THE IMPLEMENTATION OF THE CURRICULUM AND ASSESSMENT POLICY STATEMENT IN GRADE 10 LIFE SCIENCES IN MADIBENG SUB-DISTRICT: AN EXPLORATORY STUDY

By

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Submitted in accordance with the requirements

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College of Education

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DECLARATION

I, Lindokuhle Rose Moloi, Student number: 24638854, declare that this dissertation titled “The Implementation of Curriculum and Assessment Policy Statement in Grade 10 Life Sciences in Madibeng sub-district: An exploratory study” is my composition.

I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged using complete references.

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27 July 2026

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27 July 2026

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by

LINDOKUHLE R. MOLOI



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Kind regards,



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DEDICATION

This study is dedicated to my younger sister, **Lerato Moloi**, to encourage her that she is capable and worthy of every single aspiration she may have. I want her to always believe in herself, to work fiercely towards her dreams and to always remember that everything seems impossible until you work towards it. If we could do it, she could too.

ABSTRACT

South African schooling system has been persistently challenged by factors impeding the effective implementation of the Curriculum and Assessment Policy Statement (CAPS). There is a prevailing concern about the implications of CAPS implementation on learner performance in Grade 10 Life Sciences. This study explored how teachers implement CAPS in Grade 10 Life Sciences and how teaching and learning are shaped by this implementation in Madibeng sub-district schools. The study is underpinned by the curriculum implementation theory by Rogan and Grayson. This study employed a qualitative approach using a case study research design. The study applied the interpretivist paradigm to gain an in-depth understanding of how teachers implement CAPS and learners' experiences of CAPS. Twelve participants, comprising six teachers and six learners, were purposively sampled. Observations and semi-structured interviews were used as data-generation methods, and data were thematically analysed. The findings of this study revealed that implementation in Grade 10 Life Sciences is shaped by a combination of classroom, institutional, pedagogical and learner-related factors. Inadequate learning and teaching support materials, overcrowded classrooms, limited laboratory resources, curriculum congestion and language barriers are restricting the effective implementation of CAPS. Institutional support and professional development are uneven. Furthermore, learners' accounts reveal that because of content load, terminology, diagrams and pace, Life Sciences is experienced as demanding. The study contributes to a deeper understanding of how CAPS implementation practices influence learner achievement and provides valuable insights into the implications of curriculum implementation for academic performance.

To strengthen CAPS implementation, it was recommended that there be provision for adequate resources, continuous professional development, monitoring and support, strengthening of learner and parental support, formalisation of extra lessons, language support programmes and a review of CAPS pacing to accommodate the diverse context in which the curriculum is implemented.

Keywords: curriculum implementation, monitoring, professional development, institutional support, learner-related factors

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LIST OF ABBREVIATIONS

ATP	Annual Teaching Plan
DBE	Department of Education
CAPS	Curriculum and Assessment Policy Statement
LTSMs	Learning and Teaching Support Materials
NCS	National Curriculum Statement
OBE	Outcomes-Based Education
RNCS	Revised National Curriculum Statement
SMT	School Management Teams
UNISA	University of South Africa

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter provides an introduction to the study that explores the implementation of the Curriculum and Assessment Policy Statement (CAPS) in Grade 10 Life Sciences in Madibeng sub-district schools. This study sought to explore how CAPS is implemented and its implications for learner performance. This section firstly provides the background of the study and the problem statement. Then, the rationale and purpose of the study are outlined. In addition, the research questions and objectives are presented. Following that, a detailed discussion of the theoretical framework is presented. In conclusion, concepts are clarified, and the dissertation structure is presented.

1.2 Background to the Study

South Africa has undergone various curriculum reforms as a result of major political changes. The first post-apartheid education reform was Curriculum 2005, introduced in 1997, which emphasised Outcomes-Based Education (OBE). This curriculum focused more on outcome assessment than on content mastery and was learner-centred. However, the implementation of Curriculum 2005 was rushed and disorderly (Hoadley, 2018) and faced several challenges that contributed to a decline in the pass percentage (Wolhuter, 2015).

Hoadley (2018) argues that there was a mismatch between the type of the teacher and learner envisaged by the new pedagogy and the realities of teachers and learners who had emerged from the apartheid education system and were engaged in schooling at the time. Curriculum 2005 also placed a heavy administrative burden on teachers (Badugela, 2012). In addition, teachers were inadequately trained for implementation, and insufficient resources became significant hindrance to the effective implementation of the curriculum (Nevenglosky, 2018). Furthermore, Hoadley (2018) explains that Curriculum 2005 failed to produce improved performance outcomes; hence, its review and replacement.

The Revised National Curriculum Statement (RNCS) replaced Curriculum 2005 in 2002 (Hoadley, 2018). Unlike Curriculum 2005, the RNCS had a stronger classification of topics within subjects. Subsequently, the National Curriculum Statement (NCS) was introduced in 2007 (Hoadley, 2018). However, Taylor (2003), cited in Pillay, Smit and Loock (2013), argued that the NCS was not sustainable as the Curriculum 2005 replacement. The most recent curriculum change was the introduction of the CAPS in 2012, which brought about significant changes in the education system (Mkhanyiswa, Booi & Moyo, 2024).

The formulation of CAPS aimed to reinstate the knowledge component in the South African school curriculum, as reflected in research on curriculum changes (Department of Basic Education, 2011). There was considerable ambiguity in the pacing, sequencing and selection of knowledge in Curriculum 2005 and the NCS (Umalusi, 2014). The problem of knowledge in the curriculum was addressed by introducing a more authoritative CAPS curriculum as an alternative model. Furthermore, CAPS has

contributed to improvements in preparing learners. Although CAPS introduced several changes to the South African education system, it was not regarded as a new curriculum (Khuzwayo & Mncube, 2017). The CAPS provides a single policy document that guides teachers on what to teach and how to teach it (Department of Basic Education, 2011).

The changes introduced by CAPS implied that teachers' workload would be significantly reduced, curriculum implementation would become smoother, and learners' performance would improve (Du Plessis & Marais, 2015; Booysen, 2018). Hoadley (2018) states that CAPS shifted from learning areas to subjects and repositioned the school as the curriculum reference site. However, South African education has continued to be one of the poor performing countries despite the introduction of CAPS (Du Plessis & Letshwene, 2020). This suggests that CAPS also has weaknesses that need to be addressed.

Teachers are expected to implement the curriculum according to CAPS prescriptions; therefore, CAPS mediation is significant for ensuring common understanding, interpretation and implementation in classrooms across the country. Despite receiving training in CAPS, teachers are often confused about its interpretation and implementation, which may affect learners' performance. In this study, the researcher sought to explore how the implementation of CAPS influences learners' performance. Furthermore, the study aimed to provide an account of learners' experiences of CAPS implementation, as most existing studies focus mainly on teachers' experiences.

1.3 Problem Statement

Curriculum implementation continues to face a range of persistent challenges within the schooling system (Naidoo & Mabaso, 2023). These challenges are often associated with overcrowded classrooms, inadequate pedagogical content knowledge, learner diversity, and teachers' continued reliance on conventional instructional approaches (Aimasiko, 2024; Hlatshwayo, 2021; Sithole, 2024). Although the CAPS is intended to improve learner outcomes, its effectiveness depends on the availability of the crucial enabling environment for successful implementation (Ajani, 2021). In the absence of such conditions, the attainment of intended learning outcomes may be compromised.

Poor learner performance in Life Sciences remains a significant concern in many schools. Teachers' pedagogical gaps, inadequate resources, insufficient parental involvement and language barriers has been identified as contributing to learners' weak academic achievement in this subject (Boateng & Maliwa, 2024). In particular, learners often cannot demonstrate a deeper conceptual understanding of Life Sciences content. This challenge is evident in their inability to connect Grade 12 curriculum content with knowledge acquired in earlier grades (Department of Education, 2023). Furthermore, frequent curriculum changes place additional pressure on teachers, thereby complicating effective classroom practice (Du Plessis & Letshwene, 2020). Consequently, the implementation of CAPS is adversely affected, with implications for learner achievement.

Despite growing scholarship on CAPS implementation, a significant knowledge gap persists regarding its implications for learner performance, particularly in Grade 10 Life

Sciences. Existing studies have largely focused on teachers' experiences of CAPS implementation, with limited attention given to learners' perspectives. This study, therefore, sought to address this gap by exploring how Grade 10 Life Sciences CAPS is implemented and how such implementation influences learner performance. By drawing on both teachers' and learners' experiences, the study offers a more comprehensive, multi-perspective understanding of the relationship between CAPS implementation and learner achievement in Grade 10 Life Sciences.

1.4 Rationale of the Study

This study was undertaken to explore how the CAPS is implemented in the teaching of Grade 10 Life Sciences and how such implementation influences learner performance. The rationale for the study was grounded in the need to gain an in-depth understanding of the lived experiences and perspectives of both teachers and learners regarding curriculum implementation in practice. Although CAPS provides a policy framework for teaching and learning, its enactment within classroom contexts may differ considerably depending on the conditions under which teachers work and learners engage with the subject matter.

The study is significant because it sought to illuminate the realities, challenges, and constraints of CAPS implementation in the Life Sciences. By examining these experiences from multiple perspectives, the study contributes to a deeper comprehension of how implementation practices may shape learner achievement. Furthermore, the findings may inform recommendations to improve curriculum delivery, address implementation barriers, and strengthen teaching and learning

practices in Life Sciences. In this way, the study may contribute to efforts to enhance learner performance and improve the overall effectiveness of CAPS in schools.

1.5 Purpose of the Study

The purpose of this study was to explore the implementation of the Grade 10 Life Sciences CAPS in the Madibeng sub-district. The study sought to examine how teachers enact CAPS in classroom practice and how this implementation shapes teaching and learning in Life Sciences. It also aimed to generate insight into the implications of CAPS implementation for learners' academic performance.

1.5.1 Research questions

The key research question for the study was:

How do Grade 10 Life Sciences teachers implement CAPS in their classrooms?

The secondary research questions were:

- What strategies do teachers use to effectively integrate the Curriculum and Assessment Policy Statement guidelines into their teaching practices?
- What kind of support do teachers receive from subject education specialists and School Management Teams?
- What challenges do Grade 10 Life Sciences teachers experience when implementing CAPS in their classrooms?
- What are the learners' experiences of the implementation of CAPS in Life Sciences?

1.5.2 Research objectives

The objectives of the study were as follows:

- To explore the strategies teachers use to effectively integrate CAPS guidelines into their teaching practices.
- To assess the support provided by School Management Teams and subject specialists in implementing the CAPS policy.
- To determine teachers' challenges when implementing Life Sciences CAPS in Grade 10 classrooms.
- To gather learners' perspectives on their experiences of the implementation of CAPS in Life Sciences.

1.6 Theoretical Framework

A theoretical framework is defined as a base which a research study draws knowledge from (Grant and Osanloo, 2014). Similarly, Plooy-Cilliers, Davis and Bezuidenhout (2021) contend that a theoretical framework is an explicit collection of ideas and theories relating to a phenomenon that the researcher seeks to explore.

This study was underpinned by the curriculum implementation framework (Figure 1.1) developed by Rogan and Grayson in 2003. The framework consists of three main constructs, namely the profile of implementation, the capacity to support innovation, and support from outside agencies. Rogan and Grayson (2003) argue that curriculum implementation is often overlooked, as greater attention is usually given to the adoption of curriculum changes. The framework is particularly relevant to the South

African context, as it was developed in response to conditions in South African schools and recognises the influence of school context on curriculum implementation (Rogan & Grayson, 2003).

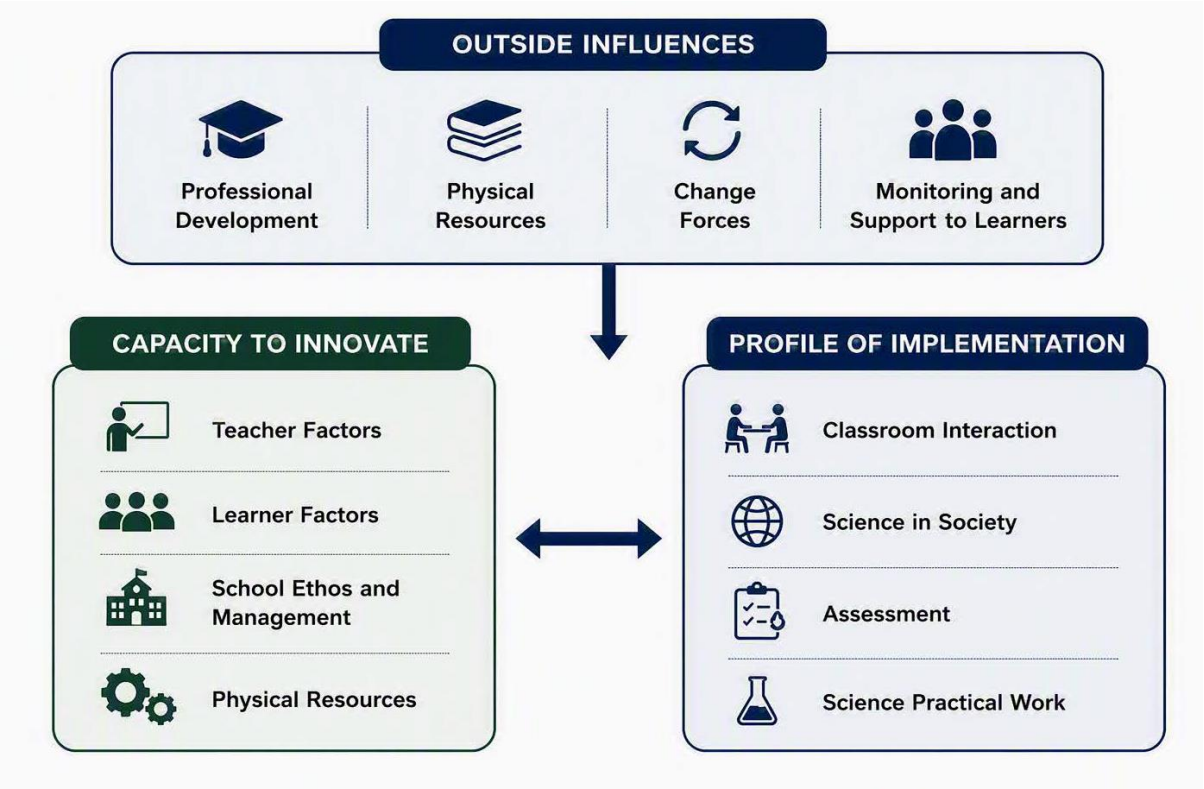


Figure 1.1: Rogan and Grayson's Curriculum Implementation Framework (adapted from Rogan & Grayson, 2003).

The curriculum implementation framework comprises the following constructs.

1.6.1 Profile of implementation

The profile of implementation refers to the observable ways in which curriculum reform is enacted in classroom practice. Rogan and Grayson (2003) state that this construct recognises that curriculum implementation is not uniform, but may differ across teachers, classrooms, and school contexts. It, therefore, provides a means of describing the extent to which curriculum intentions are translated into practice and

the different ways in which implementation outcomes may be achieved. The construct highlights key classroom processes and places particular emphasis on the roles of teachers and learners in shaping effective curriculum enactment. The profile of implementation focuses on the classroom-based elements below:

1.6.1.1 Classroom interaction

Classroom interaction pertains to the roles of both teachers and learners in shaping the content, structure, and direction of lessons. Rogan and Grayson (2003) argue that these roles are central to meaningful curriculum implementation, while Rogan and Aldous (2005) maintain that this sub-construct is useful for understanding, analysing, and expressing the level of implementation. Within this framework, teachers are expected to facilitate learning by guiding learners to design and conduct investigations and projects. Learners, in turn, should assume independency of their own learning by actively engaging in planning and assessing their learning, practical investigations.

