

***EXPLORING TEACHING STRATEGIES USED BY TEACHERS
IN MULTI-GRADE CLASSROOMS IN
RURAL SETTINGS IN THE UMLAZI DISTRICT***

BY

SERVICE ZANDILE MNYANDU

STUDENT NUMBER: 207524512

***This thesis is submitted in
partial fulfilment of the requirements for the
Masters of Education degree
in the Discipline of Curriculum Studies***

***School of Education
College of Humanities,
University of KwaZulu-Natal***

Supervisor: Professor Nyna Amin

January

2020

DECLARATION

I, **Service Zandile Mnyandu** declare that,

- A. The research reported in this thesis, except where otherwise indicated, and is my original work.
- B. This thesis has not been submitted for any degree or examination at any other university.
- C. This thesis does not contain any other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- D. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - i. Their words have been re-written but general information attributed them has been referenced;
 - ii. Where I have reproduced a publication of which I am an author, co-author or editor, I have indicated in detail which part of the publication were actually written by myself alone and have fully referenced such publications.
- E. Where I have reproduced a publication of which I am the author, co-author or editor. I have indicated in detail which part of the publication was actually written by myself alone and have fully references such publications.
- F. This thesis does not contain text, graphics or tables copied and pasted from the internet, unless specifically acknowledged, and the source being detailed in the thesis and in the references section.

Signed -----

Date -----

Statement by the supervisor:

This thesis is submitted with my approval.

nyna amin

Signed

04 September 2020

Date

ACKNOWLEDGEMENTS

I wish to thank God for granting me with the fortitude to pursue my studies through so many awkward times that I nearly quit for several times. I would like to acknowledge and convey my sincere appreciation to the University of KwaZulu-Natal, and the School of Education for offering me an opportunity to engage in a Master's degree. I entrust this work to my enthusiastic, admired and diligent supervisor, Professor Nyna Amin who truly understood my individuality, expending her time to guide me, and inspiring me to accomplish my goals. She supported me all the way to the end of my journey. I would like to express a word of gratitude to the language editor of the thesis, Deanne Collins who guided me with the proposal and the Masters thesis. She gave relevant comments and positive support, and encouraged me to deal with all the circumstances on my journey. I would also like to thank the research office administrators for their humility and the curriculum studies lecturers who played a crucial role in laying down a credible and solid foundation for my studies.

I give thanks to my loving family, my dearest husband for spiritual support, and for ensuring that I had a computer of quality, providing money to buy textbooks and for fulfilling my personal aspiration to complete this study. To my four daughters, Nqobile, Thando, Sphelele and Siphosethu, thank you for your love, kindness and perseverance. You opted to stay at home for so many years, urging me to work diligently towards completing my studies. Nqobile, I thank you for assisting me to obtain the computer skills that enabled me to work independently with pride. Sphelele, thank you for doing printing and administration work. Thando and Siphosethu, thank you for being my emotional supporters and making me pull through adversities around the study. To my mother, thank you for guiding me to become a teacher and to fulfil your wish for me to be a professional you could not be. I know that my success is your success. You encouraged me to fulfil your goal. Finally, I would love to acknowledge my friends who assisted me. They sacrificed their time and effort during the study, namely, Makhosazane Shange, Nozipho Zuma, Mafumane Morojele, and Nonhlanhla Donsa.

DEDICATION

This thesis is dedicated to my late Dad, Johannes, and my mother, Nomandla Zindela, my husband, Nicholas Mnyandu, my son, Ntuthuko, and my four daughters, Nqobile, Thando, Sphelele and Siphosethu who encouraged and motivated me to accomplish my goal even when things were contrary to my understanding. They trusted me to not tire until I reached the end of the race. I would not forget to thank you on my journey.

ABSTRACT

This study illustrates the curriculum strategies used by teachers in the multi-grade classroom in rural settings. Two schools practising multi-grade teaching were identified to generate data related to the phenomenon reviewed under study, using the qualitative interpretive case study approach of four multi-grade teachers in the Umbumbulu area of the Umlazi District. The data was generated by using semi-structured interviews and focus group discussion for the research study. Purposeful and convenience selection was used to choose the most valuable and obtainable participants. The study analyses multi-grade teachers' experiences of navigating how they teach in the multi-grade classroom.

The following strategies were identified in the literature: (1) Mixed/multi-age classroom arrangements. (2) Quasi-mono-grade models. (3) Learner-centred approaches in multi-grade classrooms (4) Peer instruction in multi-grade classrooms. The findings from the multi-grade teachers' experiences identified the challenges that arise within the school and the community concerning the dwindling of learner numbers and the multi-teaching of different grades in one classroom under one teacher's instruction. The findings detected suggestions in the curriculum planning that needs close attention by the Department of Basic Education curriculum planners particularly in multi-grade classrooms that seems to be unattended to at the macro-level. The findings recommend the empowering of mono/multi-grade teachers and parents on how to build rapport amongst them and to learn to work together to improve the children's progress. Further, they have to understand that the significance and the presence of multi-grade schools in the vicinity is meant for the benefit of learners and to support society.

LIST OF ACRONYMS

ANA	: Annual National Assessment
ATP	: Annual Teaching Plan
BED	: Bachelor of Education
CAPS	: Curriculum and Assessment Policy Statement
CMGE	: Centre of Multi-grade Education
DBE	: Department of Basic Education
DoE	: Department of Education
EFA	: Education for all
BA	: Bachelor of Arts
GET	: General Education and Training
KZN	: Kwa-Zulu Natal
PPN	: Post Provision Norm
PTC	: Primary Teachers Course
PTD	: Primary Teachers Diploma
UNESCO	: United Nations Educational Scientific Cultural Organisation

TABLE OF CONTENTS

Declaration	(i)
Acknowledgements	(ii)
Dedication	(iii)
Abstract	(iv)
List of acronyms	(v)
Table of contents	(vi)
List of tables	(xi)

CHAPTER ONE:

<i>OVERVIEW OF THE STUDY</i>	1
1.1 Introduction	1
1.2 Project title	1
1.3 Objectives of the study	1
1.4 Background of the study	1
1.5 Rational to the study	3
1.6 Location of the study	4
1.7 Critical research question	4
1.8 Limitations of the study	5
1.9 Structure of the dissertation	5
1.10 Chapter summary	6

CHAPTER TWO

<i>LITERATURE REVIEW</i>	8
2.1 Introduction	8
2.2 Challenges of teaching in rural schools	8

2.3 Multi-grade teaching -----	9
2.3.1 The importance of multi-grade teaching in rural schools -----	10
2.3.2 The philosophy of multi-grade teaching -----	11
2.3.3 Theories of multi-grade teaching -----	12
2.3.4 Practices of multi-grade teaching -----	13
2.3.5 Advantages of multi-grade teaching -----	14
2.3.6 Disadvantages of multi-grade teaching -----	14
2.3.7 Critique of multi-grade teaching -----	15
2.3.8 Strategies for multi-grade classrooms -----	16
2.3.8.1 Mixed/multi-age classroom strategies - -----	16
2.3.8.2 Quasi –mono-grade model -----	16
2.3.8.3 Learner-centred approach in the MG classroom -----	17
2.3.8.4 Peer instruction in the multi-grade classroom -----	17
2.3.9 Curriculum concerns and opportunities related to MG teaching -----	18
2.3.10 Teachers’ views on multi-grade teaching -----	19
2.4 Theoretical framework -----	19
2.4.1 Concepts of multi-grade teaching -----	20
A. Cognitive effects of MG teaching -----	20
B. Non- cognitive effects of MG teaching -----	21
2.4.2. The relationship between the cognitive and non-cognitive -----	21
effects of multi-grade teaching.	
2.5. Chapter summary -----	22

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY -----	23
3.1 Introduction -----	23
3.2 Research design -----	23
3.3 Research methodology -----	24
3.3.1 Interpretive paradigm -----	25
3.3.2 Case study as the research methodology -----	25
3.4 Selection of participants -----	26
3.5 Data generation methods -----	32
3.5.1 Semi-structured interviews -----	32
3.5.2 Focus group discussion -----	33
A. Advantages of focus group discussion -----	33
B. Disadvantages of focus group discussion -----	34
3.6 Data analysis -----	35
3.7 Trustworthiness and credibility of data -----	35
3.8 Ethical considerations -----	36
3.9 Limitations of the study -----	37
3.10 Chapter summary -----	37

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION -----	38
4.1 Introduction -----	38
4.2 A snapshot profile of the participants -----	39

4.3 Data presentation analysis and interpretation -----	39
4.4 Thematic analysis -----	40
4.4.1 Theme 1: The multi-grade classroom -----	40
4.4.2 Theme 2: Content presentation in the MG classroom -----	42
4.4.3 Theme 3: Managing learning in the MG context -----	44
4.4.4 Theme 4: Meeting CAPS requirements in the multi-age classes -----	46
4.4.5 Theme 5: Utilization of a constructive plan in diverse classes -----	48
4.4.6 Theme 6: Learner and teacher evaluation in the MG classroom -----	50
4.4.7 Theme 7: Parental support -----	52
4.4.8 Theme 8: Developmental support received for MG teaching -----	53
4.5 Chapter Summary -----	55

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS -----56

5.1 Introduction -----	56
5.2 Summary of the findings -----	56
5.2.1 Multi-grade classroom -----	56
5.2.2 Presentation of content in the MG classroom -----	56
5.2.3 Managing learning in the MG context -----	57
5.2.4 Meeting CAPS requirements in the multi-age classes -----	57
5.2.5 Utilization of a constructive plan in diverse classes -----	57
5.2.6 Learner and teacher evaluation -----	58
5.2.7 Parental support -----	58

5.2.8 Developmental support for MG teaching -----	59
5.3 Suggestions for further research -----	59
5.4 Recommendations -----	59
5.4.1 First Recommendation -----	59
5.4.2 Second Recommendation -----	59
5.4.3 Third Recommendation -----	60
5.4.4 Fourth Recommendation -----	60
5.4.5 Fifth Recommendation -----	60
5.4.6 Sixth Recommendation -----	60
5.4.7 Seventh Recommendation -----	60
5.4.8 Eighth Recommendation -----	60
5.5` . Chapter summary -----	61
 REFERENCES -----	 62
 APPENDIXES -----	 73
Appendix One (Letter for principals of schools) -----	73
Appendix Two (Informed consent letter) -----	75
Appendix Three (Declaration letter for principals) -----	77
Appendix Four (Declaration letter for participants) -----	78
Appendix Five (Participants information sheet) -----	79
Appendix Six (Semi-structured interview schedule) -----	80
Appendix Seven (Focus Group Discussion) -----	81

List of Tables

3.1 Participants' profiles -----	28
3.2 Grade Combinations in Funulwazi primary -----	29
3.3 Teaching practices in multi-grade classes -----	29
in Funulwazi Primary	
3.4 Grade Combinations in Ndabanhle Primary -----	31
3.5 Teaching practices in Multi-grade classes in- - -----	31
Ndabanhle Primary	
3.6 Data Generation Plan -----	34

CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Introduction

This chapter introduces the study titled: *Teaching strategies used by teachers in the multi-grade classroom in rural settings in the Umlazi District*. It presents the background to the study, the rationale for conducting it, and the research objective and critical research question. The methodology employed is briefly discussed and the chapter concludes with an outline of the structure of the dissertation.

1.2. Project title

Teaching strategies used by teachers in the multi-grade classroom in rural settings in the Umlazi District.

1.3. Objective of the study

To analyse the teaching strategies used by teachers in the multi-grade classroom in rural settings.

1.4. Background to the study

In the post-1994 era, the democratic South African government adopted a number of policy measures to reform the education system. These aimed to fulfill the basic rights set out in the country's new Constitution (Klug (2010) and to redress past discriminatory practices. However, challenges that affect teachers persist, and affect learners, schools and society as a whole. Such challenges are particularly prevalent in rural areas, where they include the adoption of a mono-grade curriculum in multi-grade classrooms, inadequate resources, dwindling learner numbers in all classes, and a lack of human resources and teacher empowerment. Some rural schools do not qualify for sufficient teacher posts due to reduced learner enrolments. Teachers thus teach more than one grade at the same time and some learners are left without teachers.

Multi-grade classrooms are a worldwide phenomenon in socio-economically disadvantaged rural and urban areas, including South Africa, and are a feature of rural areas in emerging countries. Taole (2014) found that, 30% of primary school learners in South Africa receive

multi-grade instruction under one teacher. According to Pridmore (2007) the multi-grade teaching approach is an essential alternative in a situation of low learner enrolment coupled with teacher shortages, and poor teaching resources. Furthermore, and importantly, multi-grade teaching is not limited to rural settings. notes that, in urban contexts, multi-grade teaching is an instructional approach of choice that is not necessarily due to a lack of teachers, learners and learning materials. Urban schools utilise multi-grade teaching instruction to enhance learners' independence and encourage them to own their learning rather than from necessity (Lingam, 2007). Nonetheless, the Curriculum and Assessment Policy Statement (CAPS) implemented in South African schools seems to exclude multi-grade teaching for education in rural or farm schools (Brown, 2010) This implies that multi-grade classes in rural settings are mainly taught by unqualified and underqualified teachers (Aliber, De Swardt, & Du Toit, 2005).

Motala (2011) found that most South African teachers in rural settings have inadequate qualifications, that is, only matric, and lack teaching method competencies, which may affect the quality of teaching in the multi-grade classroom. This suggests that the Department of Basic Education (DBE) may need to consider relevant measures to employ qualified teachers, and modify, adjust and implement the curriculum whether in mono- or multi-grade classrooms. Multi-grade teachers' experiences are negatively impacted by the fact that they are expected to improvise strategies to implement the CAPS in multi-grade classrooms without proper guidance from the DBE.

As a result, teachers teach more than two classes in one classroom using a mono-grade curriculum that is not appropriate in a multi-grade teaching context. Pridmore (2007) notes that teachers have not been exposed to multi-grade teaching strategies, and therefore experience difficulties in teaching learners. They resort to mono-grade teaching approaches and methods in a multi-grade context, which is time-consuming and may result in poor learner progress. Pridmore (2007) and Juvane (2005) are of the view that multi-grade education is a necessary choice in rural schools, with implications for curriculum implementation. In contrast, Beukes (2008) does not favour multi-grade teaching, as it requires extremely proficient teachers. Textbooks, subject policies, resources and formulation of curricula are in line with the mono-grade norm (CAPS) and are thus not compatible with the multi-grade mode. It is against this backdrop that the current study investigated the multi-grade teaching strategies used by teachers in rural settings.

1.5. Rationale for the study

In my years of teaching, I have observed that mono-grade classes are supplemented by multi-grade ones under a single teacher regardless of the ages of learners. This aroused my professional interest in the curriculum implementation strategies used by teachers when teaching in multi-grade classrooms. Some schools in rural areas in KwaZulu-Natal (KZN) use multi-grade teaching due to staff shortages, inadequate resources, insufficient funding and low learner enrolment, with implications for learner performance (Beukes, 2008). As a multi-grade teacher, I sought to establish how other multi-grade schools managed to teach in a challenging situation. This study is based on the assumption that multi-grade instruction in schools is not an option, but arises from the need for appropriate approaches to education, especially in remote settings (Taole & Mncube, 2012).

Naylor and Sayed (2014) observe that a relevant pedagogical methodology is crucial in enhancing teaching and learning in a multi-grade teaching programme. Joubert (2010) study concluded that in schools that practice multi-grade teaching but lack resources, teachers improvise learning material, resulting in poor quality education.

As noted earlier, the CAPS document is silent on multi-grade schools and teachers in such schools receive little support from the DoE. This is of particular concern in primary schools, where teaching is the bedrock of education. It is therefore argued that the DoE should formulate aims, objectives and curriculum outcomes to address multi-grade education challenges (Quail & Smyth, 2014). This gap in the curriculum also calls for research on multi-grade teaching within the CAPS in classroom situations in rural settings (Joubert, 2010). The current study aimed to contribute to filling this gap by investigating the strategies used by teachers in multi-grade classrooms in a rural context.

Little (2001) notes that multi-grade teaching was adopted in public and farm schools in rural settings in South Africa in line with the drive to extend education to all and that this strategy has been adopted in most developing nations. Taole and Mncube (2012) argue that it arose in response to the scarcity of teachers, particularly in rural contexts marked by low school enrolment. Shayi (2016) and Joyce (2014) also highlight that multi-grade teaching is employed in developed countries like The Netherlands and the United Kingdom not due to necessity, but as a preferred pedagogical option.

Low enrolment can result in the closure of schools, which is opposed by community members. Whether multi- or mono-grade, schools are often regarded as the centre of society Autti and Hyry-Beihammer (2014) as they not only educate learners, but enhance the status of a community. However, only a few of the schools with low enrolment that participated in the Soofi and Akhtar (2015) study adopted the strategy of mixing learners in a multi-grade classroom; instead, most of the schools arranged classes in such a way that each grade received its own work. The authors concluded that successful multi-grade teaching requires suitable and well-established institutions. This points to the need for further research on multi-age/mixed classes in the multi-grade classroom (Taole & Mncube, 2012).

1.6. Location of the study

The research study was conducted in two public primary schools located in a remote rural area. Pseudonyms are used to protect the schools' identity, with School A named Funulwazi and School B Ndabanhle. Both are quintile 1 schools as per the DoE's Quintile System that demarcates schools according to the socio-economic status of the surrounding community. Quintile 1 schools are the 'poorest' and are no-fee schools. Funulwazi and Ndabanhle are situated in a remote setting and are highly disadvantaged in terms of teaching and learning material. Moreover, they have inadequate teaching staff due to a drop in enrolment. Due to the fact that the teachers are not trained in multi-grade teaching, they perform below the expected national academic standard (Brown, 2010).

