda. (In my observation,  
some learners have tried to pick up in their school work. Some of their performances are  
different from what they were in the beginning of the year. The use of bottle caps and the reading  
of stories from magazines has improved they counting and reading because they get assistance  
from family and when they get to school they I help them to read.)

**LM-** kwenzaukuthinaweuwuthisauzizweukuthi as  
inganezilandelaesifundwenisakhonaweuyabonaukuthi where are you going with your lesson(it  
makes you as a teacher feel confident in the way your lesson is progressing).

**LN-** ibakahlenje, ibasuccessfull , iba good (its right, the lesson is successful, its good)

**Researcher** -Is there a difference between material resources when they first started teaching to material resources today?[Probing Further]

**PM-** *Yeah!*They is a great difference according to the type of learners we have. *Eerh* the learners now are lazy, they don't want to work. They are not so seriously committed to their work, maybe it's a lack of parental involvement. I think there is a gap between parents and their children. Most parents do not help their children on their school work, they daily activities they not interested. *Mmmh*, they is a shortage, but books, yes it's better because in the olden days the books were so little in the schools. They used to share books but now each and every child has



his own books. Now they suppose to read and work independently. That's where they're learning how to do their work. So in the olden days it was difficult some parents couldn't afford to buy books, so they had to depend on their friends or at the school or the resources the teachers have to find for them but now, many resources are there, children can use.

**NN1-** Kuya improver nomakethinakulaskolenikungenayo improvement ekangakho. njengakunjekwezinye izindawo uyake uzwe ukuthi ku media abantubesebenzisa amatablet besiza izingane ukuthi zikwazi uku researcher, zigooglisher. Thina asinakhokhokodwangikubonase kwenzaimpiloyezingane kululane yethu ibelula. Nomake ikusalezingane seligcinangokufangoba enye into ingane igcina uma iigooglisher ayihlalikuyona igxilengalomuntukade ezohamba ehamba eyokwenzakumbi research lets say kwi EMS kufanele aye kulamapartners aye kwi shop sezovele ashone ku google amunike simple answer uyabhalaphansi akasakwazi uku apply loloyalwazi uma esemdala. (They are an improvement in material resources even though our school is lacking but in other places you hear from the media that people are using tablets to help learners with research using Google. Our school does not have that, but I see it making the children's and our lives a lot easier even though the children's future is in question because they Google everything and they do not go in-depth, for example, for a subject like EMS, where children are tasked to go to shopkeepers for information, they just Google all that information and get a simple answer, and they are not able to apply it in the future).

**NL-** Yeah, they have been a change because as we use them we are guided by the ATPS and activities that are being done are changing as we know that each and every time each and every year things change even in life. So even the education of the children it goes with the changes each and every time.

**LM-** eskhathini esidlule ama resources abengekhokakhulu so kuleskhathisa manje zikhona izinto nomakungekho available kuthina. kodwa kikhona izinto ezisebenzisekayo like oma over head projector oma slides oma globe oma computer sometimes kwezinye indawo lezozintosezenza ukufundakube more easier than before (In the past resources were not there, but in present times things are there even though our school doesn't have it. Regardless of that there are things that can be used like overhead projectors, slides, computer the schools that have that make learning more easier than before).

**LN-** yes there is a difference because ama resources ayeshodanoma esashodanama njekodwa akusafani. sekukhona amasha like oma asingenakho sasingawasebenzisi. sasisebenzisaincwadinje . ugcine into mhlampe uykhandengesandlakodwamanjese kuya letha like ama globe, oma charts yeah. ikhona improvement. (Yes, they are an improvement because resources were short even though they are still short, but it's not the same. They are new resources now unlike before when we used only

books. sometimes we used to create things on our own but now the government gives us globes, charts. They are an improvement).

## Appendix 7- Focus group Transcription

### DATA TRANSCRIPTION

#### FOCUS GROUP DISCUSSION

**Researcher** -What do you understand by the term learner – teacher support material resources?

**LN-** learner teacher what?

**RESEARCHER-** learner teacher support materials

**LN-** awuqaleuchaze according to your understanding (please explain it according to your own understanding).

**RESEARCHER-** Mesikhulumangamale learner teacher support materials sikhulumangazonkeizintouthishaazisebenzisayoukuzeafundise. nenganeeysebenzisayoukuzeifunde. from idesk, ishlalo,ibhodi,amabhuku. yabokonkelokho.( when we talk about learner teacher support materials we talking about everything a teacher uses to teach and everything a learner uses to learn. from the desks, the chairs, the board, and books. You see everything).