1.6.1.2 Science in society

This sub-construct emphasises the significance of Life Sciences content to learners' everyday lives and the broader community. Rogan and Grayson (2003) note a shift towards integrating pedagogical content with real-life contexts, thereby making learning more meaningful and applicable. Effective curriculum implementation, therefore, requires teachers to contextualise prescribed content so that learners can relate scientific knowledge, skills, and values to practical situations. Learners should be able to apply scientific understanding to societal issues and demonstrate the ability to propose practical solutions to real-world problems.

1.6.1.3 Assessment

Assessment is a significant component of curriculum implementation and should incorporate a variety of assessment forms that enable learners to demonstrate a deeper understanding of scientific concepts. Rather than relying solely on conventional written tasks, assessments should include activities such as open investigations and application-based tasks. Such approaches grants learners with opportunities to demonstrate conceptual comprehension, critical thinking, and the practical application of scientific knowledge.

1.6.1.4 Science practical work

Science practical work is an essential aspect of effective curriculum implementation in Life Sciences. Learners should be presented with opportunities to collaborate in groups and to engage in practical experiments that promote inquiry and active engagement. In addition, learners should be encouraged to work independently, write scientific reports, interpret data, and draw conclusions from their findings. Rogan and Grayson (2003) argue that engagement in practical assessments are crucial for the development of critical scientific skills.

The profile of implementation provides curriculum planners and schools with a range of options for identifying their current position in the implementation process, monitoring progress, and strengthening implementation practices. It allows schools to select pathways that are appropriate to their specific contexts, capacities, and locations. Furthermore, the framework gives teachers and stakeholders of the school

community a voice in determining where to begin and the pace at which they can progress in the long term and continuous process of curriculum implementation.

1.6.2 Capacity to support innovation

The capacity to support innovation entails to the extent to which the school context enables or constrains the curriculum implementation. According to Rogan and Grayson (2003), curriculum reform is influenced not only by policy intentions but also by the conditions in which teachers and learners operate. This construct, therefore, highlights the factors within the school environment that may either facilitate or hinder effective curriculum implementation. It comprises four interrelated indicators: physical resources, teacher factors, learner factors, and school ecology and management.

Physical resources are fundamental to effective curriculum implementation. These include laboratories, textbooks, scientific equipment, teaching aids, and other instructional materials. Where such resources are inadequate or unavailable, both teaching and learning may be adversely affected. Rogan and Grayson (2003) assert that adequate resources are essential for achieving educational objectives and supporting curriculum reform.

Teacher factors refer to the professional attributes and competencies that influence teachers' ability to effectively implement the curriculum. These include qualifications, teaching experience, pedagogical content knowledge, confidence, and participation in professional development activities. In the South African context, gaps in teachers' knowledge remain a significant challenge, particularly regarding curriculum innovation. Rogan and Aldous (2005) highlight the strong relationship between teacher factors

and learner achievement, suggesting that the quality of teaching contributes critically in shaping learning outcomes.

Learner factors encompass the characteristics and circumstances that influence learners' engagement with teaching and learning. These include prior knowledge, motivation, language proficiency, and home background. Support from home may affect learners' ability to complete schoolwork and engage meaningfully in classroom activities. Learners' socio-economic and educational backgrounds, therefore, influence both the strengths they bring to the classroom and the challenges they may encounter.

School ecology and management refer to the leadership, organisational climate, and management practices that shape the schooling environment. Rogan and Grayson (2003) emphasise that vision, leadership, and goals critically influences curriculum implementation. Effective school management fosters a positive teaching and learning condition, facilitates the provision of resources, and creates conditions conducive to successful curriculum enactment.

1.6.3 Support from outside agencies

The construct "support from outside agencies" involves structures and processes external to the school that facilitate curriculum innovation. Rogan and Grayson (2003) argue that successful curriculum implementation depends not only on internal school capacity but also on support from external stakeholders. In the South African context, such support may be provided by the Department of Basic Education (DBE), subject advisors, district officials, and other educational support structures.

This support may take various forms. Professional development initiatives, such as workshops and training programmes, can enhance teachers' understanding of curriculum policy and strengthen their classroom practice. Support may also include physical resources, such as curriculum documents, teaching equipment, and infrastructure required for effective implementation. Furthermore, change forces, including professional learning communities and collaborative support networks, can foster shared values, encourage professional collaboration, and strengthen commitment to curriculum reform. Monitoring and learner support are also important components, as they promote accountability, facilitate tracking of learner progress, and help address learners' academic and personal needs.

This framework was relevant to this study because it provided a valuable lens for examining the implementation of the Grade 10 Life Sciences CAPS curriculum and exploring the factors that influence its enactment in schools.

1.7 Key Concepts

The CAPS is a report that governs the learning, teaching and assessment procedures in the South African education system in all school phases of learning (Ajani, 2021). In this study's context, CAPS is a comprehensive, abridged policy document that replaces the learning area with subjects and revises the learning outcomes and assessment benchmark to reflect the detailed aims of each subject.

Curriculum implementation refers to conveying knowledge and assessment using resources provided in the curriculum (Nevenglosky, Cale, & Aguilar, 2019). Offarma (2009) defines curriculum implementation as the teacher's interpretation of the

planned curriculum. After curriculum planning, it is disseminated to the teacher, who will then interpret it for implementation. In this study's context, curriculum implementation is the process by which teachers execute the policies developed by government-appointed curriculum specialists through the interaction of teaching and learning. This is carried out through interactions between teachers and learners in the classroom.

Life Sciences refers to the study of biotic factors from the basic structure to their mutual interactions and the environment (Department of Education, 2011). In this study's context, Life Sciences is the study of interactions between biotic factors and their environment.

Learner performance refers to the evaluation of the knowledge acquired, understanding developed, and skills desired to be learned (Morowane, 2019). In this study's context, learners' performance is an evaluation of the knowledge learners have acquired through transmission in class.

Continuous professional development is a process whereby individual teachers improve their knowledge and competencies beyond the training they initially received, and is crucial for their jobs (Alemayehu, 2021). In the study's context, continuous professional development is a process whereby teachers enhance their competencies and skills through training.

1.8 Structure of the Dissertation

This study consists of five chapters, as indicated below.

Chapter One: Introductory Positioning of the Study

This chapter introduces the topic of the study, which is the implementation of Life Sciences Grade 10 CAPS within Madibeng sub-district schools, the background of the study, an explanation of key concepts, and the problem statement. The research questions, aim, objectives and theoretical framework are also provided in this chapter.

Chapter Two: Literature Review

Chapter Two presents an extensive discussion of the literature relating to the implementation of CAPS. The challenges that hinder curriculum implementation and their implications for learners' performance are presented in this chapter.

Chapter Three: Research Methodology

Chapter Three discusses the research design, approach and methodology which informed this study. It presents a thorough discussion and grounds for the research methodology which informed the study. Thereafter, sampling and data-generation techniques are presented. Measures of trustworthiness, ethical considerations, limitations and delimitations conclude the chapter.

Chapter Four: Findings and Analysis

This section presents and discusses the findings of the study, organised into emergent themes derived from the data. The discussion integrates the findings with the relevant literature and the underpinning theoretical framework of the study.

Chapter Five: Summary, Recommendations and Conclusion

This chapter concludes the study by summarising the key findings and highlighting the principal arguments that emerged from the research. The recommendations based on the findings are presented and offers concluding remarks on the implementation of the Grade 10 Life Sciences CAPS curriculum.

1.9 Conclusion

This chapter presented the study's introduction and background, as well as its aim, research questions, and objectives. It also outlined the underpinning theoretical framework of the study and followed by a synopsis of the dissertation's structure. A chapter reviewing relevant literature to contextualise the study and position it within the broader body of knowledge follows.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review includes looking for studies, evaluating and summing up as much as possible of the available literature on the topic of interest (Plooy-Cilliers *et al*., 2021). McMillian and Schumacher (2014) state that the literature review is significant for this purpose: Firstly, the literature review assists a researcher in strengthening the importance of a study. This is achieved by positioning the study by generating a link connecting the literature and the research problem within an extensive research body. Secondly, the literature review aids a researcher in strengthening the validity of a study by selecting applicable and suitable methodologies. This section provides a detailed discussion of the literature on how CAPS is implemented in schools, challenges faced in effective curriculum implementation and the implications of challenges faced in CAPS implementation on learners' performance.

2.2 Use of Teaching and Learning Resources in the CAPS

The availability of teaching and learning resources is a critical determinant of effective curriculum implementation. International research shows that curriculum reforms are often undermined by shortages of teaching materials, inadequate infrastructure, and excessive administrative demands on teachers (Cabral, 2025; Garcia, 2024). Similar challenges have been reported in implementing the MATATAG Curriculum in the Philippines, where teachers have had to adapt lesson plans and develop supplementary materials due to delays in the provision of revised textbooks and

teaching guides (Malinao & Miano, 2025; Santos, 2024). Although teachers have demonstrated resilience through improvisation, collaboration, and effective time management, such measures cannot fully compensate for resource deficiencies.

Studies conducted across African countries similarly demonstrate a strong relationship between educational resources and learner achievement. In Tanzania, textbook shortages constrain learners' comprehension, reading, and writing abilities (Deogratis & Paulo, 2025), while in Nigeria, schools often depend on parental contributions to supplement inadequate government provision of resources (Adeniran, 2020). In Kenya, limited teaching resources and teacher shortages have been associated with lower learner achievement in public schools compared to private schools (Naisianoi, Koome & Marima, 2020). Collectively, these studies suggest that resource inequalities continue to compromise educational quality and learner outcomes.

In the South African context, the successful implementation of CAPS depends largely on the availability of learning and teaching support materials (LTSMs). These resources facilitate diverse teaching approaches, enhance learner participation, and promote conceptual understanding (Ajani, 2021; Ramothwala & Ramaila, 2022). However, inadequate provision of LTSMs often compels teachers to rely on teacher-centred approaches, limiting opportunities for learner engagement and practical application of knowledge (Dhurumraj & Moola, 2023; Mavuru & Dudu, 2020). This challenge is particularly significant in Life Sciences, where practical demonstrations and interactive learning are essential for developing scientific understanding.

While improvisation can mitigate some resource shortages, evidence suggests that many teachers lack the skills required to develop effective alternative teaching

resources (Amos, Egban & Oppong, 2022). Consequently, insufficient access to LTSMs not only restricts the implementation of CAPS but also affects learner participation and academic performance. Ensuring the adequate provision of teaching resources, therefore, remains essential for achieving the intended curriculum outcomes and improving learner achievement.

2.3 Classroom Management Techniques

Effective classroom management is widely recognised as a prerequisite for successful teaching and learning. Research indicates that well-managed classrooms promote learner engagement, maximise instructional time, and create environments conducive to academic achievement (Burden, 2020; Tomlinson & Imbeau, 2023). However, teachers often encounter challenges such as overcrowded classrooms, inadequate learning resources, diverse learner needs, and limited professional training, all of which compromise their ability to manage classrooms effectively (Griffith & Tyner, 2019; Mubarok, Sholeh & Irayana, 2023).

Studies suggest that classroom management skills can be developed through continuous professional learning and experience (Omodan & Mamaile, 2024; Putri, Qushwa, Putri, Widiasari, Zahro & Baharun, 2024). Effective practices include establishing clear expectations, maintaining structured learning environments, actively engaging learners, and managing disruptive behaviour through preventative rather than punitive approaches (Hepburn, Beamish & Alston-Knox, 2020; Opiyo, Asesa & Olel, 2025). Research from Kenya further demonstrates that effective instruction can

minimise undesirable learner behaviour and contribute positively to academic performance (Opiyo, 2024).

Despite these benefits, novice teachers often struggle to balance curriculum demands with classroom management responsibilities, limiting learner participation and curriculum coverage (Ahmed, 2024). Consequently, effective classroom management should be viewed as both a pedagogical and organisational skill that supports curriculum implementation and learner achievement.

2.4 Subject Specialists' Contributions to Teacher Support

Educational supervision plays an important role in strengthening curriculum implementation by providing teachers with guidance, monitoring, and professional support (Tilman, Costa, Carvalho, Sarmento & Verdial, 2025). Across education systems, supervisory structures are intended to ensure policy compliance, improve teaching quality, and enhance learner outcomes through regular monitoring and developmental support (Afashah, 2024).

However, the effectiveness of supervision is often constrained by limited financial resources, insufficient personnel, and sporadic school visits. Studies conducted in Nigeria and South Africa report that inadequate funding and staffing reduce the frequency and quality of support provided to schools (Jacob & Solomon, 2021; Malumbete, 2021). As a result, monitoring often becomes compliance-driven rather than developmental, limiting its potential to meaningfully support teachers.

In the South African context, subject advisors are expected to monitor curriculum implementation, identify teacher support needs, and facilitate professional development (Ajani, 2021). While evidence suggests that many subject advisors fulfil these responsibilities effectively (Stephen & Nyamupangedengu, 2025), challenges relating to workload, role ambiguity, and inadequate training continue to undermine their support functions (Sithole & Tachie, 2024). Findings from Ajani (2021) offers a contradicting view reporting that CAPS is poorly monitored and evaluated in schools. This suggests that an effective supervision, therefore, requires consistent engagement, constructive feedback, and adequate institutional support to enable subject advisors to contribute meaningfully to the improvement of teaching and learning.

2.5 Support from School Management Teams

School Management Teams (SMTs) play a central role in promoting effective teaching, learning, and curriculum implementation. Literature emphasises that SMTs are responsible for planning, monitoring, coordinating, and supporting instructional activities within schools (Benoliel, 2021; Onai & Ligembe, 2022). Effective leadership has been associated with improved school performance, stronger teacher collaboration, and enhanced learner outcomes (Leithwood, Sun & Schumacker, 2020).

Research further highlights the importance of collaborative leadership approaches that involve teachers, parents, and other stakeholders in school improvement initiatives (DeMatthews et al., 2021; Szeto, 2020). Through classroom monitoring, curriculum

oversight, and professional support, SMTs create conditions that facilitate effective curriculum implementation and accountability (Raseasala, 2024).

Despite these responsibilities, SMTs often face challenges arising from competing administrative demands, insufficient training, and resistance to change among staff members (Mogasoa, 2021; Tlali & Matete, 2020). Moreover, Eze (2021) found that the inadequacies in monitoring teaching and learning influences learners' performance. Such that, these factors may limit their capacity to provide regular instructional support. Consequently, strengthening SMT capacity through targeted professional development remains essential for improving curriculum implementation and learner performance.

2.6 Perceived Gaps in Support Structures

The success of curriculum reforms depends largely on the availability of effective support structures that enable teachers to adapt to policy changes and classroom demands. International research consistently identifies teacher training, professional support, resource provision, and regular monitoring as critical factors influencing successful curriculum implementation (Ndifon, Edu, Olufu & Adie, 2021; Oduro, 2024).

