

**GENERATION, MANAGEMENT AND USE OF SCHOOL DATA BY THE SCHOOL
MANAGEMENT TEAM IN ONE PRIMARY SCHOOL**

BY

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**A dissertation submitted in partial fulfilment of the requirements for the degree of Master of
Education (Educational Leadership, Management and Policy) in the School of Education**

**UNIVERSITY OF KWAZULU-NATAL
(EDGEWOOD CAMPUS)**

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Date submitted: December 2021

DECLARATION OF ORIGINALITY

I, EMMERENT MALUNGI NDABA, declare that this research project: Generation, management and use of school data by the school management team in one primary school abides by the following guidelines:

- (i) The research presented in this dissertation is my original work, and reference to the work of others has been duly acknowledged using complete references.
- (ii) This dissertation has not been submitted for any degree or examination at any other university.
- (iii) This dissertation comprises no other person's data, tables, graphs, pictures or any such information unless the source is specifically acknowledged.
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Their original statements have been rephrased and referenced.

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Researcher: EMMERENT MALUNGI NDABA (213552686)

Signature: 

Date: 27 March 2022

SUPERVISOR'S STATEMENT

This dissertation was submitted with my approval



Dr B.N.C.K. MKHIZE

27 March 2022

ETHICAL CLEARANCE APPROVAL LETTER



6 November 2017

Mrs Emmerent Malungi Ndaba 213552686
School of Education
Edgewood Campus

Dear Mrs Ndaba

Protocol reference number: HSS/0463/017M

Project title: Generation, management and use of students' data by the School Management Team (SMT) in one primary school.

Full Approval – Expedited Application

In response to your application received on 4 May 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and **FULL APPROVAL** for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

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

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

Yours faithfully

.....
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Humanities & Social Sciences Research Ethics Committee

/pm

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ABSTRACT

A qualitative based study underpinned by the interpretive paradigm which was undertaken to explore how does the School Management Team (SMT) perceive learners' data generation, management and usage in one primary school to inform school practices. This study employed transformational leadership and distributed leadership theories to understand and explore the phenomenon. Data was generated using individual semi-structured interviews involving 7 SMT members: the school principal, two deputy principals, and four departmental head. The study is grounded by a study by which addresses the importance of data collection in a business or organisation for gaining quality information for making informed decision/s for further analysis, study and research, which may result in stumbling of organisations or companies and working in the dark should they operate without data or using the outdated data (Big Data, 2015). Findings indicated the importance of data generation, management, and use by the SMT to understand learner needs better, improving both learner and school performance and assisting in informed decision-making.

Keywords:

Data; data-driven; management; usage; school management team; achievement; performance; inform; practices; decision-making; collaboration; professional learning communities.

DEDICATION

I dedicate this work to my late parents Norah Jabulile (MaNdlovu), Ngidi (Mother), and Bhekizitha Vincent Xulu (Father). They together pulled hard in raising myself and my late twin sister Lungile Petunia Xulu (may their souls rest in eternal peace), my late grandmother Esther Qhikiza (MaNgubane) Ndlovu, who took the initiative in our upbringing while my parents were working in Durban part of KwaZulu- Natal (may her soul rest in eternal peace). A special dedication to my husband Eric Mandlakhe Ndaba by allowing me to leave your home and children to attend to my education desires. Your support to get articles printed at all times will never go unnoticed, *Ngibonga kakhulu Mhlungu, Mwelase, wena owela ngempambosi.*

“I will praise you, O Lord, with all my heart; before the “gods”; I will sing your praise” Psalm: 138: 1

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ABBREVIATIONS

ANA:	Annual National Assessments
AYP :	Adequate Yearly Progress
DH:	Departmental Head
DoE :	Department of Education
DSD:	Department of Social Development
BEd :	Bachelor of Education
EMIS:	Education Management Information System
FP:	Foundation phase
FSS:	Full-Service School
Hons:	Honours
NCLB :	No Child Left Behind
NGO's:	Non-Government Organisation
NICU:	Neonatal Intensive Care Unit
PLCs :	Professional learning communities
POPIA:	Protection of Personal Information Act
SAPS:	South African Police Services
SA-SAMS:	South African' Schools Administrative Systems
SASSA:	South African Social Security Agency
SE:	Special Education Needs
SBST:	School Based Support Team
SIAS:	Screening Identification Assessment and Support
SMT/s :	School Management Team

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

The use of data-driven decision-making to inform practices, policies, and financial support has become essential and has received unprecedented attention across all levels of the Department of Basic Education, starting from schools, circuit offices, district offices, and head offices in the provinces. Data is used in education to positively enhance accountability, development, and instructions to impact learner performance (Mandinach, 2012). It is the responsibility of the School Management Teams (SMTs) at school level to ensure that data is being used for the purposes mentioned. This dissertation is an exploratory study of SMT members' perspectives about generation, management and usage of learners' data in one primary school in the Pinetown District. This chapter sets the stage for what the study aims to accomplish and how it intends to do it. It explains the study's background, the research problem and aims, the selection of the research site, and the study's constraints. The chapter concludes by outlining chapters contained in this report.

1.2 Background to the study

The South African Constitution Act, No. 108 of 1996, highlights, among other things, the principles of democracy and accountability (Republic of South Africa, 1996a). These constitutional principles also permeate the South African Schools Act, No. 84 of 1996 (Republic of South Africa, 1996b), hereafter, the Schools Act, which ushered a new era in the South African school management and governance. The fundamental assumptions underpinning the Schools Act are ensuring accountability, transparency and participation of all relevant stakeholders in school management and governance. One way of ensuring accountability, transparency and participation in school management and governance is to have quality data (Wende, 2007). Lai and Schildkamp (2016) define data as systematically generated and organised information that informs practices. It is a necessary resource produced by information systems and is a crucial building block to the management and decision-making in any organisation. Research has established that systematically generated and organised information is used to encourage higher standards and accountability mandated to foster improvement in schools (Wayman, Jimerson, & Cho, 2012). It guides education planning, resource allocation, monitoring and evaluation, reporting, research and decision-making processes. In terms of Section 59 of the Schools Act, it is the central task of the School Management

Teams to systematically generate, organise and supply information about the school as it is reasonably required by the Head of Department (HOD) to ensure accountability, transparency and participation in decision-making to improve learner education.

The SMTs are the cornerstone of a school's successful data initiative implementation (Botha & Muller, 2016; Botha, 2016; Bush & Glover, 2016; Hendricks, Botha, & Adu, 2016; Wayman & Stringfield, 2006). The SMTs need to make decisions based on available data to, for instance, identify resources needed to support teachers to improve their work, determine the readiness and development of learners in the school, systematically and timeously direct intervention programmes. The SMTs need a clear understanding of the data systems used at the local level and the decision-making processes in schools and districts (Hendricks et al., 2016). Therefore, the SMTs' should put in place strategies to harness and use data to enact policies that are meant to allow learners to thrive academically. They have a responsibility to support teachers in linking data and alternative instructional strategies.

The SMTs are critical drivers for the leadership and management of teaching and learning in schools. Therefore, the SMTs ought to influence the effective use of data to determine the readiness and development of learners in a school (Matters, 2006). Bush (2007) advocates for strong leadership qualities for the SMTs and knowledge of effective use of data to improve teaching and learning. Banks (2012) adds that the SMTs' vision of using data and sharing information indicates the agency of systematic, timely and directive intervention to improve the quality of teaching and learning. In addition, Grant, Gardner, Kajee, Moodley, and Somaroo (2010) emphasise that the SMT should create data teams responsible for data analysis and conversations about data to improve teaching and learning. The SMTs have the responsibility to develop shared meanings and use data effectively to enhance teaching and learning.

In the last decade or so, the Department of Basic Education (DBE) in South Africa has brought together several forces to make a systematically generated and organised information at all levels of the education system a priority (Maremi, Herselman & Botha, 2020). Improved data systems capable of tracking individual students' progress from year to year have become available and implemented in an increasing number of schools (Kane, Baxter & Schooley (2012). A data system called South African School Management and Administration System (SA-SAMS) has since been made available to all public schools to enable a longitudinal analysis of learners' data and linkage between learner outcomes and other education system variables. SA-SAMS is a robust computer application specifically designed to meet the management, administrative and governance needs of public

schools in South Africa. Schools are mandated to use specific data exchange formats such as the learner tracking system format for learner data records.

Data systems, in whatever form, are expected to play an integral role in improving educational decision-making at all levels, including that of the classroom teacher (Botha, 2016; Timperley, Parr, & Bertanees, 2009; Wayman, Jimerson, et al., 2012) . Learner information systems, for example, provide real-time access to learners' data such as attendance, demographics, test scores, grades and schedules (Wayman & Stringfield, 2006). However, just having learners' data is insufficient if teachers do not have ideas about teaching differently based on learner performance.

1.3 Statement of the problem

In terms of Section 59 of the Schools Act, it is a central task of the School Management Teams to systematically generate, organise and supply information about the school as it is reasonably required by the Head of Department (HOD) to ensure accountability, transparency and participation in decision-making to improve learner education. As stated in the background above, data is a necessary resource produced by information systems and is a key building block to the management and decision-making in any organisation. It guides education planning, resource allocation, monitoring and evaluation, reporting, research and decision-making processes. The background above has also highlighted that systematically generated and organised information encourages higher standards and accountability mandated to foster improvement in schools.

Research conducted in South Africa and other parts of the world indicates the possibilities and challenges of effectively using data for policy and research. For instance, Hendricks et al. (2016) found that data in education, specifically the datasets generated by the annual school survey in Education Management Information System (EMIS) in most countries of the world, is often one of the most under-utilised data sources for both policy and research. Van der Berg (2008) found that in some South African schools, data is mainly generated to submit statistics to the district and national education offices and not necessarily to inform school's practices. Similarly, Taylor (2008) attests that school data is a wasted resource. Ebersöhn (2015) concludes that although using data in schools to assist the SMTs and education officials in making data-driven decisions is essential, less effort is put in place to implement it. Wayman and Stringfield (2006) maintain that until recently, the use of data to make decisions at the district, school and classroom levels has been the exception rather than the rule. This makes me wonder if SMTs have an appropriate understanding of the importance of generating, managing, and using school data, and their role in that process. Some of the questions I

ask myself are, to what extent do the SMT members schedule time to examine and reflect on data they generate about their schools? Do the SMT members have systems that provide user-friendly access to timely and relevant information? Are data generation, management and usage not one of the major impediments to improve quality of teaching and learning?

Data-based decision-making seems to have been given ample attention by scholars (Campbell & Levin, 2009; Carlson, Borman, & Robinson, 2011; Van Geel, Keuning, Visscher, & Fox, 2016) . While scholars have given attention to data-based decision-making, there seems to be paucity in research about how data is generated in the first place, the reliability of the data generated and how it is managed for it to be readily available to inform decisions and practice. Therefore, this study was conducted to explore and understand how the SMT members perceive the generation, management and usage of data in their schools to be, and also understand the kinds of importance that they attach to this process if at all.

1.4 Aim and Objectives

The main aim of this study was to explore the SMT members' perspectives about the generation, management and usage of learners' data in a primary school. The following are the objectives of this study that are directly linked to the research aim:

- To explore the nature and type of learner data generated by the SMT members in a primary school in Pinetown District.
- To establish strategies used by the SMT members to generate learners' data in a primary school in Pinetown District.
- To examine how the SMT members manage and use learners' data in a primary school in Pinetown District.

1.5 Research Questions

- What is the nature and type of learners' data generated by the SMT members in a primary school in Pinetown District?
- What strategies do the SMT members use to generate learners' data in a primary school in Pinetown District?
- How do the SMT members manage and use learners' data in a primary school in Pinetown

District?

1.6 Significance of the study

This is an empirical study that analyses the SMT members' perspectives and insights about the generation, management, and use of learners' data in a primary school in the Pinetown District. Interrogating "how and why" SMT members collect, handle, and use learners' data is relevant to the study, and in the background section of this dissertation, I have indicated that there is dearth of information about this aspect. Therefore, this study is filling an existing gap in terms of providing insights about what drives the SMT members to generate, manage and use data in the manner they do it. The research also serves to add to the current body of knowledge on data use and management in primary schools. The findings of this study may be used by SMT members to understand and improve their usage and management of learner data in order to improve school performance.

1.7 Location of the study

The research was carried out in one primary school in Inanda area, in the Mafukuzela-Gandhi Circuit within the Pinetown District. Despite its proximity to Durban, the school is located in an area characterised by poverty and unemployment. As a result, many of the learners at this school come from economically poor families. The school is part of the no-fee schools, which means that the school is fully reliant on government funding and procurement processes.

1.8 Limitations of the study

This research has limitations due to its nature. To begin, I acknowledge the fact that the sample of just one school cannot give a comprehensive understanding about what SMT members understand in other schools. Therefore, generalisability cannot be done. Nevertheless, its strong focus on the descriptions of the participants' meanings enables me to develop a deeper understanding of their actions and meanings that underpin their actions.

1.9 Structure of the study

There are five chapters constituting this study.

Chapter One serves as an introductory chapter that gives the background of the study. As such, it provides an orientation to understanding the main issues for research, and why it is important to conduct a study of this nature. The significance, the research objectives and research questions guiding the study are given in this chapter, and it concludes with an outline of all the chapters and the chapter summary.

Chapter Two provides a review of the literature on the topic and also discusses a theoretical framework underpinning the study. Firstly, the chapter examines the contending narratives that corroborate and renounce the role of the SMTs in learners' data generation and usage in schools. The essence of the chapter is to engage critically with extant literature on the relationship between the SMT members and learners' data generation and usage to inform school practices. Secondly, the chapter discusses the transformational and distributed leadership theories used to unpack the data generation, management, and usage in primary schools in South Africa.

Chapter Three outlines the research design and methodology that was used to generate data. Details about research data generation techniques of the study are given. Other details about how the generated data was analysed and interpreted are also discussed in this chapter.

Chapter Four outlines and analyses the findings from the interview that were conducted. The research questions that were asked in the inquiry are used to present data under different themes. The chapter presents the research findings that are qualitatively analysed within the framework of the core of the study's objectives.

Chapter Five presents the conclusions and makes recommendations. However, before the conclusions are presented, a summary of the whole study is given.

1.10 Chapter summary

This chapter has presented a comprehensive picture about the study by giving the entire background of the study. The statement of the problem was given after the background to the problem has been given. The research aim, objectives and the research questions followed, and so did the significance of the study. Limitations of the study followed before an outline of the study was presented.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

1.1 Introduction

The previous chapter introduced the study about the role of the SMT members in the generation of data, its management and use in the context of one primary school in the Pinetown District. It is a case of one primary school in which all the SMT members participated. This chapter reviews the literature on the phenomenon of data generation, administration, and usage in schools, which has been investigated. There are various themes in this chapter. The first subject focuses on how data is generated, managed, and used in schools. It focuses on research on the relationship between data use and educational practice in the context of a primary school in South Africa. The second theme examines SMT members' grasp of data generation and management among school students. The literature on learners' data collection, management and usage in a primary school by the SMTs, which is the focus of this study, will be examined. In addition to the literature review, this chapter also discusses transformational and distributed leadership as a conceptual framework of this study.

2.2 Nature and type of data

Data is regarded as an accumulation of numbers, figures, text and symbols that have not undergone processing or analysis (Kelly, Downey & Rietdijk, 2010). Data can be categorised as nominal, ordinal, discrete and continuous data (Dunn & Marshman, 2020). Data is further defined by Lai and Schildkamp (2016) as raw generated and unorganised information which helps to give pointers to practitioners about the current situation in an organisation. Jantjies and Plantinga (2021) then go further to point out that data involves factual figures, details and statistics, and these can be collected from any number of given stakeholders, meaning that in a school set up data can be obtained from SMTs, learners, parents, teachers and even the community. Mandinach (2012) then highlights three critical areas of data collection for a school setup, these areas are background data, growth (progress) data and special needs data. These are crucial in a school setup, and they are further analysed below.