**LN-**ilearner teacher support material I think as an educator nanguumntwanaphambikwakhowenzaukuthiizinto zibe easier. umtwanaashesheaboneukthiukhulumangani. if given a topic amazi, kfanele use nama teaching aid ukuzeumtwanaashesheabonenesifundesiphumelele( learner teacher support material I think as an educator when a child is in front of you, you make things easier. the child quickly sees what the topic is about using teaching aid. the lesson becomes a success)/

**NN2-** learner teacher material iyasizaisizauthishanomfundi cause the time uthishaukhonaeduzekwakhelokhuitopicesukeibased on uyakwaziukuthimhlampeakubekephambikwengane. mhlampekukhulunwange capacity nomangaphandlekukhulunwange pollution. siyakwaziukuthikuningiukugcolakhonaukugcolakwaphansi, nokugcolakwamanzinokumhlaba. than uphumenaboubakhombiseukuthinakhukugcolile. nanomasenzaicircuitmhlampekwins than niphatheowire than sixhumbabonesiyenza. umfundiaunderstankalulabayboneukuthi into ngempelayenzeka ( learner teacher material helps the teacher and the learner. learners understand a topic better when they can physically see it. for example when we conduct a lesson on the topic of pollution, you explain the different types of pollution than you take them outside and show them pollution. another example is a circuit in ns you ask them to bring all the materials needed to make the circuit and do it with them and they understand better).

**MN-**engakushoama(what I can say) learner teacher support materials they make learners to understand well and make the work seem so easier.

**LN-**izinsizakufundisa (things that help a teacher to teach and a learner to learn).

**TN-**ama materials asupporterwena as uthishaekufundiseni cause ukufundisa based on itextbookkphelaakuyinikiinganeixplanation. idingaizintoezi practical thizeni, so isupportmaterialisukeisi add kulesosfundoukuzeinganeibe ne idea ukuthiokasikhulumangani. mhlapeumasikhulumange map of the world, isupportmatrialongayiphathalaphoihambenge map.( these are materials that support a teacher when they teaching into to provide a practical account of what the learner needs to know and understand. for instance when you talking about the map of the world a support material that you can use is a picture depicting the map of the world so that it adds to the lesson).

**Researcher** -At the top of your head list some of the material resources that are available in the school?

**LN-** globe

**LM-** charts

**LN-** workbooks

**PM-** science kit

**PM-** photocopy machine

**MN-** instruments emaths (mathematical instruments)

**LN-** worksheets

**PM-** other things from nature

**TN-** in the foundation phase counters recycled and given by the school.

**Researcher** -In what condition /state are these material resources in?

**PM-** amanyeasemadala (others are old)

**NN1-**awekho enough lawaesinawo like ama charts amanyeaserytamnyeawekhoryt cause ingane ne environementesisebenzakuyoizinganeazikwaziukuwaphathangendlela. Into engconokakhulunjengobauLNenze example into engconoenjenge globe. Amachartsayasisiza but asidependilekuwonakakhulungobaabantwanaesisebenzangabo sometime bayawa destroyer. (The ones we have are not enough like charts others are in a good condition others are not. Another thing is the children in the environment we work in do not handle the charts with care. The globe like LN said it's in a better condition, but charts help us a lot but we not dependent on them because the children destroy them).

**LN-** Amanyeakwi good condition like iglobe and useful.

**LN-**Amanyeakwi good condition.

**NN2-** Amanyeayashoda.

**Researcher** -How often do you use these material resources?

**EVERYONE-** Everyday

**Researcher** -Do you feel these material resources are sufficient for the entire class during your lesson?

**EVERYONE** – Some are not enough others are enough. Depends on the material u using at that particular time.

**Researcher** -Do you feel these material resources aid you in conducting your lesson in an efficient manner?

**EVERYONE**- yes.

**PM**- yesumtwanaohlakaniphilenomtwanaonekingauyakwaziukthiacontributer.(smart children and children with barriers are able to contribute).

**LN**- like mesenzaama experiments  
bayaentertainekamakwenziwabaencouragekeukuthikwenziwakanje(when we doing experiments they are entertained and encouraged on how it should be done).

