

University of Fort Hare

Together in Excellence

Multi-grade teaching strategies used by rural primary school teachers at Amatole East

Education District

Dissertation submitted in partial fulfilment of the requirements for the degree

Of

Master in Education



To the

University of Fort Hare
University of Fort Hare

Faculty of Education

By

Nocawe Masebe

Student: 201112976

Supervisor: Dr N.H. Ganqa

DECLARATION

I, Nocawe Masebe, declare that the dissertation, “ ***Multi-grade teaching strategies used by rural primary school teachers at Amatole East Education district.***” submitted for the Master in Education degree in the Faculty of Education at the University of Fort Hare, is my original work. This dissertation has not been submitted to any other tertiary education institution for degree or examination purposes. I also declare that all sources used or quoted have been indicated and acknowledged by means of complete references.



Signature: _____

University of Fort Hare
Together in Excellence

Date: 03/03/2021

DEDICATION

I dedicate this study to my family, the academics, the researchers and the teaching professionals.



University of Fort Hare
Together in Excellence

ACKNOWLEDGEMENT

My sincere gratitude and appreciation goes to:

- My supervisor, Dr Ncumisa Hazel Ganqa, known as ‘Dr. G’ for her supervisory skills, patience and academic support towards completion of this research project.
- School of General and Continuing Education Postgraduate Co-coordinator, Professor Emmanuel Adu for his guidance, motivation and keeping us updated with educational issues pertaining to research workshops and presentations.
- Govan Mbeki Research Development Centre for financial assistance through the fee waiver, capacity building workshops and a welcoming environment.
- ICT and TLC staff for equipping me with academic writing skills and technical support.
- To all participants that contributed to the data collection process and follow-up interviews.

Above them all, I dedicate this study to Glory that belongs to God Almighty in Jesus Name.



University of Port Harcourt
Together in Excellence

ABSTRACT

The purpose of the study was to assess multi-grade classroom teaching strategies in rural primary schools at Amatole East Education District. The lens with which to view pedagogical practices of multi-grade teaching was through Bronfenbrenner Ecological System on Human Development and Vygotsky's Social Learning Theory. An interpretivist paradigm within a qualitative research approach was chosen as befitting the study. The study sampled four primary schools in Amathole East Education District, with eight participants purposively selected. Data collection methods included semi-structured interviews, classroom observations and documents. Data gathering instruments utilised were Interview Schedule, Observation Sheets and Document Checklist. Data was analysed and interpreted through thematic and content analysis. Peer tutoring, self-directed learning and group-work were found to be the most effective teaching strategies in classroom-based teaching. Instructional techniques that involved teacher-directed activities and learner-directed learning activities were viewed as most beneficial for learners in multi-grade settings. However, multi-grade teachers struggled in coping with the utilisation of time and resources in teaching learners of different grade levels combined in the same classroom. The study concludes that during separate grade teaching, grade-by-grade approach, thematic teaching or individual seatwork utilisation of differentiated tasks accommodate application of a variety of teaching strategies. Thus the study suggests that pedagogical practices can be differentiated to address learners' diverse learning needs, paying more attention to struggling learners. It is further recommended that teachers in multi-grade situations be equipped with special multi-grade teacher training through in-service training programs to overcome challenges of teaching in multi-grade settings.

Keywords:

Multi-grade teaching, instructional strategies, multi-grade classrooms, pedagogical practices, rural primary schools

List of Acronyms

ACE	Advanced Certificate in Education
AEED	Amatole East Education District
ANA	Annual National Assessment
CAPS	Continuous Assessment Policy Statement
CASS	Continuous Assessment Standards
CEPD	Centre of Education Provincial Department
CES	Curriculum Education Specialist
CMGE	Centre for Multi-grade Education
CoL	Cooperative Learning
DBE	Department of Basic Education
DBE & HET	Department of Education & Higher Education and Training
DESD	Decade of Education for Sustainable Development
ECDoE	Eastern Cape Department of Education
EFA	Education For All
EN	Escuela Nueva
FAL	First Additional Language
GET	General Education Training
HET	Higher Education Training
ICT	information Communication Technology
JPTD	Junior Primary Teachers Diploma
LoLT	Language of Teaching and Learning
LTSM	Learner Teacher Support Material
MGT	Multi-grade Teaching
NECT	National Education Collaborative Trust
NGO	Non-Governmental Organisation
NPDE	National Professional Diploma in Education
NSLA	National Strategy for Learner Attainment
PED	Provincial Education Department
SASA	South African School's Act of 1996
SDG	Sustainable Development Goals



University of Fort Hare
Together in Excellence

SDL	Self- Directed Learning
SES	Subject Education Specialist
SMT	School Management Team
UNESCO	United Nations Educational, Scientific and Cultural Organization
WDMGE	World Development Multi-grade Education
ZPD	Zone of Proximal Development



University of Fort Hare
Together in Excellence

TABLE OF CONTENTS	PAGES
Declaration	(i)
Dedication	(ii)
Acknowledgements	(iii)
Abstract	(iv)
List of abbreviations	(v)
 CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY	
1.1. Introduction	1
1.2. Background to the Study	2
1.2.1. Prevalence of Multigrade Schools in Developed and Developing countries	2
1.2.2. Prevalence of Multigrade in South Africa	3
1.3. Problem Statement	3
1.4. Research Questions	4
1.4.1. Main Research Question	4
1.4.2. Sub-Research Questions	4
1.5. Objectives of the Study	4
1.6. Purpose of the Study	4
1.7. Rationale of the Study	5
1.8. Significance of the Study	5
1.9. Scope of the Study	6
1.10. Definition of Key Terms	6
1.10.1. Multigrade Teaching	6
1.10.2. Multigrade Teaching Strategies	7
1.10.3. Multigrade Classrooms	7
1.10.4. Rural Areas	7
1.11. Chapters Outline	7
1.11.1. Chapter 1: Introduction and Background to the study	7
1.11.2. Chapter 2: Literature Review	7
1.11.3. Chapter 3: Research Methods	7



University of Fort Hare
Together in Excellence

1.11.4. Chapter 4: Data Presentation and Analysis	8
1.11.5. Chapter 5: Summary of Findings, Conclusions and Suggestions	8
1.12. Conclusion	8
CHAPTER 2: THEORETICAL FRAMEWORK AND REVIEWED LITERATURE	
2.1. Introduction	9
2.2. Theoretical Framework	9
2.2.1. Bronfenbrenner's Ecological Model	9
2.2.1.1. Micro-systems	10
2.2.1.2. Meso-systems	10
2.2.1.3. Exo-systems	10
2.2.1.4. Macro-systems	10
2.2.1.5. Chronosystems	11
2.2.2. Justification for Selecting Bronfenbrenner's Ecological Model	11
2.2.3. Social Learning Theory	11
2.2.3.1. Justification for Selecting Social Learning Theory	12
2.3. Reviewed Literature	13
2.3.1. Conceptualising Multigrade Pedagogy	13
2.3.2. Adoption of Multigrade Teaching	14
2.3.2.1. Multigrade as a "Necessity"	15
2.3.2.2. Multigrade as a "Choice"	16
2.4. Benefits of Multigrade	16
2.4.1. Cognitive and Non-cognitive Effects of MGT	16
2.4.2. Personal and Social Effects of MGT	17
2.5. Challenges of Multigrade Teaching	18
2.5.1. Contextual Factors	18
2.5.2. Educational Factors	19
2.5.3. Lack of Training	19
2.6. Models of Multigrade Teaching	20
2.6.1. Quasi Monograde Curriculum Model	20
2.6.2. Differentiated Curriculum Model	21
2.6.3. Multi-year Curriculum Cycle Model	21
2.6.4. Learner and Materials-Centered Curriculum Model	22
2.7. Escuela Nueva Model	22

2.8. Multigrade Instructional Strategies used in South African classrooms	23
2.7. Conclusion	24
CHAPTER 3: RESEARCH METHODS	
3.1. Introduction	25
3.2. Research Paradigm	25
3.2.1. Post-positivist	26
3.2.2. Interpretivism	26
3.2.3. Pragmatism	27
3.2.4. The Selected Research Paradigm	27
3.3. Research Approach	28
3.3.1. Quantitative Approach	29
3.3.2. Qualitative Approach	29
3.3.3. Mixed Methods	30
3.3.4. The Selected Research Approach	30
3.4. Research Design	31
3.4.1. Case Study	31
3.5. Sampling	32
3.5.1. Probability Sampling	33
3.5.2. Non-probability Sampling	33
3.5.2.1. Convenience Sampling	34
3.5.2.2. Purposive Sampling	34
3.5.2.3. Snowballing	35
3.6. Sampling Procedure	35
3.6.1. The selected Sampling and Sampling Technique	35
3.7. Data Collection Methods and Instruments	36
3.7.1. Quantitative Data Collection Methods	36
3.7.2. Qualitative Data Collection Methods	36
3.7.2.1. Interviews	37
3.7.2.1.1. Structured Interviews	37
3.7.2.1.2. Semi-Structured Interviews	38
3.7.3. Classroom Observations	39
3.7.3.1. Participant Observations	39
3.7.3.2. Non-participant Observations	39



University of Fort Hare
Together in Excellence

3.7.4. Documents	40
3.8. Data Triangulation	40
3.8.1. Credibility and Trustworthiness	41
3.9. Data Analysis	43
3.9.1. Thematic Analysis	43
3.9.2. Content Analysis	44
3.10. Ethical Consideration	45
3.10.1. Access to Research Sites	45
3.10.2. Access to Research Participants	46
3.10.2.1. Voluntary Participation	46
3.10.2.2. Informed Consent	46
3.10.2.3. Anonymity and Confidentiality	47
3.10.2.4. Protection from Harm	47
3.11. Conclusion	48
CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRITATION	
4.1 Introduction	49
4.2. Profiles	49
4.2.1. Profile of the Research Sites	50
4.2.2. Profile of the Sampled Research Participants	51
4.3. Presentation of Data	52
4.4. Findings	59
4.5. Discussion of Findings	61
4.5.1. Grade Combination in MG classes	62
4.5.1.1. Learning Centre	62
4.5.1.2. Direct Teaching	63
4.5.1.3. Horse-Shoe	63
4.5.1.4. Unsupported Cooperative Work	64
4.5.1.5. The Mat	64
4.5.6. Resource Activities	64
4.5.7. Independent Study	64
4.6. Multi-grade Timetabling and Scheduling	65
4.7. Lesson Management	67
4.7.1. Differentiated Teaching	68



University of Fort Hare
Together in Excellence

4.7.1.1. Separate Grade Teaching	68
4.7.1.2. Grade by grade Teaching	69
4.7.1.3. Individual Seatwork Tasks	70
4.7.1.4. Thematic Teaching	71
4.8. Teaching Strategies	72
4.8.1. Whole class Teaching	73
4.8.2. Cooperative Learning	73
4.8.3. Small Group-work	74
4.8.4. Self-directed Learning	75
4.8.5. Peer Tutoring	76
4.9. Utilisation of Instructional Material	78
4.10. Conclusion	78

CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSION, SUGGESTIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH.

5.1. Introduction	79
5.2. Summary of Findings	79
5.3. Conclusions	80
5.4. Suggestions	81
5.4.1. DBE and PED	81
5.4.2. CES and SES	82
5.4.3. SMTs and MGT Teachers	83
5.5. Recommendations for Further Research	84
5.6. Conclusion	84
6. References	85

7. List of tables

Table 1: Schools with less than 135 learners in AEED	49
Table 2: Profile of Research Sites	50
Table 3: Profile of Research Participants	51
Table 4: Foundation Phase Notional Time	66
Table 5: Intermediate Phase Notional Time	66
Table 6: Subject Staggering Timetable	69
Table 7: Dead Timetable	71
Table 8: Common Approach Timetable	72

Table 9: Multi-grade Instructional Technique	79
8. Appendices	
Appendix A: Application Letter requesting Permission to Conduct Research	91
Appendix B: Ethical Clearance Certificate	92
Appendix C: Letter from Department of Basic Education Education	94
Appendix D: Informed Consent Letter	96
Appendix E: Editors' Certificate	97
Appendix F: Interview Schedule for Multi-grade Teachers	98
Appendix G: Interview Schedule for SMT	99
Appendix H: Sample of Teachers' Responses	100
Appendix I: Sample of SMTs' Responses	102
Appendix J: Classroom Observation Checklist	103
Appendix K: Multi-grade Instructional Timetable	104



University of Fort Hare
Together in Excellence

CHAPTER I: INTRODUCTION OF THE STUDY

1.1. Introduction

Education plays an important part in improving health, social inclusion and driving economic development in a knowledge-based society. One of the important goals of Education For All (EFA) is to improve all aspects of quality of education and ensure excellence (UNESCO, 2015). Worldwide, countries have been operative towards achieving the second Sustainable Development Goal (SDG) of EFA by establishing multigrade schools in rural and remote areas where communities are often small, poor and vulnerable. An alternative way in which a government with limited resources may provide all children with good quality education is to place learners in multigrade schools to provide education to all primary school age children (Mulkeen & Higgins, 2009). Multigrade schools, according to Little (2008), are associated with small schools in remote and sparsely populated areas where there may be only one, two or three teachers who can offer a complete cycle of primary education.



The South African education system is geared towards monograde education despite the fact that multi-grade teaching is a reality in rural areas (Dheeraj & Kumar, 2013; Balfour, 2012; Gardiner, 2008). Research evidence indicates that learners taught in rural multi-grade schools have the same right to quality education as learners taught in environments that are privileged (Taole & Mncube, 2012). In order to ensure that the Department of Basic Education (DBE) meets goals outlined in the National Development Plan 2030, it has introduced a number of initiatives aimed at improving the quality of education in all public schools, inclusive of multi-grade schools (DBE & HET, 2015). Firstly, over 7 million South African primary school learners from grades 1-6 were assessed to determine their levels of competency in literacy and numeracy in 2013 (DBE, 2013:18). However, the Annual National Assessment (ANA), a key strategy to annually measure progress on learner achievement, showed weaknesses in the teaching of numeracy and literacy identified as key levers for improving quality across the system (DBE, 2015:11). Secondly, the Basic Education Sector Plan (DBE, 2015) also discovered underperformance of learners that has not met essential stages of competency

The Integrated Literacy and Numeracy Strategy (Lit Num Strategy), a whole school approach, has been developed to improve and reform the performance of schools, especially learner performance in literacy and numeracy, including multi-grade schools (DBE, 2015). Thirdly, the Learner Attainment Improvement Strategy (LAIS) has been adapted from the Department of Basic Education's National Strategy for Learner Attainment (NSLA) and informs interventions in multi-grade classes. However, research evidence indicate that there is little evidence of the planned interventions that have taken place in the realities of multigrade classrooms (Ganqa, 2014).