2.2.1 Background data in a school set up

Background data in a school set up reveals and explains the underlying behaviour of learners,

teachers and management. According to Means, Padilla, and Gallagher (2010), schools that know more about their learners and staff background can bring about better accountability and instructional improvements in the teaching process. The premise behind background data is that knowledge about the background history of teaching and non-teaching staff or learners will enable managers to better handle the instructional process at the school. Iftimescu et al. (2020) stress that where there is better data collection, the result is making decisions from a better-informed perspective. This implies that the administration, teaching and learning processes can be effectively implemented according to the people's readily available and reliable background data.

Backgrounds are by nature, very different, and as such, background data will reveal this variety. The variability of the background data is further raised by Johnson (2020) when the role of instructors is analysed against a backdrop of the recruiting process. According to Johnson (2020), the level of sensitivity that a learner, an administrator or a teacher exhibit will impact the way school management teams implement processes. This brings to the fore the fact that data should not simply be collected, but that schools should have benchmarks of what is acceptable as data parameters by the school. According to Agasisti and Zoido (2018), sensitivity is engrained in a person in relation to their background and upbringing. Thus, it is necessary to have complete background data to ensure sensitivity is shown for concerned students and teachers. The OECD cited in Agasisti and Zoido (2018) however, provides possible solutions basing on the need for additional support.

Cotton, Bailey, Warren and Bissell (2009) contend for the need for learners' backgrounds as a building block in the monitoring activities of learners because the background data helps to understand the learners' behaviours better. However, this knowledge should be used for the development and further understanding of the learners (Cotton et al., 2009). This argument is in resonance with the view by Putri, Artini and Nitiasih (2017) that learners can be aided in developing their learning style based on their background information. The teaching strategy employed by the teachers is influenced strongly by the background data and concern, especially in terms of showing how differences in backgrounds tend to control the level of understanding and possible reactions to any given set of stimuli (Putri et al., 2017). The teacher can prefer certain aides and methods of instruction based on their background understanding, just as learners can respond and interpret received messages differently. Of concern, however, is when the teacher has preconceived ideas about learners' backgrounds which could affect their response to learners (Lirio, 2003).

The nature of the background data being collected should be helpful in the given objectives of the school. Marrelli (2007) contends that there is a need to collect accurate and valuable data to be

helpful for the given school management team. Adebisi, Daramola, Seyi-Oderinde and Adebisi (2019) argue that not all data is helpful for the learners' profile, although the boundary of what constitutes useful data is not well defined either. The internet is raised as an effective and efficient medium for collecting improved background data about learners (Marrelli, 2007). However, this does not discount the role of the collector of the data, who is usually the teacher. Therefore, there is a need to define what constitutes relevant data and how this can be used determines what form the data should take. Most schools continue to use the teacher, the first point of contact with parents and learners, as the focal point for data gathering. The idea is that learners will provide factual and reliable data to the teacher, and the teacher can also go beyond the student to collect data from parents and other relevant stakeholders. This means that the teacher is at the centre of the data collection process, raising the issue of assessment data needed for measuring progress and growth.

2.2.2 Growth and progress data in a school setup

Schools also have a strong need for growth and progress to be monitored. The best way for school management teams to attain this data is to access it through platforms used by teachers and staff at the school. According to Agasisti and Zoido (2018), the most relevant growth and progress data should be concerned with the learners as they are the main objective of the school setup. In other words, school success is measured by its ability to meet the requirements of the learners. The learners' growth and progress is a continuation from the point of origin, which should be a learner's background. The inference of a learner's progress is enormously aided by knowledge of a learner's background data.

Kirkup, Sizmur, Sturman and Lewis (2005) raise an exciting view that collecting data about learners is critical as it allows for better teaching and learning by bringing about improved resource allocation and better monitoring of efforts done. However, Kirkup et al. (2005) contend that for data to be useful and practical, there should be an inclusion of data from relevant stakeholders both in its collection and in its interpretation and should stimulate debate on the learning process presently in use. This means that Kirkup et al. (2005) support a school developed school management system as ideal for the collection and use of school data showing growth and progress.

Growth and progress is ascertained based on how far learners have developed at the school. Therefore, the starting point for change is the learners' background and the level of achievements when they join the school. Adebisi et al. (2019) raise a different view that the learners' performance can be significantly affected by the learners' background where specific upbringings can either aid

or hinder the learners' progress. Adebisi et al. (2019) also contend that teachers have better reception of particular learners. Thus, these are likely to show better progress, and this may come about as a result of their response to the background data of the learners. Thus, learners' progress is influenced by how teachers perceive the learners' background and respond to the background data.

There are conflicting views about measuring progress and growth in a school setup. Progress data is strongly linked with learners' academic performance, and most activities undertaken by the school are measured in relation to improvements in learners' performance. According to Stecker et al. cited in Embrey (2011), data collected to monitor a learner's performance can be used by school management systems to improve a learner's overall performance. Embrey (2011) thus argues for every part of a school's data management system to be strongly linked with the academic progress of learners' for it to have meaningful use. This means that learners should be closely monitored in terms of their academic performance. Any progress can then be linked to the activities being implemented by the school's management team. Dube (2020) raises the issue that learners' performance and activities of a school management team are not always easy to link, especially now where the COVID 19 pandemic has drastically changed the way schools operate. The manner in which learners' instruction has changed influences other aspects of teaching and learning. For example, it is now customary to have virtual instruction of learners, thereby negating any direct link with the given data as a measure of learners' progress.

There are various key result areas for schools like financial, sporting, and administrative regions to measure and assess growth. Agasisti and Zoido (2018), however, contend that students should be placed at the heart of any assessment and growth activities that are carried out at the school. Where the student is in the centre of data collection activities, it goes without saying that the school management system will link its activities to the learner. As a result, activities by the SMT can be contrasted with data about learners' growth and progress. According to E-Learning Africa (2020), placing the learner at the heart of school management systems means every activity done can be traced back to the learner, which means progress and growth can be linked with learners' performance.

However, school management teams can measure the school's growth and progress in relation to other variables as well. Huber and Helm (2020) contend that school management teams are accountable to many stakeholders, and the learner more often becomes the stakeholder with the least influence in the operations of school management teams. School management teams, therefore, measure growth and performance in relation to other performance metrics, and as a result, data on

growth and progress is acquired from other sources as well. This is supported by Modaffari and Jimenez (2021), who contend that for schools, it is necessary to collect data that can show whether a school has healthy education and administration systems, which can be measured by the performance of key staff and operating procedures. The role of stakeholders in data collection, evaluation and reaction is not taken lightly, as Modaffari and Jimenez (2021) further point out the inadequacy of existing school progress and growth metrics.

An issue is then raised on the data collection and the role of staff in this regard. According to Cotton et al. (2009), the teacher has to collect the most complex growth and progress data forms in the classroom, and this data is usually highly subjective. This is supported by Johnson (2020), who feels that non-teaching staff collect simplified progress data whereas a teacher has to collect more diverse growth and progress data forms. Botha (2016) then argues that a teacher should be better qualified and empowered as a leader in the classroom to bring better effectiveness to their teaching and data collection roles. Various stakeholders of the school are necessary when it comes to school growth data. Each stakeholder is well placed to evaluate whether there is growth of the school and its learners. Research, however, contends that only the teacher provides a formal data structuring that can be used for collection, evaluation and reaction to the data. Growth and progress are therefore best assessed by using data from learners' academic performance. However, other stakeholders may view the use of different metrics as ideal to assess progress and growth.

2.2.3 Learners' special needs data in a school

The idea of special needs in learners emanates from the fact that learners encounter challenges in their learning. As Tse, Daniels, Stables, and Cox (2018) state, such challenges or barriers are either barriers to learning or create a counterforce to the learning process. Special needs can range from physical needs to mental and emotional needs in the learners. School management teams need such data as it is instrumental in setting up relevant infrastructure at the school to address the learners' concerns. According to Botha and Muller (2016), data for special-needs learners is usually first noted by teachers and parents, who should highlight it to relevant authorities. A learner can sometimes reflect on special needs early, even before school (Tse et al., 2018). Where the parent or guardian notices special needs in a learner, it becomes easier to get this addressed if the parent highlights the need to the school management team at an early stage (Botha, 2016). This means that special needs should be identified at the earliest possible time, and the first source of such data becomes the parent or guardian of a learner. This is especially necessary for emotional and mental needs.

However, special needs can be spotted more quickly when they involve or arise from a physical handicap. Marrelli (2007) argues that where special needs are more mental than physical, most stakeholders fail to acknowledge these and usually, teachers are the best placed to observe such needs. Therefore, the teacher is called upon to constantly be on the lookout for any special needs in the learners. Sometimes, however, parents and other stakeholders may be aware of special needs in learners and fail to act on such data. Sonnemann and Goss (2018) then point out that data collection systems must always be in place to allow for such special needs data to be quickly and efficiently taken note of by the school.

The special needs identified in learners need to be addressed quickly to prevent future challenges with learners. In their study, Ross and Gray (2006) point out that differences or inequalities in existence between learners will widen as the learners grow older. This means the absence of special needs data will cause an otherwise small challenge to fester rather than be adequately addressed on time. Rose and Alcott (2015) then argue for using technology to collect and monitor special needs data. This is due to the idea that special needs in learners commence as early as preschool; therefore, they need to be quickly noted and dealt with accordingly.

The COVID-19 global pandemic has also brought about its own unique needs in the learners educational lives. According to Fatria, Harlen, and Setiawan (2020), learners from poorer families and communities have suddenly become special needs learners, especially with the need for online lessons, which raises the need for improved communication capabilities, devices and technologies. Therefore, this calls for better accountability and responsiveness regarding policies being implemented as responses to COVID-19 in the education sector. Lirio (2003) argues that being poor does not constitute a special need. Still, a special need arises when the learner fails to participate in the learning process due to extreme cases of want in the learners. The concern is also raised on special needs of learners who struggle with learning difficulties and problems. According to Shin and Bryant (2017), special needs arise as a result of disabilities in mental and physical development and disorders or deficiencies within learners. Such learners will lag behind in their studies; so, there is a need to keep data on them. Interestingly, Shin and Bryant (2017) consider economic disadvantage as not being a special need for education but rather include medical-related concerns.

Teachers' role in special needs education and data collection are affected by the educational level of learners. According to Okech, Yuwono and Abdu (2021), teachers trained in special education can better handle issues of special education needs. The classroom impact between teachers trained

in special needs and those not, was observed to result in a major difference in the overall performance of individuals in a class (Okech et al., 2021). Therefore, it is necessary to collect data on special needs of learners quickly, identify such learners and, where possible, assign them to a qualified special needs teacher.

2.3 Data generation strategies in a school

Once a school management team has ascertained the data they need, they are now faced with coming up with a strategy to generate the expected data. According to Sanders, Wright and Horn (2016), a school management team can successfully collect data if it focuses on what data constitutes relevant data for teaching effectiveness and agrees with relevant stakeholders on what constitutes the needed data. There is a need for school management teams to move away from collection of data simply because the school can collect the data to a collection of data for the sake of its relevance.

The debate about what is categorised as relevant data draws in different views. According to Johnson (2020), the various stakeholders in a school each emphasise the relevance of other data sources. Johnson (2020) highlights that once the parameters for the relevance of data sources are set, the school management team can draw a sample of relevant sources and then collect data. The data is therefore composed of different stakeholders, and for each, a unique strategy can be employed. Daily progress reports are the most common strategy for data generation. According to Cotton et al. (2009), the classroom is the most significant source of data. Therefore, effective classroom management can generate the greatest amount of data. Cotton et al. (2009) contend that daily progress reporting tools are used to ensure the collection of adequate data. The use of daily progress reports for learners is also greatly supported by Johnson (2000), who sees learners as providing the largest source of data in the school setup. The use of daily progress reports means that the teacher can collect important data about learners when they are in the classroom, which can be done without any special concessions.

There are many items about the learners that can be gathered in a classroom on daily basis. Learner attendance is but one of them, and how they make progress in the lesson assessment tasks is another. However, there is no unanimity about the value of progress reports. For instance, there is a strong criticism of daily progress reports by Christensen et al. (2018), who contend that daily progress reports add too much workload to the teacher. Such data is only valid up to the reliability placed on the given teacher. According to Christensen et al. (2018), teachers must be monitored more closely to ensure better and more objective results. This, however, constantly proves to be a challenging

goal to achieve. However, it is noteworthy that Christensen et al. (2018) fail to appreciate the teachers' role as they are already collecting the data needed by the SMT members.

Cotton et al. (2009) raise a second strategy involving classroom monitoring by either the teacher or a school management team member. Classroom monitoring, unlike daily reports, involves observation of learners and teachers and making the necessary inferences from the observation done. Classroom monitoring will likely generate a lot of qualitative data, so this method works best where the aim is to collect data describing or explaining a phenomenon. Classroom monitoring differs from daily progress reports as reports are more factual and usually provide numerical data, whereas classroom monitoring focuses on collecting qualitative data (Johnson, 2020).

Matters (2006) raises a different data collection strategy that uses the different types of stakeholders in the school setup. According to Matters (2006), the school is an interconnected system, and the other stakeholders can individually contribute relevant data for the school's management. For data to be attained by the various stakeholders to be appropriate, Matters (2006) raises steps to be followed during the data collection process. These are measured to determine if the various stakeholders have successfully managed to collect relevant data. Therefore, the school management team sets up data goals for each step and then measures the data attained in relation to the goal. A more comprehensive system is suggested by Iftimescu et al. (2020), propose using an intelligent education system that involves collecting data through an integrated system. A smart education system involves incorporating various departments and incorporating these into a single system that ultimately feeds into the school management teams system. According to Iftimescu et al. (2020), an intelligent education system should include monitoring, frequency measurements and assessment of goals attained. An innovative education system, however, does not fully embrace technology with various departments collecting manual data.

The use of manual systems is criticised by Sanders et al. (2016), contend that using technology can significantly enhance the speed of data collection and reliability and relevance. Sanders et al. (2016) propose the use of artificial intelligence to create a self-managed system of data collection. Artificial intelligence allows for data collection strategies to be built into the system, thus, allowing better collection and management of data. Artificial intelligence raises the bar for improvement in data collection, management, and usage as it creates and provides self-monitoring when collecting data.

Ghazali (2016) also strongly supports the idea of artificial intelligence in the school set-up as a strategy for data collection but then points out the major limitation being the cost of installing and

running such a system at any given school. According to Ghazali (2016), technology can offer an endless possibility of chances for collecting data, but also highlights that there is a strong affinity for the school management team to only succeed in collecting data in relation to the schools level of technology adoption. This means the data collection strategies based on technology are only applicable where the school has sufficient capacity to implement the technology. An often-overlooked strategy for the collection of data by school management teams is during the period of recruiting new learners to the school. According to Kirkup et al. (2005), when a school is enrolling new learners, it can call on all new learners to provide the necessary data for creating an inclusive learner. Where further information is needed, the school management team can incorporate its tools to this end. For instance, new learners can undergo medical check-ups for issues like sight, hearing, dental, IQ, or any health, physical and mental challenges that can help provide detailed background data. This means that a school management team can generate essential data during the enrolment process, which they can constantly refer to in the future.

Data can also be seen as a long-term goal as there is usually a need to collect data continuously to make sense and be meaningful to the school. According to Anderson and Middleton (2014), a school management team needs at least three years of continuous data collection to conclude the data safely. This means that a data management system is an excellent strategy for the collection of data as it puts in place processes that will ensure constant data collection in the long run, as well as, enable the data to be sharable with teachers, parents, school management teams and other relevant school stakeholders (Anderson & Middleton, 2014). A functional data management system is, therefore, a great strategy to generate data in the school.

The relevance of data is based on the agenda of the school and the needs of its various stakeholders. The best strategy is to collect this from learners through daily progress reports and classroom monitoring. Technology advances now also make it possible to collect data from different stakeholders, with each capable of providing a modicum of the data needed by the school management team. Data collection is also a long-term process, and the goal is to permit continuity in its collection and usage. The school, therefore, needs a substantive and continuous strategy to collect data without interruption.