Two teachers from each school were selected to generate in-depth data, one from the Foundation Phase and one in the Intermediate Phase teaching in multi-grade classrooms.

1.7. Critical research question

The study aim is to explore pedagogical approaches employed by teachers in the multi-grade classroom in rural setting in the Umlazi District. Examples of pedagogical approaches are Integrative, inquiry-based, constructivism, collaboration and reflective approach as explained henceforth: Firstly, *integrative approach* in the case of multi-grade teaching is scrutinized as integrated learning since different grades are fused in one classroom with one teacher giving instructions (O'Driscoll, 2015). However, the multi-grade classroom remains a problem since some subjects are not included in the timetable due to time constraints and the teachers overwhelmed with heavy workload (Hyry-Beihammer & Hascher, 2015). Secondly, *inquiry*

based approach means to seek information in a formal way. According to Creswell and Poth (2017) this approach focuses on qualitative inquiry that probes the actual data from the teachers' point of view in the form of a semi structured interview and focus group interview. Thirdly, Cornish (2013) asserted that, *constructivism approach* is a theory of teaching and learning, a method that supports people to construct or craft their own knowledge and that realism is determined by the teacher/learner engaged in the multi-grade class.

Fourthly, *collaboration approach* is defined as a process by which disciplines the task closely in a form of group, intended to complete certain project, where learners have to pursue with their assigned roles; and explain the given task without the teacher's instruction. Therefore, Joubert (2010) said that, learning, assumed benefits and conditions of success depending on the learner's dedication and participation in the process. Fifthly, *reflective approach* is learning inside or outside the institutionalized education, which explains why proximal development define the cognitive space between what children achieve. This is responsive to the contextual realms and challenges of multi-grade teaching, also shows how teachers manage the learner activities in the implementation process (Tiernan, Casserly, & Maguire, 2020).

The central research question was:

What teaching strategies do teachers use to teach in the multi-grade classroom in rural settings?

1.8. Limitations of the study

This case study is limited to two public primary schools located within Umbumbulu Circuit under the District of Umlazi, in KZN. The study focused on and restricted to the teaching strategies used by primary school teachers in a multi-grade classroom in a rural context. Purposive and convenient sampling employed to select the participants and data generated by means of semi-structured interviews and a focus group discussion.

1.9. Structure of the dissertation

The dissertation presented in five chapters as follows:

Chapter one: Overview of the study

This chapter presented an overview of the study. It discussed the background to the study, the rationale for conducting it, the research objective and critical research question, the location of the study and its limitations.

Chapter two: Literature Review

This chapter reviews the local and international literature pertinent to the study and presents the theoretical framework and relevant concepts in relation to the phenomenon under scrutiny.

Chapter three: Research design and methodology

This chapter presents an in-depth discussion on the research design and the methods employed to generate data to fulfil the study's objective and answer the critical research question. It highlights the research paradigm, and the methods employed to gather and analyse the data. Finally, the chapter discusses the trustworthiness and credibility of the data, ethical issues and the study's limitations.

Chapter four: Data analysis and interpretation

This chapter presents and analyses the data generated by means of semi-structured interviews and a focus group discussion with four teachers from two multi-grade primary schools in the rural context of Umbumbulu in Umlazi District. Verbatim extracts from the interviews employed to construct themes and interpret the findings.

Chapter five: Summary, Conclusion and Recommendations

This chapter presents a summary of the findings arising from the data analysis in Chapter Four. It also offers conclusions and recommendations based on the findings in line with the themes identified in this chapter.

1.10. Chapter summary

The chapter presented an overview of the study. It highlighted the purpose of the study, its rationale and location, and the study's objective and research question. The limitations of the study were also discussed. The chapter concluded with an overview of the structure of the

dissertation. The following chapter presents a review of the relevant literature with regard to teaching strategies in the multi-grade classroom in rural settings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on multi-grade classrooms in rural settings and identifies the main debates and gaps in this literature. It examines the challenges of teaching in rural schools; issues with regard to teaching in multi-grade classrooms; the importance of multi-grade teaching in rural settings; the philosophy, theories, practices and models of multi-grade teaching; teachers' views on multi-grade teaching; and the advantages and disadvantages of this approach. The chapter also presents the theoretical framework that underpinned this study.

2.2 Challenges of teaching in rural schools

Rural contexts present unique challenges in the quest to extend education to all as communities in such areas often have low socioeconomic status and rely on agriculture for survival (Redding & Walberg, 2012). Letsekha, Wiebesiek-Pienaar, and Meyiwa (2014) note that sparsely populated rural areas that are home to many indigent families suffer high levels of poverty, unemployment and disease. Many families rely on social grants. Inadequate human resources, insufficient teaching and learning resources, teacher and learner absenteeism, and a lack of school infrastructure hamper effective learning. Additional challenges include the lack of extra- and co-curricular activities to capture learners' interest and develop their capabilities, a lack of parental involvement, low teacher morale, and un/underqualified teachers. Mulcahy (2007); Brown (2010); and Ramrathan and Ngubane (2013) add that learner absenteeism due to their obligation to perform farm work disrupts teaching in rural schools.

The literature notes that, while rural teachers feel demotivated to perform their duties to the expected level, some lack work experience and have not been trained for the teaching profession. Msimanga (2020) observes that multi-grade teachers lack awareness of programmes to support talented learners in rural contexts. Such learners tend to be left to their own devices whilst the teacher attends to others. However, there is a paucity of research on how these challenges affect the teaching decisions and behaviours of teachers dealing with gifted learners, especially in rural schools (Dee & Jacob, 2011).

Hargreaves, Gipps, and Pickering (2014) highlight that assessment plays a pivotal role in the teaching and learning process and that rigorous assessment requires proper planning. However, assessment is a challenge in multi-grade classrooms as each grade must be assessed and teaching time is reduced by the need to teach a number of classes at the same time (Little, 2001). While Berry (2010) found that multi-grade teaching enhanced the reading skills of slow learners in the Turks and Caicos Islands in the Caribbean, concluded that, multi-grade teachers have negative attitudes towards teaching multi-graded classes, resulting in poor results in some schools. Tikly and Barrett (2011) note that salary incentives and the adoption of appropriate teaching styles could improve the quality of education in multi-grade classrooms; however, Bertram, Mthiyane, and Mukeredzi (2013) found that most primary and high school teachers in remote areas in KZN and Zimbabwe are underqualified or unqualified.

2.3. Multi-grade teaching

Lall (2010) review of the literature notes that multi-grade instruction refers to the grouping of different grades in one classroom for organisational purposes. Berry (2010) defines multi-grade teaching as occurring within a graded structure of education when a single class contains two or more grades. Brown (2010) and Little (2001) argue that the multi-grade approach is adopted in contexts characterised by a shortage of human resources and low learner numbers. Different classes and mixed-age groups with different capabilities then receive instruction from a single teacher at the same time.

According to Noone and Miller (2015), multi-grade teaching occurs in most educational systems, calling for the identification of best practices to ensure quality education. Joyce (2014) maintains that, while learners can learn effectively in multi-grade classes, this requires well-trained, motivated teachers, and sufficient resources. However, Taole and Mncube (2012) describe multi-grade schools as the most abandoned part of the global education system. They also raise the issue of the use of a similar curriculum, where all learners use the same textbooks and materials per grade regardless of the type of classroom and the need to ensure that all children receive an education. Shayi (2016) notes that the number of learners enrolled in a school in a particular year determines the allocation of human and physical resources. Schools with few teachers and few learners are forced to combine classes, especially in remote, rural settings.

Multi-grade teaching thus arose in response to a number of different contexts as cited by Joubert, (2007); Pridmore, (2007); Berry and Little (2001) and Taole, Mncube, and Tribals (2012) , including:

- Low enrolment as a result of parents and children migrating from areas with scarce economic opportunities.
- Scarcely populated areas where schools are broadly spread and isolated.
- Schools with high rates of teacher absenteeism that do not qualify for substitute teachers.
- Parents move their children from schools that post poor results, or with un/under-qualified teachers, and less staff.
- Parents search for well-established and popular schools within acceptable travel distance, reducing the numbers in less popular schools.
- Schools where the Post Provision Norm (PPN) allocates sufficient teachers to maintain single grade instruction but, for various reasons, the posts are not all filled.
- Mobile schools that incorporate itinerant teachers and learners with varied phases and classes.
- Parents and the community tend to lose faith in schools with poor funding, inadequate resources, no extra/co-curricular activities, poor staff morale, and demotivated learners.

2.3.1 The importance of multi-grade teaching in rural schools

Multi-grade teaching arose in response to underdeveloped countries' quest to extend education to all (Thaba-Nkadimene, 2020). However, du Plessis and Subramanien (2014) argue that, it can be due to both necessity and choice. In countries like England, teachers use multi-grade teaching to teach certain subjects, purposely grouping learners in multi-age groups. In rural contexts characterised by dwindling learner numbers, surplus teachers are relocated to schools with large learner populations, resulting in those that remain behind adopting multi-grade teaching.

Children in marginalised rural areas have a right to education and multi-grade teaching plays an important role in realising this right. Hoadley (2012) adds that such teaching aims to address the scarcity of teachers, particularly in rural areas affected by low enrolment. Kucita, Kivunja, Maxwell, and Kuyini (2013) note that several different terms are used to refer to

multi-grade teaching, including a ‘combination of classes’ that ‘involve learners’ of ‘mixed ages’ and ‘mixed grades’. Each grade occupies its own space in the classroom and is considered as a class (Noone & Miller, 2015). While this approach was adopted out of necessity in rural areas in underdeveloped countries, multi-grade teaching embraces certain positive values; it promotes a learner-centred approach where older learners help younger ones and teachers strategize new methods in line with the multi-grade context, flexible teaching and flexible school admission.

In countries like Norway, Sweden, Finland, England and Scotland, multi-grade teaching and differentiated instruction aim to improve the culture of teaching and learning through adaptation to different learner groups (Smit & Humpert, 2012). For this reason, the education system in these countries allows children to attend primary school at an older age than the approved age of admission (Woodhead, Ames, Vennam, Abebe, & Streuli, 2009). Soofi and Akhtar (2015) observe that multi-grade schools assist low achieving learners to progress in reading due to the different approaches to teaching. They add that learners in multi-grade classrooms have ample time to participate in a small group-teaching tasks (Msimanga, 2020). This suggests that, multi-grade teachers are able to inculcate satisfactory skills in learners in subjects like Mathematics and Life Skills, nurturing them to be independent in life (Unesco, 2015).

The following section discusses the philosophy of multi-grade teaching.

2.3.2. The philosophy of multi-grade teaching

Hyry-Belhammer and Hascher (2015) note that, it is important for researchers to explore the philosophy that underpins the phenomenon under investigation. Taole and Mncube (2012) observe that, in the case of multi-grade teaching, it refers to the beliefs or attitudes of multi-grade teachers in covering the same themes and assessing learners in a similar way to that in mono-grade according to the CAPS documents. In terms of these documents, learners are expected to participate and reflect on the learning activity; apply the knowledge gained to different situations; work together in a democratic manner; and improve their skills in core subjects like language, maths, science and social studies (Noone & Miller, 2015).

Respected teachers are those that interact with learners during teaching and learning for good results (Proehl, Douglas, Elias, Johnson, & Westsmith, 2013). Furthermore, they should

involve parents, relatives and society in school activities. A learner-centred approach encourages learners to participate in learning activities, especially in the multi-grade classroom.

Stronge (2018) argues that his Model of Teaching Effectiveness in Curriculum and Instructional Theory can be applied in both multi-grade and mono-grade education in rural, township or urban areas. The main priority is to enhance learner performance and success while accommodating the needs and demands of teachers and learners. He thus stresses the need for teachers to be proactive in their teaching and emphasises the need for a yardstick to measure the achievements of highly efficient teachers whether in mixed- or mono-grade classrooms.

Stronge (2018) adds that dedicated teachers set goals and monitor their fulfilment in order to ensure that there are no gaps amongst the content, the learner and the environment where teaching and learning takes place. Effective teachers produce good results even when working under pressure, and assist learners to work together into small groups in order to absorb new information by dividing large tasks into smaller parts. Multi-grade teachers should provide positive feedback on learners' progress, check their level of understanding, and re-teach if necessary because different classes and mixed ages share a classroom in multi-grade teaching. Hyry-Beihammer and Hascher (2015) investigated the effect of multi-grade teaching on learner results in single grade and multi-grade classes, and did not find marked differences between these two teaching and learning systems. Wagener and Kucharz (2009) observed that multi-grade teaching could reduce the failure rate among learners. Since learners do not have to move from class to class according to age cohort, the only difference is the content that specifically designed for the learner's new grade.

The following section discusses theories of multi-grade teaching.

2.3.3. Theories of multi-grade teaching

Joubert (2010) reviewed different theories on how multi-grade teaching operates in rural settings whether in developed or developing countries. Thephavongsa (2018) notes that, such theories aims to explain the teaching strategies used by teachers in the multi-grade classroom in rural contexts. Thephavongsa (2018) further states that, given that, the current education system focuses on mono-grade teaching, teachers teaching in multi-grade classrooms will

require additional support. The author adds that staff shortages and a lack of resources are resulting in poor curriculum delivery, affecting the quality of education delivered in rural schools. Goodwin et al. (2014) argue that multi-grade teachers do not receive adequate support from the relevant educational structures, resulting in ineffective teaching.

2.3.4. Practices of multi-grade teaching

Juvane (2005) asserts that teaching more than one grade at the same time is a challenge, while Unesco (2015) describes the multi-grade approach as more demanding than single grade teaching. The literature reviewed by Mulryan-Kyne (2007) mainly focused on cognitive and non-cognitive results for learners in a multi-grade teaching context. showed that teachers in a multi-grade classroom instruct each grade at different times, with one grade being taught whilst the others work on individual tasks/work prepared by the teacher. Multi-grade teachers are thus expected to abide by the timetable whilst instructing two or more classes in the same classroom (Pridmore, 2007).

O'Driscoll (2015) concluded that learners' school experience in a multi-grade classroom is identical to that of those in mono-grade settings, except for the fact that they share the same teacher and have to wait for him/her to finish teaching other grades. O'Driscoll (2015) further states that group work plays an insignificant role in the multi-grade classroom. In contrast, Noone and Miller (2015) argues that multi-grade teaching employs group work and other relevant strategies to inspire and enable learners to improve their individual performance. Danyluk, Burns, and Scott (2020) notes that, multi-grade teachers need to plan their lessons thoroughly, calling for additional resources and methods to engage learners in a meaningful way. She adds that parents tend to shy away from multi-grade schools and would rather enrol their children in mono-grade ones as they labour under the impression that learners in the former do not receive the same quality of education as those in the latter.

Mulryan-Kyne (2007) asserts that few studies have examined the strategies used by multi-grade teachers and the methods they adopt to overcome the difficulties and dilemmas raised by the multi-grade instructional context. This is exacerbated by the fact that there are no prescribed teaching strategies or guidelines for multi-grade classes Mulryan-Kyne (2007).

2.3.5. Advantages of multi-grade teaching

While multi-grade education has been regarded as more challenging than mono-grade teaching, Taole and Mncube (2012) and Berry (2010) argue that it can improve the quality of teaching and learning in isolated rural schools. Moreover, multi-grade teaching has been shown to assist low achieving learners to progress in reading skills, in contrast to mono-grade classes that are regarded as homogeneous entities. Multi-grade classrooms offer learners acquired ample time to participate in a small group-teaching tasks that enhance individual performance and provide relevant education (Proehl, Douglas, Elias, Johnson & Westsmith, 2013).

Beukes (2008) concurs and maintains that learners in multi-grade classrooms receive more support than those in large classes in mono-grade schooling. This approach could thus assist in alleviating poverty and other socio-economic ills in isolated areas (Beukes, 2007).

Thomas (2012) investigated multi-grade teaching in rural contexts and found that there were no significant differences in achievement levels among single and multi-grade classes, all else being equal. O'Driscoll (2015) also concluded that, "there is no empirical evidence for the assumption that learners' learning may not be differentiated whether in multi-grade or multi-age classrooms". Other studies have produced similar results.

Multi-grade teaching was introduced for administrative reasons, while multi-age education is regarded as a pedagogical strategy (Proehl, Douglas, Elias, Johnson & Westsmith, 2013). According to Nasir ul Haq (2017) multi-grade classes should range from 20-25 learners. Smit and Humpert (2012) note that, multi-grade classes with a reasonable number of learners, enhance learners' progress in reading.

2.3.6. Disadvantages of multi-grade teaching

The prevalence of multi-grade teaching in remote areas challenges the education system, particularly in South Africa, to improve curriculum standards and design appropriate instructional approaches and strategies (Mulryan-Kyne, 2007). Currently, multi-grade schools are characterised by inadequate teaching and learning resources, and inadequate classrooms/buildings, and ablution facilities, while most lack libraries (Joubert, 2007)

Smit and Engeli (2015) observe that many teachers regard teaching in multi-grade schools as a major challenge and further note that teachers claim that this system increases their

workload and is more demanding than teaching single-grade classes. Nasir ul Haq (2017) found that such difficulties are due to lack of support from the education authorities.