1.2. Background to the Study

The background to the study highlights the existence of multigrade schools in developed and developing countries with special focus in South African schools.

1.2.1. Prevalence of MG Schools in Developed and Developing Countries

Multigrade is prevalent and practiced in both developed and developing countries. Examples of developed countries include USA, France, Canada, UK, Netherlands, China, Australia, Finland and Sweden. In India, China, Sri Lanka, Colombia and some developing countries, multigrade teaching is adopted as an effective teaching strategy. It is estimated to be a feature of 64% of schools in Lao PDR, 78% in Peru and as many as 84% in India (Nawab & Baig, 2011). In Africa, multigrade classes are common in the west, central, eastern and southern parts of the continent such as Zambia, Kenya, Uganda, Tanzania, Mali and South Africa. In Uganda, for example, sparsely populated areas with multigrade schools are colloquially referred to as 'hard-to-reach-hard-to-stay-hard-to-staff' locations (Kivunja, Kuicta, Kuyin & Maxwell, 2014a) and are multigraded.

Multigrade teaching is widespread in Sub-Saharan Africa, where it is estimated to account for 26% of schools in Zambia and 36% in Burkina Faso (Checci, & de Paulo, 2017; Mulkeen & Higgins, 2009). However, the latest school census data available for Zambia showed that 32% of all primary schools had multi-grade classes (Kivunja & Wood, 2012). The multigrade primary schools size in Uganda and Zambia varies in size from 50-80 pupils in small ones to 400-500 in large ones in a

seven grades primary schooling system. Small schools combine several grades into a viable class size to be taught by one teacher (three grades in one class of about 30 pupils). Large schools combine grades because they do not have enough teachers for each grade one class with two grades of over 100 children (Kivunja & Wood, 2012). In Benin, Ghana, Burkina-Faso and Niger, 5% of all schools have more than 500 students each (Sims, 2015; Dheeraj & Kumar, 2013).

1.2.2. Prevalence of multi-grade in South Africa

According to the Centre for Multigrade Education (CMGE), multigrade teaching is used in approximately 7,000 South African schools, with most of these schools located in rural areas (CMGE, 2009). Schools in the nine provinces of South Africa that practice multigrade teaching are primary schools with grades limited to Grade 7 and below. Provinces with the highest number of multigrade schools are Eastern Cape at 2 333, KwaZulu-Natal at 1131 and Free State at 722. Northern Cape has the least number of multigrade schools at 155 (DBE, 2013). Eastern Cape and KwaZulu-Natal have the highest multi-grade classrooms compared with other provinces. The reasons are that these provinces are rural with extreme pockets of poverty (EPC, 2011:27). Although the Northern Cape is the largest province in South Africa, the number of multigrade classroom is the smallest due to the amalgamation and closure of small schools and relocation of farming communities to urban areas (Gardiner, 2008).

1.3. Problem Statement

Multigrade teaching is a reality in rural areas (EPC, 2011; Gardiner, 2008) but the provision of the South African education system is geared towards mono-grade (Brown, 2010; Joubert, 2010). Regardless of the number of learners and learning areas, teachers are left alone juggling to find means to deliver curriculum content to more than one grade level at the same time in same classroom (Brown, 2010). Yet, teachers in multigrade classrooms are not skilled enough to provide quality-teaching skills for multi-grade (Mulkeen, 2010:93; Ganqa, 2014). According to Joubert, (2010) the provision of quality education in all schools is dependent on the successful

implementation or delivery of the curriculum. A mismatch between the curriculum, teaching strategies, learning and teaching support material utilised in multigrade classroom has been noted (Du Plessis & Subramanien, 2014). Multi-Grade Strategy and Basic Education Sector Plan (2015) have also revealed the existence of problems in multi-grade teaching that include CAPS implementation and weak learner performances. Despite numerous government initiatives such as ANA, Lit Num Strategy, LAIS and NSLA (DBE, 2015), there is evidence that teachers trained in mono-grade pedagogy lack the knowledge and skills to deal effectively with multi-grade classes (Tsolakidis, 2010b; Taole, 2014). Therefore, a gap has been identified to assess multigrade practises utilised in rural multi-grade classrooms.

1.4. Research Questions

1.4.1. Main Research Question

How are multigrade teaching strategies utilized in MG rural classrooms in Amathole East Education District?



1.4.2. Sub Research Questions

University of Fort Hare
Together in Excellence

1.4.2.1. Which teaching strategies are utilized in multigrade class?

1.4.2.2. What are the benefits of MG teaching strategies used by multigrade teachers?

1.4.2.3. How do teachers in multigrade classrooms cope in utilizing MGT teaching strategies?

1.4.2.4. To what extent are MG teaching strategies effectively used in multigrade classrooms?

1.5. Objectives of the Study

- To identify the teaching strategies utilized in rural multigrade classrooms.
- To investigate the benefits of MG teaching strategies used by multigrade teachers
- To determine how teachers in multigrade classrooms cope in utilizing MGT teaching strategies

- To examine the extent of effectiveness of MG teaching strategies utilized in rural multigrade classroom.

1.6. Purpose of the Study

The purpose of this study is to identify teaching strategies used to teach in rural multigrade primary schools of Amatole East Education District and explore the utilization of multigrade teaching strategies in multigrade classrooms.

1.7. Rationale of the Study

What motivated the researcher to undertake this study was her experiences of being redeployed from high school to a rural primary school in the Eastern Cape. Having been trained in monograde teaching, the researcher experienced difficulties in adjusting to the multi-grade environment. On consulting with the relevant stakeholders, the researcher was sent from pillar to post and left to fend for herself in an unfamiliar terrain. Not only were there challenges of lack of support from departmental heads, school management and colleagues, but the lack of and unavailability of support material was prevalent. This rationale prompted the researcher to investigate the relevant teaching strategies to utilize in handling learners of different levels taught in one classroom by one teacher.

1.8. Significance of the Study

This study could contribute to accumulate knowledge in the area of multigrade teaching and therefore assist the Department of Basic Education to ensure the provision of quality education where multi-grade teaching is the common practice for rural areas. The study could also encourage DBE to fast track the establishment of multigrade teacher training institutions to equip teachers in MG schools cope with MG teaching strategies. Furthermore, Curriculum Assessment Provincial Statement (CAPS) might be adjusted to be more inclined with multigrade teaching strategies more suitable for multi-grade classrooms. Moreover, DBE might be assisted concerning provision and

development of Learning and Teaching Support Material (LTSM) suitable for use in multigrade situations. Additional Provincial Education Department (PED) officials might be able to give clear guidelines in terms of curriculum delivery in MG schools. The findings might help inform their professional practice in terms of equipping School Management Team (SMT) and MG teachers with suitable pedagogical techniques to cope with teaching strategies and learning in a range of multigrade classroom environments. The answers to the research question posed might be of use to teachers in working out strategies to adopt multigrade teaching as an alternative instructional approach to teaching and learning in multigrade contexts.

1.9. Scope of the Study

The major focus of this study was to investigate multigrade teaching strategies employed in rural primary schools. The study was conducted in rural areas of Amatole East Education District, geographically demarcated located under Mbashe Municipality in Eastern Cape Province, South Africa. The research sites were limited to Amatole East Education District and not all of Eastern Cape Education Districts. The study investigated four (4) rural primary schools where multigrade teaching is the norm. A total of eight (8) (two teachers in each MG school) multi-grade teachers in Foundation Phase were selected purposefully. Although there were time constraints, limited resources and funding, the study was conducted in-depth but with a relatively small number of participants.

1.10. Definition Of Key Terms

1.10.1. Multigrade teaching

Multigrade teaching refers to a situation in which one teacher has to teach all two or more different grade levels in one classroom at the same time, schools where there are more grades than teachers do. Multigrade teaching refers to the teaching of learners of different ages, grades and abilities in the same grouping to be distinguished from “monograde” teaching in which students within the same grade are assumed to be more similar in terms of age and ability (Brown, 2010:192).

1.10.2. Multigrade teaching Strategies

The operation of multigrade teaching strategies in this study is the understanding of use of instructional styles to impact knowledge in curriculum delivery on multigrade classroom settings, (Du Plessis & Subramanien, 2014; Checci & de Paulo, 2017).

1.10.3. Multigrade classrooms

Multigrade classrooms in this study are operationalized with regard grouping learners of different two or more different grade levels, as well as often referred to “multiple classes” or multi- level classes” nor “composite as well as combination classes”(Joubert, 2010).

1.10.4. Rural areas

Rurality in this study is characterized by geographic conditions in which rural primary schools are situated far away from city centers and metropolitans, while demarcated in remote areas with sparsely scatted locations (Balfour, 2012).



1.11. CHAPTERS OUTLINE

University of Fort Hare
Together in Excellence

Chapter 1: Introduction and Background

This chapter unpacked the overview of the study, problem statement and research questions. Objectives, the purpose, rationale, significance and scope of the study were also highlighted.

Chapter 2: Literature Review

The theoretical and the conceptual framework are reviewed in line with the phenomenon stated in the title of this study.

Chapter 3: Research Methods

This chapter explains research paradigm, approach and design as well as data collection methods and instruments used.

Chapter 4: Data presentation and Analysis

Data is presented, analyzed and interpreted in order to reach findings and conclusions for the phenomenon under study.

Chapter 5: Summary of Findings, Conclusions, Suggestions and Recommendations

Summary of findings is presented to reach conclusions, suggestions and recommendations for further study.

1.12. Conclusion

This chapter gave a background to the existence of multigrade schools in rural primary schools. This introductory chapter commenced discussion with conceptualization and contextualized multigrade teaching strategies practiced in multigrade classrooms.



University of Fort Hare
Together in Excellence

CHAPTER 2: CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1. Introduction

This chapter critically outlined and discussed the lens with which to view multi-grade teaching strategies utilized in rural multi-grade classrooms. The conceptual framework further discussed comprehensive responses to sub-questions.

2.2. Conceptual Framework

The word conceptual framework refers to the analytical engine that propels the way the researcher visualize the phenomenon under study. In addition, it is the explanatory mechanism and theoretical lens with which to guide a perspective ideology that provides a structure for groups or individuals (Becketts & Taylor, 2010). There are many theoretical and philosophical frameworks existing about child education and child development that provide foundation for multigrade teaching. The lens with which to view pedagogical practises of multigrade teaching was through Bronfenbrenner Ecological System on Human Development and Vygotsky's Social Learning Theory.



University of Fort Hare
Together in Excellence

2.2.1. Bronfenbrenner's Ecology

The context of Bronfenbrenner's theory is premised on the socialisation of a child as he develops. According to Bronfenbrenner (1998: 996), "Child development takes place through processes of progressively more complex interaction between an active child and the persons, objects, and symbols in its immediate environment". It is also the process of social interaction by which people acquire those behaviours essential for effective participation in society, the process of becoming a social being (Beckett, & Taylor, 2010). According to Bronfenbrenner (1998), children must be understood in the context of their family, which lies in the context of the community. His theory looks at the development of the child within the context of the system of relationships that shape his or her environment. Thus, Bronfenbrenner's definition of development is useful in understanding learners' progress in multi-grade classrooms.

2.2.1.1. Microsystems

The microsystem represents the layer that is closest to the child, and includes the structures that the child has direct contact with. It is a pattern of activities, social roles and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social, and more complex interaction with the immediate environment. This includes people and institutions the child interacts with in the environment. Examples include the immediate family members, peer group, childcare, neighbourhood play areas, school and teachers as well as religious and spiritual groups.

2.2.1.2. Mesosystems

The mesosystems layer relates to the interactions the people in the microsystems have with each other – as parents interact with childcare providers, or as neighbours interact with each other, for example. The child is not directly involved with the mesosystems, but is affected by them.



University of Fort Hare
Together in Excellence

2.2.1.3. Exosystems

The exosystems layer is a wider context as it relates to the broader community in which the child lives. Examples of what is in the exosystems layer are extended family, family networks, mass media, workplaces, neighbours, family friends, community health systems, legal services and social welfare services. Since people in the child's life are affected by the exosystems and mesosystems, the child is also affected. Other important settings may include his extended family, early care and education programs, health care settings and other community learning sites such as neighbourhoods, libraries and playgrounds.

2.2.1.4. Macrosystems

The macrosystem contains attitudes and ideologies, values, laws and customs of a particular culture or subculture. The macrosystem is comprised of cultural values, customs, and laws. The effects of larger principles defined by the macrosystem have a cascading influence throughout the interactions

of all other layers. For example, if it is the belief of the culture that parents should be solely responsible for raising their children, that culture is less likely to provide resources to help parents. This, in turn, affects the structures in which the parents function. The parents' ability or inability to carry out that responsibility toward their child within the context of the child's microsystem is likewise affected.

2.2.1.5. Chronosystems

The chronosystem encompasses the dimension of time as it relates to a child's environments. Elements within this system can be either external or internal such as the physiological changes that occur with the aging of a child. As children get older, they may react differently to environmental changes and may be more able to determine more how that change will influence them.

2.2.1.6. Justification for selecting Bronfenbrenner's Ecology

Since the child is at the centre of Bronfenbrenner's ecological model, this model has been seen as useful in understanding how the children learn in multi-grade settings. This model was useful in understanding development in the context of the pupils through various subjects and tasks within the classroom as well as in the school. However, although Bronfenbrenner's multi-system model has value in identifying the resources that influence development, it is likely not of value in consideration of how these resources might be used. To validate data, Social Learning theory was chosen in line with sub-research questions.

2.2.2. Social Learning Theory

Social Learning theory has its premise on the concept that human activity occurs in cultural contexts and are mediated by thought, language and action. Vygotsky observed child development and how children learn through social interactions. Vygotsky (1978) stated, "Learning is embedded within social events and occurred as a child interacts with people, objects and events in the environment". He believed that children's language was social in origin because it arose in interaction between the child and others, especially adults and more knowledgeable others (Becketts & Taylor, 2010). The

cognitive aspect of children's learning are seen as a continuous reciprocal interaction between individuals and their environment (Vygotsky, 1978). As learning occurs through experiential and maturation process in a child, this leads to the accommodation of new concepts and knowledge is constructed and learners (Ibid). Vygotsky described this development as the Zone of Proximal Development (ZPD). ZPD is the distance between the child's actual developmental levels determined by depended problem solving and the level of potential development as determined through problem solving under adult guidance in collaboration with more capable peers (Vygotsky, 1978). By implication, children acquire knowledge through participation and their interaction with other peers. Therefore, the theory is in line with multi-grade settings as they are seen as places of social interaction with different activities performed by all children at the same time. This then means multigrade classrooms provide opportunities for younger children to perform and imitate older children during teaching and learning process.