2.4 Data management and usage

Data management is the practice of collecting, keeping, and using data securely, efficiently and cost-effectively (Kelly, Downey & Rietdijk, 2010). Data management aims to help people, organisations and connected things optimise the use of data within the bounds of policy and regulation to make decisions and take actions that maximise the benefit to the organisation. A robust data management strategy is becoming more critical than ever as organisations increasingly rely on intangible assets to create value. Data traffic has increased exponentially, raising challenges in the management of the data. According to Becker et al. (2016), the increase in pace and data quantities available to organisations has created several challenges in data management. Becker et al. (2016) identify challenges to include a collection of unnecessary data, monitoring relevance, adjusting to meet changing demands, easing the data and integrating the data system to technological advances. The sheer scope of contemporary data-based decision-making demands that school management teams and education officials use data to make decisions that inform school practices.

According to Shen and Cooley (2008), the SMT consists of the school's highest and most crucial structure. The structure and understanding of SMT on using data in establishing new teaching policies and practices affect the success or failure of any school's performance. While the SMT is grappling with a variety of issues that affect data utilisation, data plays a critical role in informing the SMT's school decision-making. A study by Bernhardt (2013) argues that data-based decisions can enhance SMT's development in terms of teachers' accountability and instructions to learners. The management and use of data by SMT require highly informed decisions when making data-based decisions in relation to school practices. A study by Wayman, Cho, Jimerson and Spikes (2012) raise the idea that schools tend to be subjective in managing and using data for decision-making purposes. Wayman, Cho, Jimerson and Spikes (2012) also contend that different schools consider different technology tools adequate for data processing and decision-making. This is a direct result of the leadership at the school.

However, Levin and Datnow (2012) raise the issue of individuals involved in the management and use of the data. According to Levin and Datnow (2012), the SMT fails to provide adequate structures at the school to support data management and usage by the school. This is because individual character traits hamper the implementation of adequate processes. As a result, there is no climate of trust and collaboration between the SMT, the teachers and the learners regarding data use. A similar study done in New Zealand by Lai and Schildkamp (2016) highlights a lack of professional management and collaboration between the teachers and the SMTs. Schildkamp, Rekers-Mombarg and Harms (2012) established a discrepancy between the school-based results and that of the district

examinations. They attributed this to a lack of ideal training of the SMT in learner's data generation, management and use in a school.

However, it is not always the case that the SMT and the teachers disagree on how to manage and use data. According to Reeves and Burt (2006), different schools will develop their way of effecting their decisions by the data they have at their disposal. Schildkamp, et al. (2012) posit that the SMT and the teachers are responsible for coming up with decisions on what they view as relevant data and how such data is meant to inform their decision-making criteria. Therefore, there is no objective manner on how the data can be managed and used by any number of given schools.

The data users are then a cause for evaluation on whether they are equipped to handle data even before joining the school setup. Developing countries, universities and teacher training institutions lack technology and infrastructure and that they do not train their future teachers/SMT on learners' data generation, management and use to inform school practices and decision making that are data-driven (Lai & Schildkamp, 2016; Reeves & Burt, 2006). For this reason, the use of learners' data by the SMT and the teachers is hindered. In this regard, the issue of professional training and development on the use of data remains vital to the SMT and the teachers. The use of learners' data in the school requires specific skills from data handlers to generate, manage and use learners' data adequately.

A critical factor contributing to the use of learners' data by the SMT/teachers within the school is the level of data advocacy by the SMT. Data use in schools can only be harnessed if advocated for, stimulated and encouraged by the SMT (Levin & Datnow, 2012; Van Geel et al., 2016). Accordingly, the SMT should embrace being the advocate of data use and collaborate with teachers to use data to make decisions that inform future school practices. This is coupled with teachers' perception of the burden of testing learners. Levin and Datnow (2012) argue that some teachers do not want to use data simply because they feel testing their learners to death and marking tests is a cumbersome exercise. This results in teachers finding excuses for not using learners' data which will assist the SMT in taking data-informed decision making of the school. And these excuses would be that of learners' attitude and that parents do not provide valuable and sufficient data about learners.

In relation to accountability, according to Schildkamp, et al. (2012), the SMT can use data for reporting to teachers and learners' parents and the inspectorate of education. For the SMT to have effective accountability policies, learners' data can be used to evaluate standards to be met for

school practices and their effectiveness. In this regard, it can be argued that the SMT is using data for school's development and instruction. The SMT can use data to improve schools' development in terms of learners' excellence and satisfaction regarding the product. In this case, a data system is applied to test school education practices. Through the evaluated data, the SMT and teachers can explore that the school is achieving its set goals in terms of learners' academic performances. Learners' academic performance determines the school improvement of every school. As a result, collaboration and solidarity among teachers, parents, students and the SMT are enhanced by using data. The inability of discussing school performance for both educators and learners with teachers, learners and parents is averted (Levin & Datnow, 2012).

Data can also be used for instruction by teachers in schools. In this case, it is said that if the teachers give their best instructions when teaching learners, then the improvement in learners' performance can be achieved. Therefore, using data to determine ways of improving instruction when teaching learners can result in improved learners' academic performance (Campbell & Levin, 2009). Various learners' data generation by teachers and the SMT, which includes learners' home-works, classroom observations and learners'/parents can positively contribute to improving learners' achievement through various teaching methods and strategies. Murray (2014) suggests the use of learners' data in planning and setting of teaching and learning goals for both learners and teachers' goals in determining the best part of learners' performance in the studies and the skills that learners can grasp and acquire based on their progress and performance (Schildkamp, et al., 2012). As a result, the use of data enhances a shared school vision between teachers and students or between teachers and SMT. This forms a better understanding in both the SMT and the educators about best teaching and learning best ways of evaluating learners' progress.

Shen and Cooley (2008) add that using data in school enhances the personal development of teachers and SMT. It allows teachers to determine the importance of skills, knowledge, attitude and values (SKAV's) of generating, managing and using learners' data. Sharkey and Murnane (2006) attest that the use of learners' data by teachers assists in determining individual learner needs, application of the relevant standard of instruction and attention to the individual learner. The SMT can also determine different learners' needs in the school and make decisions based on the learners' data for improved learners' performance. Once the teachers get to understand their learners' different needs, the instructions, teaching methods and techniques used should be adjusted to accommodate individual learners so that learner performance will be improved. The generated learners' data can inform all this. If the SMT invests in the use of data and believes in it, data can be used to determine individual student needs. In the end, the SMT is contextualising

learners' data to inform school needs and improving learner performance. Consequently, the use of data enables the SMT to make an informed decision.

Another way for the SMT to understand and incorporate the use of data is to improve student performance. In many schools, all members of the SMT seek to meet their school's expectations and monitor the progress of all students. Therefore, according to Makar and Confrey (2005), the SMT needs to embrace data in understanding where students are academically good or poor and why. By doing so, the SMT helps students to achieve irrespective of students' ethnic and socio-economic backgrounds. Similarly, the only way for new teachers to understand their learners better and decide on better strategies to use in class to improve learner performance is to access previous learners' academic progress and home background data. It is the SMT that can only provide this information.

Understanding the use of data by the SMT can help make data-driven decisions in the school to inform school practices and learner performance. A study by Wardrip and Herman (2018) indicated that using learners' data in schools can be an alternative intervention model. This is because the SMT can use data in comparing their school's achievement to other schools or across multiple school contexts. Wardrip and Herman (2018) posit that when data is used to compare school achievement to that of others, the SMT becomes the cornerstone on which student success is primed. In terms of intervention, the SMT can use data to evaluate school teachers in developing context-specific interventions (Newton, 2003).

2.4.1 The SMT members' perception on learners' data generation, management and usage in schools

Hamilton et al. (2009) argue that there is a significant discrepancy in the manner the best performing primary schools used learners' data compared to the poor performing primary schools in both developed and developing countries. According to Hamilton et al. (2009), low performing primary schools use data to develop quick-fix strategies to evade facing sanctions due to not being accountable to the education system. On the contrary, best performing schools use data for a school-wide approach to embracing the ever-changing education sector's changes and challenges. However, Sanders et al. (2016) submitted that in both poor performing primary schools and best performing primary school's data is used for measuring the effectiveness of teachers' classroom instructions. The works of Halverson, Prichett, Grigg and Thomas (2005) highlight responsibilities for teachers in primary school to improve learners' performance in primary schools. However,

Halverson et al. (2005) point out that there is a need for primary school teachers to move towards data-driven decision making in evaluating learners' successes. At the heart of Halverson et al. (2005) argument is for the ability to shift schools from internal to external accountability by using data in decision making. For instance, in the mission of any SMT of a primary school, the assessment and action plans are identified as necessary when using data for decision making. Results analysis in terms of subjects, educators, learners and the school become the responsibility of the SMT in every school to determine the effectiveness of the strategy applied by the school and teachers at the primary school. This is again done by analysing learners' data.

There is a section of literature that insists that it is based on the available literature that any principal of a particular primary school may identify resources needed to support teachers in improving their work in that school (Halverson et al., 2005; Hamilton et al., 2009; Hoogland et al., 2016; Van der Kleij, Vermeulen, Schildkamp, & Eggen, 2015; Marsh & Farrell, 2015) argue that it is based on the use of data that the SMT may have information on the curriculum relevant information. This is what informs teaching and learning in primary schools. Marsh and Farrell (2015) contend that without the use of learners' data in primary school, a complete understanding of learner performance in the form of assessment by the SMT and teachers in primary schools cannot allow them to apply relevant strategies in terms of teaching techniques and methods to improve learners' academic performance. Hoogland et al. (2016) say that although the development and implementation of a data-driven decision-making tool are considered a necessary step towards collaboration among the SMT, teachers, parents, and learners, it must be fully practised in primary schools. Similarly, Timperley et al. (2009) argue that data use in primary schools enables SMT and teachers to take responsibility for determining the types of decisions that are valuable for changes that address issues around teaching and for improved learners' performance.

Van Barneveld, Arnold, and Campbell (2012) point out that the vital benefit of using data in primary schools is that the SMT and teachers use data to locate and identify the roots of educational challenges, track progress and develop action plans that will positively impact learners' performance. As a result, an emerging trend shows that reforms on policy and management in primary schools are being drawn from the use of data by the SMT and teachers. In retrospect, Hines et al. (2020) is of a different opinion than the SMT can understand and identify what inhibits teachers' improvement in teaching and learning through learners' data. Additionally, Steinbach, Holcomb, Holmes Jr, Devers and Cannella Jr (2017) say that data-based decision making is an instrument of change in informing practices in primary schools since educators SMT base their decision on accurate and meaningful data about learners' achievement.

In relation to collaboration, Creighton (2006) contends that data provide the SMTs in primary schools, districts, and national departments with opportunities to share best practices based on hard evidence. Creighton (2006) adds that using data collaboratively in primary schools has led some teachers to be more accountable to one another. Collaboratively, data is used to challenge untested assumptions and beliefs about some learner abilities. Lachat and Smith (2005) argue that in most primary schools, teachers struggle to change current school structures into effective learning environments. For Lachat and Smith (2005), data in primary schools is considered a powerful ally in stimulating positive change in teachers' practice and improved learner performance.

2.4.2 The use of data-based decision making in primary schools in South Africa

Most of the literature regarding the perceptions of the School Management Team on learners' data generation, management and usage in primary schools links it to the teachers' instructions and practices. The data gathering, management and use impacts learners' performance and improvement in teaching and learning in general. Mandinach (2012) attests to the widespread use of data-driven decision-making in almost all education components from the head of state down to the schools supported by educational policies. A positive correlation exists between teachers' approaches and learner performance, as indicated in several pieces of literature. However, since 1994 (when South Africa became a democratic state), much literature on education has mainly concentrated on redressing inequalities in education due to the apartheid rule (Van der Berg, 2007). While strategies of addressing disparities in South Africa are being put in place, a study by Van der Berg (2008) established that free basic education to the previously disadvantaged is the best way forward in averting discrepancies in the education sector. Christie (2010) argues that since 1994, education policymakers in South Africa's DoE are concerned with the quality of education, showing little or no improvement in teaching practice and student achievement. Taylor (2008) adds that the call for education reform has been a priority in South Africa. However, according to Taylor (2008), weaknesses at every level of the system – classroom, school and administrative structure – abet a culture of deteriorating education system. Poor performance was identified in literacy and numeracy from the learners of South Africa. This was evident in the International Reading Literacy Study (PIRLS) and the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), (Taylor, 2008).

There is a category of scholars showing how the DoE emphasises the role of school leadership in improving school effectiveness as an intervention. For example, Bantwini (2010) reported that in

2001, the South African government and various interested non-governmental organisations (NGOs) and SMTs participated in initiatives such as benchmark tests to monitor learning achievement in schools. Other factors contribute to learner poor performance in primary schools, and these are poor teaching practice as the leading factor; hence, learners highly depend on the content knowledge by the teachers and the teaching methods and strategies used when delivering the content in the classroom (Ono & Ferreira, 2010). In response to the national crisis presented by international research results on literacy and numeracy, and the failure of public schools to meet the needs of all learners. According to Motshekga (2017) , the use of data to make better-informed decisions was seen as a way forward in addressing challenges faced by the South African education system by improving the level and quality of instruction in the lowest-performing schools (Maringe & Prew, 2015). As a result of implementing data, the vast gap between the lowest and highest performing schools can be removed (Oluwajodu, Greyling, Blaauw, & Kleynhans, 2015). Since 2010, it can be argued that the assessment has enabled the Department of Basic Education to identify and support poor-performing schools (Monyooe, Tjatji, & Mosese, 2014). As a result, according to 2017 DBE statistics, learners' performance in both rural and urban schools has improved. Additionally, based on the findings of the Annual National Assessment (ANA) benchmark tests, Monyooe (2015) says that teacher development programmes have also been instituted to improve teaching practices in South African schools.

Therefore, one can argue that the preceding Annual National Assessment (ANA) benchmark tests have also helped improve the educational leadership in South African schools. Based on ANA, (Monyooe et al., 2014) say that school leaders are beginning to display competent leadership skills. In some schools, the SMT have supported innovation and cultural change. Some SMTs now share leadership roles with teachers and focus heavily on academic improvement. According to Naidu and Ngcobo (2008), the SMT is perceived to hold the key to resolving several problems experienced in the classroom. In this case, the SMT needs to continually exceed government legislation's implementation in both curricular and assessment areas (Kamper, 2008). In addition, Bottery (2004) argues that the SMT needs to focus on promoting an instructional practice that “redress issues of equality and by understanding the dynamics of the global actors which in effect need to be included in the purview of educational leadership” (Bottery, 2004).

Several scholars have critiqued the relevance of data by the SMT and teachers in informing education practices in South Africa's primary schools. Botha and Herselman (2015) say that, just like other parts of the world, the South African education system is applying the use of data in informing school practices without paying attention to other aspects of the lives of South Africans.

For instance, Botha and Muller (2016) state that the difference between leading international school practices, and South African school practices, around data use, had to do with both the scale of the initiatives and the continuity of focus. According to Botha and Muller (2016), the Department of Basic Education in South Africa lacks the necessary skills for implementing what is suitable for schools. Botha (2016) adds that the DBE in South Africa does not implement recommendations and data generated by school SMT in most cases. Other scholars raise concerns about little or no effort in the improved standard and the education level and quality in learners' achievement and performances in South African Education based on lacking using learners' data (Bush & Glover, 2016; Ebersöhn, 2015; Hendricks et al., 2016). Ebersöhn (2015) opines that although the use of data in schools to assist the SMT and education officials in making data-driven decisions to inform school practices and achieve the school's mission is essential, less effort is being put in place to implement it. Bush and Glover (2016); Hendricks et al. (2016) say that since poor performance is perceived to be a significant factor that impact negatively in the education of South African schools, data generation, management and use in schools by SMT can therefore play a pivotal role in bridging the poor performance gap as established in most literature and uplift education standards of the country. According to Botha and Muller (2016), if a school generates the type of data that will positively improve school practices, SMT will be able to manage that data, making it easy to use the generated data. A study done by Spaul (2013) revealed that schools that the SMT had embraced the use of data, learner performance results and schools' practices were managed without any form of conflict.