Teaching in a multi-grade school in a rural setting is thus not most teachers' first choice and many pre-service teachers wait for posts in urban and township areas rather than opting to work in rural areas (Jenkins and Cornish (2015). Therefore, the lack of curriculum planning undermines teachers' confidence in teaching in a multi-grade classroom (Aikman & Pridmore, 2001). Furthermore, multi-grade teachers are expected to multi-task at a level that is much more demanding than that required of mono-grade teachers. Nasir ul Haq (2017) study in schools in rural Vietnam notes that all schools (mono- and multi-graded) are required to adhere to the national curriculum, policy guidelines, timetable and the school calendar. However, multi-grade learners' school calendar is shorter than those of their peers in mono-grade schools, with the former having only 120 weeks a year for teaching and learning compared with 165 weeks for the latter (du Plessis & Subramanien, 2014).

It is for this reason that Brown (2010) concluded that such schools should not exist, as they do not support effective teaching or learning. Nasir ul Haq (2017) review of existing research on multi-grade classes also raised questions about the quality of education offered in such schools.

Lindström and Lindahl (2011) study on Swedish primary school learners showed that multi-grade teaching had a major negative impact on intellectual test scores. Juvane (2010) contend that multi-grade schools, teachers and learners do not receive sufficient support from the DoE in the form of in-service training, workshops and relevant resources, teacher organisations and teacher tuition. Furthermore, the scarcity of schools in underdeveloped countries means that children enter primary education at an older age than the approved age (Smit & Humpert, 2012).

2.3.7 Critiques of multi-grade teaching

Brown's (2010) review of the literature on multi-grade teaching in schools in remote areas asserts that the education system does not include multi-grade programmes in planning despite the fact that this system has existed for some time. Tikly Barret (2011) argues against multi-grade schools and calls for research on multi-grade teaching as reported by Centre of Multi-Grade Education (CMGE). The DoE expects multi-grade teachers to modify the mono-grade curriculum to suit their working conditions without any training (Thaba-Nkadimene, 2020). This calls for the department to revisit the curriculum and other policies in order to enhance the quality of education in multi-grade schools. Moreover, the Annual

National Assessment (ANA) initiated by the DBE in 2011 shows poor performance across mono- and multi-grade schools (Ntekane, 2017). Poor pass rates have been reported in Grades 3, 6, and 9 in the General Education and Training (GET) band (Le Grange, 2014).

Lindstrom and Lindahl (2011) argue that multi-grade classrooms impose a significant workload on teachers and that they receive little or no training to assist them. They found that learners in multi-grade classrooms showed slow progress in mathematics, had less advanced vocabulary and were shy and worried when their teachers tried to engage them in the content.

2.3.8 Strategies for multi-grade classrooms

Teachers struggle to understand and accept multi-grade education in schools, (Bua & Martin, 2020). Bua and Martin's study on multi-grade teaching in the Nuwakot and Kavre districts of Nepal notes that combining learners of different grades and ages in one class calls for relevant teaching strategies. Unesco (2015) research found that, while teachers were initially not keen to teach in a multi-grade classroom, their attitude became more positive when they mastered the strategies required to improve learner performance and handle the increased workload. They decided to use mixed/multi-age classes, a quasi-mono-grade, learner-centred approach and peer or collaborative tutoring to enhance the quality of teaching and learning. Cornish (2013) suggested that, students at universities or colleges of education should be trained to teach both mono- and multi-grade classes.

2.3.8.1 Mixed/multi-age classroom strategies

A multi-age class is defined as one with different age groups and grades under one teacher's instruction (Lindstrom & Lindahl, 2011). Communication skills are important in this type of class, because learners need to learn to become self-reliant when given a task and not to depend on other learners, or work in small groups (Engin, 2018). McDougale (2016) found that this strategy yielded positive results, while Proehl, Douglas, Elias, Johnson & Westsmith, (2013) demonstrated that learners in multi-age classes showed positive behaviour, leadership capabilities and self-assurance.

2.3.8.2 Quasi-mono-grade model

O'Driscoll (2015) note that, in this model the teacher delivers direct instruction to each grade in turn, similar to teaching in a mono-grade class. Tasks are set for the other learners. A similar period of time may be devoted to each grade, or more time might be allocated to groups that struggle with certain subjects and need additional support from the teacher

(O'Driscoll, 2015). However, Pridmore (2007) asserts that this strategy undermines learner participation in the lesson or activity that the teacher is delivering. The teacher is at the centre as the transmitter of knowledge, shutting learners out of the lesson or activity and not encouraging them to use their own creativity (Baykan, 2013).

The fact that the quasi-mono-grade model is powered by a traditional teacher-centred philosophy and that the teaching approach is based on the content makes it time consuming because the teaching time for each class depends on the task allocated during contact time, with the other groups left unattended (Pridmore, 2007). For example, when a teacher introduces a new topic, he/she spends more time with that particular group (Balfour, 2015).

2.3.8.3 Learner-centred approach in the multi-grade classroom

(Kivunja, 2011) study on the multi-grade classroom in sub-Saharan Africa revealed that learners learn individually at their own pace through a learner-centred approach that encourages them to solve their own problems; discover new information on a given theme; and learn to work together in a group, sharing different ideas on a particular topic (Hoadley, 2012). Kivunja's (2011) research on Tamil-speaking learners between the ages of 10 and 14 in a rural Indian context reached a similar conclusion. Mitra and Dangwal (2010) found that learners could learn without teacher instruction if they were trained to become self-reliant in the multi-grade classroom. The current education system in South Africa is based on a learner-centred approach where the teacher facilitates learning that draws on the learner's prior knowledge, and develops creative and critical thinking (Stewart, 2018). Moreover, peer tutoring, where learners work in pairs or groups, is a useful method in the multi-grade classroom.

2.3.8.4 Peer instruction in the multi-grade classroom

This type of tutoring, where learners work in groups of two to six, is crucial in the multi-grade classroom and is used in Iraqi schools (Perkins & Tagler, 2011). Knowledge is built through planned learning activities and informal group discussion. Each learner is held responsible for his/her learning and is encouraged to enhance other learners' skills (Khan, 2016). This method involves learners of the same age but with varied capabilities in the multi-grade classroom (Wentzel & Watkins, 2011). Teachers use peer instruction to enable

learners, often-advanced ones who complete their work on time, to assist in teaching their peers.

However, Hyry-Beihammer and Hascher (2015) found that multi-grade teachers had no option but to group learners according to their levels of achievement. Thus, peer tutoring occurs spontaneously when older learners assist those in lower grades without the teacher's guidance. Kivunja (2014) also noted that guided-peer tutoring is used by teachers to control the classroom. Another instructional method is 'free work', which is used when teachers are marking learners' work or teaching the other grade. The teacher asks learners to read books or workbooks, with higher grade learners supervise the lower grades without directions from the teacher (Wolff, Wagner, Poznanski, Schiller, & Santen, 2015). Internationally, teachers value peer tutoring because learners learn respect and tolerance (Wagner, 2014).

2.3.9 Curriculum concerns and opportunities related to multi-grade teaching

Many countries have opted for multi-grade teaching in order to provide education for all (Joubert, 2010). Some developed countries have embraced this method to improve learners' intellectual and other skills and to deal with the low number of teachers and learners in rural schools (Khan, 2016). As part of its on-going educational reform programme (Neue Mitte/schule), Austria introduced compulsory education from the ages of 10 to 14 to replace the former secondary education level that divided learners at an early stage of development based on their levels of achievement (Hyry-Beihammer & Hascher, 2015). However, no specific age limit is set for multi-grade teaching in South Africa (Cornish, 2010).

Tiernan et al. (2020) note that curricula in the multi-grade classroom is an issue for concern as a long-term plan that spans four years is required to prevent the repetition of grades that is observed in mono-grade classes. Lindstrom and Lindahl (2011) assert that multi-age classes offer teachers a conducive working environment as they teach the same plan for a year in the multi-grade classroom.

According to Lindström and Lindahl (2011), the number of multi-grade classes has increased in Sweden, especially in the Foundation (Grades 1 – 3) and Intermediate (Grades 4 - 6) phases. Swedish multi-grade education focuses on individual learners rather than grade groupings (Reynolds, Vinterek, & Education, 2013). However, Pridmore (2007) argues that, worldwide, the education authorities' curriculum is based on mono-grade teaching.

2.3.10 Teachers' views on multi-grade teaching

Makoelle and Malindi (2014) state that changes in curricula and the culture of teaching and learning cause much confusion among teachers who deal with more than one curriculum in the multi-grade classroom. Chihana and Banda (2013) found that rural school teachers confronted challenges in the multi-grade classroom as learners' levels of language proficiency differ; it is difficult to maintain discipline in a mixed-age classroom; and the need for all children to receive equal treatment as unique individuals slows the pace of teaching and learning. Rural areas present heterogeneous social backgrounds and in some instances are characterised by illiteracy, food insecurity and early marriage. Schooling is not always a priority in these contexts.

Chihana and Banda (2013) note that, teachers in rural multi-grade classrooms lack the necessary equipment to meet learners' needs and often rely solely on textbooks. This lowers the standard of teaching and learning (Shayi, 2016). While teachers may have the necessary skills, effective teaching is a challenge when the required teaching and learning tools are not available (Zeripi, 2017). Staff shortages in rural school exacerbate the problem (Chihana & Banda, 2013). Teacher training in South Africa is based on single grade teaching (Unesco (2015). Karlberg-Granlund (2011) and Chapman and Adams (2002) maintain that the DoE should formally recognise multi-grade teaching and conduct research on the requirements of multi-grade settings. Teachers need to be equipped with the didactic skills required in multi-grade education (Stone & Burriss, 2019).

2.4 Theoretical framework

Creswell and Poth (2017) define a theory as the ideas, beliefs or concepts that explain the relationships between different variables. Theories can be used to explain the relationship between human actors and the world they inhabit. Cohen, Manion, and Morrison (2011) observe that educational theory serves as a 'double hermeneutics', meaning that the theory and methodology of interpretation (verbal and non-verbal communication) of the place where people work are required to understand and interpret experiences of the world.

This study is underpinned by the Multi-Grade Teaching Theory drawn from Little (2001) and O'Driscoll (2015) to understand the cognitive and non-cognitive effects of the multi-grade classroom. O'Driscoll (2015) emphasised that the multi-grade classroom, which is adopted in

response to dwindling learner enrolment or to balance differences in the number of learners in different classes offers instructional and didactic benefits in primary schools. Unesco (2015) notes that the need to ensure that every child receives an education led to the establishment of multi-grade teaching.

As noted previously, there is a paucity of research on multi-grade teaching and learning in rural schools (Lindström & Lindahl, 2011). There is thus a lack of evidence on the strategies used by teachers in the multi-grade classroom (Joyce, 2014). Joice adds that, globally, multi-grade schools exist in areas neglected by the schooling system. Kvalsund and Hargreaves (2009) state that, most research on multi-grade teaching has focused on the effect on learning outcomes and whether these are superior in multi-grade or single-grade classes. Various studies have concluded that there are few differences between the two systems (Åberg-Bengtsson (2009); Lindström and Lindahl (2011)).

According to Linstrom and Lindahl (2011), the Swedish National Agency for Education favours multi-age classes as they have been found to have a positive effect on learners' intellectual development. Furthermore, peer tutoring plays a crucial role in the multi-grade classroom where learners work in groups according to their intellectual abilities rather than focusing on age cohort as prioritised in monograde class. Finally, individual attention is a priority in multi-age classes to assist poor performing learners and this is difficult to provide in mono-grade classes (Balfour, 2015).

Learners in multi-age classes, especially those with learning difficulties, benefit from more contact time. This suggests that, teachers of multi-grade classes need to organise learners into small groups to benefit poor performing learners. It is also likely that older learners will compete with younger learners and will thus ensure that their performance is optimal at all times (Proehl, Douglas, Elias, Johnson & Westsmith, 2013). Checchi and De Paola (2018) and others investigated the cognitive and non-cognitive effects of multi-grade teaching in rural contexts.

2. 4.1 Concepts of multi-grade teaching

A. Cognitive effects of multi-grade teaching

Smith (2017) defines cognitive development as a thinking process that is subject to change because it grows with a learner's level of development. Piaget's theory of cognitive development did not expand on the issue of improved performance in certain areas when

learners are well-equipped with understanding and expertise. Siegler (2000) defines cognitive development as a progressive mental process with improved regulation and strategies used for problem solving and logical thinking. O'Driscoll (2015) employed this concept to determine the effect of multi-grade vs. mono-grade classrooms.

Shareefa (2020) notion of cognitive effect suggests that learners develop in stages within domains such as numerical concepts, spatial concepts, social tasks, storytelling, reasoning about physical objects and motor development. The cognitive effect of multi-grade classes was found to be on par with mono-grade teaching because the learners' outcomes showed no differences. Proehl et al. (2013) and others reviewed studies conducted in various countries, including the United States of America, Canada, and the Escuela Nueva programme in Columbia.

B. Non-cognitive effects of multi-grade teaching

Noone and Miller (2015) describe non-cognitive effects as skills that drive learners' capability to enhance their performance during assessment. This suggests that, non-cognitive development occurs in subjects like Physical Education (PE); the creative arts, and music and others that do not demand a high level of cognitive skills (Checchi & De Paola, 2018).

2.4.2. The relationship between the cognitive and non-cognitive effects of multi-grade teaching.

The multi-age classroom builds cognitive and non-cognitive skills as active learning occurs in a family-like environment based on meaningful interaction between young and older learners (Newman and Holzman (2013). Thephavongsa (2018); Newman and Holzman (2013) stress the significance of social interaction in cognitive and non-cognitive development, while Piaget was of the view that interaction plays a diverse role. Furthermore, cognitive conflict could enhance change in the lives of learners in multi-age/multi-grade classes. Kadivar, Nejad and Emamzade (2005) concluded that multi-grade/multi-age classes have a positive impact on academic performance, while found no evidence of differences in the cognitive and non-cognitive effects of multi-grade and mono-grade classes.

This suggests a lack of evidence that learners may experience hardships/drawbacks in achievement in multi-grade and single-grade classrooms(UNESCO (2015). However, Kucita et al. (2013) claimed that multi-grade/multi-age classes had a slightly negative effect on performance. McDougale (2016) viewed cognitive and non-cognitive skills with the

understanding that they support each other and noted that the environment that the learner is located in may affect or enhance social behaviours. Furthermore, learners have a better chance of displaying leadership skills during peer tutoring. Kadivar, Nejad, and Emamzade (2005) note that, non-cognitive skills involve social skills that grow at school in the classroom and that, learners improve their academic performance by means of modelling, observing, practice and feedback.

2.5. Chapter summary

This chapter defined multi-grade teaching and highlighted the significant role played by multi-grade education in remote rural areas where schools are characterised by low enrolment levels and few teaching staff. In South Africa, multi-grade teaching was embraced in order to extend education to all, especially among previously marginalised communities.

The chapter also outlined the challenges confronting teachers within multi-grade classrooms and examined the various strategies they employ. It was noted that various studies have not produced empirical evidence that learners make less progress in multi-grade and mixed-age classrooms compared to mono-grade classes.

The following chapter presents the research design and methodology employed to conduct this study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

The previous chapter presented a literature review on multi-grade schools in rural settings internationally and in South Africa. This chapter discusses the research design and methodology employed to conduct the study (Moloi, Van der Walt, Potgieter, & Wolhuter, 2015). The aim of the study was to explore the teaching strategies used by teachers in the multi-grade classroom in a rural setting in Umlazi District.

The chapter also discusses the interpretive paradigm adopted to understand the teachers' experiences, the case study approach used to investigate the phenomenon, the sampling methods, the data collection tools and the methods employed to analyse the data. It concludes by highlighting the issue of trustworthiness and the ethical considerations taken into account in conducting the study, as well as its limitations.

The research design and methodology aimed to generate data to answer the following research question:

What teaching strategies do teachers use to teach in the multi-grade classroom in rural settings?

3.2. Research design

According to McMillan and Schumacher (2010), a research design is the plan adopted to investigate a particular topic. Gosper and Ifenthaler (2014) note that, a research design is used to identify and select a relevant sample of participants, and to decide on the most appropriate data collection and analysis tools to answer the research question. The research design employed for this study on the multi-grade classroom in a rural setting in Umlazi District included a qualitative research method, a case study as the research methodology, an interpretive paradigm, and semi-structured interviews and a focus group discussion to gather data (Cohen, Morrison, & Manion, 2013). The research methodology that was employed is discussed below.

3.3. Research methodology

According to Hesse-Biber and Leavy (2010), qualitative research aims to gather non-numerical data to gain in-depth understanding of people's experiences of a particular phenomenon and the meanings they ascribe to them. Qualitative research is conducted in the natural setting and relies on visual and verbal communication. In this case, the phenomenon was multi-grade teaching in a rural context and the study aimed to understand the strategies adopted by teachers in such classrooms.

Creswell and Poth (2017) state that, qualitative research focuses on relations among people in their common setting. It aims to understand people's attitudes and worldview from their own perspective Marshall and Rossman (2014) by drawing on their words. Such data can then be analysed by identifying common themes (Rule & John, 2011). Given that the aim was not to generalise the findings, I selected a small number of participants to generate authentic, in-depth data on the teachers' experiences of multi-grade teaching. I interviewed the participants in their natural setting to understand the teaching strategies they adopt in multi-grade teaching.

The advantage of qualitative research is that it is a flexible approach in that there are no right or wrong answers and the questions in the interview schedule can be modified during data collection. The qualitative approach also covers a variety of methods including document review, audio-visual material, case studies, interviews and observation. Marshall and Rossman (2014) observe that qualitative research reveals multiple truths because the participants answer the questions from their own point of view and have the opportunity to rephrase an answer if they wish to. This study employed semi-structured interviews and a focus group discussion as data collection methods.