2.2.2.1. Justification for selecting Social Learning Theory

Sociocultural theory suggests that educators seek to understand the cultural and social contexts in which children have grown and developed (Vygotsky, 1978). Children's educational achievement is not just dependent on their own efforts or discoveries, but the result of culturally-situated social interaction (Becketts & Taylor, 2010). Vygotsky (1978) proposed that all human activities take place in cultural contexts, are mediated by language and other symbols, and can be best understood in the context of their historical development. Thus the two theories Bronfenbrenner and Vygotsky's Social Learning theories were selected as they guide instructional activities in classrooms thereby providing a framework by which to gauge individuals' development and assess instructional methods.

2.3. Reviewed Literature

2.3.1. Conceptualizing Multigrade Pedagogy

According to Lingam (2012), multigrade teaching refers to the teaching of students more than one grades in one classroom. Joubert (2010) defines multi-grade teaching as an educational setting where a teacher teaches students of different grades at the same time. Berry (2012) claims multi-grade teachings occur with a teacher teaching two or more grades at the same time in the same room or in different classrooms. The multi-grade structure is known by various names in different countries, such as 'composite' or 'combination' classes, 'double' classes, 'split' classes, 'mixed-age' classes and 'vertically-grouped' classes (Veenman, 2010).

The terms 'combination' classes, 'forced mixed age' classes and 'forced mixed grade' usually refer to settings arising through necessity and characteristics of enrolment. According to Joubert (2010:8), the terms such as 'vertical grouping' 'ungraded', 'non graded' and 'family grouping' normally used to describe multigrade settings that have been established as a result of pedagogic choice. Therefore, there are certain conditions that lead to the adoption of multigrade teaching worldwide.

Brown (2008) is of the view that in South Africa, multigrade teaching exists, but there is no policy of regulating the grades, how and which grades to combine. Little (2008) notes that multigrade teaching is unlike monograde teaching as it involves teaching of students of different ages, grades and abilities in the same year group. According to Little (2008:482), in multigrade teaching, teachers are responsible, within a timetable period of instruction across two or more curriculum grades. This means that in "one teacher" schools, the teacher is responsible for teaching across two or more curriculum grades". This is in contrast to monograde teaching where teachers are responsible within a timetable period for instruction of a single curriculum grade (Lingam, 2012). While multigrade teaching may promote learning in environments where the curriculum is specifically designed for the purpose, it is believed to reduce learning in systems where the curriculum is more rigid and grade-

specific (Nawab & Baig, 2011). In such instances, combining students of different grades in one classroom generally implies a significant reduction in instructional time for each grade.

2.3.2. Adoption of Multi-grade Teaching

Literature indicates various conditions that result in the adoption of multigrade teaching. Little (2008) gives a broad description of the conditions for manifestation of different contexts of the concept of multigrade teaching which are:

- (i) Schools in areas of low population density, which are widely scattered and inaccessible with low enrolments and with only one or two teachers responsible for all grades;
- (ii) Schools that comprise a cluster of classrooms spread across different locations in which some classes are multi-grade and some are monograde;
- (iii) Schools in areas where learner and teacher numbers are declining and where there was previously monograded teaching;
- (iv) Schools in areas of population growth and school expansion where enrolment in upper grades remains small, and teachers are few;
- (v) Schools in areas where parents send their learners to more popular schools within a reasonable travelling distance, leading to a decline in the potential population of learners and teachers in less popular schools;
- (vi) Schools in which the number of learners admitted to a class exceeds the official norms on class sizes, necessitating the combination of some learners from one class grade with learners from another class grade;
- (vii) Mobile schools in which one or more teachers move with nomadic and pastoralist learners, spanning a wide range of ages and grades;



University of Fort Hare
Together in Excellence

(viii) Schools in which teacher absenteeism is high and supplementary teacher arrangements are non-effectual or non-existent;

(ix) Schools in which the official number of teachers deployed justifies monograde teaching but where the actual number redeployed is less; and

(x) Schools in which learners are organized in multi-grade groups rather than monograde groups for pedagogic reasons, often as part of a more general curriculum and pedagogic reform of the education system.

Conditions indicate that much multi-grade arises through necessity conditions (i-viii) above. The necessity which arises from the characteristics of learners (i-vii) or teachers (viii-ix) is of a different nature altogether and reflects a choice made by policy makers and or teachers about to change and to improve the quality of pedagogy. Some conditions arise out of pedagogical choice (condition ix). Descriptions usually fail to indicate whether multi-grade teaching has arisen out of necessity or choice (Mulryan-Kyne, 2007).



University of Fort Hare
Together in Excellence

2.3.2.1. Multigrade as “NECESSITY”

In cases where multi-grade arises out of necessity, determining factors are socio-economical, geographical or cultural, which might include: teacher shortage (Balfour, 2012) teacher loss and teacher absenteeism (Mulkeen & Higgins 2009). Multigrade occurs by necessity in cases such as geographic or demographic constraints like low population density, scattered population, declining population density resulting from rural to urban migration, schools situated in remote areas teacher absenteeism, insufficient number of learners, lack of teachers, competition between schools seen by parents as being of unequal quality (Mulkeen & Higgins, 2009; Balfour, 2012). While multigrade classes could be a solution for educating rural children, in many African countries, governments tend to focus on improving conventional schools, often leaving the development of multigrade schools to local initiatives (Kivunja & Woods, 2012). For this reason, multi-grade schools in rural Africa tend to show poor results, which give them a negative image (Kivunja et al., 2014).

2.3.2.2. Multigrade as “CHOICE”

Multigrade teaching is a pedagogic approach that offers real opportunities to improve teaching and learning in different learning settings, particularly in small, scattered and remote rural schools, where geographic and socio-economic conditions limit government’s ability to provide sufficient education services (Mulkeen, 2010). In developed countries such as Finland, Sweden, Australia, England and Austria, multigrade teaching is adopted for educational reasons and utilizes multigrade teaching as an effective teaching strategy by innovative teachers, both in private and government school (Beinhammer & Hascher, 2015:89). In cases where multi-grade teaching arises out of pedagogical choice, the decision is made by policy makers and teachers to adopt multi-grade arrangements for pedagogical reasons. In such contexts, multigrade teaching is seen as a response to uneven learner enrolment.

2.3.4. Benefits of Multigrade



Literature on multigrade teaching highlights the benefits of the multi-grade classes, which include cognitive non-cognitive effects of Multigrade Teaching (MGT) on learner achievements, social benefits and personal effects on learner performances.

2.3.4.1. Cognitive and Non-Cognitive Effects of MGT

Lingam (2012) outlines multigrade teaching strategies as involving learning and teaching of children from two or more different grade levels taught by teacher at the same time in one classroom. MGT provides teachers with an opportunity for remediation and enrichment activities especially for learners with different levels of abilities (ibid). For example, Berry (2011) points out that in terms of reading development, gains in both cognitive and affective domains are claimed for paired reading, which is one particular type of peer tutoring activity. This technique, according to Berry (2011), requires few resources and would be relatively easy to implement in conjunction with classroom libraries. Through independent enquiry and peer tutoring, students “learn to learn” and “learn to teach” (Smyth, 2014). Moreover, higher achieving and older learners ‘cement’ their learning through

teaching and helping others. Another example Berry, (2011:6) compared learners' achievement in Spanish language and Mathematics in the Escuela Nueva schools with student achievement in traditional schools. They found significant achievement advantages in Escuela Nueva schools for learners in both Grade 3 and 5.

McEwan (2008:488) replicated the school effects on achievement using a subsequent and more representative data set. Even though the Escuela Nueva Schools were particularly well endowed with textbooks and libraries, the school effects on achievement remained strong even after controlling for effects of textbooks and library. McEwan (2008) concludes that the Escuela Nueva Programme might be a good example of holistic, qualitative change, rather than the application of interchangeable and discrete physical inputs. Veenman (2010) confirms that peer tutoring learning strategies benefits all pupils, cognitively, socially and personally. By implication, learners from different age groups work together, resulting in collective ethics and responsibility.

2.3.4.2. Personal and Social Effects of MGT

Multigrade classes are seen as platforms to benefit the social development of learners (Cornish, 2010). Multilevel classrooms provide opportunities for students to gain self-knowledge as they interact with older and younger peers (ibid). Through the Escuela Nueva (EN) Programme in Columbia, Psacharopolous et al. cited in Berry (2011) found a significant reduction in dropout and repetition rates, improvement in learners' self-esteem and civic behavior. On examining the social effects of MGT to young learners, McEwan (2008) found that the teachers agreed that both older and younger children learn sharing, new skills and new roles. While older learners learn patience and fulfil leadership roles, younger learners more rapidly learn sharing, new skills and language. This then implies children receiving peer assistance are likely to stretch their learning beyond their individual accomplishment.

One explanation offered for the improved social development of learners in multi-grade classes is that a range of levels of maturity, perspectives and experience contributing to the learning process

(Smyth, 2014). Another reason is that the heterogeneous interaction of age groups contributes to social growth and understanding, as well as to academic growth (Veenman, 2010). Younger students learn from the wider knowledge base of older classmates and from their modeling skills; the behavior of older students, likewise, develops their capabilities as they assume leadership roles and articulate with younger students. The construction of meaning takes place within the social context of the learner and that interaction with supportive, competent language users is integral to developing language skills. Students learn to set personal learning goals, assess themselves, and reflect on their own learning.

2.3.5. Challenges of Multigrade Teaching

Challenges of MGT classified as contextual and educational, lack of teacher training on MGT strategies, negative attitudes towards MGT, amongst others; have been highlighted as challenges of multigrade.



2.3.5.1. Contextual Factors

University of Fort Hare
Together in Excellence

One contextual factor that contribute to the poor recruitment and retention of trained teachers is multigrade schools located in remote, sparsely populated rural communities. This trifecta of problems is likely to be a major obstacle in any implementation of effective multigrade pedagogy. Another contextual problem is that many multigrade schools cannot recruit enough teachers because of the poor physical structure (Kivunja, Kucita, Maxwell, & Kuyin, 2013). Due to contexts and surroundings in which multi-grade teaching takes place, parents and teachers regard multigrade teaching as the teaching children have if they cannot have 'normal teaching' in a monograde classroom. Teachers regard multi-grade classroom as substandard compared to better-resourced single grade classrooms found in large urban schools and staffed by trained teachers (Taole, 2014). This contrasts sharply with experiences in other countries where multigrade pedagogy enjoys official government support as in Colombia (Du Plessis & Subramanien, 2014:23).

2.3.5.2. Educational Factors

According to Matshoba (2011), perceptions by many teachers towards multigrade teaching in South Africa are that MGT is the most demanding and more complex than monograde pedagogy. The teachers have to teach more than one grade at the same time and have to complete the entire curriculum in the stipulated time (Nawab & Baig, 2011). The absence of official government policy advocating and supporting the implementation multi-grade pedagogy is another challenge (Joubert, 2010). Lingam (2012) is of the opinion that more time is needed for lesson preparation, marking of tests and programming for teaching. Research evidence indicates that the pressure to prepare one group of learners within the multi-grade class for lesson planning, teaching and assessment is burdensome (Mulaudzi, 2016). Inappropriate teaching and learning materials also affects the teaching and learning process that has to take place (Pridmore, 2007). As a result, teachers feel overburdened in multigrade classes and lack of classroom management skills (Murugan, 2011). The fact that multigrade teachers share the same notional time with their monograde counterparts causes confusion and stress (Lingam, 2012). Furthermore, there is less time for reflection on teaching, lack of relevant professional training and thus less satisfaction with their work (Mulaudzi, 2016). To that end, Taole and Mncube (2012) note that teachers prefer single grades than multigrade classes. Mulryan-Kyne (2007) is of the view, therefore, that effective teaching and learning cannot take place in a class context in which the teacher is negative towards his or her teaching.

2.3.5.3. Lack of Training in Pre-service

Lack of training for multigrade teachers appears to be a problem experienced widely. Not only do multigrade schools face the problem of not having teachers purposely trained for multigrade, but they also face the problem of having the least qualified teachers sent to them (NEEDU, 2015). In South Africa, Brown (2010) found that many teachers in multigrade contexts were “either untrained or only trained in single-grade pedagogy”. Ganqa (2014) confirms that there are qualified teachers trained for single grade teaching who are struggling to cope in multigrade classes. In addition, Berry

(2012) is of the opinion that teachers in multigrade classes had not been trained in the specific skills required for multigrade teaching. Their teaching methodologies tend to rely on passive strategies, which do not create opportunities for students to be actively engaged in their learning (Ibid). Even, teacher training programmes rarely address the needs of multigrade classes nor focus on practical issues and techniques for handling multigrade teaching studies (Ganqa, 2014). The problem of lack of training of teachers for multigrade teaching is exacerbated by the absence of a curriculum developed to support the teaching of multigrade classes (Murugan, 2011). Since teachers are not adequately prepared to teach in multiclass environments, it is likely that they will adversely affect the education of their learners (Mulkeen, 2009; NEEDU, 2015).

2.4. Models of MGT

Pridmore (2007) argues that teachers in multigrade schools have challenges in adopting monograde curricula for MGT, so in her research, she tried to find out a possible pedagogy for multigrade education. Pridmore (2007) identified four modes or models of curriculum for teachers to adopt any of them and attain aims of multi-grade teaching. These four curriculum models are Quasi Mono-grade Curriculum Model, Differentiate Curriculum Model, Multi-year Curriculum Cycle, and Learner and Material Center Curriculum.

2.4.1. Quasi Monograde Curriculum Model

In Quasi Monograde mode of curriculum, the teacher teaches or instructs one grade in a monograde class while the other grades in the classroom work at their own or the teacher keeps them busy in certain tasks (reading, memorizing writing). The teacher rotates after some time and gives instructions to another grade. This process is continued until all the grades in the class are taught. Pridmore (2007) argues that this model is the traditional one where the teacher is transmitter of knowledge, the teaching is teacher centered and the students are not encouraged to assist and collaborate one another. This approach is strongly based on Piaget's theory of learning, which stresses the role of physical maturation in cognitive development (Becketts & Taylor, 2010). Little

(2008) is of the view that in this strategy, the teacher adjusts the timetable in accordance with needs of the students; to some grades, more time is given and to some grades, less time is consumed. However, quasi monograde models have been criticized as the planning of the classroom is very traditional and conservative. Furthermore, the quasi monograde teaching model is time consuming (Veenman, 2010).