Some scholars focus on the drivers of teaching and learning is the SMT, and teachers being the implementers, will then follow (Basson & Mestry, 2019). Therefore, the effective use of data needs to be influenced by the SMT in determining the readiness and development of learners in a school. Also, the SMT needs to play a role by attending community activities where the school is to generate data that will assist in the effective management of the school. Bush (2007) advocates for a strong leadership quality with knowledge and effective use of data to improve school practices, including teaching and learning by the school management. Banks (2012) adds that the SMTs' vision of using data and sharing information indicates the agency of the systematic, timely and directive intervention programme. In addition, Wayman, Cho et al. (2012) emphasise that the SMT should foster collaboration through data analysis, build data teams, and facilitate powerful conversations about data that will lead to improved teaching and learning. Through collaboration, schools can promote a collective purpose of building respect and trust among collaborative teams, facilitating communication with norms, team buildings, and staff development aiming to embrace and value learners' data generation in the school. To use data effectively to improve teaching and

learning, Bowers (2009) argues that the SMT and teachers must create opportunities that encourage participation and expand opportunities for distributed leadership.

To this end, it can be argued that the introduction of data as evidence-based inquiry to inform school practices is paramount in improving learners' academic performance. The preceding scholars' work on using data in informing school practices and improving learners' performance in South Africa. The potential scholars in this field may benefit from understanding the education system in South Africa, specifically in the KwaZulu-Natal province. The feeling from other empirically based research is, however, needed in learners' data generation, management, and usage by the South African DoE to balance its policies, a gap of inequality between the urban and the rural primary school, lack of skilled teachers and the SMT in learners' data generation, management and usage. Once the DBE considers implementing the aspects above, the SMTs in the primary schools will embrace data-driven decision making based on learners' data in primary schools. They will start viewing it positively. However, there is a dearth of literature on how the SMT perceives learners' data generation, management, and usage in primary schools to inform school practices. Again, there is not enough literature based on the attitudes and perceptions that SMT in primary schools have on how the use of data will improve teachers' pedagogy and learners' performance. While the preceding scholars have pointed out the kinds of qualitative research being suggested, this study being a qualitative study, can come up with the motive/s why there may be slight changes in the way primary schools should generate, manage and use learners' data in South Africa to inform school practices and for the improved learner performance and the performance in the South African primary schools.

By looking at the preceding discussions, the analysis on learners' data generation, management and use in South African primary school to inform school practices and improved learner performance gives a consistent overview of the study that, despite the resources that the school may have for the effective running the school, the manner that the SMT perceive learners' data generation, management and usage has a considerable contribution in the effective running of the school. This study seeks to document using a case study of one primary school in Inanda, Durban, South Africa.

This study applies some of the elements captured in this review section to explain the SMT perspective on the generation and use of student data in one primary school in Durban, South Africa. Given the subject matter of this research, the study emphasises the role of SMT members in the generation and usage of student data in informing that school's practices and learners' performance. What motivates/demotivates the SMT in the chosen case will be critically discussed

once the SMTs' perspective in learners' data generation, management and usage in decision-making in schools in South Africa has been gained. Overall, the subject core in this study connects the perspectives of SMT in generating, managing, and using learners' data in one primary school at Inanda, the city of Durban in KwaZulu-Natal, South Africa.

2.5 Conceptual Framework

There are two main concepts that are crucial to understanding how SMT members gather, manage and utilise learner data. I am not using theories according to any particular scholar, but I am drawing from various scholars' conception of transformational leadership and also distributed leadership. The suitable approaches for effective data usage by SMT members in improving learners' performance and informing school practices have been a subject to much debate. Basson and Mestry (2019) highlight that since 1980s the role of the SMTs, especially the principal, in school management has taken a new shape. The SMTs hold the key in relation to the generation and use of data in schools to influence practices and decision making. For instance, Naicker (2019) emphasises the importance of implementing instructional practices by the SMT to enhance teachers' enthusiasm and quality of teaching in schools. This study joins the body of work which explains how the SMTs perceive learners' data generation, management and usage in one primary school to inform school practices.

Olaoluwa (2016) notes that leadership is a process grounded on the actions geared towards achieving specific goals continuously. Adebisi et al. (2019) concur that there must be someone giving guidance in terms of the behaviours that are characterised by direction towards achieving set objectives. Leadership influences and attracts others by, for example, communicating a common vision and focusing on achieving one set of goals (Chemers, 2014). Bush (2007) for instance, gives his perspectives on leadership that a leader encompasses.

According to Makoelle, Makhalemele, and du Plessis (2021), for the effectiveness of the school and improved learners' performance, leadership exercised by the SMTs is paramount. In that regard, the study uses two leadership theories to understand how SMT members exercise leadership in generating and managing data for school improvement purposes, and these are transformational leadership (Anggraini, Rosyihuddin, & Desembrianita, 2021; Shava & Heystek, 2021) and distribution leadership (Mosoge & Mataboge, 2021). In this study, the role of SMT members includes making important decisions regarding the usage of student data and creating an enabling environment that allows the use of data in supporting teaching and learning. At this point, it can be

argued that the influence of the SMTs on learners' performance requires constant direct or indirect communication with teachers and other stakeholders.

From the views of the scholars cited in the preceding paragraphs, it can be argued that normally in schools, it is the responsibility of the SMTs to come up with policies and procedures that teachers implement in their teaching and learning. These scholars explicitly affirm the existence of a generic relationship between the SMT members and teachers in generating and using data to inform school practices. Therefore, there is a need for bottom-up policy-driven changes in the schools. Singh (2014) highly criticises the notion of individual leadership that imposes individual leadership preferences and recommends that the SMT members should be transformed if it focuses on the collaborative effort of teachers and other stakeholders; hence, distributive leadership. On its part, transformational and distributive leadership theories advance an argument that data gathering and data usage in decision making in schools requires a type of shared or distributed leadership between the SMTs and the teachers and not a single individual, the principal coordinating and controlling from above in a top-down format. To support the learners' data gathering, management and use to inform leadership practices, decision making and improved learner performance by educators and the SMT members in primary school, a decision to use two theories was taken.

2.5.1 Transformational Leadership Theory

The first theory I discuss as forming a framework for analysis in Transformation Leadership Theory. Different scholars in the literature reviewed have argued that transformational leadership leads to improved school performance and effectiveness in many schools (Ararso, 2014; Leithwood, Harris, & Hopkins, 2008). The history and development of transformational leadership theory date to 1970s and 80s (Bass & Riggio, 2006; Stewart, 2006). According to Leithwood (1994), acknowledgement of individuals, enhancement of intellectual functioning, intrinsic motivational inspiration accompanied with the strategic influence of the followers can serve as four core behavioural dimensions used in defining transformational leadership.

In education research, transformation leadership theory was first used in the 1990s as an opposition to the top-down policy in the leadership of the 1980s (Leithwood & Jantzi, 2006). To reiterate what Burns (1978) highlights that there has been continuous implementation and construction of transformational leadership in the government and private sectors. Leithwood (1994) invented improved ideas regarding transformational leadership, where he came up with an eight-dimensional transformational model for the school of leadership. What transpired in his model and

was considered of great help in transformational leadership was the identification of certain behaviours and practices that is of paramount importance that is implemented and enforced in transformational school leaders and is evident. As implemented by transformational leadership, transformation should leave a mark of change in the way things were done before and after the shift has been implemented. Leithwood and Jantzi (2006) argue that transformational leadership has a considerable contribution to make in the process of team building and motivation, which is vital in attaining the organisational goals.

Transformational leadership, in addition, aims at addressing individual needs in the organisation, and how that individual can bring organisational change in the organisational improvement efforts. It also promotes a flexible environment that allows personal and professional growth in both the educators and the SMT in the school environment, enabling lifelong learning and opening room for the staff to capacitate. Ntloana (2010) believes that the primary aim of having a thorough and great understanding of others is to uplift their level of performance to achieve more organisational objectives. Staff with such mentality have been empirically associated with great passion based on teaching and learner achievement (Bass & Riggio, 2006). Research has confirmed that organisations that practice transformational leadership theory are the most successful in attaining the set organisational goals (Leithwood & Jantzi, 2006).

Embracing the bottom-up approach, generally call in all education sectors has never been easier until the 1990s when it started to appear and became popular in the education leadership literature (Hallinger, 2011). When the democratic government came into power in 1994, many government sectors implemented transformation, including the education system. The transformational theory is the vital criterion in the education system to transform education system (Yuen, Law, & Wong, 2003). It is against this background that transformation leadership was adopted as a framework to understand leadership practices that were aimed at bringing about change in schools.

According to Supovitz, Sirinides and May (2010), in education research, transformational leadership theory assumes that is the SMT alone cannot provide the leadership that creates collaborative conditions among teachers, learners and other school stakeholders. According to the tenets of transformational leadership theory, leadership may well be shared, coming from teachers and the SMT or principal (Leithwood & Jantzi, 2006). According to transformational leadership, behavioural components such as individualised support, intellectual stimulation and personal vision are rooted in understanding the needs of individual staff rather than coordinating and controlling them towards the organisation's desired ends. Therefore, transformational leadership is

often considered a type of shared or distributed leadership rather than controlling teachers. Transformational leadership focuses on stimulating change through bottom-up participation rather than a single individual—the principal—coordinating and managing from above (Day, Harris, & Hadfield, 2001). Transformation leadership assumes that the SMTs can influence better school practices and decision-building from the bottom-up rather than from the top-down. It sees leadership as an organisational entity rather than the property of a single individual, accounting for multiple sources of leadership.

Some of the advantages of transformational leadership are that it seeks to increase the capacity of others in the school to produce first-order effects on learning (Leithwood, Louis, Anderson, & Wahlstrom, 2004). For example, transformational leaders create a climate where teachers engage in continuous learning and routinely share their knowledge with others. Another advantage of transformation leadership is that it wants to develop leaders who work with others in the school community to identify personal goals and then link these to the broader organisational goals (Andriani, Kesumawati, & Kristiawan, 2018; Belwalkar, Vohra, & Pandey, 2018). Transformational leadership theory is a paradigm that embraces an increase in commitment of the staff who see the relationship between what they are trying to accomplish and the school's mission. These changes are conceived as second-order effects because the SMTs create the conditions under which others are committed and self-motivated to work towards the improvement of the school without specific direction from above.

The statement by Aydin, Sarier and Uysal (2013); Bass and Riggio (2006, 2010), indicate that for the enhanced accomplishment of the organisational objectives, it is the responsibility of the leadership to endeavour different strategies of inspiring and motivating subordinates for indirect commitment building. According to Bass and Riggio (2006), staff development that involves coaching, mentoring and support to the staff members that are going through hardships, whether at home and at work itself, is also regarded as the means of transformational leadership that transformational leaders can apply during the process in inspiring and motivating subordinates. Transparency drives subordinates into shared organisational objectives and views when they feel that they are recognised for achieving the same corporate goals (Aydin et al. 2013). It is of paramount importance that transformational leaders discuss organisational objectives with the subordinates for the mere purpose of influencing and encouraging them to perform at the optimal level of their expectations in the attainment of the corporate objectives. According to Riaz, Akram and Ijaz (2011), transformational leadership enhances subordinates' motivation and a feeling of being valued in an organisation. Therefore, transformational leaders motivate and inspire workers

to put more effort into their work and derive love and satisfaction from the given roles.

Again, McCleskey (2014) emphasises a variety of organisational success that emerge from effective transformational leadership in organisations. As we may be aware, the shift comes in changing things from the way things were happening previously. Therefore, it may not be surprising that transformation may bring fear, criticism and resistance amongst other subordinates. Nevertheless, transformational leaders are renowned for leadership skills that keep subordinates inspired and self-motivated, and thus, enable them to adapt to changes that facilitate the attainment of organisational goals (Spillane, 2005). This author, who is regarded as one of the eminent scholars of distributed leadership, cautions us against viewing leadership as a heroic act, and encourages everyone to be leaders of themselves to enhance intrinsic motivation. In all organisations, including schools, there are various tasks to perform. Therefore, everyone must perform effectively in a task or role given the tools and structures to follow for the benefit and success of the organisation. Just like Spillane (2005), Givens (2008) highlights the danger that arises in the heroic nature of transformational leadership, which may create a gap between followers and transformation processes. When such gaps exist, followers might not be able to adapt to transformation processes and imperatives. Yukl (2008) highlights the virtue of the power vested in transformational leaders as they are capable of strategically imposing objectives that the followers should work towards achieving. In a way, Yukl (2008) is also cautioning against over-emphasising the influence that an individual leader might wield. Therefore, the important potential contribution of others should be not ignored but prioritised.

With regards to transformational leadership in the field of education, literature indicates that leadership is the most powerful tool that has a significant effect on school effectiveness (Balyer, 2012; Givens, 2008; Marks & Printy, 2003). Givens (2008), further argues that transformational leadership has a positive effect in influencing school conditions that include teaching and learning and educators working conditions in the classrooms and beyond. In fact, several pieces of literature have pointed to a positive correlation between transformational leaders and successful school practices (Leithwood et al., 2008; Ross & Gray, 2006; Stewart, 2006). What this implies is that although there are negative aspects to viewing instructional leadership as a panacea for all challenges in schools, this leadership approach remains highly credible.

2.5.2 Distributed leadership theory

In the section above, I have indicated that the tenets of transformational leadership foreground the notion of the followers being inspired by their leader to do things themselves. In a way, while the leader seems to occupy the main seat, the idea is always on capacity building of the subordinates. This section discusses distributed leadership which focuses more on what other stakeholders can or should do as leaders on their own right. Harris (2005), for instance, argues that the main aim of distributed leadership is to assign management activities in every school instead of analysing what the managers are expected to do as their daily routine. A study by Bligh, Kohles, Pearce, Justin, and Stovall (2007); Ferrin, Bligh and Kohles (2007) suggested that shared responsibilities and duties among the staff should be viewed as the cornerstone of distributed leadership. Singh (2014) attests that distributed leadership allows collaborative efforts by people rather than individuals. Distributed leadership embraces team and group work in organisations whereby everyone will have a role to play and contribute to the group ideas that will move the organisation forward to achieve one goal.

Sobral and Furtado (2019) state that distributed leadership theory was developed to challenge the relevance of traditional hierarchical leadership models. This was after organisations and companies noted and embraced the value of teamwork and shared responsibility in leadership. Similarly, Bligh, Pearce, and Kohles (2006) argue that increased innovation in the 21st century requires that personnel in organisations share knowledge; this calls for team spirit. In this case, groups of professionals often work together and make joint decisions. Proponents of distributed leadership theory such as Gronn (2002); Harris and Spillane (2008); Spillane (2005) in their leadership models emphasise negative results and unsuccessful organisations based on the primacy of individual leaders in organisations. According to Spillane (2005), they are managed through the influence of various stakeholders with various roles to play in a school, thus, enhancing smooth running of the school under a conducive learning and teaching atmosphere.

The distributive model of leadership acknowledges the different roles played by all stakeholders (Harris & Spillane, 2008). In the traditional leadership model, the role of the SMT is just prescribed rather than giving the “how” part of performing these roles. Distributed leadership theory encourages all stakeholders in a school to play a vital role in data generation, management and usage in informing school practices and decision making (Gronn, 2002). In the context of this study, SMT members and teachers are expected to collaborate as leaders in making important decisions that can impact their learners’ achievement.

This study finds distributed leadership theory relevant in challenging circumstances like the generation, the usage and the management of data in informing school practices and decision making. This study maintains that there is a need for distributed leadership and collaboration between the SMT members and the teachers at the selected school in terms of gathering, managing and utilising the data if the school is to excel in teaching and learning. Therefore, distributed leadership theory has been used to examine how the SMT members, the teachers, the parents and other school stakeholders can collaborate in generating, managing, and using data to make decisions that impact learners' performance. However, a shortage of literature exists as to how the SMT perceives the generation, management, and usage of data in making decisions that impact schools teaching and learning practices and learners' achievement.