McMillan and Schumacher (2010) note that, one of the disadvantages of qualitative research is that it is a time consuming exercise. The researcher should also be aware that his/her personal behaviour or prejudices might influence the participants' responses and prolong the investigation process.

3.3.1 Interpretive paradigm

The term ‘paradigm’ is defined in various ways and in different situations. It generally refers to the way people look at things. Punch and Oancea (2014) explain a paradigm as subjectivism, which focuses on real world phenomena. Cohen et al. (2011) describe an interpretive paradigm as one that sets out to understand people’s feelings and opinions about the world and how meaning, actions and experiences are interpreted in everyday life (ontology). In other words, the interpretive paradigm strives to understand the subjective meanings of an individual’s experiences in the world around them (Poni, 2014). The interpretive paradigm enabled me to interpret what other people were saying within the subjective world of human experience, but limited me from being objective when exploring the strategies used by teachers in multi-grade classrooms in a rural setting in Umlazi District. This suggests that, this design and approach is based on the ontological belief that human beings create meanings, and understand and judge the world they live in (Cohen, Morrison, et al., 2013).

I planned to interview teachers individually to access rich information because they tend to express themselves freely in face-to-face interviews. The paradigm adopted acknowledges the existence of multiple realities based on the knowledge and understanding of the people taking part in the research (Crowe et al., 2011). Consequently, this approach assumed that knowledgeable teachers understand the activities that improve their teaching strategies in the multi-grade classroom. The interpretive paradigm enabled me to understand how teachers feel about teaching and assessing fused classes and the relevant methods they have applied in a multi-grade classroom context (Salmons, 2014).

The following section discusses the case study approach employed for the purposes of this study.

3.3.2 Case study as the research methodology

A case study is defined as “a type of ethnographic or field study that focuses on a single unit, such as one individual, one group, one organization or one program”, with multiple methods employed to collect and analyse data (Ary, Jacobs, Irvine, and Walker (2018). According to Rule and John (2011), a case study aims to gather a coherent body of ideas or thoughts in order to gain in-depth understanding of a particular case in its context.

McMillan and Schumacher (2010) describe a case study as a detailed exploration of a defined case over time in a particular setting using multiple sources of data. This implies that, a case study focuses on particular people and does not aim to evaluate the experiences of unpredictable participants. This is a reliable way to investigate and understand a location (Naidoo & Muthukrishna, 2016). Through interaction between the researcher and the participants, a case study enables in-depth understanding of the meanings and value attached to the phenomenon under study (Marshall & Rossman, 2014). This required that, as the researcher, I had to explore the site and build rapport with the participants (Tafai, 2017).

This case study employed a qualitative method to gain holistic understanding of how teachers navigate teaching in a multi-grade classroom in a rural setting. A case study only involves a few participants and does not allow for generalisation of the findings (Yin & Davis, 2007). Single case studies were conducted, with a total of four participants in two different schools teaching at different levels, i.e., the Foundation Phase and Intermediate Phase (Hyett, Kenny, Dickson-Swift, & well-being, 2014). The strength of this study is its focus on multiple realities based on the strategies used by teachers in multi-grade classrooms in the rural setting in Umlazi District (Miles, Huberman, & Saldana, 2013). However, the fact that the researcher is both a participant and an eyewitness may result in prejudice, with some incidents being exaggerated or underplayed (Salmons, 2014).

Data were gathered in various ways in order to understand the situation and unveil the reality as the participants spoke for themselves. This promoted understanding of the complexity and issues in relation to the phenomenon of multi-grade teaching (Creswell & Poth, 2017). However, given that a case study has a narrow focus on the area of interest, it may not shed light on the whole picture (Starman, 2013).

3.4. Selection of participants

The participants are the individuals selected by the researcher to participate in a research study. *Purposeful selection* is a method used in qualitative research where the researcher identifies and selects participants that are able to provide the richest information on the topic; thus, there is no required certain number of participants (Etikan, Musa, & Alkassim, 2016). Instead, a small, manageable number of participants is selected. According to Creswell and Poth (2017), purposeful selection is a non-probability sampling method to select a sample

from the study population. McMillan and Schumacher (2010) note that it may take into consideration the number of participants, ethnic group, age group, gender, marital status, qualifications, or geographical context.

In selecting appropriate participants, I focused on teachers engaged in multi-grade teaching in two primary schools in a rural context (Richards & Morse, 2012). Firstly, *purposeful selection* was employed to access experienced teachers with knowledge of the strategies used by teachers in multi-grade teaching (Cohen, Manion, & Morrison, 2013).

It was difficult to obtain the cooperation of under-qualified/unqualified teachers and principals due to fears of damaging the school's reputation in the eyes of outsiders. Obtaining the required data relied on the participants' willingness to speak about their working conditions. Purposeful selection was not successful as two participants withdrew before the interviews were conducted. I thus used *convenience selection*, also known as opportunistic or haphazard selection, that selects participants that are accessible (Etikan et al., 2016). This enabled me to obtain the requisite data in the short period of time set aside for the study (Robinson, 2014).

This approach yielded appropriate participants who would provide the desired data and represent other teachers engaged in the teaching strategies used in multi-grade classrooms (Miles et al., 2013). I selected a total of four teachers (two from two different schools) in remote settings who were engaged in multi-grade teaching. The targeted schools had low learner enrolment and few teachers. I met the participants at the schools where they work, thereby avoiding additional transport costs for the participants. The following criteria used to select the teachers that participated in the study and ensure that I gathered meaningful data, thus depended on the background of the school:

- Full-time, qualified, under qualified or unqualified teachers who still pursuing with professional studies employed by the DoE and registered with the South African Council of Educators (SACE).
- Post level 1 teachers that attended in-service training and workshops on the CAPS.
- Teachers that joined the teaching profession prior to the implementation of the current education regime, who thus have experience of different systems and able to contribute rich data.

Table 3.1 below presents profiles of the participants, including their school name and location, pseudonym, age, gender, learner numbers in each class, number of merged grades, teaching experience, race group and qualifications. Two females were selected in the Foundation Phase because only woman teachers teach these grades, while one female and one male were selected from the Intermediate Phase to ensure a gender balance.

Table 3. 1. Participants’ profiles

School	Funulwazi		Ndabanhle	
Pseudonym	Sheila	Luna	Zelda	Shaun
Gender	Female	Female	Female	Male
Age	44	47	50	56
Qualifications	Matric	Bachelor of Arts (BA)	Primary Teachers’ Diploma	Primary Teachers’ Certificate
Race group	African	African	African	African
Teaching experience	22 years	26 years	27 years	30 years

School A: Funulwazi Primary

This school is located in a rural setting in Umbumbulu within Umlazi District. It has 29 learners from Grades 1 to 5 and only four Grade R learners. There is an access road to the school and reliable bus transport back and forth. Adverse socio-economic factors affect enrolment, as the surrounding communities suffer high rates of illiteracy, unemployment and poverty, as well as HIV and AIDS. Many girls do not complete primary school due to teenage pregnancy and early marriage, and there is a high absenteeism and failure rate. A DoE quarterly survey notes that this is characteristic of rural areas (Uromi, 2014).

Despite the fact that the CAPS documents do not accommodate multi-grade schools, all the classes at Funulwazi were multi-graded from Grades I to 3 and 4 to 5 except for the reception class (Grade R). Every classroom had a teacher and a monitor to assist other learners in reading, completing assigned tasks and class discipline while the teacher teaches. In line with DBE requirements, the school used the CAPS as a guide. Due to low enrolment, the school ended up employing unqualified or underqualified teachers in remote areas. For example, Sheila who has been teaching for 22 years with Matric only was enrolled at the University of

South Africa for a B.Ed. degree. Luna had under qualified qualification as she did Bachelor of Arts (BA) that does not coincide with the teaching profession. Therefore, most parents transfer their children to schools with qualified teachers and that led to low learner figures.

Table 3.2 sets out the grade combinations at Funulwazi Primary.

Table 3.2. Grade Combinations in Funulwazi Primary School

Combinations of Grades (G) 1 to 5		
Learners in class	10 (Gr1) + 9 (Gr2) + 10 (Gr3)	11 (Gr 4) + 8 (Gr 5)
Total in grade	29	19
Total number of learners in multi-grade classrooms = 48		

Therefore, the following table tends to narrates how teachers at Funulwazi Primary navigate in teaching fused grades under one teacher instruction.

Table 3.3 Teaching practices in multi-grade classes in Funulwazi Primary

<i>FUNULWAZI PRIMARY</i>	<p>Grades fused: 1, 2 & 3 and 4 & 5</p> <p>Teachers tend to teach one group at a time, which implies that the allocated teaching time is divided among two to three class groups. The learners are mixed in terms of age and grades and the teacher considers their level of development, teaches, and assesses using different tasks.</p>
-------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

These learner numbers suggest that school closure might be a better option.

School B: Ndabenhle Primary

This school is also located in a rural area in Umbumbulu. It is 8-10 km from the tar road and is serviced by a gravel road. The teachers organised a staff taxi for three nearby schools that drops them off every morning and picks them after work. However, they still have to walk another two to two-and-a-half kilometres down a hill to reach the school and back again after school. This demotivates the staff and affects learners' progress due to late coming and absenteeism. The school consists of 50 learners in the curriculum phase and 7 Grade R learners, two curriculum teachers, a Grade R teacher and the principal. Grades 2 and 3 are merged in the Foundation Phase and Grades 4, 5 and 6 in the Intermediate Phase. Grade R with 7 learners and Grade 1 with 15 learners are taught separately. Each multi-grade classroom had a teacher in charge and an older learner to assist other learners in reading and writing.

The school is a no-fee one and partially Section 21, indicating that the DBE reserves 60% of its financial allocation for textbooks and stationery. The other 40% is used for consumables like cleaning materials, and water and electricity bills. The school has a tiny office for the principal and a full teaching load due to the insufficient number of teaching staff. The school Nutrition Programme assists most learners who come to school on an empty stomach.

Faction fights in the area have led to many community members relocating. The school building is in disrepair, with broken windowpanes and floors and walls in need of renovation. There are countless vacant classrooms, but no computer room, staffroom or strong room. Rudimentary libraries consist of reading corners in each multi-grade classroom. The principal converted one of the classrooms into a storeroom without curtains. Conditions at the school and their negative impact on teaching and learning led to recommendations that Ndabanhle Primary be closed. Table 3.3 outlines the number of children in multi-grade classrooms at Ndabanhle Primary School.

Table 3.4 sets out the grade combinations at Ndabanhle Primary.

Table 3.4: Grade Combinations in Ndabanhle Primary School

Combinations of Grades (G) 2 to 6		
Learners in class	6 (Gr 2) + 9 (Gr 3)	6 (Gr 4) + 8 (Gr 5) + 6 (Gr 6)
Total in grade	15	20
Total number of learners in a multi-grade classroom = 35		

The following table recounts on how teachers at Ndabanhle Primary navigate in teaching fused classes under one teacher instruction.

Table 3.5: Teaching practices in multi-grade classes at Ndabanhle Primary

<i>NDABANHLE</i>	<p style="text-align: center;">Grades fused: 2 & 3 and 4, 5 & 6</p> <p>The school enrolls new grade R learners each year. All learners are taught the same content in the multi-grade classroom. The teachers use a two- or three-year plan that involves all the grades for the whole year depending on the classroom divisions. Teachers struggle to complete the curriculum plan in a year. All the groups are assessed in the same way.</p>
------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

At the time of the study, a final decision on the closure of the school was being awaited.

3.5. Data generation methods

Data generation refers to information collected to answer the research question. Data sources include participants, organisations, and electronic media (Wahyuni, 2012). Semi-structured interviews were employed to gather data from the study participants. An interview guide was used and the interviews were audio-recorded. Permission to conduct the study was sought from the DoE and the school principals. The semi-structured interviews enabled the teachers (participants) to answer the questions freely and express their views on teaching in multi-grade classrooms. Each interview lasted 30 to 45 minutes and they ran over two days in different weeks.

3.5.1. Semi-structured interviews

According to Ok and Erdogan (2010), semi-structured interviews are based on planned questions to lead the conversation in a productive way and answer the research questions. However, Cohen-, Morrison, and Morrison (2007) note that the data collected may be difficult to analyse as the researcher may find it challenging to combine answers that are similar. Semi-structured interviews are a common primary data generation method within the interpretive paradigm as they promote human interaction (Coetzee, 2014). In this study, the semi-structured interviews were designed to provide answers to the critical research question on the strategies used by teachers in the multi-grade classroom in rural settings.

The advantage of this method is that open-ended questions are put to the participants that probe their thinking and explanations of a phenomenon, in this case, the strategies used by teachers in the multi-grade classroom. It enables the collection of meaningful data, and the participants' experiences in a particular context. According to McMillan and Schumacher (2010), semi-structured interviews are a flexible, adaptable and versatile way of generating data that has no age restrictions, is suitable for illiterate and blind people and allows the researcher to interact with the participants after the interview session. However, Cohen, Manion, Morrison, and Wyse (2010) argue that they are time-consuming as probing questions need to be posed to gather in-depth data. Nonetheless, this was found to be an appropriate tool to investigate the curriculum strategies used by teachers in the multi-grade classroom (Doody & Noonan, 2013).

The participants were interviewed at their place of work during break time using an interview guide. Where necessary, the questions were rephrased. The interviews were audio-recorded with the participants' permission.

3.5.2. Focus group discussion

Ritter and Barnett (2016) defined a focus group as a number of people grouped together to collect data on a specific phenomenon for research purposes. According to a focus group is a group of 6-10 members that is used to gather qualitative data on the meaning of a situation rather than searching for truth. The focus group discussion allowed the participants to discuss, debate and relate their common experiences. Such discussions can be used as the primary means of data generation or combined with other methodologies (Redmond & Curtis, 2009). In the current study, it was used to generate mutual understanding of the strategies used by teachers in the multi-grade classroom. Focus group discussions are a popular research technique as the interaction among the participants yields data and experiences that could not be acquired in individual interviews (Thaba-Nkadimene, 2020). The same questions as those used in the semi-structured interviews were used in the focus group discussion to obtain more in-depth data from the participants. This generated more data than expected because some views stated in the interviews were different from those obtained during the focus group discussion. The participants not only focused on answering the posed questions but networked (Cohen et al., 2011). This discussion was also audio-taped.

A. Advantages of focus group discussions

According to Krueger and Casey (2015), focus group discussions enable the researcher to interact with the participants to explore how and why they reflect on the investigated phenomenon in different ways. Ritter and Barnett (2016) comment that this methodology explores people's different versions, opinions, ideas, desires and anxieties with regard to a phenomenon. The questions revolved around the strategies used by teachers in the multi-grade classroom in a rural context. Stewart and Shamdasani (2014) observe that focus groups are the most accessible method of data generation through group discussion. The data is generated easily and timeously. They enable the researcher to build rapport with the participants in a face-to-face conversation that offer explanations of the answers provided.

Furthermore, nonverbal cues are picked up during the course of the discussion that may support or negate the verbal responses. The researcher is able to mingle with the participants

during the conversation and explore various themes (Göttfert, 2015). The participants feel comfortable as the atmosphere is relaxed, making them more open to providing honest answers.

B. Disadvantages of focus groups discussions

One of the disadvantages of small focus group discussions is that the views and opinions expressed cannot be generalised to a wider population (Stewart, Shamdasani, & Rook, 2015). In the case of the current study, while there were only a few participants, the required data was, nevertheless, obtained.

Carey and Asbury (2016) advise against the use of focus group discussions if:

- The participants are not willing to share their personal views and beliefs with others. This implies that the researcher should avoid sensitive topics or issues that may create tension. Examples include monetary issues, marriage, and divorce, among others (Sgier, 2012).
- The theme of the focus group discussion is not of interest to the participants or is likely to lead to conflict between the interviewer and the interviewees. Some participants may express strongly opposing views or may lack experience of the theme (Krueger & Casey, 2015). In this regard, I selected relevant participants that have knowledge of the strategies used in the multi-grade classroom in a rural setting and ensured that no pressure was imposed on any participant by others in the group.

Table 3.6 Data Generation Plan

QUESTION	OBJECTIVES 1 & 2
Why are the data being generated?	To identify and understand the strategies used by teachers in multi-grade classrooms.
What is the research strategy?	Semi-structured interviews were used to generate data.
Who (or what) will be the sources of data?	Two multi-grade teachers from two different primary schools in the Umlazi District who are teaching in rural settings.
How many of the data sources will be utilised?	Two Foundation Phase teachers and two Intermediate Phase teachers in different schools were interviewed.
How often will data be generated?	Semi-structured interviews were conducted twice a week in each school.

Justification for the plan	Four teachers from different schools was a suitable sample size. These schools were located in a single district with multi-grade classrooms in a similar school context, with similar teaching hours, ethnic group, language usage and teaching material. An interview schedule, tape recorder and transcripts were used to assist me in analysing the data.
----------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3.6. Data analysis

In a qualitative study, data analysis refers to “the process of breaking up the data into parts and reorganizing the parts into a reasonable whole” (Potter, 2013). This is an inductive process to identify the relationships amongst relevant themes, and analyse, summarise and translate the data in terms of the participants’ points of view (McMillan & Schumacher, 2010). The interview transcripts were used to identify and analyse the categories. I structured and verified the analysis of the individual responses of each participant before proceeding to the subsequent transcript. The consistency and truthfulness of each participant was well maintained (Cohen et al., 2011).