Although various support mechanisms have been introduced across different education systems, evidence suggests that gaps remain in the quality and accessibility of support for teachers. Studies from Kenya, Malawi, Madagascar, and South Africa reveal that inadequate professional development, insufficient mentoring, and inconsistent monitoring continue to constrain curriculum implementation (Mbale & Hara, 2020; Ogalo, Omulando & Barasa, 2022). Similar concerns have been raised

regarding CAPS implementation, with teachers reporting limited preparation for curriculum reform and insufficient ongoing support thereafter (Matsepe & Maluleke, 2019).

These findings suggest that curriculum implementation extends beyond policy formulation and requires sustained investment in teacher development and support systems. Without adequate support, teachers may struggle to translate curriculum intentions into meaningful classroom practice.

2.7 Challenges Faced by Teachers

Curriculum reforms are frequently accompanied by challenges that affect teachers' ability to implement policy effectively. International evidence indicates that increased workloads, administrative responsibilities, inadequate resources, and limited professional support are among the most common barriers to successful curriculum implementation (Cachero, 2025; Gouëdard, Pont, Hyttinen & Huang, 2020).

Within African contexts, resource limitations, inadequate funding, and socio-economic inequalities further complicate curriculum delivery (Akala, 2021; Ogunode & Adah, 2022). Teachers are often expected to implement reforms despite insufficient infrastructure, overcrowded classrooms, and limited teaching materials. These conditions place considerable pressure on teachers and may undermine the attainment of curriculum objectives.

South African studies similarly report that CAPS implementation is affected by workload demands, time constraints, learner disciplinary challenges, and pressure to

complete prescribed content (Manik, 2022; Pillay, 2024). Such challenges may reduce opportunities for learner-centred instruction and compromise the quality of teaching and learning. Addressing these barriers is therefore essential for improving curriculum implementation and learner achievement.

2.8 Resource and Infrastructure Constraints

The availability of adequate resources and infrastructure remains fundamental to successful curriculum implementation. International literature consistently identifies shortages of learning materials, overcrowded classrooms, and inadequate facilities as major obstacles to teaching and learning (Albrecht & Saggers, 2020; Malinao & Miano, 2025).

Studies conducted across Africa similarly demonstrate that resource availability significantly influences curriculum outcomes and learner achievement (Ngeno, Mweru & Mwoma, 2021; Ogunode, Olatunde-Aiyedun & Yem, 2021). In many contexts, schools experience shortages of laboratories, textbooks, teaching aids, and classroom space, limiting opportunities for active learning and practical engagement.

In South Africa, inadequate resources continue to affect the equitable implementation of CAPS, particularly in rural and under-resourced schools (Du Plessis & Letshwene, 2020; Msimanga, 2021). This challenge is especially evident in Life Sciences, where practical demonstrations and laboratory activities are essential for conceptual understanding (Chuene & Teane, 2024). Consequently, resource inequalities contribute to disparities in learning opportunities and academic outcomes. However, Dhurumraj and Moola (2023) argue that using improvised resources to mitigate

learners' cognitive challenges remains the teachers' responsibility. Furthermore, Botes and Blennis (2025) found that improvised teaching resources significantly improves learners' engagement in Life Sciences. These perspectives establishes the critical relationship between learner performance and adequate resources. Furthermore, it highlights the importance of resources' improvisation in improving learner engagement.

2.9 Teacher Preparedness and Professional Development

Teacher preparedness is consistently identified as a key determinant of successful curriculum implementation. Research indicates that teachers who receive continuous professional development are better equipped to interpret curriculum requirements, apply appropriate pedagogical strategies, and respond to learners' diverse needs (Ajani, 2022; Dhurumraj & Broadhurst, 2023).

However, studies conducted in South Africa and other developing contexts reveal persistent concerns regarding the adequacy of teacher training associated with curriculum reforms (Buabeng & Amo-Darko, 2025; Ramos & Estrella, 2024). Professional development programmes are often limited in duration, highly theoretical, or inaccessible to all teachers, resulting in uneven implementation practices across schools.

The implementation of CAPS illustrates these challenges. Although teachers received orientation during the policy rollout, many reported insufficient preparation and ongoing difficulties in applying curriculum requirements effectively (Maharajh, Nkosi & Mkhize, 2016; Ajani, 2021). Furthermore, professional development is crucial in

improving learners' performance (Nugroho, 2024). Literature, therefore, suggests that sustained, context-specific professional development is necessary to strengthen teachers' pedagogical content knowledge and improve curriculum implementation outcomes.

2.10 Perceived challenges in learning Life Sciences under CAPS

Learners' attitudes influence learning (Akinbadewa & Sofowora, 2020). Learners are showing less interest and understanding in sciences in their classrooms (Netshivhumbe & Mudau, 2021). Consequently, too few students are enrolled in science faculties at higher education institutions (Moshoeshoe, 2023). Interest in science subjects is reflected in students' career choices at higher institutions. Dikgale (2016) argues that low performance in Life Science reflects a lack of motivation and interest in the subject. However, Ojo & Mathabathe (2021) argue that a congested curriculum that overwhelms learners influences low performance in Life Sciences. Additionally, Maremane et al. (2022) argue that learners are sometimes confused by the demands of Life Sciences content, which requires mastering numerous essays, terminology, and structures. This highlights that the demands of the subject affect learners' interest and motivation in Life Sciences, with implications for performance.

Furthermore, learners face challenges in understanding Life Sciences because of the language of teaching and learning (Mukhethoni, 2019). Similarly, Ndjangala and Masebe (2021) argue that difficult linguistic features in English affect learners' performance in Life Sciences. Amongst other negatives, Dhurumraj & Broadhurst (2023) assert that it is a further problem when teachers themselves are not proficient

in the language of teaching and learning. However, Zhang (2023) argues that teachers can significantly influence learners' literacy development by enhancing instructional methods and building upon learners' linguistic and cultural backgrounds. This highlights the crucial role of code switching in improving learners' literacy.

2.11 Rogan and Grayson (2003) conceptualisation

Rogan and Grayson (2003) offer a useful framework for understanding curriculum implementation, focusing on the Profile of Implementation, Capacity to Support Innovation, and Outside Agencies. However, their framework does not clearly address several important factors highlighted in the literature above. These includes broader challenges in implementing the curriculum. While some of these can fit under existing categories of the constructs like school capacity and external support, the framework does not explain in detail how different types of support at the institutional, professional, material, and classroom management affect how teachers implement the curriculum. This study aims to fill this gap by building on Rogan and Grayson's (2003) framework and examining how these specific contextual and support factors influence curriculum implementation.

2.12 Conclusion

This chapter reviewed the literature on CAPS implementation, focusing on factors influencing curriculum delivery, including teaching and learning resources, classroom management, teacher preparedness, and support structures. The review also identified key challenges, including resource limitations, inadequate professional development, demands of curriculum pacing, and gaps in support systems. These

factors were found to influence learner engagement and academic performance, particularly in Life Sciences. The chapter provides the theoretical foundation for the study. The next chapter presents the research design and methodology employed in the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter follows the literature review presented in the previous chapter, which examined CAPS implementation in Grade 10 Life Sciences and the factors that influence effective curriculum implementation. The review also highlighted challenges that hinder curriculum delivery and their implications for learners' academic performance. Building on this foundation, the current chapter outlines the research methodology adopted for the study. The research paradigm, research design, and research approach that guided the investigation are discussed. In addition, the chapter describes the sampling procedures, data collection methods, and data analysis techniques employed. Finally, measures taken to ensure trustworthiness and adherence to ethical principles are presented.

3.2 Study Location

The study was conducted in the Madibeng Local Municipality, which forms part of the Bojanala Platinum District in the North West Province of South Africa. The schools included in the study fall under the administration of the Madibeng educational sub-district. According to the North West Province (2026), the municipality comprises 39 secondary schools.

Figure 3.1 below illustrates the geographical location of the study area.

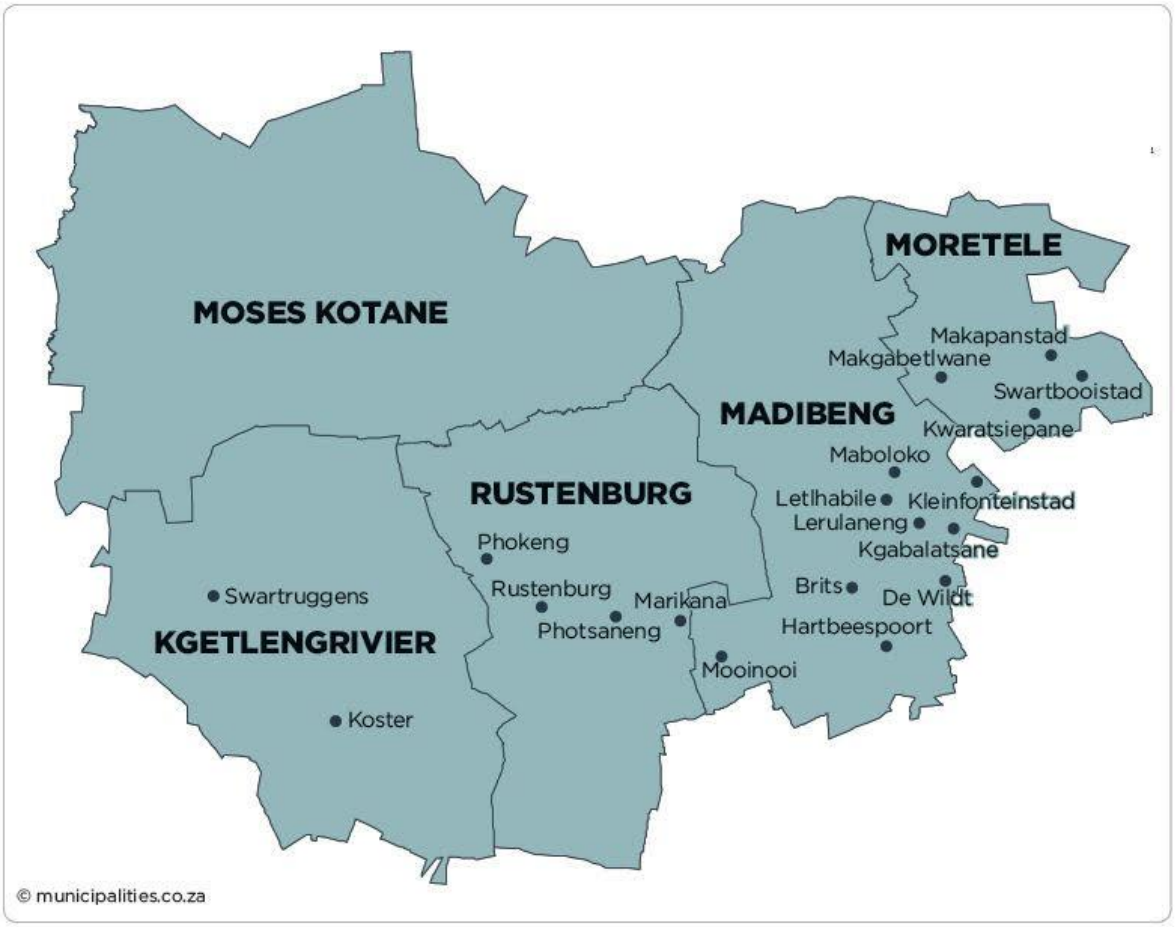


Figure 3.1: Madibeng sub-district of Bojanala District

Source: https://municipalities.co.za/map/1188/madibeng-local-municipality

3.3 Research Design

Plooy-Cilliers et al. (2021) define a research design as a proposal that consolidates various parts of the research study. In addition, Creswell, Ebersöhn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen and Plano Clark (2019) define a research design as an approach that encompasses the researcher's philosophy that informs the specific selection of data collection strategies and the analysis of data.

This study was exploratory in nature because it placed focus on understanding phenomena in their own right. The study focused on exploring the implications of CAPS implementation in Grade 10 Life Sciences for learner performance. Exploratory research aims to gain a comprehensive understanding of a group of people by identifying main issues and variables (Creswell et al., 2019).

3.4 Research Paradigm

This study was guided by the interpretivist paradigm. According to Rahi (2017), a research paradigm refers to the way researchers understand reality and generate knowledge shaped by a set of beliefs and assumptions. Similarly, Kivunja and Kuyini (2017) describe a paradigm as a theoretical framework that directs the research process and informs the interpretation of findings.

The interpretivist paradigm places focus on comprehending how individuals make sense of their experiences and the social world in which they operate. According to Berryman (2019), interpretive research seeks to answer “how” and “why” questions to acquire a deeper comprehension of human behaviour and social phenomena. The present study aimed to explore how teachers and learners experience and engage with the implementation of the Life Sciences CAPS curriculum, making the interpretivist paradigm particularly appropriate.

Interpretivism emphasises the importance of participants’ perspectives, meanings, and lived experiences. Rashid, Rashid, Warraich, Sabir and Waseem (2019) argue that the primary aim of interpretive research is to acquire deeper insight into a social phenomenon by recognising the subjective realities of those involved. Through

interaction and communication with participants, researchers can develop a nuanced understanding of their experiences and the contexts within which these occur (Berryman, 2019).

The use of the interpretivist paradigm enabled the researcher to explore and interpret the experiences, perceptions, and challenges of teachers and learners in implementing Life Sciences CAPS. Consistent with Pervin and Mokhtar (2022), the paradigm was considered suitable because it facilitated an in-depth understanding of participants' lived experiences and the meanings they attach to those experiences within their educational context.

3.5 Research Approach

This study adopted a qualitative research approach. According to Creswell and Poth (2018), qualitative research seeks an understanding and interpretation of participants' experiences, perceptions, and meanings within their natural settings. The qualitative research process involves a research design, data collection, data analysis, and the interpretation and presentation of findings (Plooy-Cilliers et al., 2021). This approach is particularly suitable for studies that seek to explore complex social phenomena from the perspectives of those directly involved.

The study aimed to explore how Grade 10 Life Sciences CAPS is implemented in schools within the Madibeng sub-district and to understand the challenges that influence its implementation. A qualitative approach was therefore appropriate because it enabled the researcher to gain in-depth insights into the experiences and perceptions of teachers and learners regarding curriculum implementation. It also

allowed the researcher to observe classroom practices and interpret how participants engage with CAPS within their specific educational contexts.

Hennink, Hutter and Bailey (2020) argue that qualitative research enables researchers to comprehend issues from participants' perspectives and to gain detailed explanations of social phenomena. In this study, the approach facilitated a deeper understanding of the realities, challenges, and practices associated with the implementation of Life Sciences CAPS. Furthermore, qualitative research promotes interaction between the researcher and participants, allowing participants to share their experiences and views openly (Creswell, 2012). As key stakeholders in the implementation process, teachers and learners provided valuable insights that contributed to understanding how CAPS is enacted in practice.

The qualitative approach was therefore considered appropriate for this study because it enabled the exploration and interpretation of participants' lived experiences, providing rich and contextualised data on the implementation of Grade 10 Life Sciences CAPS in the Madibeng sub-district.

3.6 Research Type

This study employed a case study research design. A case study enables an in-depth investigation of a particular phenomenon within its real-life context, providing a rich understanding of participants' experiences and perspectives (Plooy-Cilliers et al., 2021). Similarly, Creswell (2008), cited in McMillan and Schumacher (2014), defines a case study as an intensive examination of an activity, process, event, programme,

or group of individuals. The design is particularly suitable for researchers seeking to explore complex educational phenomena within a bounded system.