2.4.2 Differentiated Curriculum Model

According to Vithanapathirana (2010), this strategy looks like the opposite of the quasi monograde curriculum model. In this curriculum model, the teacher instructs a theme/ general topic to all grades and uses one theme for all grades at the same time. The beginning and end of the lesson is for the whole class, but the teacher can, in the middle of the lesson, differentiate and work with one specific grade. When the learners work on their own, they find opportunities for peer tutoring and self-directed learning. Pridmore (2007) analyzed this curriculum model in terms of Berry's five dimensions and agreed that teachers' planning must be good, and they should spend a considerable amount of time before the lesson to plan. The teacher can assess learners through both formative and summative assessment; when they work on their own, the teacher carefully plans assessment activities to keep the learners busy (Ibid). In this curriculum model, the grouping is important, as the teacher moves around the whole class teaching, doing group or grade teaching and even pair teaching. The differentiated curriculum model has the potential to develop learners' interdependence and independence, but Muthayan (2008) found that this model is limited, and the teacher consumes most of the time doing direct teaching to the whole class.

2.4.3 Multi-year Curriculum Cycle Model

In this curriculum model, learners have to work in two consecutive grades through common themes and activities together. Pridmore (2007) gives an example of a teacher who teaches the curriculum of grade 4 to both grade 3 and 4 learners. At the end of the year, teacher works on the curriculum of grade three. When second year has passed, the grade four teacher covers the curriculum for both

grades. Multi-year curriculum cycle means that the teacher instructs the same content for grades three and four but at different time. Pridmore (2007) is of the view that this model is useful in subjects where there is no need to develop knowledge incrementally. However, in subjects like Mathematics and reading, it is not always possible because learners will have to acquire certain areas of knowledge before they continue (Checci & De Paola, 2017).

This model is very suitable for cross-age learning to encourage teachers to integrate the content (Pridmore, 2007). Pridmore (2007) analyzed this curriculum model in terms of Berry's five dimensions and is of the opinion that the multi-year curriculum cycle model stresses the teachers to plan and identify common themes before going to teach the composite class. This model also encourages learners with more knowledge to assist learners who struggle and by doing so, they become learners that are more independent (Berry, 2012).

2.4.4. Learner and Materials-Centered Curriculum Models



This curriculum model depends more on students and learning materials rather than teacher input (Little, 2008). Learning is constructed as involving a relationship between learner, learning materials and the teacher (Colbert, Chiappe & Arboleda, 1993). Students work on these materials at their pace with the support of a teacher and complete the task. A well-known example of this model is the Escuela Nueva program implemented in rural schools in Colombia. The Escuela Nueva is considered an ideal program for multi-grade teaching. Under this program, students receive a complete set of learning materials and work on these materials at their own speed (Colbert et al., 1993). It allows teacher to be very flexible and learners work on their own and tend to come together in small groups to help each other. Pridmore (2007) analyses this model in terms of Berry's five dimensions and says that planning and preparation of materials are the most important aspects. The model will fail if materials are not properly planned and developed (Pridmore, 2007). She further argues that schools must develop materials in advance in readiness of the new year. The advantage of these materials is that once developed, they can be used for repeatedly in multigrade settings.

This model improves and strengthens the development of learners' independence and interdependence (Berry, 2012).

2.5. The Escuela Nueva Model

The Escuela Nueva programme is developed as self-instructional learning guides for both teachers and learners. Other components of the Escuela Nueva include curricula-based learning corners, library, a suggestion box for learners, a systematically integrated curriculum, in-service training and follow-up for teachers, community and administrative strategies linking the school and the community. The focus is on the continuing development of teachers, as well as on the implementation of the programme and ensuring appropriate resources to support learning. McEwan (2008:476) points out that several impact evaluations have been conducted on the Escuela Nueva multi-grade intervention, using multiple sources of data. Results from an evaluation conducted by the Ministry of Education in Colombia, on the achievement of Grade 3 and five students in Mathematics and Spanish, showed that Grade three Escuela Nueva learners scored higher in Spanish and Mathematics than learners in mono-grade classes. Grade five learners scored higher in Spanish, but there was little difference in Mathematics (Little, 2008:487). Teachers learned instructional techniques suitable for a multi-grade setting, including individual and cooperative learning, as well as use of newly developed instructional materials. Secondly, each intervention promoted the development and distribution of multi-grade instructional materials, including teacher guides and student textbooks that facilitated self-guide learning. Thirdly, training and materials emphasized application of active pedagogies.

2.6. MG Instructional Strategies in South African classrooms

Mulryan-Kyne (2007) argued that instructional strategies play an important role in improving the quality of teaching and learning in multigrade classroom. The teachers utilises various types of instructional strategies in multigrade teaching. Mulryan-Kyne (2007) suggests independent learning and cooperative learning, as these approaches increase the level of understanding of students.

McEwan (2008) is of the view that these change the role of the teacher from being informatory to facilitator. The facilitator role ensures that the teacher uses time productively in the classroom. Mulryan-Kyne (2007) suggests three strategies as effective in multigrade teaching. These include (i) peer instruction in which students act like the teacher to one another, (ii) cooperative group work in which small groups of students work collaboratively on given tasks, and (iii) individualised learning in which students are involved in self-study. Apart from the above-suggested instructional strategies, thematic teaching, various group technique, self-directed learning, in South African MG classrooms there is evidence of team teaching and use of learning centers in the classroom as also effective strategies (Joubert, 2010).

2.7. Conclusion

This chapter critically discussed multigrade teaching strategies embedded in literature review through the lens aligned to key concepts of the study.



University of Fort Hare
Together in Excellence

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

This chapter provides some discussion on how the researcher conducted this research study. This chapter begins with an explanation of the research paradigm, approach of inquiry and research design used to find answers to the research questions. The description of the research setting, participants, the data collection process, research instruments and data analysis are also highlighted.

3.2. Research Paradigm

The approach to research often involves a worldview, a set of beliefs that guide action called, according to Neuman, (2011) a “paradigm”. A paradigm is a world view, a general perspective or a way of breaking down the complexity of the real world, which dictates to the researcher how research should be done and how results should be interpreted (Kumar, 2011). In addition, Creswell (2014) describes a paradigm as a worldview or basic belief system that directs an investigation. Silverman (2015) concurs that a research paradigm is the fundamental model used to organize the researcher’s observations and reasoning when analyzing and interpreting results of the study. Babbie (2013) further defines a paradigm as an all-encompassing system of interrelated practices and thinking that defines for researchers the nature of their inquiry along three dimensions: ontology, epistemology and methodology. These three dimensions of a paradigm entail a set of beliefs, values and methods influencing what should be studied, how it should be studied, and how results will be interpreted (Ibid). Creswell, (2015) and Babbie, (2013) both posit that a paradigm is essentially a frame of reference with which to observe and understand the world. The paradigm offers an alternative worldview to that of positivism/post-positivism and constructivism and focuses on the problem to research and consequences of the research (Creswell & Poth, 2017). Widely discussed three paradigms in research literature include post-positivism, interpretivism and pragmatism.

3.2.1. Post-positivist Paradigm

Firstly, the post-positivist assumptions, also known as scientific, empirical research is seen in quantitative studies. As its name suggests, post-positivism specifically refers to the thinking that followed positivism, which challenged the notion of an absolute truth-awaiting discovery, and recognized that there cannot be absolute certainty about knowledge claims when studying human behaviour and actions (Neuman, 2011). It holds a deterministic belief in which causes determine effects or outcome (Cohen, Manion & Morrison, 2018). The knowledge that develops through positivism is based on careful observation and measurement of the objective reality. Therefore, positivism assists researchers to plan the research process before initiation of social practices to predict and control forces that surrounds key variables.

3.2.2. Interpretivism

Secondly, interpretivism assumptions, also known as constructivism, is an approach seen in qualitative studies. The Interpretive paradigm places concern on the individual, to understand the world from the viewpoint of the individual, resisting the imposition of external form structure, as found in normative paradigm. Social constructivists believe that individuals seek understanding of the world in which they live and work. Individuals, thus, develop subjective meanings of their experiences (Merriam & Tisdell, 2016). Silverman (2015) believes that the interpretivist focus is on social actions, beliefs, interpretation and perceptions of participants. Denscombe (2014) is of the opinion that interpretivism informs the basic design of a qualitative approach and qualitative methods such as case studies, interviews and observations to get the meaningful understanding of how humans interpret the world around them. In nature, the interpretive qualitative research is self-reflective. Therefore, its purpose is to assign meaning and explain phenomena in order to arrive at a shared meaning with others (Merriam & Tisdell, 2016). According to De Vos, Strydom, Fouche and Delport (2011) interpretivist researchers utilize constructs such as culture, social context and language to build their view of the world to shape social reality through social interactions.

3.2.3. Pragmatism

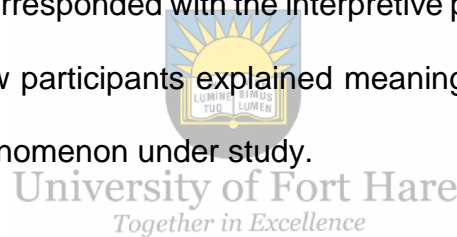
Pragmatism, as a worldview, arises out of actions, situations and consequences rather than from antecedent conditions as in positivism (Babbie, 2013). Pragmatists do not see the world as an absolute entity nor is it committed to any one philosophical system of reality and knowledge (Creswell, 2015). Knowledge, from the pragmatic viewpoint, is considered to be both constructed and based on the reality of the world we experience and live in (Creswell & Poth, 2017). The concern is with applications and solutions to problem situations, and the problem is more important than the actual methods chosen (Creswell, 2015). Instead of focusing on methods, the researcher emphasizes that the research problem should use all the approaches available to understand the problem (Neumann, 2011).

When regarded as an alternative paradigm, pragmatism sidesteps the contentious issues of truth and reality, and accepts philosophically that there are singular and multiple realities that will be open to empirical inquiry and orients itself towards solving practical problems in the real world (Creswell & Poth, 2017). This paradigm allows the researcher to be free of mental and practical constraints imposed by the forced choice dichotomy between post-positivism and constructivism, and researchers will not be prisoners of a particular research method or technique (Creswell & Poth, 2017). Researchers' beliefs about research questions to ask and usage of methods to address these questions are generally based on their stances about what can be known and how to go about achieving such knowledge. In addition, the post-positivist paradigm has complementary effects due to its power of utilizing both qualitative and quantitative research approaches (Babbie, 2013). Thus, the post-positivist researcher stand a chance of being advantageous in data selection and analyzing techniques due to allowance of using both qualitative and quantitative approaches.

3.2.4. The selected paradigm for this study

This research study adopted the interpretivist paradigm as it was deemed fit for the study on determining teaching strategies utilized by teachers in multigrade classrooms. The researcher used

the interpretivist paradigm in this study to understand different social entities of knowledge that determine utilization of teaching strategies in multi-grade classrooms. The chosen qualitative interpretivist framework in this study is a paradigm that emphasizes the importance of understanding participants' viewpoints shape. For Creswell (2015), this notion balances both inductive and deductive approaches across the research study process by means of data analysis and interpretation. Firstly, the interpretivist approach assisted in planning and designing, developing a sampling approach and on creating fieldwork tools. Secondly, it assisted in obtaining, as much as possible, in-depth information pertaining to participants' utilization of multigrade instructional strategies in their classroom-based teaching. Lastly, the researcher used the chosen paradigm as a guide on how to regulate different types of theoretical perspectives relevant to collected and analyzed data. During interviews, participants showed their independent of thinking and reasoning and thus their line of thinking corresponded with the interpretive paradigm. The Interpretive paradigm in this study also reflected how participants explained meaning of their intentions, beliefs, values, and reasons based on the phenomenon under study.



3.3. Research Approach

A research approach is the plan and procedure of inquiry, data collection methods, analysis and interpretation. The research approach chosen by a researcher depends on what one is trying to do, that is, the research problem, rather than a commitment to a particular paradigm (Creswell, 2014). Research approaches are plans for research that span steps from broad assumptions to detailed methods of data collection, analysis and interpretation (De Vos et al., 2011). For Merriam and Tisdell (2016), the selection of a research approach is based on the nature of the research problem or issues being addressed, the researcher's personal experiences and the audience for the study. Examples of research approaches are quantitative, qualitative and mixed methods.

3.3.1. Quantitative Approach

According to Creswell (2015), quantitative research has traditionally been linked to the so-called “scientific method”, also identified as positivist or post-positivist research, empirical science and post-positivism. Denzin and Lincoln (2011) add that quantitative researchers believe that their view of research is the only true search for meaning. An apparent weakness of quantitative research is that it has been perceived and seen to be weak in understanding the context or setting of the participants.

3.3.2. Qualitative Approach

Qualitative approach lies in the interpretive paradigm. Denzin and Lincoln (2011) define qualitative research as a research methodology situated in an activity that locates the observer in the world. Neuman (2011) defines qualitative research as an approach that uses a naturalistic approach, which seeks to understand phenomena on context-specific settings, such as real-world settings, where the researcher does not attempt to manipulate the phenomena of interest. Qualitative research implies an emphasis on the qualities of entities, processes and meanings that are not experimentally examined or measured (Denzin & Lincoln, 2011). A qualitative research has the ability to provide complex textual descriptions of how people experience a given research issue (De Vos et al., 2011).

Using a qualitative methodology can provide, in the context of this exploratory study, the most suitable approach to elicit rich and insightful data and addresses the overarching research questions that underpin the study (Silverman, 2015). Unlike quantitative research, which has, as its objective, collecting facts about human behaviour that will lead to verification and extension of theories, qualitative research emphasizes improved understanding of human behaviour and experience. The benefits of qualitative inquiry are embedded in its emphasis on thick descriptions and obtaining real, rich, deep data, which illuminates everyday pattern of action and meaning (Babbie, 2013). Kumar (2011) indicates that the purpose of qualitative research is to provide the researcher with a perspective of the target members through immersion in a culture or situation and direct interaction

with people under study. For Denscombe (2014), qualitative research is a way a researcher collects, consolidates and deduces information obtained from people, either through interviews and/or through observations in their natural or social settings. This is unlike quantitative research that deals with hypothesis testing, cause and effect and statistical analysis.

3.3.3. Mixed Methods

Denscombe (2014) describes mixed methods approach as an approach where research methodologies and approaches are grounded in the philosophical and assumptions underpinning existing research. A mixed method approach is a distinct research methodology that evolves as a way of converging and triangulating different quantitative and qualitative methods in data sources (Creswell, 2015). While quantitative research is associated with a view of social world that is external, independent, fixed or objectively real, qualitative research is linked to ideas of a world that is constructed, subjectively experienced and the product of human thought, as expressed through language (Denzin & Lincoln, 2011). While the quantitative research approach has been regarded as the only “true” reflection of the truth, qualitative research has been viewed as an assault on the search for “truth” (Neuman, 2011). According to Cohen, Manion and Morrison (2010), mixing quantitative and qualitative for data collection enables the researcher to solicit different views from different data sources to give adequate insights into issues being studied. Cohen, et al. (2018) are of the opinion that one should choose a combination of methods that provide sufficient evidence for answering the research question.