The data analysis focused on the various teaching strategies used in multi-grade classrooms. The findings were compared with the literature. Grounded analysis was employed and the data were classified and clustered in meaningful groups to explain the phenomenon (Walliman, 2017). A thematic approach was used to analyse the qualitative data that yielded in-depth, rich information and different experiences of the teaching strategies used by teachers in the multi-grade classroom.

3.7. Trustworthiness and credibility of data

Trustworthiness measures the authenticity of the results (Lincoln, Lynham, & Guba, 2011) and is an indication that findings are worth paying attention to. According to Knaub (2016), trustworthiness is associated with the truth, significance and objectivity of the research. The basic epistemological standards for any qualitative research thus involve trustworthiness that is reflected in dependability, transferability, confirmability and credibility (Gunawan, 2015).

Credibility refers to reliable research findings based on an appropriate sample size. The sample selected depends on the purpose of the study, the research question and the depth of the data required (Cope, 2014). This implies that the integrated process of data collection, data analysis and theory generation reflects what occurred in the real-life setting. The sample selected for this study was sufficient to achieve these objectives.

3.8. Ethical considerations

Cohen, Manion, et al. (2013) define ethics as “a matter of principled sensitivity to the rights of others, and that, while truth is good, respect for human dignity is better”. Since ethics is a moral belief and rules, it assists people to differentiate right from wrong. Given that research involves human beings, human rights must be respected (Fargas-Malet, McSherry, Larkin, & Robinson, 2010). I treated the participants with respect at all times. Prior to data generation, written permission was sought to conduct the study from the Pietermaritzburg Regional Director of the KZN DoE. A letter that stated the purpose of the study, the name of the researcher and the supervisor and their contact details, was sent to the Regional Director.

Whilst awaiting permission, I prepared the interview questions and schedule (see Appendix 1), and the questions for the focus group discussion (Appendix 2). The letters of request to the two school principals are set out in Appendices 4 and 5, while Appendix 6 contains the letter notifying the principal of the multi-grade teachers that agreed to participate in the research project.

All the study participants signed an informed consent form indicating their agreement to participate in the study and granting permission for the interview to be audiotaped and used for research purposes and dissemination of the research findings (See Appendix 7). The letter also informed the participants of their right to select the time, date and venue for the interview. The participants were informed how long the interviews would take; that pseudonyms would be used to protect their identity; that participation was voluntary and that no incentives would be offered; and that they were free to withdraw from the study at any stage with no repercussions. Finally, the participants were informed that the information obtained would be held in a safe place for a period of five years (see Appendix 9).

Once ethical clearance had been received from the University of KwaZulu-Natal and the KZN DoE in the Umlazi District granted permission, I contacted the principals of schools and the proposed participants in writing and telephonically. The nature of the study was explained in detail and once the participants agreed to interviews, appointments were scheduled.

3.9. Limitations of the study

Allen and Wright (2014) describe limitations as the challenges that are likely to be encountered during the course of a research study, such as time limitations and the need to accommodate informants' schedules. The interviews and focus group discussion were held during break time and after school hours.

The first limitation is that this case study involved two public primary schools in a rural setting; the findings are thus not generalisable to all multi-grade classrooms, schools or settings.

Secondly, the participants were wary of being recorded, as they feared that departmental representatives may listen to the tapes. Furthermore, they were not comfortable with the interviews being conducted in English and wanted to withdraw from the study. Language barriers raise the possibility that some of the information provided could be flawed (Guo, 2013).

To address these issues, I explained that the data generated by the interviews would only be used for research purposes and that pseudonyms would be used in place of their real names. I also ensured that the questions were posed in straightforward language. I avoided ambiguous questions that could be interpreted in more than one way (Cohen, Morrison, et al., 2013) and encouraged the participants to respond clearly and honestly. I emphasized that the objective was not to evaluate them, but to explore the strategies used by teachers in the multi-grade classroom in rural settings.

3.10. Chapter summary

This chapter presented the research design and methodology employed for this study. It discussed the research paradigm, data generation methods and data analysis. A qualitative case study and interpretive paradigm were adopted. The chapter also highlighted participant selection using purposive and convenient sampling techniques to construct a sample of

experienced and easily accessible teachers. The chapter concluded by discussing the issue of trustworthiness, the ethical considerations taken into account and the study's limitations.

The following chapter presents and analyses the data and interprets the findings.

CHAPTER FOUR

Data analysis and interpretation

4.1 Introduction

The preceding chapter discussed the research design and methodology employed to conduct this study. This chapter presents the data generated through semi-structured interviews and a focus group discussion with four teachers in two multi-grade primary schools in rural areas in the Umbumbulu region of the Umlazi District. Inductive and deductive analysis was used to interpret the results.

The analysis was guided by the research question. Direct quotations by the participants are used to promote understanding of the strategies used by teachers in the multi-grade classroom in a rural context (Cohen et al., 2011). While these have been edited to enhance readability, care has been taken to retain their original meaning. Pseudonyms are used to protect the identity of the participants and their schools.

4.2 A snapshot of the participants

Sheila, a 44-year-old female teacher with 22 years' teaching experience who has a matric, teaches at Funulwazi Primary School.

Luna, a 47-year-old female teacher with 28 years' experience and a Bachelor of Arts (BA) is employed at Funulwazi Primary.

Zelda, a 50-year-old female teacher with 31 years' teaching experience, who holds a Primary Teachers' Diploma (PTD), teaches at Ndabanhle Primary.

Shaun, a 56-year-old male with 35 years' teaching experience and a Primary Teachers' Certificate (PTC), is employed at Ndabanhle Primary School.

4.3 Data presentation, analysis and interpretation

The data are presented, analysed and interpreted according to the themes that emerged from the semi-structured interviews and focus group discussion.

4.4 Thematic analysis

Clarke and Braun (2013) describe thematic analysis as a method employed to summarise the themes that emerge from the data. The following themes were identified:

- The multi-grade classroom
- Curriculum presentation in the multi-grade classroom
- Managing learning in the multi-grade context
- Meeting CAPS requirements in the multi-age class
- Utilisation of a constructive plan in diverse classes
- Learner and teacher evaluation
- Parental support
- Developmental support for multi-grade teaching

4.4.1 Theme 1: The multi-grade classroom

For the purposes of this study, the term ‘multi-grade’ covers a number of terms such as a combination of different classes, a double or vertical class, and classes comprised of learners with different capabilities, mixed-ages and different levels of development in one classroom under one teacher’s instruction (Smit & Engeli, 2015). The following question was posed in relation to the multi-grade classroom:

What is it like to teach in a multi-grade classroom?

Sheila said:

In teaching Grades 1, 2 and 3 in a multi-grade classroom, I discovered that, this type of teaching is plagued by fluctuating enrolment, mostly in rural schools. Indeed, teaching in a multi-grade classroom remains a great challenge in our school because it is not easy to teach one grade at a time with three classes under my control.

Sheila’s practical experience of multi-grade teaching in a rural context revealed that fluctuations in school enrolment create uncertainty. Moreover, teachers are expected to engage in a new and unknown pedagogic approach that is not yet approved by the DBE (Juvane, 2010). Taole and Mncube (2012) note that multi-grade teaching is part of the drive to implement compulsory education in developing countries. However, it is fraught with

difficulties. As an unqualified teacher, Sheila seemed to be struggling to teach three grades in one classroom.

Zelda commented:

It is very challenging to teach in a multi-grade classroom, which I was not trained for; despite poor resources, I have to produce good results. Furthermore, I find it hard to keep the learners focused, and even though I am qualified, I am demotivated because all the workshops that I attended are for mono-grade teaching. I therefore, decided to divide the class into groups and teach them one at a time.

Zelda's qualification, which she obtained 31 years previously, did not prepare her to teach multi-grade classes. Furthermore, the school suffers from inadequate learning resources, and that makes it difficult to produce the results expected by the DoE. Joubert (2007) notes that teachers working under such circumstances need support including training from the relevant stakeholders.

Luna observed:

Teaching in a multi-grade classroom is not easy because you teach in a new and unknown/unfamiliar field with different grades (4 and 5) and different behaviours but are expected to deliver the content like in a normal classroom. In our school, the supervisor keeps saying, "comply and complain later". This means, do what is expected of you and air your views at a later stage. This statement made me think about relevant content and focus on the passion and reasons that called me to the teaching profession in order to achieve the goals, aims, objectives and learning outcomes regardless of the learning space in the multi-grade classroom.

Placed in a new and unknown field and expected to deliver relevant content and encourage positive learner behaviour, Luna drew on her passion for teaching to motivate her to succeed as a teacher regardless of the conditions in which she finds herself.

Shaun said:

It is very difficult to teach in the multi-grade classroom because this involves more than one class in the same classroom under one teacher's instruction and is very confusing to the learners and even to me as a teacher. I have to prioritise collaborative and individual learning in the multi-grade classroom.

This extract suggests that multi-grade teachers have to use their discretion to choose relevant strategies that will benefit all learners in the differentiated classroom. It also demonstrates that the challenges of this kind of teaching do not only affect un/underqualified teachers, but those with relevant qualifications. Kucita et al. (2013) note that, teaching is not an easy task under any circumstances and teaching in a multi-grade classroom places additional pressure on teachers.

While Taole (2014) maintains that multi-grade teaching is the most feasible option for extending basic education to all children, especially in rural areas that were disadvantaged during the apartheid era and remain so post-1994. Therefore, many teachers are reluctant to engage in this type of teaching due to the challenges raised by the study participants and the fact that this type of instruction is not yet formally recognised or supported by the DoE.

4.4.2 Theme 2: Content presentation in the multi-grade classroom

Traditionally, content refers to the components of the subjects taught in schools. The DBE published the CAPS document as a reference for all subjects. Teachers are thus regarded as curriculum agents that are expected to deliver the required content to learners taking into account the learning space, learners' cognitive level of development, and the time allocated to the subject. Thus, multi-grade teachers need to prepare lessons that stimulate and motivate learners in this type of teaching setting. However, they find it difficult to meet the curriculum requirements as they teach more than one class in the same classroom. Indeed, the CAPS guidelines were designed for mono-grade teachers who are responsible for a single grade. The participants explained how they cope with these challenges:

Sheila stated:

I am teaching three classes, Grade 1, Grade 2 and Grade 3. I do separate lesson plans considering the learners' level of development. It is very difficult to deal with multi-grade teaching because I have to ensure that each grade has prepared work with activities in a very short space of time. I have to give them written work after teaching each class separately, unlike in the mono-grade class.

Shaun said:

I plan my lesson according to the Curriculum and Assessment Policy Statement for each approved school subject for a specific grade. I try to design a lesson that

accommodates all the learners' level of understanding and enhances their thinking abilities.

Shaun and Sheila both adopted a new approach and plan a lesson for each grade in order to deal with the challenges of teaching and learning in a differentiated classroom. However, this type of teaching is time consuming because they teach a single grade at a time and the other one or two grades wait their turn. The teacher moves from grade to grade and has to set work for those that he/she is not teaching to keep them busy. The curriculum cycle and class timetable are extended to fit the planning schedule and the classroom is segregated to accommodate all the grades.

Mulcahy (2007) observes that staggered teaching of different curricula is time consuming. The author adds that it requires thorough lesson planning and preparation, calling for expertise on the part of the multi-grade teacher.

Zelda stated:

What I normally do in the multi-grade classroom, I had to devise some means that would be viable for the benefit of all the learners. I apply curriculum rotation whereby the whole class learns the curriculum for one grade (Grade 2) for the whole year, then, in the following school year, they will do the curriculum of the other grade (Grade 3). Therefore, I teach both grades together, the same content/themes and one lesson plan for the two grades. I teach like in mono-grade classes and am able to follow the CAPS document without hesitation. Indeed, all learners are benefitting from this type of teaching, including slow learners who need ample time to repeat and remedial teaching.

Zelda designed her own techniques to teach in a multi-grade classroom and chose to combine the grades under her instruction. She teaches a number of grades combined in a single classroom, using the lesson plan from the CAPS document that, together with the Annual Teaching Plan (ATP), sets the curriculum for all South African schools. Cornish (2013) notes that this teaching style, which is described as whole class instruction using curriculum rotation, is commonly used in multi-grade teaching, a fact which Zelda was unaware of. She implemented group teaching in the multi-grade classroom, with all three grades taught the same programme and assessed using the same questions. This offers multi-grade learners the same opportunities as a single grade class. However, the length of the syllabus cycle may

disrupt the education of learners who relocate to a mono-grade school, because this type of teaching is not used in such schools.

Luna reported that:

I am teaching two classes, Grade 4 and Grade 5. I prepare separate lesson plans but combine planning in subjects like Life Skills because the topics are similar. Before preparing for classroom teaching, I check for topics that are common for that particular week in all grades in order to prepare one lesson plan. What is important during planning is to choose interesting content/a theme that will build learners' cognitive and non-cognitive skills and to consider learners' level of development, as they are not at the same level in the multi-grade classroom. Fortunately, the Department of Education prescribed the Curriculum and Assessment Policy Statement (CAPS) document as a guide/bible for educators in mono-grade classes to identify themes that are relevant to each grade on a weekly basis.

This extract highlights Luna's commitment to her work as she plans her lessons carefully and identifies common topics across the grades to save time and minimise her workload. She also searches for themes that enhance learners' critical thinking in order to enable them to reach their full potential. This is not practised in the mono-grade class, where teachers focus on a single grade and deliver the same content to learners of the same age. Klees (2012) support the notion of curriculum alignment and spiral curricula that revolve around the same themes in various grades' programmes.

4.4.3 Theme 3: Managing learning in the multi-grade context

Sheila remarked that:

Teaching in a multi-grade classroom is challenging because I have to ensure that all three grades have prepared work to teach them in a very short space of time and give them written work. I decreased the time allocated in the CAPS document to all Foundation Phase (Mathematics, IsiZulu, English, and Life Skills) subjects to 30 minutes instead of an hour to accommodate multi-grade teaching. Hence, the time is still not enough for three grades. The main objective of the CAPS is to enhance teaching and learning. Multi-grade teaching means additional paper work for teachers and extended preparation from one class to three classes; we are overwhelmed with a heavy workload.

Zelda observed:

In the first place, I found it challenging to teach two different age group classes but teaching similar classwork, which are Grade 2 curricula. Initially, the Grade 3 class is repeating Grade 2 curricula. I always expect disruption as they complete their work earlier and make a noise which disturbs the Grade 2 learners who are new in the classroom. Each year, I observe different levels of understanding caused by the age factor. I use class prefects to control class discipline or noise when busy instructing the other grade.

Luna said that:

Teaching in a multi-grade classroom is always challenging because learners do not know the importance of coming to school on a daily basis and being involved in different class activities that are used to promote the culture of teaching and learning. I use 'extrinsic motivation' versus 'corporal punishment' to keep them motivated by giving stickers to learners that manage to complete the given task correctly.

Sheila, Luna and Zelda's experiences, point to similar difficulties in implementing multi-grade teaching, prompting them to design strategies to accommodate learners in different grades. They use isiZulu or English workbooks and work cards to improve learners' vocabulary and language usage, and ensure that learners in other grades are kept busy while the teacher is attending to a specific grade. However, Juvane (2005) suggested that, such activities should not be too difficult as learners have to tackle them on their own. She added that, sending the other grades outside the classroom is risky as the learners may come to harm.

Given the time constraints, the participants focus on the time allocated to each subject and are inclined to devote half of it to each grade and to appoint class leaders to assist them. This requires that they set work for the class leaders to supervise while they attend to another grade or learners in need of assistance. Corporal punishment has been outlawed in South African schools and the teachers used different incentives like sweets, stickers, and early closing if the work is executed correctly.

Shaun stated that:

Multi-grade teaching is challenging when choosing the themes and teaching methods. I have to accommodate all grade groups to ensure that they are participating in the lesson; and make them understand the delivered content. Sometimes multi-grade teaching becomes exciting because the lower grade listens to the upper grade themes when I am teaching them and this becomes revision for them when we reach the upper grade curriculum. Even the teacher flows with the lesson without experiencing hardships.

However, Shaun was trained to teach mono-grade classes and he indicated that mono-grade and multi-grade teaching produce different teaching and learning outcomes. (Unesco, 2015) notes that multi-grade teaching occurs when learner numbers dropped below 50 in remote areas and prevented school closures in South Africa and other countries. This suggests that, multi-grade teaching extended opportunities to enhance teaching and learning in diverse learning spaces or environments, particularly with respect to sparsely populated rural schools that do not have adequate pedagogic or educational resources due to geographical and socio-economic circumstances (Soofi & Akhtar, 2015).

Shaun described multi-grade teaching as an interesting experience. He plans his lessons and delivers them to different groups in such a way that all learners or grades gain something. Learners in lower grades tend to be high achievers when they reach the upper grade because the teacher repeats the same content. This implies that multi-grade teaching addresses the challenges of learner retention and high failure rates in vertical groupings (Dee & Jacob, 2011).

4.4.4 Theme 4: Meeting Curriculum and Assessment Policy Statement (CAPS) requirements in the multi-age class

Multi-age classes are multi-grade classes or groupings that combine learners of different ages and abilities (Thaba-Nkadimene, 2020). Stone and Burriss (2019) describe the multi-age classroom as a special form of grouping that changes the entire teaching structure without considering learners' socio-economic status, nationality, language and gender. While most schools use the term 'multi-age', in reality, they have not switched from a single grade to a multi-age class. In this type of grouping, learners are divided into small groups, with individualised learning and whole class learning, based on the curriculum that focuses on

learners' requirements. Fullan (2014) observes that teaching multi-age classes calls for careful planning to meet learners' needs.

Teachers of multi-grade classes are required to meet the CAPS requirements.