A case study was considered appropriate for this research because it facilitated a detailed exploration of how Grade 10 Life Sciences CAPS is implemented in schools within the Madibeng sub-district. According to Bell (2014), case studies enable researchers to investigate a specific issue in depth and generate comprehensive insights within a defined setting and timeframe. The design, therefore, provided an opportunity to examine curriculum implementation within its natural school context and to gain a nuanced understanding of participants' experiences.

The case in this study comprised six secondary schools located in the Madibeng sub-district. Case study research is particularly well-suited to addressing "how" and "why" questions, as it allows researchers to explore phenomena in context and understand participants' lived experiences (Yin, 1994, cited in Creswell et al., 2019). The design further enabled the use of multiple data collection methods, which enhanced the depth and richness of the data. Through classroom observations and interviews, the researcher gained detailed insights into teachers' implementation of Life Sciences CAPS, their understanding of curriculum requirements, and learners' experiences of curriculum delivery in the classroom.

3.7 Research Methods

Research methods are instruments used to collect data. According to Creswell et al. (2019), these instruments enable researchers to collect data from individuals

regarding social reality. In this study, interviews and observations were used to collect data, which were then analysed thematically.

3.7.1 Selection of participants

According to McCombes (2019), the individuals a researcher collects data from are referred to as a sample. Populations are often too large to analyse in their entirety, and working with them requires considerable time and resources (Creswell et al., 2019). Therefore, a segment of the population is sampled to participate in a study. In this study, a total of 12 participants were sampled, consisting of six teachers and six learners.

3.7.1.1 Sampling technique

The researcher employed purposive sampling combined with a site-selection sampling strategy. To enhance the plausibility of the findings by ensuring relevance to the collected data, this combination was selected.

Firstly, site selection was used to ensure the relevance of the sites of inquiry. According to McMillian and Schumacher (2014), the selection criteria of the sites of inquiry should be clearly established in advance. By ensuring that the selected sites were appropriate for the study, this sampling strategy enhanced the relevance of the data.

In purposive sampling, defining the criteria for participants' selection is established beforehand (McMillan & Schumacher, 2014). According to Plooy-Cilliers et al. (2021), when sampling, population characteristics are deliberately chosen to serve the specific

purpose of the research. In purposive sampling, participants are intentionally selected for characteristics they possess (Etikan, Musa & Alkassim, 2016). In this study, the researcher purposively selected participants because they possessed the desired qualities and could provide valuable information. The teachers' years of experience provided diverse accounts of teaching experiences that offered insights for the study. The sample size was deemed optimal to achieve sufficient data depth. Learners' accounts provided insights into how CAPS implementation is experienced in different contexts and by teachers. A total of 12 participants were purposively sampled: six Life Sciences teachers from different schools in the Madibeng sub-district and six Grade 10 learners.

3.7.1.2 Recruitment strategy

The researcher identified schools that offered Life Sciences in Grade 10. Permission was then requested from the principals to select their schools as sites of inquiry. Schools whose principals granted permission were considered based on the following criteria: they belonged to the same sub-district, were non-fee-paying, and shared similar characteristics in terms of teachers, learners, and learner enrolment. The required annual admission was at least 1 000 learners in a school year.

The researcher also considered accessibility when selecting schools. For data collection, the researcher had to be able to access the schools. Transport costs and road and transport availability defined accessibility for the researcher. The criteria for selecting the site of inquiry were established by these requirements.

The researcher invited Grade 10 Life Sciences teachers interested in sharing their experiences with CAPS implementation and who were willing to reflect on their teaching. The factors considered when recruiting teachers to participate in the study were that they had to work in the defined school context and had at least 3 months teaching experience. Two teachers were in their first year of teaching, two had between two and five years of teaching experience, and the remaining two had more than 10 years of experience. Interested teachers received consent forms and information sheets. Signing the consent forms confirmed their willingness to participate in the study.

The recruitment of learners was done by their Life Sciences teachers. Teachers were asked to identify one learner from the science stream at each of their schools. The Life Sciences teachers were requested to send consent forms and information sheets to the parents or guardians of the identified learners. Before the interviews were conducted, learners were also requested to provide verbal assent, in support of the written consent received from their parents or guardians. The purpose of this process was to explore the implementation of Grade 10 Life Sciences CAPS and to identify challenges experienced in schools in the Madibeng sub-district. Thus, the study required data on the experiences of both teachers and learners in Grade 10 Life Sciences.

The researcher obtained permission letters to access the identified schools. This process was significant in terms of ethical considerations and research principles. The researcher briefly described the study's aim and clarified key aspects to enable participants to ask questions and understand the study before agreeing to participate.

3.7.2 Data generation

Observations and in-depth interviews are commonly used as data collection instruments in qualitative research (Eyisi, 2016). These data-generation techniques allow the researcher to collect data in participants' natural settings. They also enable the researcher to collect comprehensive data on participants' lived experiences and realities. Creswell and Poth (2018) state that, in qualitative research, interviews and observations are commonly used techniques. The following data collection methods were used because they were relevant to the qualitative nature of this study.

3.7.2.1 Semi-structured interview

According to Plooy-Cilliers et al. 2021), an interview is a qualitative data-generation technique that enables the researcher to ask participants questions to learn more about their perspectives, beliefs, and opinions regarding a particular phenomenon. Plooy-Cilliers et al. (2021) further define an interview as a kind of conversation focused on obtaining information through flexible questions.

Semi-structured interviews are effective when a researcher seeks to collect qualitative data and explore participants’ experiences and beliefs about a particular topic. They are flexible in nature. According to Alshengeeti (2014), semi-structured interviews offer greater flexibility by enabling the interviewer to probe further and interviewees to expand on their responses. This implies that richer data can be obtained from participants.

Relating to the aims and objectives of this study, interviews, as a method of data collection, enabled the researcher to generate in-depth data on the phenomenon under investigation and to gain an understanding of the participants' lived experiences.

The study employed semi-structured interviews as a data-generation method because they allow for dialogue between the researcher and participants. Learners and teachers were interviewed face-to-face using semi-structured questions to obtain their perspectives on teaching and learning. The researcher used an interview schedule with six teachers and six learners from different schools. The interviews took place after school at the participants' respective schools.

The interview data were captured using audio recordings. Each interview lasted approximately 40 minutes. Short notes were taken during the recordings, and the interviews were fully transcribed verbatim shortly afterwards. This ensured that the researcher could verify participants' responses at a later stage of the study.

To ensure that the interviews were credible and trustworthy, the interview process was conducted transparently. The methods were clearly documented so that readers can understand how the data were generated. The credibility of the interviews was enhanced by asking questions that were reasonable and likely to elicit truthful accounts of participants' experiences. The process was systematic, as participants were selected according to predetermined criteria and not merely to support the researcher's pre-existing assumptions. Lastly, the use of an interview schedule enhanced consistency, as another researcher could use the same topic guide to obtain comparable information.

3.7.2.2 Lesson observations

According to Kawulich (2015), observations can be used as a qualitative data-generation method. Through observation, the researcher can understand and capture participants' natural settings and how they interact within them (Bryant, 2015). The researcher used structured observations to acquire an in-depth understanding of the study setting and to engage with participants. Observations were necessary because they allowed the researcher to triangulate data with the interviews. They linked classroom realities with the data generated through interviews. They also enabled the researcher to identify any omissions participants might have made during interviews and further strengthen the interpretations.

A total of 12 observations were conducted, with two observations per teacher. Each observation lasted approximately 40 minutes. The first observation was used to help teachers and learners adapt to the researcher's presence in their setting and become comfortable. As familiarity increased, the remaining observation was used to document classroom interactions and behaviours using an observation guideline template.

Field notes were used to document observations in the classrooms. Creswell et al. (2019) point out that observed events are represented accurately by field notes. This requires experiences to be recorded as though they are being observed for the first time. A pre-formulated observation template with predetermined headings was used to record field notes. The headings were determined from patterns identified in the literature review. In addition, the template also included a blank section for recording behaviours and events that did not align with the predetermined headings.

3.7.3 Data analysis

The researcher employed thematic analysis to analyse the data collected. Data analysis has a significant influence on the outcomes of research. Kiger and Varpio (2020) describe thematic analysis as a method used by researchers in qualitative data analysis to identify and process key concepts from a large volume of transcribed data in order to formulate themes. This implies that, in qualitative data analysis, the researcher establishes links within the collected data through classification, description and the identification of interconnections relating to the phenomenon under investigation. The researcher followed Braun and Clarke's (2006) six steps of thematic analysis, which were applied as follows:

Step 1: Becoming Familiar with the Data

The researcher read and reread the interview transcripts and the data from the observation templates to become familiar with the data before proceeding. The researcher also listened to the audio-recorded interviews and manually transcribed the recordings verbatim.

Step 2: Generating Initial Codes

The researcher organised the data meaningfully and systematically. This helped reduce a large amount of data into smaller units of meaning. The researcher determined categories to organise the data and used pseudonyms to identify participants. Organising the data was crucial for comparing variables within the data groups. Coding refers to the careful transcription of data into meaningful and systematic units (Creswell et al., 2019)

Step 3: Searching for Themes

The researcher organised the identified codes into themes that addressed the study's research questions.

Step 4: Reviewing Themes

The researcher reviewed, revised, and developed the preliminary themes identified manually. All data relevant to each identified theme were then organised accordingly. The themes were assessed to ensure that they were coherent and distinct from one another.

Step 5: Defining Themes

The researcher refined the themes and identified the essence of each theme. After finalising the themes, the researcher proceeded with member checking.

Step 6: Writing Up

The researcher compiled a report based on the analysed data, which forms part of the dissertation.

3.8 Measure of Trustworthiness

Trustworthiness is the foundation in the evaluation of the quality of research design (Lincoln & Guba, 1985). The researcher attempts to safeguard the research integrity and quality through ensuring the study’s trustworthiness (Plooy-Cilliers et al., 2021). The researcher applied the following criteria by Lincoln and Guba (1985).

3.8.1 Credibility

The study used triangulation in data generation by employing both observations and interviews to enhance validity. Triangulation refers to the use of multiple applicable data sources to establish a comprehension of a phenomenon in qualitative research (Carter, 2014). To strengthen the research design, triangulation was used, as it was suitable for the study by combining two data sources. The researcher also ensured member checking, whereby participants were given the opportunity to read and provide feedback on the transcribed interviews, analysis, and results to ensure the accuracy of the findings from their perspectives. Plooy-Cilliers et al. (2021) state that member checks increase the credibility of the study as the findings are believable from the perspective of the participants.

3.8.2 Transferability

Transferability concerns the relationship between the findings of a study and their applicability to theory and practice in similar settings (Drisko, 2025). Moon, Brewer, Januchowski-Hartley, Adams and Blackman (2016) also refer to this notion, stating that transferability can be crucial to the applicability of research findings because policy and management decisions may depend on data, conclusions and recommendations from a single study or a few studies, often drawing on evidence from contexts that may differ from the one in which the findings are applied. It is therefore crucial that researchers clearly define the contexts in which their findings may be relevant.

To support transferability, the study focused on selected schools in the Madibeng sub-district and involved both teachers and learners. The experiences and opinions of the participants do not necessarily represent those of all teachers and learners in the sub-district or the broader district. Therefore, the findings of the study cannot be generalised to dissimilar contexts and settings. The researcher provided a comprehensive description of the study context, including sufficient details about the sites of inquiry, participants and data-generation techniques, thereby allowing readers to determine the extent to which the findings may be transferable to related settings.

3.8.3 Dependability

According to Golafshani (2003), dependability in qualitative research is proximally related to reliability in quantitative research. The researcher addressed dependability by using verbatim accounts of the recorded data. The researcher transcribed exactly what the interviewees said, word for word. This sought to ensure that the collected data corresponded with what participants said or implied. The research design and its application were thoroughly described and documented to allow a future researcher to replicate the study in a similar context.

3.8.4 Confirmability

Lincoln and Guba (1985) describe confirmability as the level of neutrality to which the study's findings are moulded by the participants and not biasness from the researcher. Similarly, Connelly (2016) describes confirmability as the degree to which a study's findings are consistent and can be repeated. To achieve confirmability, the researcher used triangulation as a data-generation method to reduce investigator bias. The use

of multiple data-generation methods reduced bias and enhanced data validity. In addition, the researcher used participants' own words to generate and interpret data, employing ordinary language. Furthermore, the researcher consulted the supervisor, serving as a peer reviewer, to confirm whether the findings were supported by the data.

3.9 Ethical Considerations

The protection of the rights and welfare of participants is the responsibility of the researcher, as suggested in ethical and legal research principles (McMillan & Schumacher, 2014). Furthermore, ethical issues that may arise during the study must be anticipated by the researcher (Creswell, 2012). There are principles and standards that researchers must follow to ensure that a study remains ethical. Protecting participants by adopting relevant ethical standards is significant in research (Arifin, 2018). The credibility of a research study does not depend solely on participant selection and research strategies; it also requires adherence to research ethics (McMillan & Schumacher, 2014). In this study, the following standards were maintained to ensure integrity and credibility.

3.9.1 Obtain ethical clearance from the university's research ethics committee

Research ethics committees have to establish that research proposals follow the appropriate ethical guidelines (Ngozwana, 2018). The researcher obtained ethical clearance from the university's ethics committee. This certificate was used to apply for

permission from the Madibeng sub-district coordinator and the principals of the six sampled schools.

3.9.2 Consent and voluntary participants

Creswell et al. (2019) state that informed consent is a requirement for any research study. The researcher adhered to the ethical standards of the University of South Africa. Participants were informed that participation in the study was voluntary and based on consent, and that they had the right to withdraw at any time should they no longer wish to continue participating.

The parents or guardians of learners were requested to complete consent forms for their children. Teachers also completed consent forms indicating their willingness to participate in the study before formal participation commenced. Furthermore, learners gave verbal consent and completed assent forms before proceeding with the interview. The researcher clearly explained the study's aim, providing participants with a comprehensive understanding of what it was about and why it was important.

3.9.3 Anonymity and confidentiality

Fleming and Zegwaard (2018) state that confidentiality is a crucial component in protecting participants from potential harm. Similarly, McMillan and Schumacher (2010) state that maintaining confidentiality involves keeping participants' identities and names secret to maintain their confidentiality. The researcher ensured the confidentiality of participants' identities. Confidentiality was achieved by concealing participants' names and other personal information and replacing them with codes,

ensuring their identities were not compromised. The confidentiality of participants was preserved throughout the research project.

The researcher ensured participants' privacy and anonymity by reassuring them that the data would not be accessible to any unauthorised person. Participants were also made aware that both teachers and learners could benefit from the study through measures that may improve curriculum implementation and learner performance in Life Sciences.

3.9.4 Permission to conduct research

The researcher obtained permission from the Madibeng sub-district, the school principals, and the school governing bodies to conduct the research at the selected schools before entering the field.

3.10 Possible Limitations and Delimitations of the Study

3.10.1 Limitations

According to Theofanidis and Fountouki (2018), a limitation is a restriction that is essentially beyond the control of the researcher. In any study, research limitations are inevitable, and the researcher needs to acknowledge and document them for future research.