2.6 Chapter summary

This chapter began by presenting a review of relevant literature on interconnectedness between school management and nature and type of data, data generation, management and usage in primary schools. It became very clear that the SMT members have a big role in data-driven decision making in a school for improved learner performance. This has led to a robust scholarly debate about data-based- decision making, its challenges, factors that can either promote or hinder compelling data use within schools, the SMT members' understanding and skills in Data-based decision making. Towards the end of the chapter, two theories (transformational Leadership and Distributed leadership) were discussed as two concepts that provide a conceptual framework for the study. The next chapter focuses on the issues of research design and methodology.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The previous chapter reviewed the literature and discussed the theoretical framework underpinning this study. This chapter discusses the research design and methodology used in this study. According to Kankam (2019), the research design is a strategy that passes from a philosophical assumption to stipulating the selection of participants. According to Sarantakos (2012), a detailed research design unpacks the whole strategy and methods when the researcher plans to engage in the research. The researcher gives a good analysis of site and participants selection. A research design provides an arrangement that determines how the investigation will be executed to answer the research questions effectively. This chapter, therefore, unpacks the strategies and methods applied in this research study. Firstly, the discussion is on research paradigm underpinning the study, which outlines the qualitative research approach or design and case study methodology. After that, the researcher will discuss the sampling, data generation methods, data analysis, issues of trustworthiness, and ethical considerations.

3.2 Research paradigm

This research falls under the interpretive paradigm. A paradigm is a framework that enables the researcher to direct the way of thinking and doing things in a particular field of study (Kankam, 2019). Lincoln, Lynham and Guba (2011) assert that the research paradigm is a guideline in which a researcher conducts research in a social world from data generation to the last step of findings and interpretation of data. Interpretive paradigm, a philosophical location of this study, is based on the belief that multiple facts are applied when studying human behaviour (Mayoh & Onwuegbuzie, 2015). Participants have divergent views on the phenomenon (Denzin & Lincoln, 2011). The main goal of an interpretive paradigm like the one embraced in this study is to establish from the participants' perspectives how learner data is generated, managed, and used at the chosen primary school. There is no single truth or reality about how the participants perceive learners' data generation, management, and usage in primary schools. Each participant was given a chance to answer research questions as an individual and not as a group. The priority was on interpreting subjective views as stated by individual participants in their context.

3.3 Qualitative research approach

This study used a qualitative research approach. According to Kankam (2019), the qualitative approach is used to understand social and cultural contexts that underlie various behavioural patterns. A researcher need not include mathematical statistics when doing data analysis in the findings. Merriam and Grenier (2019) explain further that qualitative data is socially constructed through interpersonal relations between a researcher and the participants as information is never just out there waiting to be collected. The reality of the qualitative research approach is that the research results are descriptive, and people can be touched by the research and interpret bits of truth. This study aims are not based on statistical generalisation but on generating thick descriptive data of how SMT in one primary school perceive generation, management and use of data to inform school practices. It focused on SMT members' natural settings, attempting to understand how they perceive generation, management and use of school data.

3.4 Case study design

A case study design was considered the best approach for this study. A case study design is selected to allow for an in-depth description of a case and portray, analyse and interpret the uniqueness of real individuals in their setting (Budiyanto, Prananto & Tan, 2019; Cohen, Manion & Morrison, 1972). Alpi and Evans (2019) emphasise that one of the reasons for applying case study design is understanding the phenomena in their natural settings.

Delfin and Vallance (2006) identified the challenges of a case study. The case study site selection is limited to the researcher's scope, time and resources available in studying a particular case. Research results cannot be generalised. Alpi and Evans (2019) identifies other challenges of case studies asserting that case studies lack rigour, and other challenges include the role of the researcher in the interpretation process of research and that the researcher may be biased. Watts (2011) considers the ethical challenges in case study research and includes issues of consent from participants constituting the case studied. In the context of my study, I took precautionary measures of the challenges of case study research and tried to eliminate some of these challenges by for example, gaining consent from the research participants, allowing all participants access to their interview transcripts to avoid any researcher biases. The main aim of this study was to establish in-depth opinion of the participants in their natural settings about their own role and experiences in generating learners' background and classroom data. In the context of this study, all members of the SMT in one primary school participated in the study.

3.5 Sampling techniques

According to Onwuegbuzie and Collins (2007), sampling concerning appropriate research methodology determines the quality of any study. This means that researchers ought to choose a well-calculated sampling criterion and be guided by the principle so that the study sample does not necessarily represent the ‘undifferentiated’ or wider population (Budiyanto et al., 2019; Cohen et al., 1972). Purposive sampling was used in this study. The participants in this inquiry comprised a principal, two deputy principals, and four the departmental heads (Intermediate and Senior classes) from one primary school in Inanda KwaZulu-Natal Province. The mixture of purposive and convenience sampling methods had great assistance in selecting relevant schools and participants of this study. In fact, once the school had been identified and the principal agreed to participate, I requested that I needed to speak to all members of the SMT. In other words, I did not want certain members and not the others. Creswell (2012) posits that choosing research sites and participants using purposive sampling requires the researcher to target information-rich sources. The reason for applying purposive sampling is to get the first-grade sources of information to answer the inquiry (Malterud, Siersma & Guassora, 2016; Suri, 2011; Tongco, 2007) . In this type of sampling, participants are purposely selected by looking at their targeted traits, which will effectively contribute to the study.

In the context of this study, I thought about the participants and concluded that the SMT members within a school were the best and relevant participants because they are the ones responsible for the functioning of the school and for generating and utilising the data generated. Information extracted from people of strategic position add value to the research and lead the investigation to an intended result (Malterud et al., 2016). The SMT members are responsible for the generation, management and use of school data in any school. The sampled members of the SMT were from one primary school in Inanda Circuit in the Pinetown District, KwaZulu-Natal. The convenience aspect of the study is that the school identified is not far from where I live, therefore, the costs of conducting the study would remain low, especially because the study was not funded.

3.6 Data generation methods

Qualitative data is derived from many sources, viz. interviews, observations, documents and reports, field notes (Cohen et al., 1972; Marathe & Toyama, 2018). The more prominent method in qualitative research interviews (Zahle, 2020). Since the study was located within qualitative

research, it lent itself to interviews as a tool for data generation. To generate data, semi-structured, one-to-one interviews were conducted with three categories of the SMT (a) school principal, (b) Two Deputy Principals, and the (c) Four Departmental Head in one school. Therefore, the total number of participants is seven from one school. All interviews were voice recorded, after which they were transcribed and thereafter subjected to content analysis. The interview aimed to gain insight into how the participants perceived generation, management, and usage of school data. The interviews took place at a time specified by the participants.

3.6.1 Semi-structured interviews

Semi-structured interviews are flexible tools for generating qualitative data, enabling verbal and non-verbal multi-sensory channels (Zahle, 2020). Butrina, Le Vine, Henao, Sperling, and Young (2020) maintain that semi-structured interviews allow for intimate and prolonged involvement of the researcher with the research participants. This enabled me to get into the core of what is being researched, a person's knowledge, likes and dislikes, the person's attitudes, and beliefs on a specific phenomenon. The ultimate purpose of the semi-structured interviews was to allow the participants to freely express their feelings and views on a research topic (Hancock & Algozzine, 2017). According to Kankam (2019), semi-structured interviews offer a versatile means of generating data because it allows the interviewer to probe for clarification and elaboration of participant responses.

Further, semi-structured interviews allow participants to freely express themselves and enable researchers to observe participants' body language (Kankam, 2019). Interviews were chosen for this study, with research participants to obtain comprehensive information; hence, fewer participants are required to generate rich and stimulating data. Semi-structured interviews allow (interviewer) to elaborate and gain more information when required and understand the study phenomenon (Hancock & Algozzine, 2017). Interview schedules for research participants were generated considering the research questions and objectives.

3.6.2 Documents reviews

Qualitative research uses a variety of data generation instruments. In the context of this study, I used mainly semi-structured interviews and documents reviews. Various scholars define documents reviews different ways. Documents review is a research method used to gain document-based evidence and validation regarding a research topic. According to Palaiologou, Needham and Male (2015), documents can be used to understand characteristics within a particular context. In a

qualitative inquiry such as this one, documents are viewed as being socially constructed (Cohen, Manion & Morrison, 2011). A document is a record of an event or process, produced by private or public institution and divided into primary or secondary documents (Maree, 2007; Cohen, Manion & Morrison, 2011). According to Cohen et al. (2011), documents created by public include minutes and reports. Documents like the vision, mission, communication book, minutes of meetings with special focus on curriculum delivery and academic progression schedules were analysed in the four selected schools.

This study uses Hitchcock and Hughes (1995) guide to analysing documents. The documents were analysed based on the literal meaning of the text and the interpretation over and above the literal text (Hitchcock & Hughes, 1995). Unlike a discourse analysis method, in this study I did not intend to understand what lies behind the text I was reading about the record kept at school. For example, I checked attendance registers to see how these were used and what kinds of information was written in them. The SA-SAMS were electronic documents kept in the school and my interest in the content was to understand what was written there and what that content could inform SMT members about the school situation regarding a number of aspects such as learners' academic performance and their biographical information.

3.7 Data Analysis

My view is that research is of no use if the content cannot be understood by the researcher and other readers. Therefore, it is always important that the data generated must be made readable and make meaning to the readers. For the generated data to make sense and give meaning, the researcher must put together the broken pieces of the raw data and analyse them to come out with her findings (Chun Tie, Birks, & Francis, 2019; Ngulube, 2015). Mason (2002) describes data analysis as that include breaking down the data and relating certain data into particular categories which may have been identified by the researcher. Cohen et al. (2011) refers to the analysis of data generated as the process that reflects on perceptions, impressions and relationships. Data analysis according to Lodico, Spaulding and Wahlstrom (2006), should address the key research questions.

In the context of this study, I had to undertake various steps to make sure that the data was understandable. First, I had to transform the audio-recorded data from voice format to a readable format. I listened to it as I was writing using my Microsoft word processor. That process entailed me reading and re-reading the transcripts so that I could immerse myself in the content of each transcript. The analysis technique that I used is known as qualitative research thematic data

analysis. According to Thomas and Harden (2008), in thematic data analysis, the researcher groups data and seeks emerging themes of similarities and dissimilarities. Emerging themes during data analysis should be in a sequence for the researcher to categorise emerging themes that are closely associated with the research questions (Fereday & Muir-Cochrane, 2006). Cope (2010) highlights the integral role of coding themes during data analysis in identifying emerging themes. Codes were used to organise, classify, and identify key themes. For analysing the content of the documents such as minutes of meetings held by the SMTs discussing issues facing the school and also those of the staff as a whole, I used content analysis.

3.8 Trustworthiness

Qualitative research uses the concept of trustworthiness to uphold moral accountability standards and the integrity of the study. To ensure the trustworthiness I used the four criteria: credibility, transferability, dependability, and conformability, as guided by Korstjens and Moser (2018). The section below provides a detailed account of trustworthiness as embraced by the study.

3.8.1 Credibility

According to Bertram and Christiansen (2020), the credibility of the research must reflect the reality and lived experiences of the participants. In this study I used an audio-recording device to record the interview sessions. By doing so, the transcripts would be more accurate than when one had to jot down notes during the interviews (Bertram & Christiansen, 2020). The participants were more likely to speak more honestly to me if they knew that their opinions and experiences about the study would not trace back to them when the research report was written. Therefore, I emphasised at the beginning that the school and participants would remain anonymous. That means the fact that the participants were assured of their anonymity, bolstered their confidence, knowing that they would not be exposed to any form of harm. The principle of credibility denotes that member checks where the researcher gets participants to check the accuracy of the written transcripts of the recorded interviews can be made (Rule & John, 2011). This point specifically belongs to the principles of ethical considerations; however, it also indicates that when accuracy is ensured in the process of data elicitation, the credibility of the findings is also assured.

3.8.2 Transferability

Transferability of research refers to its applicability to other situations with similar characteristics

(Bertram & Christiansen, 2020; Polit & Beck, 2010). This study ensured that detailed information was provided concerning the number of schools participating in the study, where they are based, the number of participants involved, the data generation methods employed and the length of the data generation sessions. In the context of this study, I made sure that I provide as much details as possible about all the processes I embarked on in conducting this study.

3.8.3 Dependability

Bertram and Christiansen (2020) state that dependability is when the researcher can account for why there may be variations in the study, for example, between cases (the different schools). In the context of this study, an audit trail was conducted where the data collection and analysis processes were transparent, critically discussed, and further looked for possible bias or distortion. Dependability involves using other members or devices to check if the information is accurate on record (Bertram & Christiansen, 2020). To ensure dependability in this research study, I also used an audio-recorder to record all the interviews.

3.8.4 Confirmability

Bertram and Christiansen (2020) mention that confirmability can be improved by making the research more transparent, with enough details for the reader to check if they would have reached the same or a similar conclusion. In agreement, Fadeyi, Oladele, Imhonopi and Nwachukwu (2019) states that it is vital for the researcher to re-check the consistency of the findings. After analysing the data, the researcher allowed her colleagues to reflect on the results. This enabled the researcher to make sense of the data, which was generated and felt that by gaining the perspective of colleagues, the researcher would not have missed out on the essence of the study.

3.9 Ethical considerations

The qualitative data generation segment commenced once the College of Humanities Ethics committee of the University of KwaZulu-Natal had permitted me to conduct this study. I requested permission of generating data in the chosen primary school in the Inanda area, within the Pinetown District, KwaZulu-Natal Province. A letter authorising this research was received from the office of the HOD in the head office of the provincial Department of Basic Education.

The mentality put about the research in social sciences ensures that the research is ethical (Haggerty, 2016). The writer suggests a high level of protection, especially for studying human behaviour/social sciences, more so if they intend to research for personal information. It is therefore, essential that participants should be protected through the observation of ethics. Gray and McPherson (2005) define ethics as a set of prescribed principles and behaviour by researchers to protect participants' rights and images in which the researchers, at all costs, (Creswell, 2012). Dingwall (2008) also states that ethical consideration enforces respect and privacy of the participants. In response to these requirements, I ensured that the participants were not vulnerable to any form of harm or danger as a result of their participation in this study. Therefore, I took great caution to maintain a high level of confidentiality and not bring any form of harm and vulnerability.

According to Hewitt (2007), harm is anything that inflicts pain, whether in a physical body or heart. Therefore, researchers need to take great caution in not causing direct or indirect pain to the participants by declaring their rights on the very onset before the commencements of the interviews. It is against this that there was maintenance of a high level of participants' confidentiality and anonymity in this study and protected them from any form of victimisation. For instance, I had to ensure that the *pseudonyms* were to conceal the identities of the participants. The right to privacy for participants was also taken into consideration.

The participants' rights were explained in their home language. Their right to participation and withdrawal at any stage was fully explained. No incentives were promised or provided to persuade participants' involvement, and that was also explained. The issue of consent forms were clearly explained in their mother tongue as well to avoid concepts misinterpretation. Consent forms also form part of ethical consideration since no participant is allowed participation without a consent form. This issue is confirmed by Sim and Waterfield (2019). In this study, I issued and explained the nature and purposes for the use of consent forms to the participants to ensure that they had a better and complete understanding of its purpose.

During the interviews, for ethical consideration, each participant was requested to use a voice recording machine and I was allowed by all the participants to use the recording device. Sim and Waterfield (2019) approve the use of a voice recording machine by the researchers during the process of interviews, which makes the researcher's life more accessible in terms of listening and probing questions where necessary rather than taking notes which may result in missing some vital information. Participants were assured that the recording machine would be kept safe, where there

would be no third hand to access it besides the researcher and her supervisor.