Sheila asserted that:

The CAPS plays a crucial role in multi-grade teaching because it guides me to follow the themes/topics and weeks allocated for each grade; but it is not easy to complete the stipulated work as I always have incomplete themes in all grades.

Luna said that:

I use the CAPS document to guide me in multi-grade teaching but do not follow it exactly because it sets a specific period to complete a particular task. Therefore, it is not easy to meet CAPS requirements. The CAPS give clear direction on what to teach; when to teach and how to teach a particular topic in mono-grade classes. The CAPS document does not fit in the multi-grade classroom because it says nothing about multi-grade teaching even though the Department of Education is aware of the existence of multi-grade schools.

These excerpts point to the challenges the participants experience in implement the CAPS document. Both Sheila and Luna expressed concern that they are unable to complete the work set out in this document and is not designed for multi-age/multi-grade classes. Joubert (2007) notes that, the DBE has not officially adopted multi-grade classes as an approach to teaching.

Zelda said that:

The use of CAPS documents in the multi-age classroom has a positive impact on learning outcomes. This means that, all subjects are allocated teaching time. It depends on the curriculum rotation strategy that I have adopted in the multi-grade classroom. I have noticed that many of the themes in the CAPS document fall outside the rural teaching context. For instance, teaching all subjects in IsiZulu whilst learners are encouraged to understand and speak English at an early stage of development to prepare them for the Intermediate and Senior Phase where all subjects are delivered in English except IsiZulu.

Shaun declared that:

I have nothing much to say about CAPS as it carries the content structure that is used in the teaching space. As I group the learners for teaching on a daily basis, it is hectic and unbearable to manipulate CAPS in the mixed-age classroom. CAPS document imposes too much work on both teachers and learners in a very short space of time.

This interpretation suggests that the CAPS document focuses on the teaching and learning of all subjects and planning requirements for mono-grade classes only. Stewart et al. (2015) notes that, the CAPS document provides teachers with the exact content to teach from Grades R-12. Teachers are instructed what to teach, how to teach and when to teach particular content. This suggests that, they do not have the authority to add or modify the themes allocated in each grade, even if this might benefit learners (Jansen, 2012).

Zelda and Shawn complained about the workload and dissimilar and difficult themes set in the CAPS curriculum which is not always appropriate in rural and semi/township schools. For example, Mathematics and Life Skills are taught using the mother tongue (IsiZulu) in the Foundation Phase, unlike in multi-racial schools where teachers and learners use English. Furthermore, learners in such schools gain a deep understanding of the content and a solid foundation is laid in the lower grades. When learners are taught in the mother tongue in the Foundation Phase, they reach Grade 4 unable to speak, read and write in English; this is the case in both mono-grade and multi-grade classes.

The teachers also expressed concern that insufficient time is allocated to accommodate all learners' levels of cognitive development. Ramatlapana and Makonye (2012) concur that the CAPS document contains difficult content and that too many tasks are set. This is compounded in a multi-age classroom, where teachers are unable to assist slow learners due to time constraints. Combined with a lack of teaching resources, especially in rural schools, this means that learners are not adequately prepared to enter Grade 4. In summary, teachers in multi-grade teaching contexts in rural schools cannot meet CAPS requirements.

4.4.5 Theme 5: Utilisation of a constructive plan in diverse classes

Zelda noted that:

I do not use a teacher-centred approach in multi-grade teaching as it does not work at all. In this approach, the teacher does a lot in the classroom during teaching and

learning and the learners remain passive from the beginning to the end of the lesson. I normally use a cooperative and individual approach in my classroom.

Sheila said that:

I prefer to use group work and individual learning as the best teaching approach that I use effectively in the multi-grade classroom. I divide the learners into small groups in each grade and select leaders to monitor each grade group whilst busy with the other groups. The older learners move around their groups helping other learners where they experience difficulties with the given task or work.

Zelda and Sheila were critical of the teacher-centred approach and instead favoured group work and individual learning. Learners are divided into small groups and the teacher selects group leaders, scribes, presenters and timekeepers to assist others during group work especially learners experiencing learning difficulties. The former are usually capable learners who complete their work on time. The individual approach enables learners to engage in discussion and debate on the theme. In contrast to a teacher-centred approach, it encourages learners to be active participants in their learning, whether in a mono-grade or multi-grade classroom.

The cooperative and individual approaches enable learners to share their understanding of the content presented to them in class and equip them to become independent and face the future with confidence. Shy learners will feel more comfortable when they work with others.

However, group work is time-consuming.

Luna remarked:

Group work is time consuming because I have to move from group to group in each grade. I have to do a follow-up on each group that is monitored by a group leader. I also need to do remedial work.

The fact that Luna makes time to do remedial work despite the demands placed on her by group work shows her commitment to the teaching profession.

Shaun asserted that:

I do not believe in rote learning in multi-grade teaching because it promotes learning without understanding that occurs when teachers drill information into learners for

the sake of a high pass rate. This method is not useful because learners forget what they have learned. I prefer the role-play method in the multi-grade classroom.

Shaun also raised the challenge of insufficient teaching resources, as he is provided with a teachers' book, while only a few learners' books are provided. The role-play method he alludes to motivates learners to pay attention and to participate actively in activities in the multi-grade classroom. In this case, Shaun uses a quasi-mono-grade teaching strategy, with each grade taught in turn according to a prepared plan as in a mono-grade classroom.

4.4.6 Theme 6: Learner and teacher evaluation in the multi-grade classroom

Evaluation or assessment takes the form of formative or summative assessment whereby teachers plan and utilise different activities in the classroom, and learners are able to evaluate themselves. The expected outcomes are set out in the CAPS document. The information obtained from formative and summative assessment enables identification of what needs to be changed in teaching and learning activities (Msimanga, 2020). Formative assessment informs the teacher and the learner how the learner is progressing in their schoolwork, whether in a mono-grade or multi-grade classroom. The study participants outlined the problems they encounter in assessing learners in the multi-grade teaching.

Shaun noted that:

In the multi-grade classroom, it is not easy to prepare the same test for different grades because the learners are at different cognitive levels of development. I organise assessment for each grade.

Shaun navigates the multi-grade teaching context by preparing evaluation for each grade group, with learners writing different tests in line with their cognitive level of development.

While Shaun uses formative and summative assessment, he bases his testing on formative assessment where he plans and evaluates learners at the beginning of the organised activity and utilise these marks at the end of the term to assess their progress. This type of assessment allows ample time for remedial work or to assist learners who do not grasp the subject matter immediately. It helps to reduce the number of learners that have to repeat a grade because they are assessed during teaching and the content is revised until all learners have mastered it.

Luna said:

As I teach two classes, I prepare different tasks for each grade. Firstly, I design different class activities for each grade, then concentrate on a targeted class group, testing them with a variety of questions as stated in the CAPS document, particularly at the end of the term. The results may show the slow learners that need remedial work. This assessment also evaluates my teaching techniques as a teacher through the marks obtained from the assessed subject.

The statements by Luna and the other teachers show that they evaluate their teaching and learners' progress using formative assessment, followed by summative assessment.

However, Luna highlighted that proper evaluation is difficult when the teacher is overwhelmed with work and teaches many classes. Berry (2006) notes that, individual assessment is demanding. This is particularly true of multi-grade classrooms. While Luna applied a summative approach at the end of the term, she failed to meet the assessment requirements set out in the CAPS document due to time constraints and the fact that she teaches two grades made up of learners with different learning abilities (Simelane, 2014).

Zelda said that:

Since I decided to implement curriculum rotation, the assessment strategy in the multi-grade classroom is the same in both grades as implemented in a mono-grade class. The difference lies in the fact that two grades are located in the same classroom, while the teaching and evaluation focus on one grade.

Zelda uses curriculum rotation that makes teaching simpler than in other multi-grade classes. She extends the curriculum of two grades to a two-year cycle, and teaches the Grade 2 curriculum to both Grades 2 and 3 for a year, while the Grade 3 curriculum is taught the following year. She thus uses the same assessment strategy for both grades.

Shaun remarked that:

As I follow the CAPS document in my teaching, and assessment for each class, I focus on different grade assessment, giving them different activities even if the lesson is the same because I have to consider the learners' level of development, which is not the same. The questions extracted from the lesson taught to the learners will vary according to their cognitive thinking and grade level.

However, he expressed concern that the CAPS document specifies a ten-week teaching plan that ends at the end of the term, without taking into account the time required to assess and compile reports for each learners at the end of the term. The time allocated for examination has to be subtracted from the ten-week plan, leading to some topics not being fully covered. Shaun added that it was challenging to design different questions for the three grades in his classroom that take into account learners' different levels of development.

4.4.7 Theme 7: Parental support

Traditionally, parents were viewed as 'patrons' which means that they trust educators to act on their behalf as in-loco-parentis in instructional matters during the school day (Bua & Martin, 2020). However, modern policymakers and teachers acknowledge the need for collaboration with parents and communities to enhance teaching and learning. This calls for teachers, parents and learners to support learning at all levels to improve the culture of teaching and learning in the multi-grade classroom in rural settings. The participants agreed that the level of parental support in their schools is disappointing.

Zelda said:

Teaching in the multi-grade classroom is always challenging because the rate of absenteeism is high due to parents' negligence. They do not know the importance of schooling in their children's lives.

Sheila observed that:

Parents have expectations of good results each quarter, but fail to play their role as parents during the course of the year.

Luna stated that:

Parents do not participate in their children's education because they disapprove of the implementation of multi-grade teaching.

Tredoux (2020) notes that, when parental support is not forthcoming, this results in high absenteeism rates in schools. Benveniste and McEwan (2000) posited that the lack of such support could be due to parents' low levels of education or lack of awareness of their rights with regard to their children's learning. Levels of parental involvement are thus likely to be low in rural areas with high levels of illiteracy.

The participants noted that communities in the area in which their schools are located suffer high rates of unemployment, poverty and ill-health, and when parents die due to disease, older children take over as heads of households. Some learners come to school on an empty stomach, making it difficult for them to pay attention in class, while many cannot afford stationery.

Such conditions demoralise teachers, Msimanga (2020) observes that teachers' job satisfaction depends on recognition by parents and the community at large for a job well done. Teachers, parents and learners need to work together to ensure that learners are successful in school and in life (Epstein, 2018). Teachers and parents play similar roles in teaching and nurturing the young child. While the teacher delivers the prescribed content to learners in the classroom, parents teach the child in the home using general knowledge.

This suggests that, there is a gap in the education system that policy makers need to address. Not only has the multi-grade teaching system caused a rift between parents and teachers, but the current work plan used in the classroom does not involve parents except for issuing learner progress report to them. The DBE thus needs to work with teachers to identify ways to build rapport with parents in order to enhance their children's school performance and help them to succeed in life.

4.4.8 Theme 8: Developmental support for multi-grade teaching

Internationally, multi-grade education is recognised as an important tool to ensure that all children receive an education, especially in remote rural areas with low learner enrolment and few teachers (Benveniste & McEwan, 2000). However, such schools are often assigned lower status and teachers carry a heavy workload. The participants offered their views on what could be done to support multi-grade teaching in rural settings.

Zelda asserted that:

As a multi-grade teacher, I do not receive any support from the DoE, even teaching aids, but I am expected to produce good results. When the subject advisors visit the school for monitoring and support, they do not give any clue on how to navigate multi-grade teaching. Therefore, I improvise to implement the curriculum.

This suggests that multi-grade education is trivialised by the DBE. Rather than focusing purely on whether teachers have completed the ATP or the required themes, subject advisors should assist multi-grade schools to address the curriculum challenges they confront.

Moreover, the participants reported being rebuked for insufficient work being recorded in learners' exercise books in terms of CAPS requirements. As noted earlier, it is difficult for multi-grade teachers to cover all the content required in the allocated time. This suggests the need for a curriculum that considers the situation in both mono-grade and multi-grade classes to promote meaningful teaching and learning.

Luna commented as follows:

As a Grade 4 and 5 teacher in a multi-grade classroom, I always appreciate the internal school workshops convened by the principal to support us, suggesting various strategies that assist us to teach in the multi-grade classroom. The Department of Basic Education does not offer any support to the school.

Sheila said that:

I truly appreciate the assistance obtained from the workshops prepared departmentally to assist multi-grade teachers. However, we feel uncomfortable because these workshops stress the usage of CAPS document in the multi-grade classroom; but say nothing about how to implement it. Overall, we receive irrelevant information that does not work in this type of teaching.

Luna appreciated the principal's efforts to assist and empower multi-grade teachers. As a leader she is an ambassador of the DoE at the meso level of the educational programme, while teachers operate at the micro level where they are expected to design teaching plans (Nieveen, McKenney, & Van den Akker, 2006). While Sheila valued the fact that DoE organises workshops on various subjects, she complained that the information provided does not fit with multi-grade teaching. This suggests that, the Department of Basic should revisit the curriculum plan and make changes that accommodate all types of education.

4.5 Summary of the chapter

This chapter analysed the data collected by means of semi-structured interviews and the focus group discussion. The findings were presented in line with the themes that emerged from the data analysis.

The following chapter summarises the findings, presents an overall conclusion, and offers suggestions for further research as well as recommendations arising from the findings.

CHAPTER 5

Summary, Conclusion and Recommendations

5.1 Introduction

This chapter presents a summary of the findings that were set out in Chapter Four. The summary follows the themes that emerged from the analysis of the data. The study explored the strategies used by teachers in the multi-grade classroom in rural settings as well as how teachers navigate the multi-grade classroom. The chapter also offers suggestions for further research and recommendations arising from the findings.

5.2 Summary of the findings

5.2.1 Multi-grade classroom

The findings show that, there is no uniform implementation of multi-grade teaching in rural schools with few learners. According to Hyry-Beihammer and Hascher (2015), multi-grade classes teach learners to ask for assistance, while others learn to offer help. Furthermore, they encourage older learners to learn to work harmoniously and cooperatively with younger children. Most rural schools with class combinations use whole class teaching as a strategy in which learners are taught similar subject matter using the same resources Kalaoja (2006) and (Cornish, 2010). On the other hand, the findings indicate that, teachers confront many challenges in managing a multi-grade classroom and that this could cause them to be reluctant to engage in such teaching, especially in South Africa.

5.2.2 Presentation of content in the multi-grade classroom

The findings revealed that the multi-grade teachers experience challenges in presenting the prepared content, as they have to follow the DBE (2011) guidelines for mono-grade classes. Indeed, the participants were trained to teach mono-grade classes and now have to grapple with unknown and unfamiliar styles of instruction in combined classes due to insufficient human and material resources (Shayi, 2016). Shayi further notes that rural schools with few learners are allocated few teaching posts by the DoE as well as insufficient teaching and learning resources. The participants' noted that the lack of relevant and sufficient learning and teaching material hinders learners' success.

5.2.3 Managing learning in the multi-grade context

The findings indicate that the participants have come to terms with teaching different grades in the same classroom due to their professional commitment (Juvane, 2005). However, novice or inexperienced teachers will struggle to provide effective assistance to all the groups (Joubert, 2007). The findings show that the participants co-opt learner leaders in each group to assist them. Nonetheless, they confront major time constraints that lead to non-completion of their ATP.

5.2.4 Meeting Curriculum and Assessment Policy Statement (CAPS) requirements in the multi-age class

The findings demonstrate that the participants struggle to fulfil CAPS requirements due to their heavy workload and the fact that the ATP appears to exceed the number of weeks scheduled for teaching and learning in the combined classroom. Taole et al. (2012) describes multi-grade teaching as the most ignored part of the education system that makes teachers feel isolated and neglected. The CAPS document specifies the time allocated to teaching a particular subject in a mono-grade class and ignores the multi-grade classroom. It thus impedes teaching and learning in a multi-grade teaching situation (O'Driscoll, 2015). The participants reported that they applied common sense to set aside two weeks per term for assessment and compiling quarterly learners' reports. Joubert (2007) notes that, the fact that multi-grade teaching has not been officially approved by the DBE is at the root of many of the challenges experienced by teachers in such schools.

5.2.5 Utilisation of a constructive plan in diverse classes

The participants used group work or differentiated instruction to occupy learners whilst the teacher is busy with another group (Smit & Humpert, 2012). They also employed peer tutoring where a high-achieving one assists a slow learner. The findings in relation to this theme demonstrate that there is no standard plan for teaching and learning in a multi-grade classroom; teachers thus rely on their own discretion in selecting appropriate strategies (Joubert, 2007).

5.2.6 Learner and teacher evaluation

The findings show that the teachers use the CAPS document to assess their own work and learners' progress. Although the CAPS only provides for mono-grade classes, the participants had no option but to employ this document for evaluation. They used formative assessment, that is informal assessment, to evaluate their work and to ensure that the content was relevant and understood by learners. Learners' understanding of the content was tested. Additionally, teachers use summative assessment, known as formal assessment, which serves as evidence that the learners' scores were collected from the various activities shown in the mark schedule per learner, per subject and quarterly reports as stipulated in the CAPS document (Noone & Miller, 2015). The findings illustrate that CAPS sets a rigid structure that needs to be followed in summative assessment that considers the learning themes, and the marks allocated for oral work, written tests, projects, assignments, and examinations. Therefore, summative evaluation is a crucial instrument to monitor learners and teachers that is practiced regularly in the multi-grade context to enhance learners' performance (Hargreaves et al., 2014).

5.2.7 Parental support

While the literature highlights the important role played by parents in their children's education, the participants reported a lack of parental involvement due to lack of awareness of their role and the fact that many have a low level of education (Mncube, 2010). They added that parents are of the view that teachers are trained to teach and expect teachers to ensure that their children obtain good results at the end of the term (Epstein, 2018).