The design and methodological conclusions of this study were based specifically on an exploration of CAPS implementation in Grade 10 Life Sciences within schools in the Madibeng sub-district. This made the study both context-specific and subject-

specific. Therefore, extending and repeating the study would be restricted to the same subject and possibly the same school context. However, if this study were replicated in other subjects or different contexts, variations and inconsistencies might occur.

3.10.2 Delimitations

Delimitations are intentionally defined limitations by the researcher, justified as a means of controlling the scope of the study (Theofanidis & Fountouki, 2018). This study acknowledges that only a few schools were selected for data collection, and all were public schools offering Life Sciences in the science stream. Therefore, the findings may not be generalised to all private and public schools. However, they may apply to schools where Life Sciences is taught in similar contexts.

3.11 Conclusion

This chapter provided a detailed discussion and justification of the decisions taken regarding the research methodology, design and data-generation techniques used in the study. The qualitative research approach was discussed as the methodological design underpinning the study. The rationale for employing a case study method was also discussed. Furthermore, data generation, sampling, recruitment strategies, data-generation techniques and instruments were discussed and justified. Ethical considerations, measures of trustworthiness, limitations and delimitations were also discussed in detail. The following chapter presents the findings and discussion.

CHAPTER FOUR: FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents and discusses the findings on the implementation of Grade 10 Life Sciences CAPS. The discussion is organised into four interrelated themes that emerged from teachers' and learners' accounts. The first theme examines resource constraints, including inadequate LTSMs, overcrowded classrooms, limited laboratory facilities, curriculum congestion, time pressures and language-related challenges. The second theme focuses on institutional support and professional development, highlighting inconsistent school-based monitoring, irregular district support and insufficient CAPS-related training.

The third theme explores teachers' strategies, policy compliance and agency, showing how teachers attempt to implement CAPS while adapting their practices to contextual challenges. The fourth theme foregrounds learners' experiences and external support, particularly the difficulties learners face with content load, terminology, diagrams, participation, home support and study practices. Collectively, the findings indicate that CAPS implementation is shaped by the interaction between classroom conditions, institutional support, teacher agency and learner-related factors. The discussion links these findings to the relevant literature and curriculum implementation theory.

4.2 Biographical Information of Participants

Tables 1 and 2 present the biographical profiles of the study participants (teachers and learners, respectively). The information is organised according to the school at which each participant teaches, gender, highest qualification, grade, teaching experience, and learners' age. Collectively, these tables provide important contextual information for understanding the participants' professional backgrounds and their contributions to the study.

Table 4.1: Biographical summary of teachers

Site of inquiry	Participant	Gender	Highest qualification	Years of experience
School K	Teacher K	Female	BEd	4 months
School L	Teacher L	Female	BEd	1 year
School M	Teacher M	Male	BEd	5 years
School N	Teacher N	Male	BEd	3 years
School O	Teacher O	Female	BEd Honours	25 years
School P	Teacher P	Male	BEd Honours	21 years

Source: Researcher

Table 4.2: Biographical summary of learners

Site of inquiry	Learner	Grade	Age	Gender
School K	Learner 1	10	16	Male
School L	Learner 2	10	16	Female
School M	Learner 3	10	16	Female
School N	Learner 4	10	16	Female
School O	Learner 5	10	16	Female
School P	Learner 6	10	16	Male

Source: Researcher

4.3 Theme 1: Resource Constraints in CAPS Implementation

This theme highlights how material, infrastructural and pedagogical constraints shape the implementation of Grade 10 Life Sciences CAPS. Teachers' accounts reveal that inadequate LTSM, overcrowded classrooms, non-functional laboratories, curriculum congestion, time pressures and language barriers limit effective teaching, assessment and learner support. These constraints are particularly significant in Life Sciences, where conceptual understanding, practical engagement and language proficiency are essential for meaningful curriculum implementation and improved learner performance.

4.3.1 Availability and adequacy of learning and teaching support materials

The findings indicate that teachers experience significant challenges regarding the availability and adequacy of LTSMs. Participants indicated that Life Sciences requires visual representations, demonstrations, and repeated engagement with complex scientific concepts. However, some teachers reported relying mainly on textbooks and having to prepare additional notes from study guides that they had personally purchased. Participants further indicated that Life Sciences is a practical and abstract subject that requires deeper understanding and demonstrations. Teacher L's quotation directly supports the finding that limited resources constrain teachers' ability to make abstract content more accessible to learners.

> The lack of resources means we only rely on textbooks. I make additional notes from the study guides that I purchased myself. Life Sciences is a practical and abstract subject; therefore, it needs a deeper understanding and demonstrations, so when a school like mine doesn't have a variety of LTSM, it becomes a huge challenge for learners to understand things like the complex diagrams in the subjects or the scientific knowledge. (Teacher L)

The inadequacy of textbooks was also highlighted by Teacher M, who stated:

> Textbooks are sometimes not even enough, and learners are forced to share them, meaning that some learners cannot even study at home. (Teacher M)

Similarly, Teacher K indicated that textbooks alone do not sufficiently stimulate learners, explaining:

> Textbooks do not stimulate learners enough, and learners really get bored. (Teacher K)

These findings indicate that limited access to LTSM affects both learners' access to meaningful learning opportunities and their motivation to engage with Life Sciences.

The findings are consistent with Msimanga (2021), who argues that poor learner performance in Life Sciences is partly attributable to the inequitable implementation of CAPS, particularly in rural schools where resources are often inadequate. Similarly, Ramothwala and Ramila (2022) emphasise the importance of LTSMs in enhancing learner performance in Life Sciences.

However, Amos et al. (2022) offer a contrasting perspective, highlighting that poor learner performance may also be linked to teachers' inability to improvise when formal teaching resources are unavailable. Given the large number of under-resourced schools in South Africa, there is a need for teachers to adopt innovative pedagogical approaches that can support meaningful educational change in resource-constrained contexts (Ramothwala & Ramaila, 2022).

According to the curriculum implementation theory, the availability of adequate resources is one of the key pillars of effective curriculum implementation. The LTSMs play a significant role in improving the quality of teaching and learning, enhancing learner motivation, and contributing to improved academic performance. In this study, textbooks were the only form of LTSMs available to learners. The lack of variety in teaching and learning resources appeared to limit learner stimulation and negatively affect their motivation to engage with Life Sciences.

These findings suggest that LTSMs assist teachers in making abstract Life Sciences concepts more accessible and understandable to learners. Deogratias and Paulo

(2025) argue that a shortage of LTSMs disadvantages learners by limiting their academic vocabulary development, content comprehension, and ability to complete assessment activities effectively. This is consistent with the findings of this study, as it highlights the significance of LTSMs in enhancing learners' understanding of Life Sciences. Adeniran (2020) also adds that the use of LTSMs in classrooms enhances learning by encouraging learner engagement, thereby improving academic performance. Overall, these findings suggest that LTSMs stimulate learners cognitively, encourage classroom engagement, and assist learners in developing a better understanding of Life Sciences. These findings confirm existing knowledge on the positive influence of LTSMs on learner engagement and performance. The findings suggest that schools with adequate LTSMs may have higher learner engagement than schools with inadequate LTSMs. Furthermore, schools with adequate LTSMs may perform better in Life Sciences than schools with inadequate LTSMs.

4.3.2 Overcrowded classrooms and large learner–teacher ratios

Overcrowding emerged as another classroom constraint affecting CAPS implementation. Teacher K mentioned:

> Overcrowded classrooms are a major challenge because they make it difficult to give learners the individual attention they need. (Teacher K)

These findings are significant because Life Sciences learners often require individual support to understand terminology, diagrams and scientific processes. Teacher O explained the effect of overcrowding on effective teaching and practical work as follows:

> Classes are so congested. We can't teach effectively. A practical subject has experiments that are supposed to be conducted by learners... uhm, we can't conduct experiments in a class that contains 70 learners. These schools are also not equipped; some don't even have laboratories. (Teacher O)

Participants reported that overcrowding affects not only classroom management but also teachers' ability to implement the practical component of Life Sciences effectively. In this way, large learner numbers compromise both individualised support and hands-on scientific learning.

These findings were supported by classroom observations, as the number of learners in the observed classroom ranged from 48 to 59. Classrooms were overcrowded and maintaining discipline impacted teaching time. Individualised support was neglected due to the large volume and time congestion.

These findings are consistent with studies indicating that teachers have trouble providing individualised support in overcrowded classrooms (Al Mamun, Lawrie & Wright, 2020; Brown & Weber, 2022). Furthermore, Du Plessis and Letshwene (2020) argue that insufficient resources, combined with large class sizes, undermine the effectiveness of curriculum implementation in South African schools.

In this study, CAPS implementation is adversely affected by classroom overcrowding, characterised by a high learner-to-teacher ratio. This creates significant classroom management challenges, as teachers are often required to devote substantial time to maintaining discipline at the expense of effective teaching. These findings are consistent with Sholeh (2023), who argues that classroom management challenges arise when there are too many learners in a classroom. Consequently, teachers are

unable to provide individual attention, resulting in the neglect of learners' cognitive needs.

Ahmed (2024) contends that poorly managed classrooms do not foster effective teaching and learning. On the other hand, Juta and Van Wyk (2020) argue that effective classroom management and organisation promote learning and support learners' cognitive mastery of content. In addition, large class sizes hinder the effective delivery of the practical component of Life Sciences, as learners have limited opportunities to engage in hands-on scientific activities.

These findings suggest the need to maintain recommended learner-to-teacher ratios to support effective CAPS implementation.

Addressing overcrowding is therefore essential for improving the quality of teaching and learning and ensuring that learners benefit fully from both the theoretical and practical aspects of Life Sciences education.

These findings extend Rogan and Grayson's (2003) framework. The theory of curriculum implementation does not address the influence of classroom management, overcrowded classrooms and learner-to-teacher ratio on curriculum implementation. These are prevailing factors affecting the effective implementation of CAPS. As a result, teachers' decisions about putting the policy into practice in classrooms are influenced by class size. Therefore, these factors play a crucial role in learner performance and overall influence how the curriculum is implemented in schools.

4.3.3 Absence of functional laboratories and practical apparatus

The findings reveal that the absence of functional laboratories and practical apparatus limits teachers' ability to implement CAPS as intended. Teacher K stated:

> Life Sciences requires one to have practical demonstrations and proper practical apparatus, but the available laboratory is non-functional and lacks the necessary apparatus and materials. (Teacher K)

This shows that a laboratory space alone is inadequate if it is not equipped for meaningful practical work. Teacher P added:

> We don't have a laboratory, so when we have experiments, I must bring my personal computer and download a demonstration video for learners to watch and answer the questions on their papers. (Teacher P)

This assertion illustrates teacher agency in the face of inadequate infrastructure, as the teacher uses video demonstrations to compensate for the absence of a laboratory. However, this also confirms that learners may not experience hands-on experimentation. Teacher M further emphasised the importance of practical work and stated:

> Learners need to see what we are talking about and observe the processes explained in theory. (Teacher M)

These accounts demonstrate that practical resources are central to the meaningful implementation of CAPS in Life Sciences.

These findings are consistent with Chuene and Teane (2024), who emphasise that scientific demonstrations are a critical component of Life Sciences and require adequate practical resources. Furthermore, Amos et al. (2022) argue that active learner participation is essential for improving performance in Life Sciences. However, Dhurumraj and Moola (2023) present a contrasting perspective, suggesting that teachers have a responsibility to alleviate learners' cognitive challenges by simplifying scientific concepts through improvised resources. Similarly, Botes and Blennis (2025) contend that, despite inadequate resources, improvised teaching materials are fundamental for facilitating active, inquiry-based learning in Life Sciences.

The perspectives articulated above highlight the importance of both adequate resources and teacher innovation in supporting effective curriculum implementation, as articulated in curriculum implementation theory. While sufficient practical resources are crucial for meaningful scientific learning, equipping teachers with skills to improvise resources may serve as a complementary strategy for enhancing pedagogy. Together, these approaches can contribute to improved learner performance in Life Sciences.

In this study, however, schools were not adequately equipped to support scientific learning effectively. As a result, teachers relied primarily on theoretical explanations to teach concepts that would ordinarily require hands-on experimentation. Akinbadewa and Sefowora (2020) assert that rural schools are inadequately equipped to facilitate Life Sciences practical experiments. This limitation hinders learners' development of essential scientific skills, which are typically acquired through practical engagement. Consequently, learners lack adequate understanding of Life Sciences and perform poorly in scientific investigation questions (Department of Education, 2023).

The findings suggest that, despite teachers' efforts to improvise, well-equipped laboratories and sufficient practical resources remain indispensable in Life Sciences education. Moreover, learners require exposure to hands-on experiments to grasp concepts fully and demonstrate a deeper understanding of scientific knowledge. These findings suggests that to improve learners' skills in scientific knowledge, schools must be fully equipped to foster practical demonstrations and hands-on experiments. Capacitating schools with functional laboratories and apparatus may improve their understanding of scientific investigative questions and foster critical thinking.

4.3.4 Time constraints and curriculum congestion

Teachers also reported that time constraints and curriculum congestion affect their ability to teach and assess effectively. Teachers reported that because of congested timetables, they are always behind the Annual Teaching Plan (ATP) and often cannot find time to provide assessment feedback to learners. This finding shows that teachers experience tension between curriculum coverage, assessment demands and meaningful learner support.

Teacher K stated:

> There is a lot to teach while rushing over and not being able to assess learners thoroughly. (Teacher K)

The assertion above directly links curriculum congestion to inadequate learner assessment. Teacher O also noted that the time allocated to topics is insufficient and that the ATP is rarely completed without extra lessons. The need for teachers to

sacrifice their own time to reinforce content demonstrates that curriculum pacing often extends teaching beyond normal school hours.

Classroom observations supported these accounts. Teachers followed the prescribed pacing prioritising completion of the ATP; however, assessment expectations were neglected. Feedback as a crucial component of teaching and learning was significantly limited.

Onyishi and Sefotho's (2020) study aligns with the findings of this study, indicating that curriculum congestion places significant pressure on teachers because of limited time for effective curriculum implementation. Similarly, Bertram, Mthiyane and Naidoo (2021) observe that struggling learners are often left behind when teachers prioritise curriculum coverage over meaningful engagement and support.

According to curriculum implementation theory, assessment is a critical component of the construct referred to as the profile of implementation. In a well-implemented curriculum, learners are appropriately assessed in scientific subjects and are encouraged to take increasing responsibility for their own learning through meaningful assessment practices.

In the present study, teachers were found to be under immense pressure to balance curriculum coverage, assessment demands and meaningful learner support. Maremane, Rankhumise, Mafa-Theledi and Ngobeni (2022) contend that Grade 10 Life Sciences content is congested. Consequently, learners are left behind when teachers focus on keeping pace with the CAPS-stipulated timeframe (Hoffman & Maarman, 2024). Although frequent assessment and constructive feedback are

essential components of effective teaching and learning, these processes appear to be compromised by time constraints. As a result, teachers often resort to additional classes to complete the ATP.

These findings suggest that the time allocated for Life Sciences in CAPS is constrained and insufficient to support both thorough content delivery and high-quality assessment practices. Consequently, these time limitations negatively affect the quality and effectiveness of assessment in schools, potentially undermining learners' academic development. The findings confirm the importance of effective assessment on learner performance. These findings suggest that learners who receive constructive feedback may have an enhanced understanding of Life Sciences content due to the engagement with assessment activities. This highlights that constructive feedback may improve learner engagement and performance in Life Sciences.