3.3.4. The selected research approach for this study

The qualitative approach was utilised in this study because of its applicability in terms of addressing the primary research objectives of the study that sought to understand the meaning research participants attributed to the phenomenon under investigation. Since qualitative inquiry is characterised as an approach generally used in natural settings, the researcher utilised both the research participants and the research sites as chief tools in both data gathering and analysis. It

gave the researcher the benefit of being able to directly involved through observing, questioning and listening in the participants' views. The strength of qualitative approaches, according to Cohen, et al. (2018), is that they generate rich, detailed data from participants' perspective and provide a context for the phenomena being studied. Therefore, the importance of the voice of the researched and gaining first-hand information regarding the lived experiences of the research on the subject was noted. The use of qualitative approach allowed the researcher to seek clarity and deeper understanding by finding convergence and corroboration of results from a variety of data sources.

3.4. Research Design

A research design is the overall strategy that one chooses to integrate different components of the study in a coherent and logical way, thereby, ensuring what will effectively address the research problem (Denscombe, 2014). Yin (2017) defined research designs as logical blueprints, which involves links among research questions, data collection and strategies for data analysis. This logic helps in strengthening the validity and accuracy of the study and constitutes the blueprint for collection, measurement and analysis of data (Creswell, 2015). Silverman (2015) views research design as a strategy that incorporates different components of the study in a coherent and logical approach, with a guarantee to address research problems through research questions. Similarly, Yin (2017) defines research design as logic that associates collected data and conclusions to be drawn to initial questions of the study. Leedy and Ormrod (2014) assert that research design provides a researcher with structure for data collection and the process of analysis that follows. There are many research designs for both quantitative and qualitative studies. Since the focus is on interpretivist qualitative research, the chosen design for this study was the case study.

3.4.1. Case Study

For the purpose of this research, as advocated by Creswell (2015), the research design chosen must suit the nature of study, so the case study research was chosen. Creswell (2015) defines case studies as a design of inquiry used by researchers to develop in-depth analysis of a case, program,

event or process. The case(s) are confined by time and activity, with the researchers collecting detailed information through a variety of data collection procedures over a continual period of time (Ibid). Creswell and Poth (2017) indicate research designs to suit the title to investigate in a study. In addition, Creswell and Poth (2017) advise using a research design on the premise of collection, measurement and analysis of data related to studied phenomena. The research design chosen was to ensure that the research problem is addressed effectively, logically and as unambiguously as possible, as stated by Yin (2017).

Case studies are usually taken to be self-contained and coherent units of analysis with clear and well-defined boundaries, in terms of participants, location, organization, time and context or a combination of these (Cohen, et al., 2018). The authors confirm that a case study allows investigators to retain holistic and meaningful characteristics of real-life events such as individual life span, organisational and managerial processes, global change, relations and maturation of technology for industrial revolution (Ibid). Therefore, a case study was adopted for in-depth investigation to explore utilization of instructional strategies in multi-grade classrooms.

3.5. Sampling

Sampling involves the choice in a selection of specific units and a number of units to be included in the study, which should be selected based on the availability of the broadest range of information and perspectives on the subject of study (Yin, 2017). Babbie (2013) confirms that sampling involves a selection of a workable number of participants from the research population under investigation. Due to time and cost constraints, it is seldom possible to include the entire population in a study (Denzin & Lincoln, 2011). Leedy and Ormrod (2015) regard sampling as selecting participants who logically respond to research questions with the purpose of guiding the study aligned with research objectives. Two common types of sampling known are probability and non- probability sampling.

3.5.1. Probability Sampling

Probability sampling refers to the method of selecting a workable number of participants from a population whereby the exact number and location where the population elements are known to and reachable by the researcher (Babbie, 2013). The main aim of probability sampling is to select a set of characteristics in a way that portrays the actual parameters that exist within the overall population represented (Brinkmann, 2015). Probability sampling is commonly used in quantitative research, particularly in surveys, to produce a statistical sample representative of the sampled population. With probability sampling, concerns are more on statistical accuracy, hence it involves selection of a relatively large number of units from population.

Probability sampling includes random sampling, systematic sampling, stratified sampling, cluster sampling and multiphase sampling. Simple random sampling involves giving participants equal chance of participating at the same time. Systematic random sampling assists a researcher in some exceptional cases whereby there is no point of physical contact with participants during data collection (Babbie, 2013). On the other hand, stratified random sampling involves distributing participants into levels with one or more variables to acquire data proportions within a specific population. Cluster sampling in probability refers to sampling of natural participants into clusters randomly selected to embody every sampled component of the researched topic. Multistage sampling as the name implies combines samples such as stratified and cluster sampling.

3.5.2. Non-probability Sampling

Non-probability sampling refers to the method of selecting participants from a population where the researcher (Babbie, 2013) does not know the number and location of the population elements. Factors like the sample size, sample parameters and representatives, sample accessibility and sampling strategy to be used may influence a researchers' choice of selection (Yin, 2017). Non-probability sampling aims to select respondents and data likely to generate profound levels of understanding a phenomena (Creswell, 2015). Depending on the type of population and the

particular details of an investigation, the researcher may choose any one of the three types of non-probability sampling techniques namely: convenience, snowball and purposive sampling.

3.5.2.1. Convenience Sampling

Denscombe (2014) refers to convenience sampling as a form of non-probability sampling, with usage of convenient participants based on relations of the researched topic. Convenience sampling refers to a non-probability method of selecting participants from a population based on their availability and convenience to the researcher (Merriam & Tisdell, 2014). The type of sampling produced from convenience sampling is not representative enough of the entire population (Ibid). For instance, if an interviewer conducts a survey in a shopping mall early in the morning of a given day, people interviewed would be limited to a given time. In this instance, the results of the interviews would not represent the wider views of the people in that area.



3.5.2.2. Purposive Sampling

According to Neuman (2011), purposive sampling is a commonly used procedure for focus group interviews. An approach is frequently used as a method of extending knowledge by deliberately selecting sample participants known to be rich sources of data (Ibid). An advantage of using purposive sampling for interviews is that individuals who have experienced the phenomenon of interest are invited to participate, contributing a wide range of domain descriptors and construct dimensions (Babbie, 2013). In purposive sampling, samples are chosen in a deliberate manner that will yield the most relevant and plentiful data based on the participants' anticipated richness and relevance of information in relation to the study's research question (Yin, 2017). Silverman (2015) regards purposive sampling as typical case sampling for evidence of identified and selected purpose and research problem.

3.5.2.3. Snowballing

Snowballing is a method of finding participants from a population whose members' identities and location are not known and cannot be easily traced (Babbie, 2012). Snowball sampling during data collection start with a small group of participants who will refer an investigator to other group who have relations with the researched topic. For example, when sampling teachers teaching in multi-grade rural primary schools, the researcher might need assistance from the school to identify the participants that are engaged in the same phenomenon of multigrade teaching. Yin (2017) believes snowballing sample is best used for exploration purposes.

3.6. Sampling Procedure

Qualitative inquiry depends on purposefully selected samples in which the researcher chooses the individuals and contexts (De Vos et al., 2011). The type of qualitative design used by a researcher will determine the sample size (Creswell, 2015). A sample of participants is a representative of the population to be studied. Population refers to the entire group of persons who meet the criteria that the researcher is interested in studying (Denscombe, 2014). A population is the larger group about which a generalization is made and a group of individuals who have the same characteristic (Brinkmann, 2015). Furthermore, Babbie (2013) defines a population as any group of individuals with one or more characteristics in common and that are of interest to the researcher.

The researcher's intention is in gaining information and drawing conclusions (Ibid). Denzin and Lincoln (2011) view a population as a group of individuals with common elements, objects, or events that conform to specific criteria and to which researchers intend to generalize the results of the research. Babbie (2013) explains that a research population does not always refer to people but any collective phenomenon selected to form the focus of research, whether it is possible, settings, artefacts, events, behaviours or social processes. For the purpose of this research study, the population in this study were teachers teaching in multi-grade classrooms in rural primary schools.

The researcher used purposive sampling in this study to interview sampled participants related with gathering authentic information based on the title of the study. Population sampling in this study was based on the selection of a group of participants who share common characteristics. Firstly, the researcher considered a common location for face-to-face group observation and interviews due to geographical cluster accessibility. Secondly, the targeted population were primary school teachers teaching in rural multi-grade settings. The study focused on grade-combined classrooms consecutively or non-consecutively from Grade R to Grade 7. Since qualitative studies require a relatively small number of participants (Leedy & Ormrod, 2015), 4 Primary school where MGT is the norm were purposively selected. From each research site, 2 teachers were selected as the sample of research participants. Therefore, 8 teachers, including school management team members, were sampled purposively.

3.7. Data Collection Methods and Instruments



Quantitative and qualitative research employ different data collection methods and research instruments.

University of Fort Hare
Together in Excellence

3.7.1. Quantitative Data Collection Methods

Quantitative data collection methods are usually viewed as more objective research tools that can produce generalizable results and evidence patterns amongst large populations and samples (Yin, 2017). A disadvantage of data collection in the quantitative approach is that it may be labor intensive and time consuming.

3.7.2. Qualitative Data Collection Methods

Qualitative inquiry involves employing multiple data gathering methods, especially participant interviews, and uses an inductive approach to data analysis, extracting its concepts from the mass of certain detail that constitutes the database (Brinkmann, 2015). Qualitative methods include direct observation, document analysis, participant observation and open-ended interviewing. These

methods are designed to help researchers to understand meanings people assign to social phenomena and to elucidate mental processes underlying behaviours (Neuman, 2011). The researcher utilized different approaches that helped to improve accuracy of data to produce a more holistic picture of the phenomenon under investigation.

3.7.2.1. Interviews

Leedy and Ormrod (2015) see an interview as a tool used to gather information in the form of two-way communiqué between interviewer and interviewee. Interviews can be classified as structured, semi-structured or unstructured, depending on the types of questions the interviewer poses to the respondent. Creswell (2015) adds on the list different types of interviews such as problem-focused interviews, focus group discussions, narrative interview, participatory interview and “one-on-one” interview. These types make it possible for an interview to get a deep insight of the respondent’s system of beliefs and knowledge. Interviews enable and allow respondents to describe what is meaningful using their own words, and the researcher is able to observe the interviewee’s body language (Silverman, 2013).



University of Fort Hare
Together in Excellence

Interviewing is the predominant mode of data collection in qualitative research (De Vos et al., 2011). They further assert that the interview is a social relationship designed to exchange information between the participant and the researcher. Information is obtained through direct interchange with an individual or a group that possess the characteristic required in the study (De Vos et al., 2011). According to Yin (2017), interviews are open and allow the researcher to bring in new ideas during the interview, depending on the interviewee’s responses, aims and objectives of the study. For Silverman (2015), interviews can perhaps be online, written, oral manner, structured, unstructured or semi-structured.

3.7.2.1.1. Structured Interviews

In a structured interview, the researcher takes the lead with some guidelines, where the set of questions used is difficult with no permission to divert (Creswell & Poth, 2017). Use of structured

interviews for data collection has advantages as they are useful for data collection in cases where the responses highlight aspects that cannot be observed directly. Interviews allow for probing, thus increasing accuracy of response. They also ensure the correct or intended interpretation of questions. Questionnaires, as instruments, are usually regarded as more objective research tools that can produce stable results and evidence of patterns amongst large population and samples (Brinkmann, 2015).

Leedy and Ormrod (2015) concur that it is the most popular technique for obtaining data from participants because it is considered relatively reasonable. A questionnaire is a data collection instrument filled in by respondents taking part in the research (Denscombe, 2014). The researcher first collects quantitative data using questionnaires, analyzes data and obtains results that determines issues that need to be further clarified. The quantitative questionnaire is structured and close-ended. All items in the questionnaire provide the same possible responses.

The purpose of the questionnaires is to identify issues that enable the selection of participants for the qualitative section for in-depth study complementarity (De Vos, et al., 2011). According to Babbie (2013), a questionnaire is good in saving time and money when a researcher wants to collect data from people simultaneously. At the same time, questionnaires can be distributed to many respondents simultaneously and large samples of the population can be covered (Ibid).

3.7.2.1.2. Semi-structured Interviews

In an attempt to acquire information and gain understanding from interviewees about how they utilize multi-grade teaching strategies in their classrooms, semi-structured interviews were thus employed. The interviews assisted to gather information that encompasses oral verbal incitements presentation with responses between interviewee and interviewer. The interview was conducted using a semi-structured interview schedule that guided the process of answering the research questions. Semi-structured interviews were selected according to a qualitative enquiry approach. The researcher drew up an Interview Schedule as one of the methods of gathering information. Interview schedules

are usually viewed as a more objective research tool that can produce generalizable results and evidence of patterns amongst large populations and samples (Denscombe, 2014). A set of leading questions was drawn up to guide the interview process. Interview schedules were suitable for this study because they provided participants a chance to freely give their responses without the interference of the researcher. The questions asked by the researcher related to determining the utilization of instructional strategies in multi-grade classrooms. The duration of interviews was about 60 minutes with each of the 8 selected participants from 4 primary schools in rural areas.

3.7.3. Classroom Observations

Another method and tool of the data gathering process employed was classroom observations. Literature indicates that observations can be made where the researcher is the participant or non-participant observer.

3.7.3.1. Participant Observations



The qualitative researcher may observe either as a relative outsider or, especially in the case of an ethnography, as a participant observer (Leedy & Ormrod, 2015). Unlike observations conducted in quantitative studies, observations in a qualitative study are intentionally unstructured and free flowing. The primary advantage of conducting observations in this manner is flexibility: the researcher can take advantage of unforeseen data sources as they surface (Ibid). A disadvantage about observation is that the researcher will not always know what things are most important to look for, especially at the beginning, and so may waste considerable time observing trivialities while overlooking entities that are more central to the question (Leedy & Ormrod, 2015).

3.7.3.2. Non- participant Observations

Non-participant observation of lesson was undertaken as a means to validate findings of interviews, and documents. Therefore, as the study focused on the utilization of instructional strategies in MG classrooms, the researcher observed teachers teaching. A classroom observation checklist was

used to collect and record data on classroom organization, lesson planning and strategies used to teach in multigrade classrooms.