3.10 Chapter summary

This chapter provided information on the research design and methodology that was used in the study. The research paradigm utilised in the study was also explained. A case study methodology was described, and the rationale for this methodology was provided. The context of the study, pertaining to who comprised the sample and the selection, was also discussed. Data generation methods and data analysis were also discussed. Ethical issues and trustworthiness were examined. The next chapter focus on data presentation and discussion.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

The research design and methodology employed in this study were discussed in the previous chapter. The information gathered through semi-structured interviews is presented and discussed in this chapter. Themes that arose from content analysis of the data gathered, as outlined in the preceding chapter, are used to present the findings. To begin, the chapter gives a summary of the participants' profiles (members of the SMT). This chapter can indicate who is who within the SMT, their educational background, and their leadership role at Bongo Primary School by offering profiles of the study's participants (Pseudonym). Second, the chapter is broken down into five sections. The school's first theme is data collection, management, and use. The SMT members' thoughts on learners' data creation in the school are the second theme. The SMT members' leadership role in data generation, administration, and usage is the third topic. The SMT members' ability to develop and use learners' data at Bongo primary school is hindered by reasons discussed in theme four. The last theme examines SMT members' tactics for overcoming the hurdles of creating learners' data, as well as the effects of information decision-making in schools on student achievement. The study aimed to investigate generation, management and use of school data by the SMT members and addresses the following key research questions:

- What is the nature and types of learner's data generated by the SMT members in a primary school in Pinetown District?
- What strategies does SMT members use to generate learner's data in a primary school in Pinetown?
- How does the SMT members manage and use learner's data in a primary school in Pinetown District?

4.2 Profiling of the school and the participants

This study was conducted in one primary school in Inanda Circuit in KwaZulu-Natal Province. For ethical observation and anonymity reasons, a pseudonym was given to the school as Bongo Primary School. The school is located in the semi-informal settlement of the Inanda area and servicing a community of low economic status. Hence, the school belongs to Quintile 3 and was declared by

the Department of Basic Education as a “no-fee school” due to the socio-economic conditions of the community. The school had a total learner population of 1672 and 43 educators at the time of the study. Of these educators, the SMT consists of a principal, 2 deputy principals and 4 Departmental Heads.

4.3 Data generation and discussion of findings

Eight educators participated in the semi-structured interviews, and these comprised the principal, the deputy principal and departmental heads. Table 1 below summarises the participants and their role in the school.

Name of participant	Rank in the school	Total
Mrs Zulu	Principal	1
Mr Mthethwa (DP-1)	Deputy Principal – 1	2
Mr Ndiweni (DP-2)	Deputy Principal – 2	
Ms Langa (DH-1)	Departmental Head – 1	4
Mrs Sikhosana (DH-2)	Departmental Head – 2	
Mrs Zwide (DH-3)	Departmental Head -3	
Mrs Khumalo (DH-4)	Departmental Head -4	
Total		7

Table 1: Table showing the participants at Bongo Primary School

4.3.1 Nature and type of learners’ home background data

Different scholars define data differently, but, overall, they all indicate what different kinds of data exist. Data is defined as a collection of unprocessed numbers, figures, text and symbols that have not been processed or analysed. Nominal, ordinal, discrete and continuous data are all types of data (Dunn & Marshman, 2020). Lai and Schildkamp (2016) describe data as "raw created and unorganized information that aids in the provision of pointers to practitioners." Jantjies and Plantinga (2021) go on to say that data is made up of facts, numbers, and statistics that can be gathered from a variety of sources, including school management teams, students, parents, staff and even the community. According to Mandinach (2012), background data, growth (progress) data, and special needs data are three key areas of data collecting for a school setting. Drawing from this understanding about what constitutes data, I asked my research participants whether they produced any data and the reasons behind it.

The analysis of semi-structured interviews data indicated that the data gathered at Bongo Primary

School took three major forms. The first category of the data gathered had to do with the learners' home background. The second category had to do with growth and progress data and the third category focused on the learners' special needs. After I had introduced myself, the nature of the study, as well as the value of their participation in the study, I asked them if they collected any data from the learners, and the kinds of data that they collected. Their responses were affirmative and they indicated that they collected information about the learners' home background and explained why it was important for the school to have such data.

At Bongo Primary School, the SMT members perceived learners' home background data as essential because they believed that the learner's home background history and the learner's academic performance are closely related. The participants highlighted that understanding learners' home background assists teachers in understanding their learners and helping them to cope with the demands of the school. In this regard, the principal outlined the importance for the school to understand the nature of parents that the learner is residing with, including their level of education. The principal had this to say:

The type of the background data being collected is beneficial to the school's goals. Correct and meaningful data must be collected in order for the school management team to be effective. Not all data is helpful for the learner's profile (Mrs Zulu-Principal).

The views expressed by Mrs Zulu were further elaborated by her first Deputy, Mr Mthethwa, who explained why it was important for the school to have learners' background information, saying:

Learner's background information is essential for the school. We need to know who this learner is and who they stay with. Learner's data is provided by the parent or guardian as well as the student. It is rare to find parents who give inaccurate data for the sake of benefits of parents are not even aware that that is the use of learner's data that in case of need the child might be picked and offered help. For example, we need to know the level of education of the people the learner stays with. They have a significant influence on learners' performance. Lerner's data is kept very safe, its either in a locker or in a computer system. This data is not accessible to everyone, but only to those who have the responsibility of accessing it when it is needed (Mr Mthethwa Deputy Principal -1).

Expressing similar views, Mr Ndiweni (Deputy Principal-2) emphasised that it is important to obtain information from the parents because it does not only give a background understanding of the learners' home background, but that parents tend to provide accurate information although they do not understand why the schools require such information. This is what Mr Ndiweni had to say:

The goal is that students will provide the teacher with accurate and trustworthy data, and the instructor will be able to collect data from parents and other interested parties in

addition to the students. This places the instructor at the centre of the data collection process, which raises the issue of assessment data, which is required to measure progress and growth (Mr Ndiweni Deputy Principal - 2).

Mrs Zulu went on to explain how they gathered information from the parents and the learners. She highlighted the internet as the most useful tool that can be used to gather data. However, she acknowledged that direct contact between the teachers and the parents has no substitutes. This is what she said:

The internet is promoted as a useful and efficient tool for gathering better background information about students, however, this does not negate the importance of the data collector, who is usually the teacher. The teacher, as the first point of interaction with parents and students, is still the primary point for data gathering in most schools (Mrs Zulu).

Views about the importance of understanding the learner's background was also highlighted by Mr Mthethwa who emphasised that even the health of a learner cannot be known if the parents do not provide such information. Obtaining information about the health situation of a learner is crucial if schools should give appropriate support. In this regard, Mr Mthethwa had this to say:

We need to know who our learners are and where do they come from. Who are their parents? Other parents support and motivate their children to do well in their schoolwork, whilst other parents don't see that nor take it seriously to motivate and support their kids to do well in school. They just drink alcohol. When generating data students are asked who they stay with, what they do for living, their educational level and other questions related to that. Learners are also asked about their health like if one has any chronic illness that might need attention or that the teacher should know about like epilepsy in case a learner experiences seizure in class.

The views and experiences shared by the participants are consistent with those expressed by different scholars. In a school setting, background data reveals and explains the underlying behaviour of students, teachers, and administrators. According to Means, Padilla and Gallagher (2010), schools that have a better understanding of their students and staff can increase accountability and instruction in the classroom. Background data is based on the idea that knowing about the background history of teaching and non-teaching personnel or learners would help them better manage the school's instructional process. Iftimescu et al. (2020) stresses that better data collecting leads to better-informed decision-making.

Various uses of the data generated in the school

While the focus on this presentation is still on the nature and type of data gathered in school, the

analysis also indicated that there are other important considerations about the nature and use of data. For instance, it was highlighted by some participants that the data may touch on sensitive information about the learners' personal situation. Because of that, it is important that such data is not easily accessible to everybody in the school. For instance, Mr Ndiweni, the second Deputy Principal elaborated on the importance of understanding learners' home background, mainly the parent information, citing the need for the school to use that information to inform its practices. Similar utterances were made by Mr Ndiweni, emphasising the need for the school to have the family background of their learners. Mr Ndiweni emphasised in his conversation that when children are at school, teachers act in the place of the parents. Therefore, it is important that they know what parents know so that they can provide support to the learners. This is what he had to say:

We are in loco parentis for these kids. It helps to know their family background. Some of them require special care, are heading families, whoonga boys and so on. As a teacher and a parent to these kids, I must understand their background to intervene appropriately. Learners who stay with some learned parents and siblings tend to perform better and have greater care. From what I have observed, the opposite is true. Learner's data gets to ask personal questions like the economic status of the family and even their health conditions. When asking for learner's data responses differ with the class of family the learner come from, some are from rich families, some are at an average level while others come from really poor families.

Given some sensitivities around the learners' information, Ms Langa (DH-1) emphasised the manner in which their information has to be handled. Ms Langa went on to explain how the data had to be kept so that appropriate government department can access it. These departments could include the Department of Social Welfare. In other words, information that has to do with learners' social services needs is kept in an appropriate shelf meant for such information and, for sensitivity purposes, is not accessible to other teachers who do not need it. This is what Ms Langa had to say:

We understand that learners are minors and therefore any information generated from them without a parent consent is null and void. The school then generate learners' data from the parents by either sending consent forms or inviting parents into the school. Since some data is sensitive to be shared with the third party without the owners' consent, specific policies that guides data generation, management and use must be developed and put in place to protect learner privacy, block transparency, unauthorised access, and to comply with ethics principles and laws. At our school, learners' data is managed according to individual needs. For example, data for South African Social Security Agency (SASSA) help is kept specifically for that department.

Similarly, Mr Mthethwa (DP-1) said:

Most sponsors request information on the type of learners enrolled at Bongo to find out the best way possible to assist the school financially and materially. Learners' data is also used to check each learner's termly and yearly academic performance. It can be said that learners' data generated by the SMT is used as means of involving other stakeholders or sponsors in the learning process and progress at the Bongo School.

It is becoming more evident that the focus of the school in generating data is on the learners' interests and their well-being. The extract above also suggests that parents have to be actively involved in their children's education and they play an important role in providing information that the school may require. I have also indicated that some parents provide learner data without even knowing why schools require that kind of information. Additionally, the view raised by the participants about the schools generating learners' home background information is corroborated by literature. Ghazali (2016) revealed the correlation between learners' home background and proficiency and negative attitude towards the subject. Parental involvement is a parent's ambition in knowing about their child's progress and performance in school with a willingness to help. Learners with parental support tend to do better in their academic work than those without parental support. Legotlo, Maaga, and Sebego (2002) outlined the absence and lacking parental involvement as one of the most contributory factors of learners' poor performance in schools. Gbollie and Keamu (2017) attests that parental involvement in learners' education plays a significant role and can be an irrelevant motivational factor for learners. The SMT members at Bongo Primary School stated that it is imperative for the school to have learners' background information to understand and intervene appropriately in assisting their learners in learning.

4.3.2 Growth and progress data in Bongo Primary School

Literature (Agasisti & Zoido, 2018; Adebiy et al. 2019) clearly show that progress data is important for the schools as it indicates the direction that the school is taking. In other words, to understand whether the school is improving or not, growth and progress data is critical. This means that if staff at school know, for example, how learners are performing in their respective classes, they can easily know if their school is growing or not and also the pace of development in the school. In this regard, Mr Mthethwa, DP -1 had this to say:

In a school setting, there are differing perspectives on how to measure success and growth. Progress data is strongly bound to students' academic performance, and the majority of the school's operations are judged in terms of student achievement. Data collected to monitor a learner's performance can be used by school management systems to improve a learner's overall performance. It goes without saying that when the student is at the centre of data

collecting operations, the school administration system will link its actions to the student. As a result, the School management team's efforts may be compared to data on learners' growth and advancement.

Similar views were expressed by other participants and they all pointed to the importance of putting the learners at the centre of information generation. Mr Sikhosana (DH-2) for instance, has explained the importance of various aspects of the school life. For example, Mr Sikhosana argued that while COVID-19 has transformed the way teaching and learning occurred, the school still generated data on other aspects of the school life such as school finances and what could be happening in the sports sector. In that regard, Mr Sikhosana had this to say:

The performance of students and the operations of a school management team are not always easy to correlate, especially now that the COVID 19 epidemic has transformed the way schools run dramatically. Learner instruction has evolved, and it is increasingly common to have virtual education of learners, negating any direct link to the provided data as a measure of learners' progress. Schools can evaluate and assess growth in a variety of key result areas, including financial, sporting, and administrative sectors.

It is important to always understand how the school is progressing and ascertain whether or not the school is improving in its operations, beginning with the learners' performance in terms of teaching and learning. Schools also have a great need to track their students' growth and success. The best method for the school management teams to get this information is to use the same platforms that teachers and employees use. When the schedules of the results for each term have been done, the information was also captured on SA-SAMS. Looking at the SA-SAM records clearly showed the trends of each learner and each grade per subject, per term. In that way, it was easier even for me as an outsider to see how the learners were progressing academically. The most essential growth and progress data, according to Agasisti and Zoido (2018), should be concerned with the learners, as they are the main goal of the school setup. In other words, a school's success is determined by its capacity to meet the needs of its students. The learners' development and advancement are a continuation of their starting place, which should be their background. The ability to infer a learner's development is greatly improved by having access to the learner's background data. The background data, usually relate to the classroom reports about their performances in the subjects taught, and also their attendance.

Growth and progress are measured by how far students have progressed at the institution, especially in their respective classrooms. That forms the basis of understanding how they are performing. As a result, when students enter the school, their background and level of achievement in the classrooms serve as the beginning point for change. Adebity et al. (2019) argue that a learner's performance can

be strongly influenced by their background, and that specific upbringings can either help or hinder a learner's advancement. Teachers, according to Adebisi et al. (2019), have a superior reception of specific learners. As a result, they are more likely to make progress, which could be due to their responsiveness to the learners' background data. As a result, how teachers perceive and respond to the learners' background data has an impact on their growth.

4.3.3 Learners' special needs at Bongo Primary School

The third category of data that is crucial in the schools generally is about learners' special needs. It is important that school have a clear understanding of their learners' special needs so that they can provide necessary support to assist alleviate the challenges associated with the barriers that may be existing. The participants acknowledged the gravity of the situation in which learners' learning barriers are not detected as early as it is possible. Their views are that any possible barrier to learning should be detected early so that its effects of teaching and learning can be minimised. In this regard, Mrs Zwide (DH-3) had this to say:

To avoid future issues with learners, the particular needs detected in them must be addressed early. Inequities between learners will worsen as the learners get older. This means that, in the absence of special needs data, an ordinarily minor problem will fester rather than be effectively treated on time.

While the participants at Bongo Primary School understood the importance of identifying these learners and their needs, they also expressed reservations and scepticism about the ability of the parents to assist in this regard. Their views are that their school has a challenge generating information about learners' personal challenges or barriers that may negatively affect their learning. Some of the areas where parents were not helpful included the provision of data on their children's mental conditions. Therefore, handling such sensitive personal issues has been difficult and finding solutions is even more difficult. My initial assumptions were that, perhaps, given the context of the community's socio-economic situation and the level of the parents' education, it may not be easy to detect and share information about their children's special needs. Mrs Khumalo (DH-4) had this to say about learners with special needs in her school:

Special needs can be detected more rapidly when they involve or emerge from a physical disability. Most stakeholders fail to notice specific needs that are more mental than physical and teachers are usually the best placed to monitor such demands. As a result, as a teacher you must always be on the lookout for any specific requirements among the students. Parents and people, on the other hand, may be aware of special needs in their children but fail to act

on the information.

The challenges expressed by Mrs Khumalo are shared by Mrs Zwide (DH-3) who also add another dimension of the community's socio-economic profile. This participant highlighted that special needs of the learners went beyond physical and/or mental needs. This participant highlighted another socio-economic challenge that has to do with financial situation of the families. For instance, many parents were reported to be either unemployed or belonging to low income brackets of employed citizens. Because of that, it was difficult for them to support their children during the national lockdown in response to COVID-19 pandemic outbreak in the country. Therefore, when teaching and learning was changed from face to face to online, many of the learners could not participate in teaching and learning enterprise. This is how Mrs Khumalo explained the situation.

The global epidemic of COVID-19 has created its own set of challenges for students. Learners from disadvantaged families and communities have suddenly become special needs learners, especially with the necessity for online classes, which raises the demand for greater communication capabilities, gadgets, and technologies.

The above extract presents an extremely important conception of learners' special needs. This conception does not necessarily locate the need to the learners' personal make up, which could be related to their mental or physical conditions. This special need focuses on the socio-economic situation which undermines the learners' ability to benefit from the teaching that teachers provide or to not participate in the teaching and learning process as the school intended.