4.3.5 Language barriers and code-switching in CAPS implementation

Language emerged as a key factor influencing the implementation of CAPS. Teachers indicated that learners' limited proficiency in English, the language of learning and teaching, affects their ability to understand Life Sciences concepts and assessment questions. Participants explained that English is not learners' mother tongue and that Life Sciences terminology is challenging because learners must pronounce, write and understand specialised scientific terms. Teacher N explained this challenge as follows:

> The challenge is that learners experience difficulties in speaking English. Uhm, science should be taught in English as it is assessed in the language. So, on that note, it is quite difficult to teach them in English, knowing they do not understand. Learners at times fail

> to answer questions they know the answers to; however, they could not understand the question itself. (Teacher N)

These findings show that language barriers may mask learners' actual conceptual understanding. In response, teachers use code-switching to support comprehension. Participants explained that because learners are mostly Setswana-speaking, they explain in Setswana and have noted that learners often reveal that they know the answer when questions are translated. Code-switching, therefore, functions as a pedagogical bridge between learners' understanding and English-medium assessment.

Observations confirmed these experiences, as there was increased learner engagement when the teacher translated the questions to Setswana. This supported the teachers' accounts that code-switching allowed learners to comprehend the questions and engage with the content in class.

These findings are consistent with Ndjangala, Abah and Mashebe (2021), who found that learners' poor performance in Life Sciences is partly attributable to limited proficiency in English as the medium of instruction. Similarly, Rogan and Grayson (2003) argue that proficiency in the language of instruction plays a critical role in determining learners' success in a subject.

In this study, teachers employed code-switching as a strategy to mitigate the challenges associated with English as the language of teaching and learning. While this approach appears to support learners' understanding during lessons, many learners still have difficulty expressing themselves in English and responding

adequately to assessment questions. Although code-switching may alleviate language barriers during classroom interaction, it may inadvertently create a gap in formal assessment contexts. Hoffman and Maarman (2024) contend that learners are consistently disadvantaged and prevented from reaching their full potential because of language proficiency barriers, particularly in reading and writing.

These findings suggest that strengthening learners' proficiency in the language of instruction is essential for improving their performance in Life Sciences. Enhancing language competence would enable learners to comprehend subject content more effectively, participate meaningfully in classroom activities and respond more accurately in assessments. The findings suggest that learners who are proficient in English may comprehend what is required in an assessment and express their responses adequately, while those who are not proficient may struggle to understand what is required of them and inadequately express their responses. Furthermore, code-switching is only advantageous in informal assessments.

4.4 Theme 2: Support and Professional Development for CAPS Implementation

This theme examines the institutional and professional support available to teachers in implementing Grade 10 Life Sciences CAPS. The findings reveal inconsistent SMT monitoring, irregular district-level support, varied teacher perceptions of monitoring, and insufficient professional development. These limitations suggest that CAPS implementation is shaped not only by teachers' classroom practices, but also by the

quality, consistency and developmental nature of leadership, curriculum support and targeted training opportunities.

4.4.1 School management team monitoring and support for CAPS implementation

Teachers' experiences of SMT monitoring varied across schools. Teacher P indicated that monitoring was not consistently practised, stating:

> In school, you must do your job and keep quiet; as long as a teacher produces good results, no one will be after you. (Teacher P)

This suggests that monitoring may be linked to performance concerns rather than continuous developmental support. Teacher K similarly stated:

> I have not had any monitoring from SMT since I came to this school, not even book monitoring. (Teacher K)

These findings indicate that some teachers may implement CAPS without systematic feedback on lesson planning, assessment practices or classroom delivery. By contrast, some participants reported that the SMT prioritises struggling teachers because of time constraints. These accounts suggest that monitoring may be inconsistent and reactive rather than consistently developmental.

These findings are consistent with Tlali and Matete (2020), whose research indicates that heads of departments are often unable to perform their roles effectively because they lack requisite skills. Similarly, Mogoshoa (2021) found that both teachers' and

learners' work is inadequately monitored, as heads of departments are frequently preoccupied with competing organisational responsibilities.

These findings also align with the principles of curriculum implementation theory, which emphasises the critical role of quality leadership in ensuring the effective functioning of schools. Strong instructional leadership is essential for promoting accountability, supporting teachers and facilitating successful curriculum delivery.

Monitoring is a core responsibility of the SMT and is intended to support teachers, enhance school functionality and ensure policy compliance. Onai and Ligembe (2022) contend that planning, monitoring, supervision and coordination are core SMT responsibilities. However, in the present study, some teachers perceived SMT monitoring as inconsistent and largely reactive rather than systematic and developmental. Eze and Chukwu (2024) argue that the significance of the SMT in ensuring curriculum implementation compliance in classrooms cannot be overemphasised. In addition, Eze (2021) argues that poor learner performance may be attributed to the SMT's failure to monitor teaching and learning. To improve learner performance, teacher development is therefore critical (Nugroho, 2024).

These findings confirm the literature by suggesting that the quality of leadership in schools may be compromised when essential functions such as monitoring are performed inconsistently. These findings highlight the importance of functional SMT and a consistent monitoring process in ensuring accountability and support for teachers. Effective and continuous monitoring practices are therefore necessary to provide meaningful support to teachers, promote professional growth and ensure sustained improvement in teaching and learning. The findings suggest that schools

with effective and continuous monitoring process may have teachers who are supported, growing professionally and improving teaching and learning.

4.4.2 District-level curriculum support and monitoring

At the district level, subject advisors were recognised as important sources of curriculum support. Teacher K explained:

> Subject advisors provide guidance on curriculum implementation, lesson delivery and assessment of learners. They should specifically conduct workshops on how to teach Life Sciences. (Teacher K)

Teacher O, however, indicated that support from subject advisors was not always regular, stating:

> Subject advisors mostly visit underperforming schools. I rarely have a visit. Last year, I never had any. (Teacher O)

Teacher N, corroborating Teacher O, also indicated:

> Subject advisor visits occurred maybe once across Terms 1 and 2. (Teacher N)

Teacher O and N's responses suggest that district monitoring may be prioritised according to school performance, leaving some teachers with limited support. The finding, therefore, suggests that district-level support is not regular enough to consistently strengthen CAPS implementation.

These findings are consistent with Ajani (2021), who found that CAPS monitoring and evaluation have been poorly implemented. In addition, Deliwe and Seabe (2022) emphasise that district monitoring of schools is a crucial component of educational

support in countries such as South Africa. By contrast, Stephen and Nyamupangedengu (2025) found that subject advisors fulfil their monitoring and teacher support duties adequately, as prescribed by policy. These differing scholarly perspectives may explain the importance of support from external agencies, such as external monitoring of curriculum implementation, in promoting accountability in schools, as described in Rogan and Grayson's (2003) framework.

In this study, irregular monitoring visits rendered external support insufficient to strengthen CAPS implementation. While all schools should be monitored, some appear to receive limited district-level support. Frequent monitoring promotes accountability; therefore, the lack of consistent monitoring in some schools suggests that teacher development and accountability may be compromised. Maphalala and Mpofu (2018) point out that monitoring systems are effective because all stakeholders are required to account for their responsibilities. The findings of this study confirm the literature by highlighting the influence of the monitoring system on the accountability of stakeholders.

These findings suggest that regular and equitable district-level monitoring is essential for strengthening CAPS implementation. Subject advisors should provide regular, subject-specific support to all schools, rather than focusing mainly on underperforming schools, to promote teacher development, accountability and improved curriculum delivery. This may improve accountability in all schools and reinforce CAPS implementation.

4.4.3 Teachers' perceptions of monitoring

The findings show that teachers do not experience monitoring uniformly. Some teachers viewed it as a form of support, while others perceived it as policing. Teacher N explained:

> Some take it personally, some take it positively and ask to be visited again, but many perceive it as policing rather than support. (Teacher N)

This quotation demonstrates that the effectiveness of monitoring depends not only on its frequency but also on how it is framed and conducted. When monitoring is experienced as punitive, teachers may become defensive and less open to feedback. Conversely, when monitoring is framed as developmental, it can support professional growth and improve curriculum implementation.

One perspective on these findings is supported by Ajani (2021), who found that some teachers view monitoring not as an assessment of progress but as victimisation. By contrast, DeMatthews et al. (2021) present a different perspective, indicating that SMTs may experience resistance from teachers when performing their monitoring duties.

In this study, there is a divergence of perceptions where some teachers perceived monitoring as a mechanism used to police them, and others regarded it as developmental and useful for strengthening CAPS implementation. Mbatha (2016) argues that frequent developmental school visits are recommended to guide and motivate teachers. Similarly, Ajibade and Ajibade (2020) contend that monitoring and evaluation positively affect the overall performance of schools, teachers and learners.

However, Osiesi (2023) found that monitoring and evaluation are perceived as insignificant in some schools. These differing scholarly perspectives may explain the variation in teachers' views regarding the importance of accountability in CAPS implementation and professional development.

These findings suggest that teachers who are receptive to regularly framed, developmental monitoring perceive it as supportive and as a crucial accountability component in teaching and learning. By contrast, teachers who view monitoring as punitive may resist the accountability that monitoring is intended to promote. The findings suggest that teachers who perceive monitoring as developmental may reflect on their teaching experiences to improve learning experiences for learners, showing accountability in their role as curriculum implementers.

4.4.4 Professional development and CAPS implementation

Professional development emerged as a significant concern. Several teachers reported that they had not received sufficient CAPS-related training after their appointment. Teacher N stated:

> Training was received only at the university, and no further training was provided on how to impart and implement CAPS. (Teacher N)

Teacher L similarly explained that they had not attended CAPS or Life Sciences training after appointment and had only received training through university methodology classes:

> I have not received any professional development since I started working. I have not attended any CAPS or Life Sciences teacher training after I got appointed. I only got teacher training at university through our methodology classes. (Teacher L)

Where professional development was available, it was sometimes regarded as insufficient or misaligned. Teacher O indicated:

> Training lasted for a day, which was just not enough to cover everything. (Teacher O)

Teacher K and Teacher P further noted that some workshops focus mainly on Grade 12 content, leaving Grade 10 teachers with limited benefit. These accounts indicate the need for regular, targeted and grade-specific professional development.

These findings are consistent with Govender and Ajani (2021), who argue that teachers' needs are often inadequately addressed through professional development initiatives. Furthermore, poor learner performance in Life Sciences has been associated with insufficient teacher training. Dhurumraj and Broadhurst (2023) affirm that strong subject content knowledge, which enables teachers to use a variety of effective teaching strategies, is developed through continuous professional development.

The curriculum implementation theory emphasises that teachers' subject knowledge is a critical factor in effective curriculum delivery, and professional development is a key mechanism for supporting improvement in this area. The literature shows that insufficiently trained teachers are one of the prevailing factors contributing to poor performance in Life Sciences (Dhurumraj & Broadhurst, 2023; Chuene & Teane, 2024).

This study reveals that some teachers reported being inadequately trained in CAPS implementation, as the training provided did not target the grades they were teaching. This is consistent with Ramos and Estrella (2024), who assert that many teachers felt insufficiently trained and poorly orientated in theory, leaving them without adequate preparation for practical classroom application. Inadequate professional development is a significant barrier to curriculum reform and implementation (Ajani, 2023). Moreover, novice teachers often enter the profession without adequate preparation for CAPS implementation and are left to navigate the complexities of classroom practice with minimal support. Skaalvik and Skaalvik (2020) affirm that teachers may feel underprepared and overwhelmed because of inadequate professional development. In addition, the first year of teaching is often difficult for teachers (Valdez & Dominado, 2020).

These findings support the literature by highlighting the need for continuous, structured and grade-specific professional development programmes that address both content knowledge and pedagogical skills. Such support is essential for enhancing teachers' competence, strengthening curriculum implementation and ultimately improving learner performance in Life Sciences. The findings suggest that improved Life Science performance and stronger CAPS implementation depend on enhancing teachers' content knowledge and pedagogical skills through grade-specific programmes.

4.5 Theme 3: Strategies and Teacher Agency in CAPS Implementation

This theme examines how teachers navigate CAPS implementation through policy compliance and contextual adaptation. The findings show that teachers follow the

ATP, assessment requirements and examination guidelines, while exercising agency to address overcrowding, time pressures and resource limitations. Such agency is evident in teacher-centred approaches, adjusted assessment practices, prepared notes, copied materials and extra lessons aimed at managing curriculum backlogs and supporting learner understanding.

4.5.1 Teacher agency and adaptation of teaching strategies

Teachers exercised agency by adapting their teaching strategies to their contexts. In resource-constrained classrooms, some teachers relied on teacher-centred methods. Teacher L explained:

> Due to the lack of resources that foster interactive learning, the teacher mostly used a teacher-centred approach. (Teacher L)

This quotation suggests that teacher-centred pedagogy is not necessarily a preferred approach, but often a response to limited resources. Teacher P similarly stated:

> Mostly, I use a teacher-centred method where I do most of the talking. When learners are overcrowded, it is a challenge to manage groups that you may think of using as a way of teaching. Rather have their attention at once and make sure that you are teaching, than having them play in their groups. (Teacher P)

Classroom observations supported these accounts, as lessons were teacher-centred. Employing this teaching method allowed the teacher to manage classroom discipline effectively due to large number of learners. Teacher-centred methods limited opportunities to extend learner interactions; however, this was because of difficulty in classroom management.

This suggests that overcrowding influences pedagogical decision-making. Teachers may use whole-class instruction to maintain order and ensure curriculum coverage, although this may reduce opportunities for learner-centred inquiry, group work and practical engagement.

These findings are consistent with Mavuru and Dudu (2020), who found that a “chalk-and-talk” approach remains dominant in the teaching of sciences in high schools, often supplemented by demonstrations and simulations to explain complex concepts. However, Dhurumraj and Moola (2023) present a contrasting view, highlighting concerns that continued reliance on teacher-centred methods may compromise learner engagement and overall learning.

The divergence in these perspectives reflects the profile of implementation construct in curriculum implementation theory, which emphasises the roles of both teachers and learners during classroom interaction. This construct underscores a shift from teacher-centred to learner-centred approaches, where learners are expected to play a more active role in the learning process.

In this study, teachers were found to rely predominantly on teacher-centred methods, driven largely by the need to complete the ATP and maintain discipline in overcrowded classrooms. Omodan and Mamaile (2024) affirm the importance of using diverse teaching methods that respond to learners’ needs. While group work and learner-centred, inquiry-based approaches have the potential to enhance learner engagement, they are often difficult to manage effectively in large classes, as they require continuous monitoring to be successful. In under-resourced schools, providing

learner-specific support is challenging because of classroom overcrowding (Al Mamun et al., 2020; Brown & Weber, 2022).

These findings suggest that overcrowded classrooms constrain teachers' ability to adopt diverse and learner-centred pedagogical strategies. As a result, teachers may default to more controlled, teacher-led approaches, even when these are less effective in promoting deep learning. Bertram et al. (2021) found that time constraints, curriculum congestion and institutional pressure discourage teachers from incorporating problem-based and cooperative learning methods. This highlights the need for contextual support, including manageable class sizes, to enable the adoption of teaching methods that are responsive to learners' needs. Smaller and manageable classrooms allow teachers to offer individualised support to their learners. Teacher are able to integrate different teaching methods to cater for their learners' needs, which may enhance their learning.