3.7.4. Documents

Document analysis is a systematic procedure for reviewing or evaluating documents i.e. both printed and electronic materials (Babbie, 2013). Cohen et al. (2018) define documents as artefacts, symbolic materials such as writing and signs, which tell researchers about the inner meaning of everyday events and may yield descriptions of rare and extraordinary events in human life. Documents contain text and images that have been recorded without a researcher's intervention and may be used for systematic evaluation as part of a study taken from a variety of forms (Ibid). According to De Vos (2013), documents include advertisements, agendas, attendance registers, minutes of meetings, manuals, books, diaries, event programs, letters and files. Neuman (2011) confirms that documents contain information that can suggest some questions that need to be asked and situations that need to be observed as part of the research. A notable advantage of documents is that they provide supplementary research data. Documents analysis is often used in combination with other qualitative research methods as means of triangulation, and that is called a combination of methodologies in the study of the same phenomenon (Denzin & Lincon, 2011). Brinkmann (2015) states that documents reviewed for references relate to any benefits or challenges that participants perhaps mentioned under a researched topic. Documents analyzed assisted the researcher to authenticate collected data from participant interviews and classroom observations alongside CAPS document, NECT for Foundation Phase, Teachers' Portfolios, learner workbooks and DBE (2015) policies on multigrade teaching. Such documents were used to gain a better understanding of utilization of instructional strategies.

3.8. Data Triangulation

This study triangulated data collection methods by utilizing semi-structure interviews, classroom observations and documents. In addition data gathering instruments such as Interview Schedule,

Observation Sheet and Document Checklist were used as to validate findings. Triangulation refers to “the process of using more than one tool to collect data, to get a complete picture of what is being studied and to cross-check information.” Leedy and Ormrod (2015) call it the mapping of one set of data upon another, where multiple methods are combined to produce a more accurate validity to findings in qualitative research (Creswell, 2015:251). De Vos et al. (2011) explicated that triangulation is the combination of several data resources or collection strategies in the same design in order to enhance validity. Triangulation is used to verify or support a single perspective of a particular social phenomenon and allows for greater validity through corroboration. Making use of triangulation helped the researcher to compensate for the weaknesses of one method with the strengths of another, contributing towards a better understanding of the phenomenon. Furthermore, Kumar (2011) pointed out that triangulation helps the researcher to guard against the accusation that the study’s findings are simply an artefact of a single method, a single source or a single investigators’ bias. “Reliability in research refers to the degree of consistency with which instances assigned to the same category by different observers on different occasions reveal similar results” (Leedy & Ormrod, 2015). Validity is “the degree to which qualitative data accurately gauges what the researcher is looking for” (Denscombe, 2014:375) while validity measures the extent to which data and findings present an accurate account of the events they claim to be describing (Silverman, 2015).

3.8.1. Credibility and Trustworthiness

Neuman (2011) sees credibility as criterion that ensures that the results in a study are believable from the perspective of participants. Credibility considers how congruent and believable the findings are, based on the data obtained and conclusions drawn (Ibid). In this study, multiple instruments were used to gather data for the purpose of credibility and trustworthiness. Credibility is an indication that the conclusion from data, in terms of interviews and observations, are accurate (De Vos et al., 2011). The credibility criterion ensures that results are believable from the perspective of the

participants in the study (Ibid). In other words, credibility in research serves as evidence free from error and distortion. In order to ensure credibility of the study, the researcher conducted member checks with the participants to ensure that data collected is the true reflection of the participants' views.

Denzin and Lincoln (2011) offer specific methods and strategies in which to accomplish credibility in qualitative research. Amongst these strategies are member checks, peer debriefing, prolonged engagement in the field and with the participants, persistent observation and implementation of an audit trail. Member checking was undertaken where the interview transcripts and voice recorder were used so that participants could determine whether their ideas and opinions were presented accurately. Trustworthiness refers to the quality of an investigation and its findings that make it noteworthy to its audience (Kumar, 2011). In order to ensure trustworthiness of data collected, the following measures were taken into consideration. The study was piloted to test the strength of the research instruments, theory and data collection methods. The sample for the pilot study were two participants and the research questions had to be adjusted to correlate with the phenomenon under study. The piloted study did not form part of the main study, however it assisted in the selection of theory and sampling of participants. Dependability is described as being focused on the process of the inquirer and inquirer's responsibility of ensuring that the process was logical, traceable and documented (Creswell & Poth, 2017). Dependability of this study was ensured by minimizing both errors and biasness in the study. The researcher ensured dependability by reading themes over again to verify if they make sense. He also audited all data transcripts as Seal (2012) emphasizes that auditing of transcript provides the opportunity to engage in self-critical account of the events.

Yin (2017) identified three objectives for building trustworthiness and credibility as: Transparency - Qualitative research must be carried for the public to access it easily, that is, it must be transparent. The research procedures and data use must be readily available for inspection by any other person. Methodic-ness: avoiding unexplained biasness or deliberate distortion during the research process.

This brings a sense of completeness to a research effort and cross-checking a study's procedures and data. Adherence to evidence: qualitative research should be based on an explicit set of evidence. The researcher draws inferences based on the data collected, irrespective of the type of data or the multiplicity of the source. In this study, information obtained from participants through semi-structured interviews was cross-checked with documentary evidence from the secondary source of data. Multiple data sources were utilized to ensure confirm-ability of data collected. Member checking was used to check for accuracy of translations to ensure that they are trustworthy, and there was correlation between data collection methods.

3.9. Data Analysis

Data analysis is the process of systematically searching and gathering interview transcripts, field notes and other materials that the researcher accumulates during data collection. According to Cohen et al. (2018), data analysis is the sifting, organizing, summarizing and synthesizing of data to arrive at the results and conclusions of the research. In a nutshell, data analysis means to “create meaning from raw data (Creswell, 2015:517).”



University of Fort Hare
Together in Excellence

3.9.1. Thematic Analysis

Leedy and Ormrod (2015) state that in qualitative research, the findings of a study are interpreted through words, expressions or numbers gathered from the participants. Therefore, the meanings of interpretations were grounded on the participants' experience and shared perceptions. Merriam and Tisdell (2016:179) assert that early data analysis “enables the researcher to process large amounts of data, in ways that gives him confidence that what is reported represents the perspectives of the participants.” The data collected from this study was analyzed using themes derived from the research questions guiding the research work.

Qualitative and inductive analysis involved coding and categorization of data, observing patterns and themes and making reasoned conclusions. Before arriving at findings and conclusions, the researcher tried to make sense meaning of the data collected. Analyzing data immediately after

collecting it guided subsequent data collection and helped the researcher to gain a better understanding of the phenomenon, as new interpretations emerged. Data collected was transformed into typed text or transcripts. Before analyzing data, the researcher read the transcribed data and field notes several times to get immersed in the details. Neumann (2011) cautions researchers not to be so focused on research issues such that they miss what the data is telling them during analysis. Re-reading the data enabled the researcher to become familiar with it and make sense of the information contained in the data. Reading helped the researcher to first divide data into smaller units then assigned codes in the form of descriptive phrases. Codes were assigned and given names to themes selected because of their significance to the phenomenon under study. The relationships enabled the researcher to make interpretations and arrive at the findings to be presented in the final report. Therefore, the process of reading interview transcripts repeatedly enabled the researcher to identify responses relating to research-selected topic. After listening repeatedly to the tape, recorded data, transcribed *verbatim*, the researcher wrote transcribed data word-for-word. Themes, patterns and similar views were grouped to form emerging themes that would lead to findings and conclusions of the study.



3.9.2. Content Analysis

The content of the documents collected was analyzed to triangulate data with interviews and observations. The goal of qualitative content analysis is an accurate description of the content of the text and aims for some form of objectivity in the assessment of the content of textual material (Yin, 2017). Yin (2017) maintains that qualitative content analysis is capable of classifications and descriptions which conform far more closely to the text than those produced by quantitative analysis. Babbie (2013) postulates that the quality of qualitative analysis is often assessed with concepts such as credibility, trustworthiness, accountability, peer auditing, explicit coding frame and systematic coding. Cohen et al. (2018) identified four stages in qualitative analysis: codes (identification of “anchors” within the data; concepts (grouping of codes based on similarities to each other);

categories (grouping concepts based on similarities to each other); and theory (explanations that may connect meaningfully the emergent categories).

3.10. Ethical Consideration

Ethics is a philosophical term derived from the Greek word “ethics”, meaning character or custom and connotes a social code that conveys moral integrity and consistent values. Babbie (2013) is of the opinion that ethics are concerned with what is wrong and what is right when conducting research. Ethics plays a major role in judging qualitative research because qualitative researchers spend a great deal of time with participants and should treat them with dignity (Silverman, 2015). Creswell, (2015) asserts research ethics as preset ethical principles that guide the researcher in the process of doing the study. Kumar (2011) maintains that ethics increase the credibility of a study.

3.10.1. Access to Research Sites

Access to institutions was requested in writing. The researcher sought permission from the District Office to conduct research in schools and to use teachers as participants. Permission to conduct research at schools was sought from the principal, including the use of school staff as participants in the study as well as the use of school premises when conducting interviews. Informed consent forms were distributed to the participants when requesting permission to conduct research. In addition, the researcher stated the objectives of the study verbally and in writing so that participants clearly understood them. A written application to conduct research was sought from the University Ethical Clearance Committee (**see Appendix A**) prior to conducting the study.

A protocol checklist from the Faculty Ethics Committee responding to questions on ethical clearance and ethical issues was submitted to the Ethics Committee as an adherence to ethical principles. The results thereof were the awarding of the Ethical Clearance Certificate (**see Appendix B**). The researcher set out to obtain permission from the Department of Education, Eastern Cape Province to access the selected schools in the Amathole East Education District (**see Appendix C**). The researcher further received permission from gatekeepers (principals) before entering research sites

to maintain the level of cooperation. The school principals of selected schools were presented with letters giving consent (see Appendix D) to the researcher to do research in selected schools and to gain local permission to the sites and the participants. Adhering to principles of anonymity and confidentiality, the sampled research sites were given pseudonyms as: School A, School B, School C and School D.

3.10.2. Access to Research Participants

Ethical issues adhered to in this research study included voluntary participation, acquisition of informed consent, confidentiality, anonymity and protection from harm.

3.10.2.1. Voluntary Participation

The researcher adhered to the rights practices of voluntary participation, stressing the fact that all participants remained anonymous. The information gathered is confidential and used only for research purposes rendered in Creswell and Poth (2017). Informed consent is informing the participant of what the study is all about so that she may choose whether or not to participate in the study. The participants were made to understand that they have the right to withdraw from the study at any time.

3.10.2.2. Informed consent

Cohen et al. (2018:78) define informed consent as “the procedure in which individuals choose whether to participate in an investigation after being informed about facts that are likely to influence their decisions”. To build relationships of trust with participants, the researcher visited the research sites to meet participants in person before interviews. Such meetings were aimed at personalizing invitations and stressing the importance of their participation in the study. Meeting the sampled participants beforehand created an opportunity for the researcher to answer any questions that participants may ask. Having explained the purpose of the research emphasizing voluntary participation, participants signed a protocol for informed consent. Consent encompasses more than signing a form” as people need to understand why they are expected to participate and on what

basis they are participating (Denscombe, 2014). The participants selected interview times and places to establish trusting relationships that enabled them to handle the dialogue. All participants were then given a consent form which elaborated on their voluntary participation, anonymity and confidentiality of information. The same letter informed participants of their right to refuse and to withdraw at any time.

3.10.2.3. Anonymity and Confidentiality

To ensure participants of anonymity, the researcher kept all their identities and information provided confidential throughout the study. Confidentiality ensures that no harm is done to the participants because of taking part in the study (Cohen et al., 2018). To adhere anonymity, pseudonyms were given to the research participants. Participants were assured that their confidentiality would be protected during and after the study. The anonymity of individuals was maintained and protected by using codes during the interview instead of participants' names. The consent form for participating in focus groups included a non-disclosure agreement as a means to enforce confidentiality. Participants need to be assured that the data will be held in strict confidence, and Babbie (2013) asserts that both the researcher and the participant must have a clear understanding regarding confidentiality of the results and the findings of the study. In this study, any information and responses shared will be kept private and the results will be presented in an anonymous manner in order to protect participants' identities.

3.10.2.4. Protection form Harm

To protect the participants, each interview was conducted in places where the participants were comfortable. Babbie (2013) emphasizes that ensuring interviewee's feel free with and not to feel intimidated during interviews is crucial. Open discussion and negotiations were carried out to promote fairness to participants and to the research inquiry. The research participants were informed that they would be free to withdraw from the research study at any time without penalty. Caring and fairness was part of the researcher's thinking actions and personal morality in the research (Merriam

& Tisdell, 2016). Leedy and Ormrod (2015) maintain that the researcher should ensure that participants are not exposed to any undue physical or psychological harm. In this study, the researcher informed participants about likely risks involved in participation and took steps to eliminate any form of possible harm to participants. Interviews were held in places where the participants felt comfortable. A consensus was reached between the interviewer and the participants in instances where voice and video recordings had to take place. The participants were assured of secrecy and confidentiality of the information shared during interviews.

3.11. Conclusion

The chapter on research methods outlined how the study selected interpretivist, qualitative case study research design. Sampling and sampling procedure were discussed followed by data collection methods and data-gathering instruments. Data analysis, triangulation and ethical considerations were highlighted.



University of Fort Hare
Together in Excellence

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

The chapter presents, analyses and interprets data collected for this research project. Findings and themes that emerged from data analysis are highlighted followed by discussion of findings.

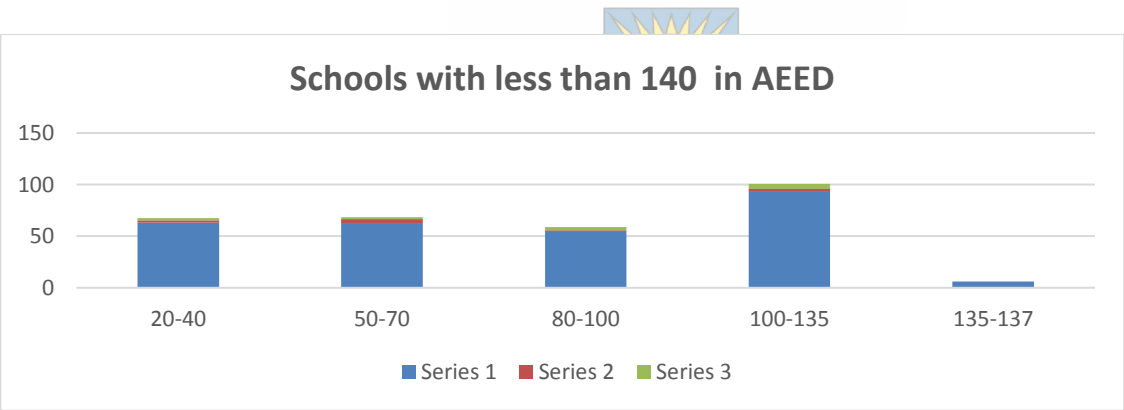
4.2 Profiles

Profiling included profile of the sampled research site and sampled research participants.