The views and experiences shared by the participants are consistent with the conception of learners with special needs, and clearly, the participants added to the debates and conceptions of learners with special needs. The concept of special needs in learners stems from the fact that these learners have difficulties in their studies. Such problems or impediments, according to Tse, Daniels, Stables, and Cox (2018), are either barriers to learning or generate a counterforce to the learning process. Physical, mental and emotional requirements can all be met by students with special needs. Such information is essential for school administration teams to set up suitable infrastructure at the school to answer students' issues. According to Botha and Muller (2016), data for special-needs students is frequently noted first by teachers and parents, who should then report it to the appropriate authorities. Even before starting school, a student can reflect on specific needs. When a parent or guardian notices that a learner has special needs, it is easier to get them addressed if the parent informs the school management team as soon as possible (Botha & Muller, 2016). This means that unique requirements should be discovered as soon as possible, and the first source of such information should be the learner's parent or guardian, and this should be communicated with the school.

4.4 Sources used to generate data and data management at Bongo Primary School

In the previous sections I have highlighted various aspects of data, including the nature of the data and the importance of data generated. In this section I focus on the sources that are used in this school to generate data, as well as how data is managed in the school. The issue of data management is important given the fact some of this personal information about the learners can be sensitive because it includes in some instances, medical records and histories. The participants have in the previous sections indicated some of the sensitivities surrounding the data produced and how important it is that such data is not easily accessible to everybody in the school. The voices of the participants indicated two main sources of learner data. The first one is through the use of application forms when the learner is applying to join the school community. The second source is the classroom records about the learners' performance in his or her subjects. With regards to the first source, participants said that the application form is a useful tool which relevant information as prescribed by the department of education. This form has learner background information and other necessary information relevant for the school to keep. In this regard, Mr Mthethwa said:

Most of data that we generate comes from the application form. All learners fill the application form extracted from the SASAMS which has all relevant information that we need to understand individual learner's background information.

Similarly, Mrs Zwide explained that there are application forms that are prescribed by the Department of Basic Education through the South African-Systems Administration and Management System (SA-SAMS), and these are useful tools that they use to generate data. This is what she said:

The DBE in a way, has prescribed the data that we need to generate. This is in the application form that we print from SA-SAMS that we give all learners to fill.

Ms Langa echoed similar sentiments, sharing that one of the strategies they use to generate data is through the application form. She said:

There are application forms generated from SA-SAMS that we give learners to fill. The data there assists the school to make informed decision based on the data filled on the application form.

To add to this discussion, Mr Ndiweni explained how parents have to be actively involved in the collection of data about the learners. He said:

Parents/guardians of learners must complete out admission applications with the learner's details. The only way the school collects background information from students is through application forms. In the admission papers, family history, illness, and other private

information is noted. The data collected on the admission forms is used to calculate the number and types of students enrolled at Bongo.

The evidence from the participants captures similar idea about how they generate data through application forms generated from SA-SAMS. All the participants found these forms to be useful to capture relevant learner data. The second source of data was explained by the fourth DHs, saying:

The most prevalent technique for data collection is daily progress updates. The classroom is the most important data source. As a result, the most data can be generated via excellent classroom management. Daily progress reporting techniques, are employed to ensure proper data collection (Mrs Khumalo DH- 4).

Mrs Khumalo further came up with another strategy that the school used to generate data from students.

Another method is to have a teacher or a member of the school management team monitor the classroom. Unlike daily reporting, classroom monitoring entails observing students and teachers and drawing the required conclusions from the observations.

Because classroom monitoring is likely to provide a lot of qualitative data, it is best used to collect data that describes or explains a phenomenon. Daily progress reports are more factual and usually offer numerical data, whereas classroom monitoring focuses on collecting qualitative data (Johnson, 2020). In addition to what this scholar says, other scholars like Cotton et al. (2009), see students as the primary source of data in the educational setting, and they strongly support the use of daily progress reports for students. The use of daily progress reports allows the teacher to obtain crucial data about students while they are in class, without requiring any additional accommodations. While this source of data generation is highly valued, some scholars are sceptical about it. For instance, Christensen et al. (2018) criticise daily progress reports, claiming that they add too much work to the teacher's plate. Such information is only as reliable as the teacher in question. Teachers, according to Christensen et al. (2018), must be regularly supervised in order to achieve better and more objective results. However, Christensen et al. (2018) does not acknowledge the importance of teachers, who are already gathering the data required by the School Management Teams.

On the notion of data management and the use of the data, participants emphasised the importance of observing confidentiality of the data generated. Some of personal information of the learners can be devastating if not handled with care and sensitivity. These participants highlighted the importance of vigilance in handling the data. They all agreed that data is kept in a safe place and it is retrieved when needed by a particular stakeholder such as a government department of sponsors. The SMT members at Bongo Primary School pointed out that managing sensitive information is not easy and requires proper planning. They noted that not all data generated from the learners, parents and

teachers are managed in the same way. It was clear from all the three participants that sometimes, generated information was of a sensitive nature and required a high level of confidentiality. This is what Mrs Zulu said:

The SMT is very much aware that some of the data generated about learners is very sensitive and requires a high level of protection. They comply in data protection regulation, and they have their school policy on data protection. The Educator's Guide to Student Data Privacy indicates that schools collect students personal and sensitive information to inform their instructional practice; however, it is essential for both the SMT and educators to protect their students from keeping them earning in a dignified and non-stigmatised way. Access to learners' data, especially the sensitive ones, is restricted to certain people. Those people are made to sign confidentiality forms that bind them in not sharing learners' sensitive information without the school's consent. The Educator's Guide to Student Data Privacy also emphasises restricting the learners' sensitive data to certain teachers like administrators, learner councillors, teachers, or another school official who need it to serve the learner's educational needs.

Expressing a similar view, Mrs Zwide went on to explain how data was managed in the school given its sensitiveness. She said:

At Bongo Primary School, learners' data is managed by being kept in the offices of the SMT according to their relevancy and departmental needs. However, the sensitive and highly confidential data is kept in the office of the principal. At times the sensitive information comes direct to him as the principal of the school and that one need to be between him, the parent, and the learner. In the cases where the external help is required, the principal would organise it with the relevant practitioner or department. Where the situation forces that the form teacher should be alerted of the information, the principal would invite the educator in his office and make him/her sign the confidentiality form to keep information high confidential.

As indicated in Chapter Two where the study by Bock (2014) was cited, learners' data, especially the sensitive ones pertaining to health, was generated, managed and used by the SMT members at Bongo Primary School with care, and to establish learners' educational challenges and needs. Schildkamp, Ehren and Lai (2012) concur that learners' data generation by the SMTs informs school practices and learners' academic performance, as argued in several pieces of literature.

4.5 Promoting data teacher collaboration in the data production at Bongo Primary School

The collection or generation of data from the parents or the learners involves teachers in the main.

Therefore, it is important teachers understand the centrality of the data and their role in it. When they participate in its production, it is of critical importance that they do not participate in it as a mere compliance imperative but as part of their important duties as teachers. In Chapter Two and in the previous sections of this chapter, I have mentioned, for example, that Christensen et al. (2018) are sceptical about the role of the teachers on the basis that this may be adding on their workload. Some of them might feel that by being involved in data generation in the classroom, they are being exploited. In the context of Bongo Primary School, attempts were made by the SMT members to inspire teachers and see it as part of their responsibilities to generate data that will enable them to provide effective support to the learners. Teachers are encouraged to be involved in the generation of the profiles of each learner in each class and grade. The participants revealed that the SMT members at Bongo Primary School paid attention to any new learner's information given to them by the teachers. The views of Mr Mthethwa became evident during the study on how the SMT members displayed sufficient knowledge of their learners' performance and behaviour at the school. Mr Mthethwa said:

We create a profile for each student enrolled in our school. The profile is then provided to a teacher in the class. In the event that a teacher has not received information about a child (for example, new information about a child in a new class, the SMT will go to the teacher and give him or her that new information about a child, as well as instruct an educator to check if the information can be useful somewhere in the learners' school life and beyond.

Mrs Zwide explained how the SMT members inspired their teaching staff in respect to learners' data generation. Mrs Zwide said:

The creation of data by students inspires us as an SMT since we can quickly communicate with parents. Teachers are motivated as well since they are able to quickly detect students' difficulties and provide ways to help them. Even the fact that when they detect learners' problems at their level in the classrooms and report them to the SMT, they are taken seriously in order to assist a child in order to make their teaching and learning processes easier inspires them.

Echoing similar sentiments, Mr Ndiweni said:

We, the SMT, place a special emphasis on gathering data from students in order to improve our teaching and learning methods. As the SMT, data that can help us improve our teaching and learning is critical to our school's success. It is critical that educators are actively involved in this process; we encourage them to work with us.

In connection to learners' data generation, Mrs Khumalo also mentioned the importance of teachers' involvement in this process, arguing that it was the SMT's responsibilities to ensure an inclusive process which was not dictatorial at the same time. The implications of some principles

of transformational leadership are evident. According to the above viewpoints, the SMT members should empower other stakeholders by allowing and motivating them to have a larger role in the school. The SMT members distributed leadership and helped the school improve student performance by empowering and encouraging staff. As a result, the SMT members encouraged all school stakeholders to participate in data collection, management, and analysis in order to inform Bongo Primary School.

The SMT members also focused on engaging with educators and creating intervention programmes to improve Bongo Primary School's learner academic outcomes. As stated in the conceptual framework section of Chapter Two, leaders must take particular efforts to inspire and motivate their subordinates in order to foster devotion to the organisational mission (Aydin et al., 2013; Bass & Riggio, 2006). Nonetheless, leaders should encourage all stakeholders in any organisation to play a critical role in data collection, administration and use in informing school policy and practice. This is consistent with distributive leadership principles of sharing knowledge and responsibilities.

4.6 Enhancing data integrity and efforts to connect data to learners' academic achievement

Literature I cited in Chapter Two on data generation indicated that data plays an important role in facilitating improvement in the learners' academic achievement. Therefore, it is important that all the information regarding each student must be accurately documented in order to generate data for enhanced academic achievements. This necessitates the need for efficient interaction and information sharing between parents and teachers regarding their children's progress. According to semi-structure interviews conducted during this study, it was emphasised that parents were less involved in the collection and maintenance of data for their children at Bongo Primary School. However, during the interview sessions, all the participants stated that they had taken efforts to guarantee that parents and the learners' relatives were involved in the generation of learner data in order to improve students' performance at school. All of the participants agreed that all stakeholders in the school should be given the opportunity to interact and solve challenges that students and teachers encounter. In this regard, Mrs Zwide said:

We are making special efforts to ensure that teachers meet with students' parents/guardians/wards individually or in groups to explain the necessity of providing accurate information about their backgrounds. Despite the fact that we have special parent meetings once a term, the majority of these discussions focus on the learners' performance rather than their background knowledge. We are, however, in the midst of organising special parents and teachers' forums where issues affecting learners' background information are concerned, due to the numerous obstacles we are having in respect to learners' data.

The SMT members at Bongo Primary School worked with teachers to collect data that may be used to make decisions that would help the learners achieve better at school. In designing and attending special intervention programmes, the SMT members partnered with teachers. Mrs Zulu said:

The SMT and teachers are planning intervention programmes that will address topics such as how and where to find psychologists and social workers. When teachers notice a student who need particular attention, they are free to inform the SMT. The SMT guarantees that psychologists and social workers are available at the school after receiving the previous report regarding a student. We meet with all subject teachers to address the issues that our students face, as well as those who require special attention. We also meet with our teachers on a daily basis to discuss the problems they have when working with students. Our regular meetings and discussions with educators put us in a better position to figure out how to use the data we have about learners to improve outcomes.

The collaboration between the SMT members and the teaching staff assisted, first in ensuring the quality of the data generated and also that they all pulled together in the same direction as they sought to find workable means of assisting learners with their teaching and learning needs. Mr Khumalo said:

As the school's SMT, we have a shared obligation to collect and generate learners' data at the start of the year, as well as to ensure that teaching and learning are in good working order. We also play an important role in determining the goals and objectives of our school. There would be no improvement in learners' performance results if we, as the SMT, could focus just on school administration.

The notion of focusing on the learners' academic achievement was also shared by other participants in the school. In addition, an attempt was made to ensure that the generation of data was focused on supporting the learners' improved academic achievement. In this regard, Mr Ndiweni said:

There are occasions when we realise that a learner or a group of learners is performing poorly. We ask a topic teacher to mentor that learner and keep track of their progress based on the information we've gathered. It is relatively easy to identify learners with various types of challenges using data generated by learners. Once the obstacles and difficulties of the learners have been identified, the SMT meets to discuss the appropriate intervention strategy.

Mrs Zulu, the principal, emphasised the need to always understand what has caused the learners to under-achieve. This is what she had to say:

We have a good understanding of the reasons or causes for poor performance among students. There is no way we can't know or understand learner challenges, or that we can't have difficulties understanding them. If we have a problem, we just go to a learner file and call a parent to come to school and learn about the problem, and that's it (Mrs Zulu).

What is evident from the various extracts above is the collaboration between the SMT members at

Bongo Primary School when it comes to generating learner data and what they did to connect the data generated with their efforts to improve learner academic achievement as alluded to in the literature. Facilitating interactions between parents and teachers is essential in ensuring improvement (Harris & Spillane, 2008). Despite the fact that parents in this study appeared uninterested, the SMT members made persisted in attempting to bring parents to school to discuss their children's progress. The SMT members kept data proving that they have sought to contact parents as a management control strategy. The tenacity of this school's SMT members in getting parents to attend meetings or discuss their children's development could serve as a new technique for gathering data from students in order to enhance academic achievements. According to Herselman and Botha (2014); Taylor (2008), as well as, Botha and Muller (2016), learners' data generation enable the SMTs to develop strategies that can improve academic performance. These scholars further argue that, sometimes, there is a poor academic achievement in schools because of a lack of learners' data. This study has indicated that all the participants had a clear understanding about why data was important and what it should be used for.

4.7 Chapter summary

In this chapter, the data generated through the use of semi-structured interviews and the reviews of documents was presented and the findings discussed. Much of the data presented was drawn from interviews and the data generated from the documents was used to augment and corroborate what was found through the interviews. The next chapter presents the conclusions reached from analysing the findings.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter thematically presented and discussed the data that was generated using the semi-structured interviews. This chapter discusses the conclusions of the research. On the basis of the conclusions made, recommendations will be made. In presenting the results, I have used the research questions as headings. By presenting the conclusions in this way, it would be easier for me, first to organise the discussion. Secondly, it would be easier for me to assess the extent to which the research questions were addressed. This chapter begins with the presentation of the study summary.

5.2 Summary of the study

The SMT members' perceptions of learners' data collection, management, and use in a specific school were investigated in this study. This was a case study of one primary school, and the views of the SMT members were sought about how and why they generated learner data. The study focused on the SMT members' perspectives and experiences regarding the learner data and how it was used in the school. The study participants comprised a principal two deputies and four departmental heads. Therefore, the total number of participants is seven. The first chapter has introduced the study, and gave the background to understanding the research problem. The description and statement of the problem is done in this chapter. The research questions guiding this study follow and the significance, as well as the significance of the study follow before the chapter comes to the end, using the chapter summary. The second chapter provided a landscape of data generation and management in the schools. Various debates on this subject are presented. Towards the end of the chapter, a conceptual framework is presented in the form of transformational leadership concept and distributed leadership as espoused by various key scholars in that subject. The third chapter gives a detailed discussion of the design and methodological issues. The fourth chapter presents data from the participants. The fifth and final chapter presents the conclusions that were made drawing from the findings presented in Chapter Four. Based on the conclusions made, recommendations are made.

5.3 Research questions restated

The following question guided the research study:

- What is the nature and type of learners' data generated by the SMT in a primary school in Pinetown District?
- What strategies does the SMT use to generate learners' data in a primary school in Pinetown District?
- How does the SMT perceive learners' data generation, management and use in a primary school in Pinetown District?

5.3.1 What is the nature and type of learners' data generated by the SMT members in a primary school in the Pinetown District?