4.5.2 Assessment practices and curriculum pacing

Assessment practices were closely linked to curriculum pacing and policy compliance. Teachers reported that pressure to complete the ATP sometimes reduced opportunities for thorough assessment and feedback. Teacher K stated:

> Teachers have a lot to teach and are not able to assess learners thoroughly. (Teacher K)

This finding shows that assessment may become constrained when curriculum coverage is prioritised over consolidation and learner support. Teacher L mentioned:

> During the assessment period, the ATP has topics to cover, yet learners are writing their tests. When are you going to teach that content? We are always behind on the ATP; we are under pressure. Sometimes we cannot give feedback to learners. (Teacher L)

Observations supported these experiences. Learners were given an assessment; however, feedback was insufficient. Teachers rushed to proceed to the next topic without consolidating through assessment and constructive feedback.

These findings highlight the tension between assessment schedules and ongoing curriculum coverage. They demonstrate that teachers' agency is often exercised under conditions of pressure, as teachers attempt to balance the completion of the ATP, assessment, feedback and remediation.

These findings are consistent with Raseasala (2024), who found that ineffective transmission of educational knowledge, often resulting from a strong emphasis on content coverage, can negatively affect learners' academic performance in the long term. Similarly, Maremane et al. (2020) note that unresolved learning challenges experienced throughout the academic year contribute significantly to poor performance in Life Sciences.

In the present study, teachers reported that they struggled to assess learners adequately on previously taught content because of the need to progress rapidly to subsequent topics. However, assessment is a critical component of the teaching and learning process, as it provides valuable insights into learners' levels of understanding. Modise and Letlhoenyo (2020) affirm that teaching, learning and assessment are crucial components of an effectively implemented curriculum. Regular formative assessments allow teachers to evaluate learners' comprehension and adjust

instruction accordingly (Ghasemi & Karimi, 2021). Similarly, CAPS encourages the use of assessment in Life Sciences, as it seeks to inform learners about their strengths, weaknesses and progression, while also helping teachers and learners make decisions about the learning process and learners' progress (DBE, 2011).

These findings suggest that, for learners to develop a deep and sustained understanding of Life Sciences, ongoing assessment and consistent feedback must be integral to classroom practice. Motsoeneng and Moreeng (2022) argue that administering informal and formal assessments as a method of regular feedback enhances learning. Adequate time should therefore be allocated for assessment and remediation to ensure that learning gaps are identified and addressed before teachers progress to new content. Engaging in assessment activities may help learners familiarise themselves with the requirements and standards of formal assessment in Life Sciences.

4.5.3 Extra lessons as a strategy for addressing curriculum backlogs

Teacher agency was also evident in the use of extra lessons to address curriculum backlogs and reinforce learning. Participants reported that the time allocated for topics is a challenge and that the ATP is rarely completed without additional classes. Therefore, they sacrifice their own time to reinforce content because learners often do not study at home.

> The time allocated for the topic is another challenge. We rarely finish the ATP without extra classes. You must sacrifice your time to reinforce because these learners do not study at home. Even when you call them during weekends to complete the ATP, some don't come. You are behind with the activities and content. (Teacher O)

This account shows that teachers respond to systemic and learner-related challenges by extending teaching beyond formal school time. However, inconsistent learner attendance at extra classes limits the effectiveness of this strategy.

These findings are consistent with Raseasala (2024), who found that a tertiary site of transmission is emerging outside official school time. In this study, teachers use extra classes as a tertiary site of learning to bridge the gap created by limited teaching time, although this strategy is constrained by poor learner attendance. Schools, non-governmental organisations, institutions of higher learning and community groups can provide learner support programmes to address specific challenges that hinder learner performance (Maarman & Lamont-Mbawuli, 2017). This implies that extra classes may be successful in alleviating the pressure of CAPS pacing and reinforcing content when learner attendance is monitored. However, learners' limited participation in these interventions disadvantages them academically (Astor, Jocobson, Wrabel, Benbenishty & Pineda, 2017).

These findings suggest that extra classes should be more strictly managed as an intervention strategy to ensure effective teaching and learning during these periods. Extra lessons should also be formalised and supported in lower grades to strengthen curriculum coverage, reinforce content and improve learner performance.

4.6 Theme 4: Learner Experiences and External Support in CAPS Implementation

This theme foregrounds learners' experiences of Grade 10 Life Sciences and the external support shaping CAPS implementation. Learners' accounts show that content

overload, scientific terminology, complex diagrams and fast curriculum pacing affect understanding and participation. The findings further indicate that limited classroom engagement, sporadic parental support and weak home study practices constrain learners' ability to consolidate learning, thereby increasing dependence on classroom teaching and remedial support.

4.6.1 Learners' experiences of Life Sciences content

Learners described Life Sciences as difficult because of the volume of content, specialised terminology and diagrammatic demands. Learner 1 stated:

> The topics are difficult and take a lot of time to understand, and the diagrams are difficult. (Learner 1)

Learner 6 similarly explained how they viewed Life Sciences:

> Uhmmm, it is hard to understand because it's a lot of theory and new words each week. The biological terms are hard to remember. You cannot cram a lot of topics. Life Sciences has too much content. (Learner 6)

The difficulty of diagrams was reinforced by Learner 3, who stated:

> Although the theory may be understandable, memorising the diagram is challenging because diagrams are complicated and too many. (Learner 3)

Learner 5 linked understanding to curriculum pacing, explaining that

> …teachers are fast and teach a lot of work in one day. (Learner 5)

These assertions show that learners' experiences are shaped by content density, pacing and the visual demands of the subject.

These findings are consistent with Maremane et al. (2022), who found that the cognitive demands of Life Sciences can be challenging for learners, as they are required to comprehend complex essays, subject-specific terminology and structured content across different topics.

Learners identified multiple factors that shape their understanding in Life Sciences. The subject was perceived as dense, fast-paced and visually demanding, which further compounded learners' difficulties in mastering key concepts. Ojo and Mathabathe (2021) contend that curriculum overload remains a prevailing challenge in CAPS, as learners may struggle to complete the required work. Similarly, Sihele (2019) found that learners continue to experience difficulties in Life Sciences, with some failing the subject and others achieving low levels of performance. Ettekal and Shi (2020) argue that knowledge gaps can hinder learners' ability to understand more complex ideas.

These findings suggest that, for learners to engage with Life Sciences at a conceptual level, additional time is required for effective teaching and learning. However, the current CAPS framework appears to provide insufficient time to accommodate the depth and complexity of the subject matter. Consequently, limited instructional time may hinder learners' ability to develop a thorough and meaningful understanding of Life Sciences. Ghasemi (2022) affirms that inadequate content coverage may contribute to academic disengagement, absenteeism and dropout. The findings confirm the literature on learners perceiving Life Sciences as a cognitively demanding subject. The findings suggest that learners are overwhelmed by the subject's depth and complexity. Furthermore, CAPS pacing influences learners' understanding of Life

Sciences content. The insufficient time allocated promotes surface learning, resulting in poor performance in Life Sciences

4.6.2 Learner participation and classroom engagement

Learners' participation during lessons varied. Participants reported that they do not ask questions in class but only respond when directly called upon, indicating limited active engagement. This suggests that some learners may remain passive during lessons, even when they experience difficulties with the content. Other learners reported asking questions, although this did not always guarantee understanding.

> Yes, I do ask questions in class, but I would still not understand. (Learner 3)

Observations showed that learners are not actively engaging in class but respond when called upon directly. Other learners asked questions; however, the teacher did not follow up on the engagement to develop understanding. This indicates that learner participation must be encouraged by clear explanations, feedback, revision and opportunities for reinforcement.

These findings are consistent with Frazenburg and Mabalane (2022), who found that narration and interaction are often kept to a minimum because some teachers lack sufficient knowledge of CAPS. In addition, Netshivhumbe and Mudau (2021) contend that learners show limited understanding of, and interest in, science subjects.

In this study, some learners did not participate sufficiently to develop understanding, while others perceived their participation as inadequate for mastering Life Sciences content. Adamu and Sirajo (2023) argue that teachers' methods and classroom management influence learner participation. This implies that, while some learners

may show limited interest in the subject, others actively seek clearer explanations through classroom participation. Motivation also affects learners' attention, effort and participation (Baten, Vansteenkiste, Muynck, De Poortere & Desoete, 2020). However, learner engagement may be limited when teachers do not sufficiently support classroom discussions. Learners are more engaged in supportive classroom environments (Ghasemi, 2022).

These findings suggest that cooperative learning and interactive activities may improve learner engagement and content understanding. Learners' motivation and performance can also be enhanced through autonomy and self-directed learning opportunities. The findings suggest that the use of diverse teaching methods influences learner engagement and promotes independent learning. Critical thinking is enhanced when learners engage in the classroom, resulting in improved academic performance.

4.6.3 Home support and learners' academic engagement

The findings further suggest that learners receive varying levels of home support. Learner 3 explained that parents may be present at home but not actively involved in studying, stating that they are "in the house busy with other stuff and not really assisting with studying". On the other hand, Learner 4 described a limited form of supervision, stating that "sometimes my mom just sits at the table while I am on my books". This suggests that physical presence at home does not necessarily translate into academic support. These accounts suggest that home support may be observational rather than academically engaged. In a demanding subject such as Life

Sciences, limited home-based academic support may affect learners' ability to revise terminology, practise diagrams and consolidate classroom learning.

Learners in this study were found to lack adequate academic support from their parents, despite parents being physically present during designated study times. Owing to time constraints and teachers' efforts to complete the ATP, learners are expected to take greater responsibility for revising and consolidating content covered in class. Adamu and Sirajo (2023) argue that family and home support motivate learners. However, the complexity of Life Sciences necessitates additional support, particularly in monitoring and guiding learners' independent study. Budhrani, Martin, Malabanan and Espiritu (2021) maintain that parents should monitor and assist learners with their schoolwork.

These findings suggest that parental involvement plays a critical role in enhancing learners' understanding of Life Sciences. Active parental support, particularly in supervising study routines and reinforcing learning at home, can significantly contribute to the improvement of learner engagement and academic performance. Learners with stronger study routines can reinforce learning at home, and this may improve their engagement and performance. Furthermore, parental involvement positively influences learner performance.

4.6.4 Home study practices and learner responsibility

Learners reflected on their own study practices. One learner reported that Life Sciences requires substantial time to study at home, but competing homework demands often mean that they end up just writing and not studying.

> Uhmmm, if I am honest, I don't have the time at home. There is a lot of homework to do, so I end up just writing and not studying. (Learner 4)

Learner 1 similarly explained when they study Life Sciences at home:

> I study when I am looking for answers for my homework and when we have exams. When there is no assessment, I rarely study. (Learner 1)

These findings indicate that learner responsibility and home study routines are important external factors in CAPS implementation. Where learners are unable to revise regularly, classroom teaching carries a greater burden in supporting understanding and retention.

These findings are consistent with Rogan and Grayson (2003), who assert that learners' capabilities are influenced by the external factors related to their homes. In this study, learners have the responsibility to consolidate their learning at home and not just write the given work without understanding. Bernstein (2003) argues that effective transmission requires school teaching and learning to be aided by learning at home. This implies that when learners cannot study at home to strengthen their understanding of Life Sciences, they will always be behind in class. Content coverage may be affected because of learners' unpreparedness and inability to consolidate their learning at home. Ghasemi and Karimi (2021) contend that instructional practices are modified in accordance with learners' academic preparedness, consequently resulting in the postponement of curriculum completion. Therefore, when some learners are behind in the classroom, and others are prepared because of their home study practices, the imbalance demands remedial interventions. Remedial education makes

curriculum goals challenging for teachers in academically heterogeneous classrooms (Ettekal & Shi, 2020).

These findings suggest that learning at home is a significant external factor influencing the effectiveness of CAPS implementation. Learners who are able to take responsibility of their learning at home can reinforce content and improve their understanding of Life Sciences. Conducive home learning environment allows learners build on their understanding and engage with the content promoting deeper learning. Developing functional home study practices may assist in improving learners' performance in Life Sciences.

4.7 Conclusion

Overall, the findings show that the implementation of Grade 10 Life Sciences CAPS is shaped by a combination of classroom, institutional, pedagogical and learner-related factors. Teachers demonstrate commitment to CAPS implementation by using the CAPS document, ATPs and examination guidelines. However, implementation is constrained by inadequate LTSMs, overcrowded classrooms, limited laboratory resources, curriculum congestion and language barriers.

The findings further show that institutional support and professional development are inconsistent. Monitoring may be absent, selective or perceived as punitive, while professional development is often limited, insufficiently targeted or focused on Grade 12 rather than Grade 10. In response to these constraints, teachers exercise agency by preparing notes, using alternative resources, adapting teaching strategies, code-switching and offering extra lessons. Learners' accounts confirm that Life Sciences is

experienced as demanding because of its content load, terminology, diagrams and pace. Strengthening CAPS implementation, therefore, requires improved resourcing, functional laboratories, consistent developmental support, targeted professional development, language-responsive pedagogy and stronger learner support systems.

CHAPTER FIVE: SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Summary of the Study

This section summarises the research study's findings by linking the identified themes to the research questions. It also presents the derived conclusions, recommendations, limitations of the study and suggestions for future research. The following four themes emerged from the present study:

- Resource constraints in CAPS implementation
- Support and professional development for CAPS implementation
- Strategies and teacher agency in CAPS implementation
- Learner experiences and external support in CAPS implementation

5.1.1 Resource constraints in CAPS implementation

The findings of the present study revealed that CAPS implementation in Grade 10 Life Sciences was significantly hindered by several challenges. These findings were discussed in detail under the following five sub-themes:

1. Availability and adequacy of LTSMs
2. Overcrowded classrooms and large learner–teacher ratios
3. Absence of functional laboratories and practical apparatus
4. Time constraints and curriculum congestion
5. Language barriers and code-switching in CAPS implementation

This study found that participants regarded adequate resources as essential pillars of CAPS implementation, particularly in Life Sciences, as they improve the quality of teaching and learning. Resource constraints, such as a lack of adequate, functional laboratories, together with language barriers, hindered learners' understanding of Life Sciences and their classroom engagement. Teachers indicated that managing large numbers of learners in classrooms resulted in the loss of instructional time within an already congested curriculum and a limited timeframe. These findings imply that, to improve learner performance in Life Sciences and strengthen CAPS implementation, schools need adequate resources and learners' language barriers should be addressed.

5.1.2 Support and professional development for CAPS implementation

The findings of the study revealed the important role of support and professional development in CAPS implementation. These findings were discussed under the following four sub-themes:

1. School Management Team monitoring and support for CAPS implementation
2. District-level curriculum support and monitoring
3. Teachers' perceptions of monitoring
4. Professional development and CAPS implementation

The present study showed that some teachers had not received CAPS training, while those who had considered it insufficient for effective CAPS implementation. CAPS monitoring by the SMT and the district was found to be sporadic. Teachers perceived this monitoring as either supportive and developmental or punitive. This suggests that,

for teachers to implement CAPS effectively, teacher training must be continuous, effective and grade-specific. In addition, CAPS monitoring should be regular and equitable in order to improve curriculum implementation and promote accountability in schools.