However, collaboration among teachers, parents and learners is essential to promote academic performance and ensure that learners have a bright future and are able to interact with society (Fan & Williams, 2010). The study also revealed that parents do not approve of multi-grade teaching and are inclined to move their children to monograde schools. This could explain why they do not attend school meetings. More active parent involvement would improve learner attendance, decrease dropout rates and improve their attitude towards learning

5.2.8 Developmental support for multi-grade teaching

The literature notes that the drive to provide education for all resulted in multi-grade education in isolated areas (Juvane, 2010). Due to low learner numbers in each grade, different grades are taught by one teacher in the same classroom imposing a heavy workload on teachers. This is exacerbated by the DoE's lack of support for multi-grade teachers. It was noted, however, that DBE subject advisors developed a toolkit with exemplars for lesson plans per week and term for multi-grade teachers in rural teaching contexts in March 2015. It was anticipated that this would be implemented in schools in 2018. The toolkit aims to reduce teachers' workload, particularly in multi-grade schools, and offers hope to such teachers.

5.3 Suggestions for further research

The following suggestions are made for further research:

- Further studies on the strategies used by teachers in the multi-grade classroom in rural settings, as the literature review revealed that previous studies are based on outdated information.
- Research on an appropriate curriculum for the multi-grade classroom.
- Future studies could investigate curriculum exposure during teaching and learning in the multi-grade classroom as the CAPS document is designed for a single class.
- Research on the most appropriate teaching strategies in the multi-grade classroom and the kinds of training and support required by multi-grade teachers.

5.4 Recommendations

The following recommendations emanate from the study's findings:

5.4.1 First recommendation

The DoE should clearly state the reasons for and significance of multi-grade teaching to teachers engaged in this type of teaching; and instil passion among them to dedicate themselves to this kind of work.

5.4.2 Second recommendation

Curriculum planners should involve teachers in curriculum development for multi-grade teaching. The DBE should provide the necessary resources for the multi-grade classroom in order to improve learner performance.

5.4.3 Third recommendation

The DBE should develop strategies for teaching multi-grade classes and subject advisors should share these strategies at in-depth, practical workshops.

5.4.4 Fourth recommendation

Policy makers should revise the CAPS document to include multi-grade teaching, whether in rural, township or urban areas. This would assist such schools to comply with the CAPS document.

5.4.5 Fifth recommendation

The DoE should assist multi-grade schools with a constructive plan to ensure that all learners obtain quality education. Most of the study participants reported that they use group work or peer instruction to maintain classroom discipline when learners are expected to work on their own without the teacher. However, in mono-grade classes, group work is employed as a strategy to teach learners to work together, assist one another, share different ideas and encourage learner participation in class activities.

5.4.6 Sixth recommendation

The developers of the CAPS should design assessment strategies to accommodate teachers involved in the multi-grade teaching and arrange workshops on such strategies. Furthermore, the number of themes that need to be taught and assessed in the multi-grade classroom should be reduced due to time constraints caused by teaching more than one grade in a class.

5.4.7 Seventh recommendation

Teachers should learn to work with parents to ensure that they understand their role whether in mono or multi-grade classroom; ensuring that their child receives quality education through engaging themselves in the school activities that will enhance the reflection of the school.

5.4.8 Eighth recommendation

The DBE should provide in-service training on multi-grade teaching, particularly in rural contexts. This should address the conditions and challenges that teachers are likely to encounter in multi-grade classrooms. Furthermore, school principals should be made aware

of the consequences of poor management that lead to low learner numbers because parents weigh the effectiveness of schools.

Principals should also upgrade their skills to meet changing curriculum needs and be able to plan, delegate, monitor and control the curriculum. Parents and learners' buy-in can be obtained by enhancing learners' performance and thus improving the school's reputation.

5.5 Chapter summary

The study's findings revealed that multi-grade classrooms offer advantages and opportunities to slow learners because, unlike in the mono-grade classroom, their learning barriers are noted timeously and interventions can be crafted to assist them (Mulryan-Kyne, 2007). Furthermore, such classrooms enable younger learners to learn from older ones. Finally, multi-grade teaching can improve learner performance as the lower grades listen to the upper grade themes when the teacher is teaching them when they reach the higher grade this becomes a revision.

The study also found that the participants' task advanced learners who finish their tasks on time with monitoring and assisting slow learners. This implies that, learners become more autonomous in the multi-grade classroom.

Based on the study's findings, the researcher recommends that the DBE should extend curriculum planning and the CAPS document to include the multi-grade classroom; provide adequate teacher and learner support material to multi-grade schools; offer incentives to teachers to work in deep rural areas characterised by poor working conditions; and design teaching strategies for the multi-grade classroom.

REFERENCES

- Åberg-Bengtsson, L. (2009). The smaller the better? A review of research on small rural schools in Sweden. *International Journal of Educational Research*, 48(2), 100-108.
- Aikman, S., & Pridmore, P. (2001). Multigrade schooling in 'remote' areas of Vietnam. *International Journal of Educational Development*, 21(6), 521-536.
- Aliber, M., De Swardt, C., & Du Toit, A. (2005). *Trends and policy challenges in the rural economy: four provincial case studies*: HSRC Press.
- Allen, J. M., & Wright, S. E. (2014). Integrating theory and practice in the pre-service teacher education practicum. *Journal for Teachers*, 20(2), 136-151.
- Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2018). *Introduction to research in education*: Cengage Learning.
- Autti, O., & Hyry-Belhammer, E. K. (2014). School Closures in Rural Finnish Communities. *Journal of Research in Rural Education*, 29(1).
- Balfour, R. J. (2015). *Education in a New South Africa*: Cambridge University Press.
- Baykan, A. A. (2013). Project based learning in multi-grade class. *Educational Research Reviews*, 8(3), 84-92.
- Benveniste, L. A., & McEwan, P. J. (2000). Constraints to implementing educational innovations: The case of multigrade schools. *International review of education*, 46(1-2), 31-48.
- Berry, C. (2006). Learning opportunities for all: Pedagogy in multigrade and monograde classrooms in the Turks and Caicos Islands. In *Education for All and Multigrade Teaching* (pp. 27-46): Springer, Dordrecht.
- Berry, C. (2010). Multi-grade Teaching. Discussion Document. From < <http://> In.
- Bertram, C., Mthiyane, N., & Mukeredzi, T. (2013). 'It will make me a real teacher': Learning experiences of part time PGCE students in South Africa. *International Journal of Educational Development*, 33(5), 448-456.
- Beukes. (2008). Managing the effects of multi-grade teaching on learner performance in Namibia., .
- Beukes, F. G. (2007). *Managing the effects of multi-grade teaching on learner performance in Namibia* (Doctoral dissertation, University of Johannesburg).
- Beukes, F. G. (2008). *Managing the effects of multi-grade teaching on learner performance in Namibia*, (Doctoral dissertation, University of Johannesburg).

- Brown, B. A. (2010). *Multi-Grade Teaching. A Review of Issues, Trends Practices. Implications of Teaching Education in South Africa. Centre for Education Policy Development. Johannesburg. South Africa.*
- Bua, J. D., & Martin, M. D. M. (2020). Handling multi-grade teaching: It's educational implication towards teachers' competence. *Management Research Journal*. 9(2), 1-12.
- Carey, M. A., & Asbury, J. E. (2016). *Focus group research*. New York: Routledge.
- Chapman, D. W., & Adams, D. K. (2002). *The quality of education: Dimensions and strategies*: Asian Development Bank Hong Kong.
- Checchi, D., & De Paola, M. (2018). The effect of multigrade classes on cognitive and non-cognitive skills. Causal evidence exploiting minimum class size rules in Italy. *Economics. Economics of Education Review*. ☆. 67, 235-253.
- Chihana, V., & Banda, D. (2013). The nature of challenges teachers face in using the Malawi breakthrough to literacy (MBTL) course to teach initial literacy to standard one learners in Mzuzu, Malawi. Educational Resource and informational site. In: Malawi.
- Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist*,. 26(2), 120-123.
- Coetzee, S. (2014). *Sustaining teacher career resilience in a resource-constrained rural education setting: A retrospective study*. University of Pretoria,
- Cohen-, L., Morrison, K., & Morrison, R. B. (2007). *Research Methods in education*.
- Cohen, L., Manion, L., & Morrison, K. (2011). Surveys, longitudinal, cross-sectional and trend studies. *Research Methods in Education, 7th edition*. Abingdon: Routledge, 261-264.
- Cohen, L., Manion, L., & Morrison, K. (2013). The ethics of educational and social research. In *Research methods in education* (pp. 99-128). USA and Canada: Routledge.
- Cohen, L., Manion, L., Morrison, K., & Wyse, D. (2010). *A guide to teaching practice*. London: Routledge.
- Cohen, L., Morrison, K., & Manion, L. (2013). 7 Planning educational research. In *Research methods in education* (pp. 139-166). London: Routledge.
- Cope, D. G. (2014). *Methods and meanings: credibility and trustworthiness of qualitative research*. Paper presented at the Oncology nursing forum.
- Cornish, L. (2010). Multiage Classes-What's in a Name? *Journal of Multiage Education*, 4(2), 7.

- Cornish, L. (2013). Mixed-grade elementary-school classes and student achievement. *Hattie, John/Anderman, Eric M.(Hg.): International Guide to Student Achievement. New York and London: Routledge*, 122-124.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. New York: Sage publications.
- Crowe, S., Cresswell, K., Robertson, A., Hubby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC medical research methodology*, 11(1), 100.
- Danyluk, P. J., Burns, A., & Scott, D. (2020). Becoming a teacher in a rural or remote community: The experiences of educational assistants. In *Rural teacher education* (pp. 183-202): Springer.
- Dee, T. S., & Jacob, B. (2011). The impact of No Child Left Behind on student achievement. *Journal of Policy Analysis and management*, 30(3), 418-446.
- Doody, O., & Noonan, M. (2013). Preparing and conducting interviews to collect data. *Journal for Nurse Reseacher*, 20(5).
- du Plessis, A., & Subramanien, B. (2014). Voices of despair: Challenges for multigrade teachers in a rural district in South Africa. *Educational Research for Social Change*. 3(1), 20-36.
- Engin, G. (2018). The Opinions of the Multigrade Classroom Teachers on Multigrade Class Teaching Practices (Multiple Case Analysis: Netherlands-Turkey Example). *International Journal of Progressive Education*, 14(1), 177-200.
- Epstein, J. L. (2018). *School, family, and community partnerships: Preparing educators and improving schools*: Routledge.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation *Educational psychology*,. 30(1), 53-74.
- Fargas-Malet, M., McSherry, D., Larkin, E., & Robinson, C. (2010). Research with children: Methodological issues and innovative techniques. *Journal of Early Childhood Research*, 8(2), 175-192.
- Fullan, M. (2014). *Teacher development and educational change*: Routledge.

- Goodwin, A. L., Smith, L., Souto-M. M., Cheruvu, R., Tan, M. Y., Reed, R., & Taveras, L. (2014). What should teacher educators know and be able to do? Perspectives from practicing teacher educators. *Journal of Teacher Education*, 65(4), 284-302.
- Gosper, M., & Ifenthaler, D. (2014). Curriculum design for the twenty-first century. In *Curriculum models for the 21st century* (pp. 1-14): Springer.
- Göttfert, E. (2015). Embedding case study research into the research context. *International Journal of Sales, Retailing*, 4(9), 23-32.
- Gunawan, J. (2015). Ensuring trustworthiness in qualitative research. *Belitung Nursing Journal*, 1(1), 10-11.
- Guo, R. X. (2013). The use of video recordings as an effective tool to improve presentation skills. *Journal of Polyglossia*, 24, 92-101.
- Hargreaves, E., Gipps, C., & Pickering, A. (2014). Assessment for learning. *Angela McLachlan, University of Manchester, UK*, 313.
- Hesse-Biber, S. N., & Leavy, P. (2010). *The practice of qualitative research*: Sage.
- Hoadley, U. (2012). What do we know about teaching and learning in South African primary schools? *Education as Change*, 16(2), 187-202.
- Hyett, N., Kenny, A., Dickson-Swift, V., & well-being. (2014). Methodology or method? A critical review of qualitative case study reports. *International handbook of curriculum research*, 9(1), 23606.
- Hyry-Belhammer, E. K., & Hascher, T. (2015). Multi-grade teaching practices in Austrian and Finnish primary schools. *International Journal of Educational Research*, 74, 104-113.
- Jansen, J. D. (2012). Education crisis a threat to democracy. News24, 22 November. Retrieved from: <https://www.news24.com>, 22.
- Jenkins, K., & Cornish, L. (2015). Preparing pre-service teachers for rural appointments. *Australian and International Journal of Rural Education*. 25(2), 14.
- Joubert, J. (2007). Adapted/Adjusted curriculum for multigraded teaching in Africa: A real solution. .
- Joubert, J. (2010). Multi-grade teaching in South Africa. *Common Wealth Education Online*.
- Joyce, T. M. (2014). Quality basic education for all: Challenges in multi-grade teaching in rural schools. *Journal of Social Sciences*. 5(1), 531.
- Juvane, V. (2005). *Redefining the role of multi-grade teaching*. Paper presented at the Working document prepared for the Ministerial Seminar on Education for Rural People in Africa: Policy Lessons, Options and Priorities. Addis Ababa, Ethiopia.

- Juvane, V. (2010). *Southern African multigrade education*. Paper presented at the In South African multigrade education conference Cape Peninsula University of Technology, Wellington Campus.
- Kadivar, P., Nejad, S. N., & Emamzade, Z. M. (2005). *Effectiveness of multi-grade classes: Cooperative learning as a key element of success*. Paper presented at the In *Proceedings of world academy of science, engineering and technology*.
- Kalaoja, E. (2006). Change and innovation in multi-grade teaching in Finland. *Reaching EFA through multi-grade teaching: Issues, contexts practices*. 215-228.
- Karlberg-Granlund, G. (2011). Coping with the threat of closure in a small Finnish village school. *Australian Journal of Education*. 55(1), 62-72.
- Khan, S. (2016). *The Impact of Multi-grade Teaching on Students' Performance at Elementary Level in Khyber Pukhtunkhwa*. Northern University, Nowshera,
- Kivunja, C. (2011). Multigrade pedagogy and practice: Accelerating Millennium Development Goals for Sub—Saharan Africa. *Learning*, 5, 8.
- Kivunja, C. (2014). The urgent need to train teachers for multigrade pedagogy in African schooling contexts: lessons from Uganda and Zambia. *International Journal of Higher Education*, 3(2), 63.
- Klees, S. J. (2012). World Bank and education: Ideological premises and ideological conclusions. In *Education strategy in the developing world: Revising the World Bank's education policy* (pp. 151-171): Emerald Group Publishing Limited.
- Klug, H. (2010). *The constitution of South Africa: a contextual analysis*: Bloomsbury Publishing.
- Knaub, K. L. (2016). *Instructional planning practices of rural, multi-grade teachers: a case study*. Montana State University-Bozeman, College of Education, Health & Human Development,
- Krueger, R. A., & Casey, M. A. (2015). *Focus groups: A practical guide for applied research* In. Singapore: Sage Publications.: Sage.
- Kucita, P., Kivunja, C., Maxwell, T. W., & Kuyini, B. (2013). Bhutanese stakeholders' perceptions about multi-grade teaching as a strategy for achieving quality universal primary education. *International Journal of Educational Development*,. 33(2), 206-212.

- Kvalsund, R., & Hargreaves, L. (2009). Reviews of research in rural schools and their communities: Analytical perspectives and a new agenda. *International Journal of Educational Research*, 48(2), 140-149.
- Lall, M. (2010). Child centred learning and teaching approaches in Myanmar. *Yangon, Myanmar: Pyoe Pin*.
- Le Grange, L. (2014). Curriculum research in South Africa. *International handbook of curriculum research*, 466-475.
- Letsekha, T., Wiebesiek-Pienaar, L., & Meyiwa, T. (2014). Reflecting on the development of context-relevant teaching tools using local and indigenous knowledge. *Procedia-Social and Behavioral Sciences. Procedia-Social and Behavioral Sciences*, 116, 4577-4581.
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. *The Sage handbook of Quality Research*, 4, 97-128.
- Lindström, E., & Lindahl, E. (2011). The Effect of Mixed-Age Classes in Sweden. *Scandinavian Journal of Educational Research*, 55(2), 121-144.
- Lingam, G. I. (2007). Pedagogical practices: the case of multi-class teaching in Fiji primary school. *Education Research and Reviews*, 2(7), 186-192.
- Little, A. W. (2001). Multigrade teaching: towards an international research and policy agenda. *International Journal of Educational Development*, 21(6), 481-497.
- Makoelle, T. M., & Malindi, M. J. (2014). Multi-Grade Teaching and Inclusion: Selected Cases in the Free State Province of South Africa. *International Journal of Educational Sciences*. 7(1), 77-86.
- Marshall, C., & Rossman, G. (2014). *Designing qualitative research*. Singapore: Sage publications.
- McDougle, D. M. (2016). *Preschool teachers' experiences teaching coping skills: A qualitative inquiry into non-cognitive skill formation*. Capella University,
- McMillan, J. H., & Schumacher, S. (2010). Research in Education: Evidence-Based Inquiry, MyEducationLab Series. 528.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2013). *Qualitative data analysis*. Singapore: Sage.
- Mitra, S., & Dangwal, R. (2010). Limits to self-organising systems of learning—the Kalikuppam experiment. *British Journal of Educational Technology*, 41(5), 672-688.