4.2.1. Profile of the Research Sites

Demographic example of schools with decreased learner intake in the district.

Table 1: Schools with less than 140 learners in Amatole East Education District (AEED)



Schools with less than 140 learners in Amatole East Education District (AEED)

Table 1 shows the number of schools with less than 135 learners in Amathole East Education District. Schools with 135-137 learners are few, and this then implies that most of the schools in this district are multi-grade schools. The demographics, geographical location and rural communities necessitated the emerging of multi-grade schools. Multigrade schools arose by necessity, thus forcing teachers to accommodate learners of different grades in small classrooms.

Table 2: Profiling of the Sampled Research Sites

Pseudonyms	Location	Type of School	School Enrolment	Grade Levels	Grade Combination	Learners in grades combined
School A	Idutywa	Rural	51	Grade R-7	Grade 1,2 &3	18
School B	Willowvale	Rural	60	Grade R-7	Grade R,1 & 2 Grade 4,5 &6	23 17
School C	Xhorha	Rural	36	Grade R-7	Grade R,1, 2 &3	19
School D	Ngqamakhwe	Rural	47	Grade R-7	Grade 4, 5, 6, & 7	22

Pseudonyms were School A, B, C, and D. Different locations were far apart in remote areas and sparsely populated communities. School A is located 89 kilometers from the district office of Amatole East Education District, which is demarcated in Idutywa, a small town under Mbashe Municipality. School A is located at the end of rural community location, thus surrounded by a forest and the river towards edge of a location whereby school is situated. There was grass growing right round the school and playground area, though the grounds were neatly kept and the exterior of the school building seemed to be recently been painted. School-B is located in the dusty village of Willowvale, surrounded by small-scattered houses built out of mud in sloppy valleys heading to nearby rivers.

The school buildings were not in good condition, with most of the playground and the surrounding grounds covered in long grass and weeds. There was no fencing, and livestock were grazing in the schoolyard whilst learners were in classrooms. School C demarcated at Mnquma Local Municipality. Learners attending all the sampled schools had to walk long distances, cross-rivers, and there was

no scholar transport provided as envisioned in DBE (2015). School D is found in Ngqamakhwe rural areas with school enrolment of 47 learners' grades ranging from grade R to grade 7 combining Intermediate and Senior phase classrooms. All schools were rural schools where multi-grade is the norm. The number of learners enrolled in different schools ranged from 36-60. All primary schools observed commonly enrolled learners, starting from Grade-R teaching class, then Schools A and B both have Grade-R to Grade-7 classes unlike School-C that seems to be the smallest though with promising learner intake, starting from Grade-R to Grade-3. In a two-classroom school in a remote rural district of the Amathole, there were no libraries and centres for curriculum support. The physical resources, including school buildings, were outdated, and there were no taps with running water or toilets. There was also a challenge in transportation for the long distance learners and teachers had to travel to get to school. Although teachers in the schools received support from their colleagues, pedagogical support from school officials and curriculum experts was scarce because of the distances involved.



4.2.2. Profile of the Research Participants

University of Fort Hare
Together in Excellence

Table 3: Profile of the Sampled Research Participants

Pseudonym	Nationality	Gender	Age	Teaching Experience	Highest Qualification	Grade Taught	Teaching Experience
SAT1	South African	Female	49	17	NPDE	Gr 1, 2, & 3	15
SAT2	South African	Female	53	22	NPDE	Gr 4 & 6	23
SBT3	South African	Female	47	11	Matric	Gr 4, 5 & 7	17
SBT4	South African	Female	55	30	Std 8	Gr R, 1 & 2	27
SCT5	South African	Female	39	07	JPTD	Gr 4, 5 & 6	11
SCT6	South African	Female	44	09	Matric	Gr R, 1, 2 & 3	13
SDT7	South African	Female	36	06	JPTD	Gr 4, 5, 6, 7	07
SDT8	South African	Female	51	27	NPDE	Gr R, 1, 2, & 3	20

Research participants were given pseudonyms: **SAT1, SAT2, SBT3, SBT4, SCT5, STC6, SDT7 and SDT8**. All participants were female South African citizens, 2 teachers sampled in four schools. Therefore S denotes nationality: South Africa; AT1 & AT2; BT2 & BT3; CT 5 & CT6 and DT 7 & DT8, represent the respective pseudonyms of teachers sampled from different schools. Their ages varied ranging between 36 and 55. The teaching experience also varied with 27 years the most and 7 years the least. The highest qualified were 2 participants with Junior Primary Teachers Diploma (JPTD); 3 Participants obtained National Professional Diploma in Education (NPDE), 2 Matric and 1 with Standard 8 equivalent to Grade 8. The varying educational qualifications implies that teachers in multigrade classroom bring a wealth of experience and information that can thus be shared in Professional Learning Communities towards the becoming of learners in multigraded classrooms.

4.3. Presentation of Data

Research Question 1: Which teaching strategies are utilized in multi-grade class?

The participants were asked conceptualization of multigrade teaching, which and how grades are combined as well as the teaching strategies utilized in multigrade classrooms. On being asked their understanding of the meaning of multi-grade; the responses were as follows:

“I know what multigrade is, because when we were still young growing up in farms; there were no schools so we were taught by one teacher in a small hut”; **SDT8** confirms.

“My parents often told me that multigrade is not something new, in rural areas they will walk so many miles in search of schooling in nearby rural area which happened to be a church hall”; **SAT1** says.

“When I was at varsity there was a module on multigrade which explained what it is, now that I am involved in it, I fully understand what it means” **SCT6** attests.

All the participants agreed that multi-grade involves combination of learners from different grade levels in one classroom taught by one teacher. This is in line with Little's (2008) explanation that

multi-grade is the classroom or school setting where learners are taught at the same time by one teacher. With regards to which and how grades were combined, there were no clear-cut answers. The responses varied from combining consecutive grades, non-consecutive grades or a combination of any available grades in a particular class. **SBT3** says, *“Nobody tells me how and which grade to combine. There is also no document that give us pointers on what to do so I decided to combine learners of different grade levels as I like”*. **SAT1** explains, *“The School Management Team assigns to us different grades to combine with varying reasons such as being an experienced teacher in a particular grade to having exceptional subject knowledge in a particular learning area”*.

On the contrary, **SCT 5** claims, *“There is no space for organizing proper group groups because we are using small classrooms, so I let them sit together and attends to them one by one. The learners are few so I know all of them by their names and grades”*.

The majority of participants interviewed said dividing pupils into flexible groups was crucial. **SDT8** acknowledges: *“In my class I divide the learners according to the grade levels and arrange them in sitting positions as such”*. **SBT3** also affirms, *“I give labels in each grade group so that I do not confuse the different groups I have to deal with when teaching certain concepts”*

Other participants indicated that they divided the learners into small groups, gave the groups a task to discuss and work on in different corners of the classroom. Muthambi (2015) is of the opinion that learners can be placed in homogeneous groups on the basis of learner characteristics, independence and ability.

Lesson planning was seen as burdensome, time consuming and the most problematic since the teachers have to plan for all grade levels. According to participants, lesson planning was done differently, with some participants planning lessons for each grade while others said they plan for one grade at a time. **SDT7** and **SDT8** indicated that they plan according to common themes that appear in the content of all grades' content, then plan later for separate topics. An approach that some schools use is planning together but teaching separately in their own classes. **SCT 5** and **SCT**

6 reported that they sit and plan their lessons together for their common or different grades. **SCT5** had this to say, *“Before we start with a certain topic, we would discuss as to what are important concepts to be taught in the week and brainstorm the best techniques how to approach those concepts. Then after discussion, each of us would then go to our individual classes and teach”*. **SCT6** adds, *“We meet to reflect on what worked or did not work and correct our mistakes or consult other colleagues for advice where necessary. Besides planning, teachers also have to prepare assessment tasks per subject, and this is a lot of work”*. They argue that, although they have few learners in their classrooms, the number of subjects they teach is “too much”, especially teachers in Intermediate phase who teach six learning areas.

Concerning teaching strategies utilized in a multi-grade class, all participants reported that there was no difference between what they were taught during teacher training than what they applied in their classroom based teaching. However, they did not specify which monograde teaching methods they are referring to. **SAT2** confirms, *“The teaching strategies I use in my class are the same as in monograde class”*. **SBT3** explains, *“Most of the time, we use whole class teaching especially to common subjects such as numeracy and language to Foundation phase learners”*. One of the participants highlighted a different opinion: *“The problem is when you have to teach content subjects such as Life Skills, Arts and Culture, Technology to an Intermediate Phase class”* **SCT5** observes. Vincent and Ley (1998) state that multi-grade teachers recognize that whole-class instruction must revolve around open task activities if all students are to be engaged. A major weakness with the whole-class teaching technique is that it is not targeted at different levels of achievement in the class (Mulryan- Kyne, 2007). According to Berry (2012), there are ways in which whole-class teaching can be made more sensitive to a range of student needs. He is of the idea that shared reading is a potentially useful whole-class teaching strategy. In this strategy, the teacher reads, together with the students, from a large-format book and asks questions at a level appropriate to the range of achievement in the class.

SDT8 agrees, *“Young learners learn better through imitation, we recite work repeatedly and learners from lower grades enjoy that”*. Similarly, **SAT1** comments, *“I don’t deal with one grade, so if other learners in another grade did not understand the concept I was teaching, I re-teach it to both grades. This helps because whatever I repeat in class, those in higher grade can assist to make the lower grades grasp the meanings”*. This then means re-teaching is a strategy employed to teach learners in a multi-grade environment. Another teaching method mentioned was Group Discussion, Demonstration and Peer Tutoring. **SCT6** adds, *“Intermediate Phase learners love to take a leading role, so I allow them to lead discussions and presentations. Learners have the opportunities to discuss as peers. After doing the work in groups, they report back.”*

SAT1 confirms, *“We allow our ‘clever learners’ lead discussions with their peers. Some learners understand better when they are taught by their peers than teachers because they feel more relaxed and more comfortable to ask questions”*. In this strategy, learners act as teachers of other learners. Peer instruction engages students during class through activities that require each student to apply core concepts being presented, and then explain those concepts to their fellow students. This promotes sharing of knowledge, thus, promoting meaningful engagement among learners in the classroom (Smyth, 2014).

Another teacher indicated a different teaching strategy as she had this to say, *“A strategy that I find useful is group-work. After I teach them, I give them a task to do in groups. I assign to them group roles where there will be a leader, a presenter and a writer when they have to present a collaborated task assigned”* **SBT3** notes. Therefore, group work and cooperative learning is another strategy used in a multi-graded classroom. Slavin (1995) define co-operative learning as instructional use of small groups so that learners work together to maximize their own and each other's learning. Cooperative group work occurs when students work together in a group small enough for each student to participate in clearly assigned collective tasks, usually independent of the teacher (Berry, 2012). Berry also maintains that this is a potentially useful strategy in both multigrade and

monograde classrooms because it can allow the teacher to assign work to groups of students in the knowledge that they will then be able to work productively.

Research Question 2: How are multi-grade teaching strategies utilized in a multi-grade class?

Although all participants agreed that they knew what multigrade is, they highlighted that they were not aware of specific dynamics on teaching a multi-grade classroom. The most common way the participants agreed on was to allow one grade to leave the class during periods for reading and written work, while the teacher remained in class with the other two grades. Learners in multigrade classrooms are taught in different grades using different teaching styles. *“Learners are not the same and so I tend to differentiate my teaching to meet learners’ different needs. I cannot use the same strategy for all learners because while one strategy can work for one group of learners, it does not work for the other”* **SBT4** notes.

SCT5 and **SCT6** indicated that stronger learners were taught first, then the teacher is left behind to give individual attention to the weaker learners. **SAT 1** said she used the first part of the period for group discussions involving all the grades, followed by giving tasks for each grade level. **SAT2** held a different view, *“It depends on the learning area that I am teaching sometimes I start with grade 6, then the lowest grades”*.

SDT7 had this to say, *“I teach each grade level separately. When I am done with the grade 1 and 2, while they are busy with the tasks assigned to them, I teach grade 3”*. **SBT4** and **SDT8** reported that they give Intermediate Phase learners a task from their books to complete whilst teaching the Foundation Phase. **SAT2** concurred, *“Learners who are gifted are allowed to make use of learning centres while the teacher concentrate on the weaker or struggling learners”*. This then implies that traditional teaching methods such as talk and chalk are still applied in multi-grade classes. Textbooks are usually written on the assumption that lessons are teacher-led (Pridmore, 2007).

The nature of the classroom arrangement of multi-grade classrooms with scarce resources required a constant change in pedagogical practices. The instructional techniques ranged from whole class

teaching activities to differentiated tasks and peer tutoring. Space in some classrooms was also very limited. In School B, Grade 5 and 6 learners had to go outside to learn while younger ones (Grade 4) completed a test. Similarly, in School C, it was observed that Grade 5 and Grade 6 learners moved outside the classroom for small group quiz-sessions, facilitated by group leaders, as a preparatory session while the teacher was writing a test for each group on separate blackboards. Students would sit on the ground in circles. These were some of the responses from the participants: *“This is how we teach, one grade at a time and we have to borrow each other resources, so I have to wait for my turn to use the blackboard or textbook”*, **SDT8** claims.

Research Question 3 Research Question 3: What are the benefits of MG Teaching strategies in multigrade classrooms?

Participants were asked the benefits of utilizing multigrade teaching strategies in their classroom based teaching. All the participants indicated some form of benefit of including different grade levels in teaching certain concepts, themes and topics. However, 2 of the participants highlighted challenges more than benefits. *“The way we organize multi-grade classes make difficult for immediate feedback and remedial work. Furthermore, there are many methods to choose from. To select an appropriate method for a multigraded class is challenging for me.”* **SCT6** echoes. **STB2** concurs, *“Teaching a multi-grade class is like putting a cement bag on shoulders of a teacher. There is too much planning, preparations for different groups, work overload within a short space of time. Therefore, I find it challenging to put into use a particular teaching strategy. I find myself hopping from one method to another”*. Most participants indicated that they together with other teachers in school or neighbouring schools collaboratively plan and organize concepts and apply them as a strategy of approach in a multi-grade class teaching. **SBT3** notes, *“We have the same load with our counterparts in mono-grade classrooms where we have to cover the same syllabus, quota of work and assessment tasks at the same scheduled times. This means we have to pace ourselves against the department’s expectations”*. **SAT1** had this to say, *“I find it difficult in coping to teach a multi-*

grade class because I don't have enough time for each grade. Learners just receive little time to learn important issues yet have to learn to progress to the next grade”.