5.1.3 Strategies and teacher agency in CAPS implementation

The findings of the present study revealed that, despite the challenges hindering CAPS implementation, teachers implemented CAPS in accordance with policy guidelines. These findings were discussed in detail under the following three sub-themes:

1. Teacher agency and adaptations of teaching strategies
2. Assessment practices and curriculum pacing
3. Extra lessons as a strategy for addressing curriculum backlogs

The study found that teachers predominantly relied on teacher-centred methods as a strategy to complete the ATP and maintain discipline in overcrowded classrooms. Owing to the congested curriculum and time constraints, assessment practices were compromised. To mitigate this challenge, teachers used extra classes. These findings suggest that intervention strategies should be formalised to reduce the tension between curriculum coverage, assessment and learner performance.

5.1.4 Learner experiences and external support in CAPS implementation

The findings of the study showed that learners' experiences and external support impacted CAPS implementation. Learners' understanding of Life Sciences was

positively influenced by external support. These findings were further clarified by the following sub-themes:

1. Learners' experiences of Life Sciences content
2. Learner participation and classroom engagement
3. Home support and learners' academic engagement
4. Home study practices and learner responsibility

The present study revealed that learners found Life Sciences difficult, dense and visually demanding. The study showed that learners struggled to comprehend the subject in the classroom. In addition, learner engagement in class could help develop a deeper understanding of Life Sciences when supported by explanations, feedback, revision, and reinforcement opportunities. Furthermore, home support and study practices that promote learning were largely absent, creating an additional burden on knowledge acquisition in the classroom.

5.2 Recommendations

Based on the findings of this study, the following recommendations are proposed to strengthen the implementation of CAPS in Grade 10 Life Sciences.

5.2.1 Recommendation 1: Review of CAPS pacing

The DBE should review the pacing of the Grade 10 Life Sciences CAPS to ensure that it accommodates the diverse contexts in which the curriculum is implemented. Particular attention should be given to under-resourced and dysfunctional schooling contexts where curriculum congestion and time constraints hinder effective

implementation. Policymakers should conduct further research to identify practical strategies to address curriculum overload and support effective curriculum coverage.

5.2.2 Recommendation 2: Provision of adequate resources

The DBE, provincial education departments and SMTs should ensure that schools are adequately resourced to support the effective implementation of Grade 10 Life Sciences. This should include the provision of LTSMs, functional laboratories and practical apparatus. Teachers should also be trained in resource improvisation to support effective teaching and learning in contexts where resources remain limited.

5.2.3 Recommendation 3: Continuous professional development

The DBE and district officials should provide continuous, grade-specific and CAPS-related professional development for Life Sciences teachers. Such training should focus on content knowledge, assessment practices, curriculum pacing and practical work. Subject specialists should provide regular support to all teachers, particularly novice teachers. Schools should also establish functional professional learning communities to promote collaboration, team teaching and the sharing of effective teaching strategies.

5.2.4 Recommendation 4: Consistent monitoring and support

School Management Teams (SMTs) and district officials should provide regular, equitable and developmental monitoring of CAPS implementation. Monitoring should not be perceived as punitive, but as a supportive process aimed at improving teaching practice and strengthening accountability. SMT members and district officials should

also be capacitated on CAPS monitoring requirements to ensure that monitoring is implemented effectively and consistently.

5.2.5 Recommendation 5: Strengthening learner and parental support

Schools should encourage learners to form small study groups with classmates who live nearby in order to strengthen home study practices and peer learning. Parents should also be encouraged to become more involved in their children's education by monitoring schoolwork, supporting study routines and communicating regularly with teachers. This may help to improve learner engagement and performance in Life Sciences.

5.2.6 Recommendation 6: Formalisation of extra lessons

Schools should formalise the extra lessons currently offered by teachers to address curriculum backlogs and support learner performance. This initiative should be planned, monitored and supported by SMTs, parents and relevant stakeholders to ensure learner attendance, sustainability and effectiveness.

5.2.7 Recommendation 7: Language support programmes

Schools, with the support of district officials, should develop language improvement programmes to enhance learners' proficiency in the language of teaching and learning. These programmes should support learners' understanding of Life Sciences terminology, concepts and assessment requirements.

5.2.8 Recommendation 8: Reduction of overcrowded classrooms

The DBE and provincial education authorities should address overcrowding in classrooms to support effective CAPS implementation. A learner–teacher ratio of 1:30 should be prioritised to create conditions that allow for meaningful learner participation, effective assessment, classroom management and individual learner support.

5.3 Suggestions for Further Research

The following suggestions are proposed for future research:

- This study was subject- and context-specific, as it focused on exploring CAPS implementation in Grade 10 Life Sciences in the Madibeng sub-district. Future research could extend the study by investigating CAPS implementation in different subjects, grades and educational contexts.
- A comparative study on CAPS implementation across multiple contexts could be conducted to investigate the extent of implementation in well-resourced and under-resourced schools.
- A study to investigate the tension between code-switching as a pedagogical bridge and English-only formal assessment.

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APPENDICES

APPENDIX A: RESEARCH STUDY INFORMATION SHEET



Project Title: **THE IMPLEMENTATION OF THE CURRICULUM AND ASSESSMENT POLICY STATEMENT IN GRADE 10 LIFE SCIENCES IN MADIBENG SUB-DISTRICT: AN EXPLORATORY STUDY**

Project leader: Lindokuhle Rose Moloi

Contact details: 0822327639, 24638854@mylife.unisa.ac.za

Dear Prospective Participants

My name is Lindokuhle Moloi, a principal investigator. I'm doing research towards a Master of Education degree with the UNISA. My supervisor is Dr Phiwayinkosi Gumede from the Department of Instructional and Curriculum Studies. I would like to invite you to participate in a research study on the Implementation of the Curriculum and Assessment Policy Statement in Grade 10 Life Sciences.

What is the purpose of the study?

I am conducting this research to explore the implementation of grade 10 Life Sciences CAPS in Madibeng Sub-District.

Why am I being invited to participate?

You are voluntary chosen to participate, because this study deals with the matter that occurs in the classroom during teaching and learning. Teachers and SMT will offer significant and valuable information regarding this study, since you know how this study can benefit curriculum for the future generation.

Do I have to take part in the study?

No, Participation is voluntary therefore, it is up to you to decide whether to participant or not. At the end of this study information sheet you will then be ask to sign the consent form if you agree to take part in this study you will then be ask to sign.

What will happen if I want to withdraw from participation?

If you decide to take part in this study, you are more than welcome to withdrawn at any time without any giving reason or consequences. If you feel you are no longer interested to take part or withdraw your consent, please update me so that I can be aware.

Will my participation be kept confidential in this study?

Yes, all information provided by the participants including their personal information will be kept confidential and respect their right to privacy, I will not disclose your personal information. I will make use of numbers or letters referring or replacing a person's name, e.g. Teacher 1 or HOD1.

What will happen to the research results of this study?

The results will be written in the research report and discussion that will be assessed by my supervisor, in some cases, these results may also be published in a specific journal, you are free to contact me if you would like to see or read the results.

If you choose to participate, will there be any expenses for me, or payment due to me?

You will not get paid for taking part in this study and you will not bear any expenses.

Any risk for participation in the study?

No risk that may occur for participating in this study, its only question and answer.

How will the researcher(s) protect the security of data?

Hard copies of your answers will be stored by the researcher for a minimum of 3 years and electronic copies will be deleted from computer or laptop.

I thank each and every one of you for taking time in reading this study information sheet and participating in this study.

Thank you

UNISA university of south africa

APPENDIX B: INFORMED CONSENT TO PARTICIPATE IN THE STUDY

I_____, hereby voluntarily consent to participate in the following project, The Implementation of the Curriculum and Assessment Policy Statement in Grade 10 Life Sciences. I confirm that the person asking me to take part in this study have explained the nature of the study.

- I have read and understood the study as explained in the study information sheet.
- I understand that my participation in the study is voluntary therefore; I can withdraw at any time without providing reasons.
- I understand that the findings of the study will be processed into a research report or journal publication.
- I have received a signed copy of the informed consent agreement.

Participant name and surname…….

(Please print)

Participant signature……. ……..Date ……

Researcher’s name and surname: Lindokuhle Moloi

Researcher’s signature …….. Date ……

UNISA university of south africa

APPENDIX C: INTERVIEW QUESTIONS FOR TEACHERS

The implementation of the Curriculum and Assessment Policy Statement in grade 10 Life Sciences.

Interview guide for Grade 10 Life Sciences Teachers.

Participant background

(Greetings and exchanging pleasantries)

- What is your highest qualification?
- Which grades are you currently teaching?
- How many classes in total are you teaching?
- How long have you been teaching Life Sciences?
- Did you major in Life Sciences in tertiary?

Interview questions

CAPS

- How would you describe CAPS?

- What are the challenges facing CAPS?
- What are the strategies you use in your classrooms to effectively integrate guidelines into your teaching practices?
- Did you receive any training relating to the implementation of CAPS?
- How did the training benefit you as a teacher?
- Who conducted the training?

Life Sciences

- What challenges do you experience when teaching Life Sciences?
- What is different about teaching Life Sciences compared to other subjects?
- Do you offer extra lessons?
- Is the programme effective?
- Who is responsible for facilitating the programme?

Support in place

- In your view, what is the role of SMT and subject education specialist respectively?
- Do you have class visits in your school?
- How often do the SMT and subject education specialist conduct Professional Seminar Forums?

APPENDIX D: PERMISSION FROM THE DISTRICT

Lindokuhle Rose Moloi

4350 Mokgethi Street Unit 4

Ga-rankuwa

0208

0822327639

To,

Madibeng Local Education Office

30 Van Velder Street

Brits

0250

Subject: **REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN SCHOOLS**

Dear Sir/Madam

My name is Lindokuhle Moloi, I am doing research towards the fulfilment of the requirement of Master of education degree with the University of South Africa (UNISA) under the supervision of Dr P.R Gumede.

I am writing to request a permission to conduct the study entitled **The Implementation of the Curriculum and Assessment Policy Statement in grade 10 Life Sciences in Madibeng Sub-district.**

The aim of this research is to explore the implementation of grade 10 Life Sciences CAPS, to help us achieve the following objectives of the study.

- To identify the challenges teachers experience when implementing Life Sciences CAPS in their grade 10 classrooms.
- To examine the measures of support offered by SMT and subject specialists in putting policy into practice
- To explore the strategies teachers use to effectively integrate the Curriculum and Assessment Policy Statement guidelines into their teaching practices
- To collect an account on learners' experiences on the implementation of CAPS.

This study will not be entitled to any risk. Data will be collected using interviews and observations. I will also provide the schools with study information sheet and consent form for participate in the study. Upon completion of the study, I undertake to provide the Department of Education with a bound copy of my full

research report. If you require any further information, please do not hesitate to email me on u16289502@tuks.co.za

Yours sincerely,

Lindokuhle Moloi

UNISA university of south africa

APPENDIX E: LEARNERS' INTERVIEW

The implementation of the Curriculum and Assessment Policy Statement in grade 10 Life Sciences.

(Greetings and exchanging pleasantries)

General questions

- What grade are you currently in?
- What subject combination are you doing?
- How old are you?

Classroom interaction with Life Sciences

- What is your experience in understanding what the teacher is teaching in class during Life Sciences period?
- Do you often need further explanation from what the teacher is teaching in class?
- Do you manage to ask questions in class when you do not understand?
- What is most difficult in studying Life Sciences as compared to other subjects?
- How often do you give yourself time to study Life Sciences at home?

- Do you have extra classes for Life Sciences in your school?
- How do you catch up when you have missed school work?

Parental involvement and Home practices

- Who do you stay with at home?
- What is your parents' occupation?
- Are your parents helping you at home when you have school work?
- Do you have anyone else helping you with your school work at home?
- Do your parents supervise you when you study at home?
- Do your parents check your books regularly at home?

APPENDIX F: ASSENT LETTER

Title of your research: THE IMPLEMENTATION OF CURRICULUM AND ASSESSMENT POLICY STATEMENT IN GRADE 10 LIFE SCIECES IN MADIBENG SUB-DISTRICT: AN EXPLORATORY STUDY

Dear _____ Date _____

I am doing a study on THE IMPLEMENTATION OF CURRICULUM AND ASSESSMENT POLICY STATEMENT IN GRADE 10 LIFE SCIENCES as part of my studies at the University of South Africa. Your principal has given me permission to do this study in your school. I would like to invite you to be a very special part of my study. I am doing this study so that I can find ways that your teachers can use to teach you better. This may help you and many other learners of your age in different schools.

This letter is to explain to you what I would like you to do. There may be some words you do not know in this letter. You may ask me or any other adult to explain any of these words that you do not know or understand. You may take a copy of this letter home to think about my invitation and talk to your parents about this before you decide if you want to be in this study.

I would like to ask you questions. Answering the questions will take no longer than 40 minutes.

I will write a report on the study but I will not use your name in the report or say anything that will let other people know who you are. Participation is voluntary and you do not have to be part of this study if you don't want to take part. If you choose to be in the study, you may stop taking part at any time without penalty. You may tell me if you do not wish to answer any of my questions. No one will blame or criticise you. When I am finished with my study, I shall return to your school to give a short talk about some of the helpful and interesting things I found out in my study. I shall invite you to come and listen to my talk.

The benefits of this study are improve learning and teaching in schools by adequately supporting teachers through the implementation of CAPS in their classrooms in order to improve learners' performance in Life Sciences.

Potential risks are none

You will not be reimbursed or receive any incentives for your participation in the research.

If you decide to be part of my study, you will be asked to sign the form on the next page. If you have any other questions about this study, you can talk to me or you can have your parent or another adult call me at 0822327639 Do not sign the form until you have all your questions answered and understand what I would like you to do.

Researcher: MOLOI LINDOKUHLE Phone number: 0822327639

Do not sign the written assent form if you have any questions. Ask your questions first and ensure that someone answers those questions.

WRITTEN ASSENT

I have read this letter which asks me to be part of a study at my school. I have understood the information about my study and I know what I will be asked to do. I am willing to be in the study

_____ _____ _____

Learner's name (print): Learner's signature: Date:

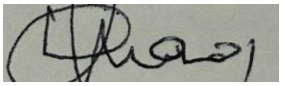
_____ _____ _____

Witness's name (print) Witness's signature Date:

(The witness is over 18 years old and present when signed.)

_____ _____ _____

Parent/guardian's name (print) Parent/guardian's signature: Date:



MOLOI LINDOKUHLE 03/02/2025

Researcher's name (print) Researcher's signature: Date:

APPENDIX G: OBSERVATION TEMPLATE

LESSON OBSERVATION GUIDE

Date	
Number of learners in the classroom	
Lesson topic	
Lesson duration	
Activity	

The profile of implementation will be observed through the observations of the lessons in the classroom.

SUB-CONSTRUCT	QUESTIONS	COMMENTS
CLASSROOM INETRACTION	Is the usage of textbook appropriate? Is there a correlation between the lesson plan and the lesson presentation? Were there any other use of LTSM's in during the lesson? Is there a link between prior knowledge and the present lesson? Is there an engagement from learners during the lesson?	

ASSESSMENT	Is there an appropriate usage of assessment during the lesson? Does the activity address the cognitive demands of learners? Is there a variety of questioning in the activity? Do learners engage to the questions? Does the teacher guide the learners through the activity?	

APPENDIX H: TURNITIN REPORT

Similarity Report

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