The data has shown that the SMT generates learner's home background data through admission forms generated from the SA-SAMS and additional information provided by parents/guardians/ward. The SMT members also generated learners' data from progress and continuous assessment reports provided by teachers. This was generated in the classroom context. What has also come to the fore is that documents social workers, psychologists and even from the hospitals or clinics during birth provided valuable information about the learners. The SMT members in this school used the learners' data to reflect on and to identify the roots of educational challenges that the learner encountered and how such challenges can be addressed. The SMT highlighted that there are different ways in which generated learners' data was used for. For instance, the research data has indicated that the learner that is gathered is useful in charting the way forward in terms of, for organising teaching and learning instructions of the school, fund-raising avenue, assisting learners with various learning challenges, and for seeking sponsors for those learners who need it.

The SMT members highlighted the type of learner's data that they generated. These included data about the learner's background, the other learner's background questions about who stayed with the learner, their economic status, as well as their parents' educational level. The parent or guardian of the learner is of great importance as the school will know who to contact when it needed a parent during times of medical emergencies at school. The home economic status is also of great importance; this allows the SMT members to know what the learner has or might need. Some

learners might be in need of food and other basic requirements. In instances where any donors need to assist some learners the SMT members are in a position to know who to pick and who needs most help. The parents' educational level help in assessing the learner academically. From the findings learners who come from a family with intellect parent also seem to be performing better in school than those who come from families with poor education history. This also assisted in knowing how to assist a learner as other learners need more attention and help from the teacher. Based on these findings, I can conclude that all the participants had a clear understanding of the nature of data that they generated and more importantly, why it was important for them to gather the learner data that they did.

5.3.2 What strategies do the SMT members use to generate learners' data in a primary school in the Pinetown District?

The data has revealed that the SMT members generated learners' data in a variety of ways within the school. These include encouraging and collaborating with the educators, facilitating parent-teacher engagement and keeping track of students' progress through the data that they generated in the classroom situation. The SMT members stated that they promoted collaboration between themselves and teachers such that the teachers have a better understanding of the need to gather learner data. The SMT members also indicated that they used the learner data to develop a clear picture about how they could create an environment for the most conducive to effective teaching and learning. More importantly, the findings have shown that the SMT members at Bongo Primary School valued the participation of their teachers in the gathering of learners' data. They strongly believed that by so doing, the teachers will not be left behind in terms of producing credible data from the learners that will enable them to give support to the learners when the need arises. One conclusion to draw from these findings is that the SMT members were acutely aware of the need to create an environment where the learners can learn effectively. This is important in that the participants demonstrated a clear connection between the data generation imperatives and the enhancement of teaching and learning opportunities for the learners, especially those with special needs.

5.3.3 How does the SMT members perceive learners' data generation, management and use in a primary school in the Pinetown District?

The findings have clearly indicated that the participants in this study regarded the learners' data generation as an important aspect of the school's operation. They acknowledged that they have to gather accurate and trustworthy data from the parents and the learners so that they could provide appropriate support to the learners. In addition, they acknowledged that there is an important connection between the data and learners' academic achievement to such an extent that the most appropriate support might not be provided if the problem is not accurately identified. There are two important conclusions to draw from the findings. The first conclusion is the realisation that data generation and management is not meant to be a compliance matter between schools and the Department of Basic Education. This is supposed to be embedded in the school's culture of planning and achievement of its goals and mission.

The second conclusion to make is that the participants realised that the identification of learners with special needs goes beyond physical and mental barriers. These participants highlighted the attack posed by COVID-19 pandemic which caused havoc to schooling as we knew it. Because of this pandemic, the country was placed under national lockdown and no learner was allowed to go to school. In response to that lockdown, most schools migrated their teaching from face to face to remote and online learning platforms. However, the majority of the learners in the country could not cope with online learning given that most of them could not access online learning due to expenses involved and connectivity challenges. Therefore, it was important for schools to have a clear understanding of their learner population and their socio-economic circumstances. This kind of conception of learners with special needs may not be new, but it is adding to another dimension to understanding learners with special needs beyond physical barriers and other invisible barriers.

The other finding presented in Chapter Four is that the SMT members made attempts to involve their teachers in the data gathering exercise. What is noticeable is that, in their view, they inspired their teachers to be agents of change in the school by being involved in the gathering of data process. However, my analysis, using the concept of transformational leadership, suggests that they did not far enough in terms of inspiring their staff to lead the process of bringing about change in the school. Nonetheless, they made attempts to encourage them to understand the importance of active involvement of the generation of learner data and that such data was used to map out the direction the school was taking.

5.4 Recommendations

There are debates about whether a study at Masters level of education should make any recommendation at all or not. Another debate is whether such recommendations should be practice based or conceptual. This study was too small consisting of just one primary school. Therefore, it will be difficult for me to make any recommendation. Nonetheless, a number of conclusions have been made and this calls for some recommendations to be made. Drawing from the findings and conclusions of this study, I can recommend that the school needs to pay more attention on some kind of training or workshop whereby, teaching staff will be made more aware of the need to data generation and how the data should be used to support learners in improving their teaching and learning environment. What I can also say at juncture is that the objectives of the study were achieved.

5.5 Chapter summary

This chapter provided conclusions of the study deriving them from the findings presented in Chapter Four. Before the conclusions were presented, a summary of the entire study was presented. This was followed by a presentation of the key conclusions based on the findings. In the presentation and discussion of conclusions, research questions of this study were used. The recommendations were then made basing them from the conclusions made. One of the lessons I have learnt from these participants is that as much as they demonstrated clear understanding of the need to collect learners' data about various aspects of their lives and the school, issues of transformation did not feature strongly as the concept of transformational leadership suggests. In other words, I cannot say with confidence that these SMT members were transformational leaders, except to say that attempts at practising distributed leadership were made.

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APPENDICES

Appendix A: Letters to request permission to conduct research

Umzinyathi Mission
P. O. Box 43820
Inanda
4310
18th January 2017

Attention: The Superintendent-General (Dr EV Nzama)
Department of Education
Province of KwaZulu-Natal
Private Bag X9137
Pietermaritzburg
3201

Dear Sir

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Emmerent Malungi Ndaba and I am conducting a research as a requirement at the University of KwaZulu-Natal towards a Degree of Masters in Educational Leadership Management and Policy. The title of the research is “School Management Team’s perspectives on generation and use of student data in one primary school”. The objectives of the study are:

- To explore the nature of students data that being generated by the school,
- To understand the strategies used when generating students’ data,
- To understand the necessity of generating and use of the students’ data,
- To understand the format/style they apply when using the data,
- To explore their rational and motive for using students’ data the way they do.

The study will use semi-structured interviews with principals, deputy principals and departmental heads. Participants will be interviewed for approximately 40-60 minutes at the times convenient to them which will not disturb teaching and learning. Each interview will be voice-recorded.

Responses will be treated with confidentiality and pseudonyms will be used instead of the actual names. Participants will be contacted well in advance for interviews, and they will be purposively selected to participate in this study. Participation will always remain voluntary which means that participants may withdraw from the study for any reason, anytime if they so wish without incurring any penalties.

You may contact my supervisors, UKZN Research Office or me should you have any queries or questions:

Supervisor:

Dr BNCK Mkhize

Tel. 031 2601398 (office)
E-mail: Mkhizeb3@ukzn.ac.za

UKZN Research Office
HSSREC-Ethics
Tel: 0312608350

My contact number:

Emmerent Malungi Ndaba, [REDACTED] email: lungie516@gmail.com

Your positive response in this regard will be highly appreciated.

Thanking you in advance

Yours sincerely

Mrs, E. M. Ndaba

Appendix B: Letter to the school where research was to be conducted

Umzinyathi Mission
P. O. Box 43820
Inanda
4310
18th January 2017

The Principal
.....Primary School

Dear Sir

REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT YOUR SCHOOL

I am Emmerent Malungi Ndaba and I am conducting a research as a requirement of the University of KwaZulu-Natal towards a Degree of Masters in Educational Leadership Management and Policy. The title of the research study is “School Management Team’s perspectives on generation and use of student data in one primary school”.

I would like to use your school as one of the research sites, and this letter intends to request your permission. The focus of the study is on the SMT’s perspectives in generation of students’ data to inform school practices, therefore I would like to request your Deputy Principals and Heads of Departments to participate in the study. Should permission be granted, the interviews with the participants will be scheduled for dates and times that are convenient to *them*. Care will be taken that no disruption is caused during such interviews. Please also note that the participation in this study is voluntary, and the participant has the right to withdraw from the study at any time without any negative consequence. In addition, you are assured that details of the school and the participant will be kept confidential, and your identity will never be disclosed to anyone.

For more information and questions about the study, you may contact the researcher or the research supervisor on the following details:

Name of researcher Emmerent Malungi Ndaba, [REDACTED] email:
lungie516@gmail.com

Supervisor: Dr BNCK Mkhize: Tel No.: (031) 260 1398/[REDACTED]; Email: bnckmkhize@gmail.com

You may also contact the Research Office through:
HSSREC Research Office,
Tel.: 031 260 4557

Thanking you in advance.
Yours in Education

Mrs, E. M. Ndaba

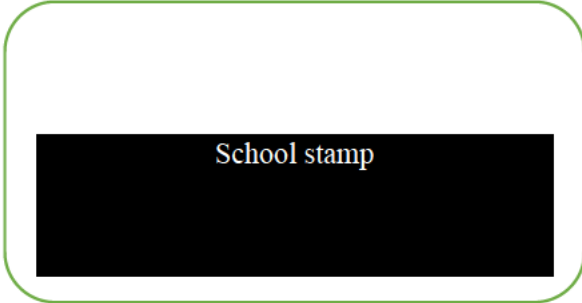
Dear Mrs E. M. Ndaba

PERMISSION TO CONDUCT RESEARCH AT SIYAPHUMELELA PRIMARY SCHOOL

Your letter titled "Request to conduct research AT [REDACTED] Primary School has reference. Please be informed that you are granted a permission to conduct your research at the above mentioned school.

Yours sincerely

[REDACTED]



Appendix C: Consent forms

PLEASE COMPLETE THE FOLLOWING SECTION FOR CONSENT OF PARTICIPATION:

I _____ (Full names of participant) hereby confirm that I understand the nature and purpose of the study entitled: School Management Team's perspectives on generation and use of student data in one primary school. I agree to participate in the study. I am also fully aware that I have the right to withdraw from the study at any point should I wish to do so, without any negative or undesirable consequence. I am also aware that there are neither any foreseeable direct benefits nor direct risks associated with my participation in this study. I therefore understand the contents of this letter fully and I do **GIVE CONSENT / DO NOT GIVE CONSENT** for the interviews to be digitally recorded.

Signature

Date

Appendix D: Letter to the participants

Umzinyathi Mission
P. O. Box 43820
Inanda
4310
18th January 2017

Dear.....

REQUEST FOR PARTICIPATION IN THE RESEARCH

I am Emmerent Malungi Ndaba and I am conducting a research as a requirement at the University of KwaZulu-Natal towards a Degree of Masters in Educational Leadership Management and Policy. The title of the research is “School Management Team’s perspectives on generation and use of student data in one primary school”. The objectives of the study are:

- To explore the nature of students data that being generated by the school,
- To understand the strategies used when generating students’ data,
- To understand the necessity of generating and use of the students’ data,
- To understand the format/style they apply when using the data,
- To explore their rational and motive for using students’ data the way they do.

The study will focus on School Management Team’s perspectives on generation and use of student data in one primary school. This letter intends to elucidate the purpose of the study and to request your participation in the study.

Please note that:

- Your confidentiality is guaranteed as your inputs will not be attributed to you in person, but reported only as a population member opinion.
- The interview may last for about 1 hour and may be split into two parts depending on your preference.
- Any information given by you cannot be used against you, and the collected data will be used for purposes of this research only.
- Data will be stored in secure storage and destroyed after 5 years.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalized for taking such an action.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.
- If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:

	Willing	Not willing
Audio equipment		
Photographic equipment		
Video equipment		

I can be contacted at:

Email: lungie516@gmail.com



My supervisor is Dr. BNCK Mkhize who is located at the School of Education, at the University of KwaZulu-Natal. He can be contacted at:

Email: bnckmkhize@gmail.com

Phone: 031 260 1398

I hope this letter will find your positive consideration, thanking you in advance.
Yours Sincerely

Emmerent .M. Ndaba

PLEASE COMPLETE THE FOLLOWING SECTION FOR CONSENT OF PARTICIPATION:

I _____ (Full names of participant) hereby confirm that I understand the nature and purpose of the study entitled: School Management Team’s perspectives on generation and use of student data in one primary school. I agree to participate in the study. I am also fully aware that I have the right to withdraw from the study at any point should I wish to do so, without any negative or undesirable consequence. I am also aware that there are neither any foreseeable direct benefits nor direct risks associated with my participation in this study. I therefore understand the contents of this letter fully and I do **GIVE CONSENT / DO NOT GIVE CONSENT** for the interviews to be digitally recorded.

Signature

Date

Appendix E: Semi-structured qualitative interviews

You are allowed not to give a response if you do not feel comfortable. You are also allowed to withdraw from the interviews if you feel the researcher is not upholding research ethical considerations.

Research questions

1. What is the nature and types of learner's data generated by the SMT in a primary school in Pinetown District?
2. What strategies does SMT use to generate learner's data in a primary school in Pinetown?
3. How does the SMT manage and use learner's data in a primary school in Pinetown District?

Research question 1: What is the nature and types of learner's data generated by the SMT in a primary school in Pinetown District?

1. Where and from who does the school generate data from?
2. What type of questions do you ask?
3. Why is it important to know the academic level of the parent or guardian?
4. I understand learner's data has to consider the learner's background, how accurate is the data generated?
5. How safe is learner's data?
6. What are the general responses that you get when asking for learner's data?
7. Does learner's data question about the learner's health history?

Research question 2: What strategies does SMT use to generate learner's data in a primary school in Pinetown?

8. Is there a specific strategy to collect data or it differs from school to school?
9. Who is supposed to know the information in a learner's data in the school setting?
10. For those parents or guardians or learners who cannot give authentic what do you do to get that important information?
11. Is it possible to get data from secondary sources like distant relatives or people who do not stay with the learner?
12. How do you take data from people not related to the learner?
13. How do you generate sensitive data?

Research question 3: How does the SMT manage and use learner's data in a primary school in Pinetown District?

14. For instance, if data presents that the child is from a poor family, does the school offer any help?
15. How safe is learner's data?
16. Who has access to learner's data?
17. In case of a learner falling sick who do you inform/
18. Is collecting learner's data of great in the school?

Overall question: Do you have any questions concerning this interview or anything you would want to add?

THANK YOU

Turnitin Report

The screenshot displays the Turnitin Feedback Studio interface. The main document area shows the title "SMT perception of learners' data generation, management and usage in rural primary schools in South Africa." followed by "CHAPTER ONE" and "INTRODUCTION AND BACKGROUND TO THE STUDY". The section "1.1 Introduction" contains a paragraph of text. The right-hand panel, titled "Match Overview", shows a total similarity score of 13%. Below this, it lists five matches from internet sources with their respective percentages: 1. researchspace.ukzn.ac... (4%), 2. wiredspace.wits.ac.za (2%), 3. hdl.handle.net (2%), 4. ukzn-dspace.ukzn.ac.za (1%), and 5. www2.ed.gov (1%). The bottom status bar indicates "Page: 1 of 68", "Word Count: 25506", and "Text-Only Report | High Resolution On".

Feedback Studio - Google Chrome
ev.turnitin.com/app/carta/en_us/?u=1042004587&o=1736661508&lang=en_us&cs=1

feedback studio Malungi Ndaba | SMT perception of learners' data generation, ... /0

Match Overview

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Currently viewing standard sources
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Matches

Match	Source	Percentage
1	researchspace.ukzn.ac... Internet Source	4%
2	wiredspace.wits.ac.za Internet Source	2%
3	hdl.handle.net Internet Source	2%
4	ukzn-dspace.ukzn.ac.za Internet Source	1%
5	www2.ed.gov Internet Source	1%

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