**NN2**- Ngingenzanamngixhumekanje(I can do it like this).

**LM**- Angabeesakhohlwa.

**NL**- Nokuthifuthienye into abasizakalingalesoskhathikphela. Noma into isidlulilesebekwenyeitopickodwa lento iyolokheibaireminderukuthikonjesafundangokuthi(it does not only help in the time you using them but also serves as a reminder that I learnt this).

**NL**- Bayakwaziukuthifuthibaphindebafundisane on their own. babonebeyokhombalelo chart than leyontoyenza ukuthibahlalebeyikhumbulabengakhohlwa.

**LM**- izinto esizifundisayo zibuyezilink so mekufundekwe NS  
mhlampeuzokutholakwemathsuzokutholakwisifundo esinye(the subject we teach link with other subjects)

**LN**- Intergrating

**PM**- nakwe environment abahlalakuyonabayakwazi associate ukuthi lento ebesifundangayonansi or nakhu ukuthi (even in the environment they stay in they associate what they learn with it)

**Researcher** -Do you feel adequately developed trained in utilising these material resources?

**PM**- like computer asitrainwanga(we not trained to use a computer)

**LM**- amanyesitrainiwe (some we are trained for)

**LN**- amanyesiyakuma workshop. amanyekodwa(others we go to workshops for training, some though)

**NN2**- amanyesiwafundangendlela (others we learn along the way)

**Researcher** -How often are these material resources updated?

**NL-** *hawu!*

**PM-**aba upathile. Asegugile! (they old)

**Researcher** - If you had a choice on the material resources you feel would best suit your lesson what would those material resources be?

**LN, NL, LM-**overhead projector

**LM-** kukwenza ukufundisa kwakho kubelula awuzulokhu obhala ebhodini. (it makes your teaching easy and you do not write on the board)

**LN-**displayer yonke into (Displays everything)

**NL-** even ama computer for abantwana because manje into eningi isiyi technology. izingane ziyakwazi ukuzifundela i-computer zizodwa. wena usuke usufundisa leyo nto naleyo nto. ingane kucondusive kakhulu ukusebenziselezi into ze technology than amaphepha futhingicabanga ukuthi interest iya aroze kakakhulu kulento abangayijwayele than kulento abayaziyo. ababebesabanandaba uma into beyazi. (Computers for the learners because everything is technological in our days. children are able to learn on their own the teacher just assists here and there. It's conducive for learners to learn about technological stuff, and I think learners will be interested and it will arouse interest because it's something they're not used to and they don't care about something they know).

**NL-**yes! futhi nokubhala angithi bayavilapha ukubhala (they do not like writing anyways). They can use kalula (easily). it is easy ngobabayakuthanda ( it's easy because they love it)

**LN-** Bayavilapha.

**LN-** Nongathandi ukwenza umsebenzileyo into iyamhehaukuthi ake zengobavele into abayithandayo (even those who do not like to do things they will because they love it).

## **Appendix 8- Turnitin Report**

## dissertation

### ORIGINALITY REPORT

3%	%	3%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

### PRIMARY SOURCES

- 1 Rona Bušljeta. "Effective Use of Teaching and Learning Resources", Czech-polish historical and pedagogical journal, 2013  
Publication <1%
- 2 Sizwe Blessing Mahlambi, Ailwei Solomon Mawela. "chapter 8 The Role of Departmental Heads in the Procurement of Teaching and Learning Resources to Enhance Learner Performance", IGI Global, 2021  
Publication <1%
- 3 Denisa Krbec, David Currie. "Advantages Of Experiential Learning In Development Of International Economics And Business Study Programs ()", Economic Research-Ekonomska Istraživanja, 2015  
Publication <1%
- 4 Anthony J. Onwuegbuzie, Wendy B. Dickinson, Nancy L. Leech, Annmarie G. Zoran. "A Qualitative Framework for Collecting and Analyzing Data in Focus Group Research",  
Publication <1%

International Journal of Qualitative Methods,  
2009  
Publication

## Appendix 19- Editing certificate

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**EDITING CERTIFICATE**  
LANGUAGE EDITING SERVICES

Date: 2022/2/15

This serves to confirm that the document entitled:

**Teachers' experiences of working with Learner – Teacher support material resources  
in the 21<sup>st</sup> century**

by

**Valentine N. Madlala**

has been language edited on behalf of its author, with recommendations for improvement.

Genevieve Wood  
PhD candidate  
Wits University