- Mncube, V. (2010). Parental involvement in school activities in South Africa to the mutual benefit of the school and the community.
- Journal of Education as change*, 14(2), 233-246.
- Moloi, K., Van der Walt, J. L., Potgieter, F. J., & Wollhuter, C. C. (2015). Overcoming the achievement GAP: the perception of students in two historically disadvantaged South African school.
- Motala, S. (2011). Educational access in South Africa. *Journal of Educational Studies*. 2011(Special issue 1), 84-103.
- Msimanga, M. R. (2020). Teaching and learning in multi-grade classrooms: the LEPO framework. *Africa Education Review*. 17(3), 123-141.
- Mulcahy, D. M. (2007). Current issues in rural education in Newfoundland and Labrador. *Education in Rural Australia*, 17(1), 17.
- Mulryan-Kyne, C. (2007). The preparation of teachers for multigrade teaching. *Journal for Teaching Teacher Education*. 23(4), 501-514.
- Naidoo, J. T., & Muthukrishna, N. (2016). Child well-being in a rural context: Shifting to a social sustainability lens. *South African Journal of Childhood Education*, 6(2), 1-9.
- Nasir ul Haq, G. (2017). *Comparison Of Multi-Grade Teaching With Mono-Grade Teaching At Primary Level*. Northern University, Nowshera.,
- Naylor, R., & Sayed, Y. (2014). Teacher quality: Evidence review. *Office of Development effectiveness: Commonwealth of Australia*.
- Newman, F., & Holzman, L. (2013). *Lev Vygotsky (classic edition): Revolutionary scientist: Psychology Press*.
- Nieveen, N., McKenney, S., & Van den Akker, J. (2006). Educational design research. *Educational design research*, 151-157.
- Noone, G., & Miller, J. (2015). Methodologies: Exploring the intimate. In *Bush Tracks* (pp. 25-40): Brill Sense.
- Ntekane, M. A. (2017). Implementation of the Annual National Assessment in schools: the role of school management.
- O'Driscoll, S. (2015). *The early years in Irish multigrade classes: trajectories of practice and identity*. University College Cork,
- Ok, A., & Erdogan, M. (2010). Prospective teachers' perceptions on different aspects of portfolio. *Journal of Asia Pasific Education Review*, 11(3), 301-310.

- Perkins, D. V., & Tagler, M. J. (2011). Jigsaw classroom. *Promoting student engagement*. 195.
- Poni, M. (2014). Research paradigms in education. *Journal of Educational and Social Research*, 4(1), 407.
- Potter, W. J. (2013). *An analysis of thinking and research about qualitative methods*. New York: Routledge.
- Pridmore, P. (2007). Adapting the primary-school curriculum for multigrade classes in developing countries: a five-step plan and an agenda for change. *Journal of Curriculum Studies*, 39(5), 559-576.
- Proehl, R. A., Douglas, S., Elias, D., Johnson, A. H., & Westsmith, W. (2013). A collaborative approach: Assessing the impact of multi-grade classrooms. *Journal of Catholic Education*, 16(2), 417-440.
- Punch, K. F., & Oancea, A. (2014). *Introduction to research methods in education*. London: Sage.
- Quail, A., & Smyth, E. (2014). Multigrade teaching and age composition of the class: The influence on academic and social outcomes among students. *Journal for Teaching and Teacher Education*, 43, 80-90.
- Ramatlapana, K., & Makonye, J. P. (2012). From too much freedom to too much restriction: The case of teacher autonomy from National Curriculum Statement (NCS) to Curriculum and Assessment Statement (CAPS). *Africa Education Review*, 9(sup1), S7-S25.
- Ramrathan, L., & Ngubane, T. I. (2013). Instructional leadership in multi-grade classrooms: What can mono-grade teachers learn from their resilience? *Education as Change*, 17(sup1), S93-S105.
- Redding, S., & Walberg, H. (2012). Promoting Learning in Rural Schools. Academic Development Institute
- Redmond, R. A., & Curtis, E. A. (2009). Focus groups: principles and process. *Journal for Nurse Researcher*, 16(3).
- Reynolds, R., Vinterek, M., & Education, S. S. (2013). Globalization and classroom practice: insights on learning about the world in Swedish and Australian schools. *Nordidactica: Journal of Humanities and Social Sciences Education*. (2013: 1), 104-130.
- Richards, L., & Morse, J. M. (2012). *Readme first for a user's guide to qualitative methods*. London: Sage.

- Ritter, W., & Barnett, J. H. (2016). Learning on the job: Teacher evaluation can foster real growth. *Phi Delta Kappan*, 97(7), 48-52.
- Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology*, 11(1), 25-41.
- Rule, P., & John, V. (2011). *Your guide to case study research*: van Schaik Pretoria.
- Salmons, J. (2014). *Qualitative online interviews: Strategies, design, and skills*. United States of America: Sage Publications.
- Sgier, L. (2012). Qualitative data analysis. *An Initiat. Gebert Ruf Stift.* 19-21.
- Shareefa, M. (2020). Using differentiated instruction in multigrade classes: a case of a small school. *Asia Pacific Journal of Education*. 1-15.
- Shayi, M. H. (2016). *Educators' perceptions and experiences of multi-grade primary schools (Doctoral dissertation)*. University of Pretoria,
- Siegler, R. S. (2000). The rebirth of children's learning. *Child development* 71(1), 26-35.
- Simelane, I. C. (2014). *Learner migration and its impact on rural schools: a case study of two rural schools in KwaZulu-Natal (Doctoral Dissertation)*.
- Smit, R., & Engeli, E. (2015). An empirical model of mixed-age teaching. *International Journal of Educational research*,. 74, 136-145.
- Smit, R., & Humpert, W. (2012). Differentiated instruction in small schools. *Teaching and Teacher Education*, 28(8), 1152-1162.
- Smith, L. (2017). *Necessary knowledge: Piagetian perspectives on constructivism*: Routledge.
- Soofi, Z., & Akhtar, R. N. (2015). Teachers' Perceptions: Multigrade Classrooms in Primary Schools of Pakistan. *Kashmir Journal of Language Research*,. 18(3).
- Starman, A. B. (2013). The case study as a type of qualitative research. *Journal of Contemporary Educational Studies/Sodobna Pedagogika*, 64(1).
- Stewart, D. W., & Shamdasani, P. N. (2014). *Focus groups: Theory and practice* (Vol. 20). London: Sage publications.
- Stewart, D. W., Shamdasani, P. N., & Rook, D. (2015). Group Dynamics and Focus Group Research. *Focus Group: Theory and Practice*, 17-38.
- Stone, S. J., & Burriss, K. G. (2019). *Understanding Multiage Education*: Routledge.
- Stronge, J. H. (2018). *Qualities of effective teachers*: ASCD.
- Tafai, M. G. (2017). *Teachers' concerns about the implementation of the new curriculum in Lesotho*. University of the Free State,

- Taole, M. (2014). Multi-grade Teaching: A Daunting Challenge for Rural Teachers. *Studies of Tribes and Tribals*, 12(1), 95-102.
- Taole, M., & Mncube, V. S. (2012). Multi-grade teaching and quality of education in South African rural schools: Educators' experiences. *Studies of Tribes and Tribals*. 10(2), 151-162.
- Taole, M., Mncube, V. S., & Tribals. (2012). Multi-grade teaching and quality of education in South African rural schools: Educators' experiences. *Studies of Tribes and Tribals*. 10(2), 151-162.
- Thaba-Nkadimene, K. L. (2020). Using critical pragmatic approach in examining the role of instructional leadership within Limpopo multi-grade teaching schools in South Africa. *Journal of Gender Information and Development in Africa*. 9(1), 67-87.
- Thephavongsa, S. (2018). Enhancing the Teaching Skills of the Multi-Grade Teachers through Lesson Study. *International Journal of Learning, Teaching Educational Research*. 17(4).
- Thomas, J. L. (2012). Combination classes and educational achievement. *Economics of Education Review*, 31(6), 1058-1066.
- Tiernan, B., Casserly, A. M., & Maguire, G. (2020). Towards inclusive education: instructional practices to meet the needs of pupils with special educational needs in multi-grade settings. *International Journal of Inclusive Education*. 24(7), 787-807.
- Tikly, L., & Barrett, A. M. (2011). Social justice, capabilities and the quality of education in low income countries. *International Journal of Educational Development*, 31(1), 3-14.
- Tredoux, M. (2020). *Managing multi-grade teaching for optimal learning in Gauteng West primary schools (Doctoral dissertation)*.
- Unesco. (2015). *Education for All 2000-2015: Achievements and challenges*: Unesco.
- Uromi, S. M. (2014). Schoolgirl pregnancies as a most critical and rapidly growing challenge in Tanzania. *Journal of Innovation and Scientific Research*, 10(1), 191-194.
- Wagener, M., & Kucharz, D. (2009). Hineinwachsen in den Unterrichtsalltag. Jahrgangsmischung als Chance für jüngere und ältere Kinder. *Die Grundschulzeitschrift*, 25, 16-20.
- Wagner, T. (2014). *The global achievement gap: Why even our best schools don't teach the new survival skills our children need—and what we can do about it*: Basic Books.

- Wahyuni, D. (2012). The research design maze: Understanding paradigms, cases, methods and methodologies.
- Walliman, N. (2017). *Research methods: The basics*. London: Routledge.
- Wentzel, K. R., & Watkins, D. E. (2011). Peer relationships and learning: Implications for instruction. *Handbook of research on learning and instruction*, 322-343.
- Wolff, M., Wagner, M. J., Poznanski, S., Schiller, J., & Santen, S. (2015). Not another boring lecture: engaging learners with active learning techniques. *The Journal of emergency medicine*. 48(1), 85-93.
- Woodhead, M., Ames, P., Vennam, U., Abebe, W., & Streuli, N. (2009). *Equity and quality? Challenges for early childhood and primary education in Ethiopia, India and Peru*: The Bernard van Leer Foundation.
- Yin, R. K., & Davis, D. (2007). Adding new dimensions to case study evaluations: The case of evaluating comprehensive reforms. *New directions for evaluation*, 2007(113), 75-93.
- Zeripi, H. E. (2017). *Investigating teaching methods used by primary school teachers in Otjiherero at a combined school in Okahandja circuit*, . University of Namibia.,

APPENDIX ONE

PERMISSION LETTER TO THE PRINCIPAL

121 Titren Road
Seaview
4094

6 February 2017

Attention: The Principal

Dear Sir

REQUEST FOR GATE-KEEPER PERMISSION TO CONDUCT RESEARCH

Re: Participation in research on the teaching strategies used by teachers in multi-grade classroom

I, Mrs Service Zandile Mnyandu am a student in the School of Education at the University of KwaZulu Natal (Edgewood Campus). I am conducting a project on how do teachers manage to teach in the multi-grade classroom in rural settings as part of my Med thesis. I therefore warmly ask permission to conduct research at your school. The title of my research project is:

Teaching strategies used by teachers in the multi-grade classroom in rural settings in Umlazi district.

This project will be exploring the teaching strategies that are employed by teachers in a multi-grade classroom, the teaching methodology being used, viable assessment tools, feasible remedial work. This study will provide deep insights into multigrade teaching.

PLEASE NOTE THAT THE PARTICIPANTS:

Will be interviewed at a time and place of their choice.

Will hold focus group discussion at a time and date of their choice.

With their permission, the interviews will be voice-recorded

The data will be used for academic work and publications.

Their identity will not be disclosed during and after the research activity. A pseudonym will be used.

All raw data will be stored without personal details.

I will use pseudonym as a name for your school.

Participation is voluntarily, thus, participants may withdraw should they wish to do so at any time. Should you require, a copy of the study would be made available to you.

Kindly note that there are no incentives for participation in this research study.

This study will not interfere with the smooth running of the school because teachers will be observed in their respective classrooms whilst teaching and interviewed during their free times.

For more information in this study, please contact me using the following details: Service Zandile Mnyandu, Cell 0837202151 or my supervisor: Prof Nyna Amin; 0312607255, email: amin@ukzn.co.za.

A positive response in this respect will be highly appreciated.

Yours faithfully

S. Z. Mnyandu (Student)

APPENDIX TWO
INFORMED CONSENT LETTER

6 February 2017

Re: Participation in research

I, Mrs Service Zandile Mnyandu am a student in the School of Education at the University of KwaZulu Natal (Edgewood Campus). I am conducting a project on how do teachers manage to teach in the multi-grade classroom in rural settings as part of my Med thesis. I therefore warmly seek your participation. The title of my research project is:

Teaching strategies used by teachers in the multi-grade classroom in rural settings in Umlazi district.

This project will be exploring the teaching strategies that are employed by teachers in a multi-grade classroom, the teaching methodology being used, viable assessment tools, feasible remedial work. This study will provide deep insights into multigrade teaching.

PLEASE CONSIDER THE FOLLOWING:

You will be interviewed at a time and place of your choice.

I will observe teaching at a time and dates of your choice.

With your permission, the interviews will be voice-recorded

The data will be used for academic work and publications.

Your identity will not be disclosed during and after the research activity. A pseudonym will be used.

All raw data will be stored without your personal details.

I will use pseudonym as a name for your school.

Participation is voluntarily, thus, you may withdraw should you wish to do so at any time.

Should you require, a copy of the study will be made available to you.

Kindly note that there are no incentives for participation in this research study.

For more information in this study, please contact me using the following details: Service Zandile Mnyandu, Cell 0837202151 or my supervisor: Prof Nyna Amin; 0312607255, email: amin@ukzn.co.za.

A positive response in this respect will be highly appreciated.

Yours faithfully

S. Z. Mnyandu

APPENDIX THREE

INFORMED CONSENT LETTER

I----- the principal of -----

have been notified by the researcher, concerning about the multi-grade teachers that will contribute in the research project.

I approve / do not approve for my school teachers to participate in this project.

SIGNATURE OF PRINCIPAL

DATE

APPENDIX FOUR

KINDLY PLEASE READ AND SIGN THE FORM THAT FOLLOWS:

DECLARATION

I _____ (full names of participant) hereby confirm that I am aware of the contents of this document and the research project concerning multi-grade teaching. I understand that

- Participation is voluntary
- That no incentives will be paid
- That I will be interviewed and observed
- That the interviews will be voice-recorded
- My identity will not be revealed
- That I may withdraw from the study at any time
- I will have access to all records and allowed to make changes or remove certain parts of data should I so desire

I accept / decline consent to being interviewed and observed by the researcher.

I hereby give / do not give consent for the interview to be audio-taped.

I hereby permit / do not permit data to be utilized for research purposes and dissemination of the research findings.

SIGNATURE OF PARTICIPANT

DATE

APPENDIX FIVE

PARTICIPANT INFORMATION SHEET

Dear participant

I am a Masters student at the University of KwaZulu Natal and presently leading a research study which is named:

Teaching strategies used by teachers in multi-grade classroom in rural settings in Umlazi District.

The study entails the strategies used by teachers regarding multi-grade classroom where they work in rural settings. The study expects the participating teachers to contribute in the observation pursued by interviews. The length of these interviews will be approximately 30 minutes. The observation and interviews will be audio-taped with your consent. I will ensure that, no one except the participants will recognize that you participated in this study. The information that you will be sharing with me will be secured in a way that will protect your identity from being recognized by anyone. In order to protect your identity I will ask you to provide a pseudonym during the observation and interview sessions for use in the reports. Participation in this research is voluntarily, no payment will be incurred from the study. Thus, you are allowed to withdraw at any time from the project should you wish to do so without being charged. All information that will be generated is only for research purposes. All data recordings will be protected in a cabinet in my supervisors' office. As soon as the study is finalized you will be authorized to have a copy in soft format or hard copy.

Permission to execute this research project has been granted from the University of KwaZulu Natal. Should you wish to contact me for more information will be appreciated at 0837202151

Thanking you for your cooperation

Service Zandile Mnyandu

Supervisor: Prof Nyna Amin

031- 260 7255

Email: amin@ukzn.ac.za

APPENDIX SIX

SEMI-STRUCTURED INTERVIEW SCHEDULE

1. What is it like to teach in multi-grade classroom?
2. How do you plan your lesson?
3. Is it challenging or exciting to teach in multi-grade classroom?
4. I have noticed that you have grades 3 and 4, how did you put your questions?
5. How do you meet the CAPS requirements in multi-grade classroom?
6. How do you assess different grades for the same lesson?
7. In your opinion, which are the best teaching strategies in a multi-grade classroom?
8. Which strategies are not useful?
9. Share with me, how do you design work sheets for multi-grade classroom?
10. In your opinion, which grade benefits more? Is it the lower grade or upper grade?
11. What support do you receive for multi-grade teaching?
12. What are the different methods that you use to teach in multi-grade classroom?
13. Do you network with other multi-grade teachers?
14. How do you manage group work?
15. Do the different grades write the same test?

APPENDIX SEVEN

FOCUS GROUP DISCUSSION

1. What is it like to teach in multi-grade classroom?
2. How do you plan your lesson?
3. Is it challenging or exciting to teach in multi-grade classroom?
4. I have noticed that you have grades 3 and 4, how did you put your questions?
5. How do you meet the CAPS requirements in multi-grade classroom?
6. How do you assess different grades for the same lesson?
7. In your opinion, which are the best teaching strategies in a multi-grade classroom?
8. Which strategies are not useful?
9. Share with me, how do you design work sheets for multi-grade classroom?
10. In your opinion, which grade benefits more? Is it the lower grade or upper grade?
11. What support do you receive for multi-grade teaching?
12. What are the different methods that you use to teach in multi-grade classroom?
13. Do you network with other multi-grade teachers?
14. How do you manage group work?
15. Do the different grades write the same test?