Comments such as *“You are busy all the time, you have to juggle between different grades dealing with learners with varying abilities”, “It’s very difficult because you have to teach two different curricula at the same time ”* were common. *“Time is always a burden to a multi-grade class teacher, even if you try to work towards the whole class at the same time if learning area permits, but at the end, you have to separate each grade when learners are doing exercises of which it consumes a lot of time”* SDT7 highlights. SAT2 complains, *“With too much workload in teaching a multigraded classroom, I also have other responsibilities as a member of the school management team to do administrative duties alongside teaching, managing and leading the school”*. These responses suggest that teachers are dissatisfied with teaching in multi-grade classes because there is too much work to be done, and this compels them to work extra hours. It was also revealed that despite being overloaded with classroom responsibilities, teachers also have to perform school administrative duties.



University of Fort Hare
Together in Excellence

Research Question 4: How effective are MG teaching strategies in multi-grade classrooms?

Limited space in the classroom was reported as the inhibitor of effective application of MGT strategies. Another major concern was the absence of curricular materials designed specifically for multi-grade classes. Teaching resources frequently used with multi-grade classes included textbooks, creating small spaces for groups of learners and exercise books. Participants felt it was extremely difficult to implement a curriculum they perceived as designed for the monograde school system, within the multi-grade context. Views from the participants suggest that multi-grade teachers are teaching without relevant knowledge and skills on how to teach in multigrade classes. This implies that teachers in multigrade classes have to adapt their general knowledge of teaching to their multigrade classroom and fend for themselves. Frustrations and challenges such as inappropriate preparation and training seemed to be demotivators that impacts negatively on

attitudes. This was expanded upon as follows: *“I am not trained as a multi-grade teacher; I was trained for monograde teaching therefore I don’t have multigrade teaching skills. Sometimes it works, sometimes it doesn’t and I feel so frustrated and embarrassed at the same time, SCT6 alludes. SAT2 concurs, “There is no support for multigrade teachers from both colleagues and the SMT”.*

Thus, participants’ feelings of despair and frustration affected the effectiveness of the application of MGT instructional strategies. This, in turn, has a negative impact on MGT teachers’ emotional well-being. By implication, without support, teachers in multigrade classes are likely not to cope in utilizing MGT strategies. In addition, the great workload seems to cause stress among participants. Lack of resources that support and reinforce learning were highlighted as inhibitors of effective application of MGT strategies. Appropriate teaching and learning materials were not available for multi-grade teaching. Textbooks and blackboards were sources available for teaching. **SDT7** notes, *“Lack of resources like computers, libraries, playing ground and simple things such storage spaces, cupboards, enough stationery and play toys makes teaching in MGT classes extremely difficult”.* According to Beihmann and Hascher (2015), most researchers and practitioners agree that successful strategies for multi-grade teaching depend on adequate learning materials to support individual and group-based learning. She indicates that this enables teachers to spend time with some groups of learners while other learners work alone, in pairs or in small groups. Although the mere existence of materials is likely not to guarantee quality learning, teacher-developed materials can be used as part of an integrated teaching strategy. However, Tsolakidis (2010) emphasizes that the availability of self-study materials must not substitute teacher’s obligation to teach the content.

4.4. Findings

Data gathering methods and instruments included semi-structured interviews using an Interview Schedule, Classroom Observations using Checklist and Document Analysis. Findings presented are emerging themes from interviews, observations and documents. Emerging themes were as follows:

4. 4.1. Grade combinations in MG classrooms

The majority of participants viewed monograde teaching as the normal way to organize classes. Participants arranged different grade levels consecutively such as Grade R, 1 & 2; Grade 1, 2 & 3; and Grade 4, 5 & 6. Notably, there was evidence of phase combination where Intermediate Phase Grade 4, 5 & 6 were combined with Senior phase Grade 7. This then implies that in MG schools not only are classrooms multigraded but also phase combined. All participants claimed to have no option other than using traditional ways of sitting arrangements when grouping multi-grade learners in classrooms, based on shortage of space. The sitting arrangement with grades combined consecutively, non-consecutively or mixed grades varied from school to school. Teachers in multigrade classrooms are challenged in terms teaching of a wide range of abilities, capabilities and interests of learners of different grade levels through differentiated instruction to help all learners at different levels to learn. Although the focus is on teaching all learners in class, teachers use differentiated tasks according to grade requirements to meet individual learners' needs. Teachers group and teach learners in multiple ways such as whole group, small group, peers or individuals.



University of Port Harcourt
Together in Excellence

4.4.2. Team planning

Team planning was reported as an effective and useful strategy, but separate teaching was suggested. Although lesson planning was done jointly, teaching in respective grades was done separately. This kind of collegiality has been noted by Slavin (1991) as an approach that has become a strong vehicle for improving teaching and learning. Teacher collaboration, through teacher peer observation, is directed toward building professional, collegial staff that examines best practices (Ibid). Teachers are open to sharing during the departmental curriculum reflection sessions, and they collaborate informally. A professional culture where teachers are willing to share, support and explore together exists in many high-performing schools. Such culture enables teachers to engage in a professional dialogue to evaluate and modify teaching strategies and programmes (NEEDU, 2015).

4.4.3. Differentiated Tasks

A common strategy that different teachers use to give individual attention in order to provide every possible opportunity to help struggling learners succeed is learner peer-support. After teaching a particular topic, teachers give learners different sets of worksheets or exercises in accordance with their levels of mastery of the concept. Teachers use a variety of ways to explore the content to enable all learners to connect with it. To differentiate the content, teachers set different tasks for learners of different abilities. When presenting a concept or topic in class, teachers are guided by a six-level Bloom's taxonomy or other taxonomies to differentiate content for different groups of learners. Teachers design activities in such a way that struggling learners are given tasks on the lower levels of the taxonomy (i.e. remembering and understanding). Learners would then progress through other levels to more challenging levels of the taxonomy so that a learner who has mastered a concept completes activities at the highest levels of the taxonomy namely, evaluation and synthesis. While emphasis in differentiation by content is on the content that the teacher has to adapt to meet all learners' needs, in this type of differentiation, the focus shifts to a process that a teacher has to adapt to present content to learners of different abilities.

4.4.4. Instructional Strategies

Conventional mono-grade curriculum is taught in multi-grade situation. The curriculum CAPS IP consists of six subjects, while FP has only three subjects. Instructional strategies frequently employed by multi-grade teachers is use of peer tutoring or cross-age/cross-grade tutoring, whole class teaching, individual attention and self-directed learning. However, desk and chalkboard, chalk and talk type of education seemed inevitable in the absence of LTSM. In cases of shortage of LTMS, teachers improvised and used any available tools that can reinforce learning. Students of different grades were taught separately, thus dividing the teaching time and assessment tasks. Challenges in terms of lack of time for remedial work, discussion and feedback were encountered. Coping mechanisms to deal with different grades included teaching one grade at a time; teaching the whole

class at a time, teaching common themes, moving from one grade placed in one corner to another. Another way is to teach the same lesson to different grades with some variation to ensure that the more advanced pupils benefit from the inclusion of more information and more complex concepts. Moreover, teachers divided each grade into homogenous groups according to their ability and needs. More attention to "slow learners" was then given, while providing for "fast learners" by giving them more complex learning activities to do on their own. In addition, learners of each grade are divided into heterogenous groups, with stronger and weaker learners in each group, and then selecting a group leader for each group and for each subject. Such grouping facilitates peer communication, peer support and peer education.

4.5. Discussion of Findings

4.5.1. Classroom Arrangement in MG classes

Classroom layout refers to the arrangement of furniture, learners and learner support material (Veenman, 2010). For Shayi (2015) the classroom layout is crucial in facilitating learning in a multi-grade classroom. It challenges the normal stresses that accompany a multi-grade teacher but is rewarding because of the many skills learners acquire from learning cooperatively (Taole & Mncube, 2012). The physical arrangement observed for group work in a multi-grade classroom comprised of learning centres for direct teaching, the horse-shoe, unsupported co-operative working, the mat, resource activities and independent study.

4. 5.1.1. Learning Centres

There are various approaches that can be commended such as the learning centre approach, activity centre approach, learning area, resource centre approach and a temporary interest centre approach (Pridmore, 2007). A learning centre is a term used to describe a self-instruction learning activity placed in a clearly defined area of the classroom (Kyne, 2007). During observations, the researcher observed the learning centres organised in areas or corners within a classroom that provide materials for a variety of tasks at different levels for learners to accomplish. Learners of

different grade groups were performing tasks assigned such as classwork, puzzles, colouring and reading. The learning centres in different schools were created for a specific class theme, which changed timeously. The advantage of learning corners is that they liberate the teacher from the chalkboard work and engage learners in activities with individual learners or groups (Matshoba, 2011). The disadvantage of learning centres is that they require a lot of preparation from the teacher and perhaps adjustments in terms of times available for the lesson (Muthayan, 2008). Mulryan- Kyne (2007) notes that organising learners in a multi-grade classroom promotes whole class teaching, combining grades, subject staggering and pair work. Furthermore, learning centres in a multi-grade class play an important role in co-operative work, peer tutoring, and self-directed learning (Ibid).

4. 5.1.2. Direct Teaching

In multi-grade classrooms, learners of different ages, abilities and grades are engaged in activities as individuals, pairs and in groups on different learning areas. In this group arrangement, learners are directly taught by teachers whilst other learners were busy with other assigned tasks in their respective learning centres (Pridmore, 2007). In teacher-directed learning, learners are taught new concepts or introduced to new themes and are in direct contact with the teacher, whilst the other grade group is busy with other tasks (ECDoE, 2012). MGT teachers managed their lessons during classroom observations with the alternative use of teacher-directed learning and learner-directed learning. Managing the lesson means the pace and the flow of each session is maintained at a level appropriate for the group grade (Pridmore, 2007). In teacher directed learning the teacher instructs, explains and questions, and the learners responds to his questions (Mulryan-Kyne, 2007). Direct teaching was the commonly used classroom organization with all the sampled teachers teaching using the traditional approaches of chalk and talk and textbook method.

4. 5.1.3. The Horse- shoe

The horse- shoe classroom arrangement can be used for direct teaching or for teacher-led discussion (ECDoE, 2012). The arrangement encourages the children to address and question each

other. This layout encourages more learner participation when they work with the teacher or leader whom they are acquainted (Veenman, 2010). This type of arrangement was not evident in all classroom layout observed.

4. 5.1.4. Unsupported Cooperative Working

Little (2008) asserts that classroom layout has the potential to radically change the quality and relevance of learning in a multi-grade class. The arrangement invites face-to-face interaction, conversation and learner-directed learning (Ganqa, 2014). In unsupported cooperative working children share a task and cooperate in fulfilling (Berry, 2012).

4. 5.1.5. The Mat

This space was that most utilized with younger children for story-telling, singing, reading and news exchange and for briefing them on their next activity (Berry, 2012).

4. 5.1.6. Resource Activities



This is an area in which equipment such as books, charts and materials can be kept for specific curriculum areas e.g. Mathematics, Science and Arts and Culture. However, teaching and learning materials were not available in the classroom except textbooks and blackboards. In some schools there were no textbooks nor chalkboards or any other learning material that support learning except the teacher and improvised material such as dolls, toys, bottle caps, recycled items used for teaching.

4. 5.1.7. Independent Study

An independent study is an area that enables learners to work privately without distractions (ECDoE, 2012). According to Mulryan-Kyne (2007), the teacher must be aware of different ways in which the children are grouped together, the importance of independent study areas where students can go when they have finished their work, and approaches to record keeping which are more flexible as compared to the single-graded classroom. Keeping in view the above, Berry (2012) is of the opinion

that students also have a responsibility in the process of multi-grade classrooms management. Learners need to be taught the value of independence and cooperation and this can be done by involving the students in classroom decision-making (Ibid). It was observed that spaces in corridors, under the tress and on shaded veranda were used as areas for independent study. In independent study, the teachers position were perceived as detached from all grades. In some classroom, the layout described above was seen as spaces for memorization, silent reading, reading aloud and preparation for tests. However, in Foundation phase such a layout excludes the possibility of exploring any interest that learners might have outside the prescribed work, or if effective learning is taking place in the absence of the teacher. In the Intermediate phase group, significant use of independent study were observed as learners were making multimodal presentations of independent projects including songs, visuals, poems, games, puzzles, and group participation activities.

4. 5.2. MG Timetabling and Scheduling



The study found the timetable scheduled for a monograde classroom was applied in multi-grade classroom based teaching. A timetable is a means by which educational resources are shared in a school system by both the teacher and the learners to provide educational opportunities and alternatives for learners (DBE, 2012). Although the timetable assists teachers in managing time and instructional resources and curriculum, it was found to be restrictive and according to Cornish (2010) can lead to compartmentalization of subjects. Multi-grade teachers followed specific times for teaching particular subject areas as prescribed in CAPS document. According to DBE (2012), the instructional time for Grades R, 1 and 2 is 23 hours and for Grade 3 is 25 hours. Ten hours are allocated for languages in Grades R-2 and 11 hours in Grade 3. A maximum of 8 hours and a minimum of 7 hours are allocated for Home Language and a minimum of 2 hours and a maximum of 3 hours for Additional Language in Grades 1-2. In Grade 3, a maximum of 8 hours and a minimum of 7 hours are allocated for home Language and a minimum of 3 hours and a maximum of 4 hours for

First Additional Language. In Life Skills, Beginning Knowledge is allocated 1 hour in Grades R-2 and 2 hours, as indicated by the hours in brackets for Grade 3.

Table 4: Foundation Phase Notional Time (CAPS: DBE, 2012)

Subject	Grade r (Hours)	Grades 1-2 (Hours)	Grade 3 (Hours)
Home Language	10	8/7	8/7
First Additional Language		2/3	¾
Mathematics	7	7	7
Life Skills	6	6	7
• Beginning Knowledge	(1)	(1)	(2)
• Creative Arts	(2)	(2)	(2)
• Physical Education	(2)	(2)	(2)
• Personal and Social Well-being			
	(1)	(1)	(1)
Total	23	23	25

An Example of Intermediate Phase notional time (see Timetable for Intermediate Phase in Appendix L).

Table 5: Intermediate Phase Notional Time (CAPS: DBE, 2012)

Offered Learning Area	Allocated Hours	Grades
Home Language (HL)	6 hrs.	1 – 7
First Additional Language (FAL)	5 hrs.	1 – 7
Mathematics (Maths)	6 hrs.	1 – 7
Natural Sciences & Technology (NS &Tech)	3, 5	4 – 7
Social Sciences (SS)	3	4 – 7
Life Skills (LO)	4	1 – 7

Yet, according to Berry (2012), a multi-grade class timetable should be flexible to allow different tasks to be performed by different grade levels at the same time. Three approaches to timetabling and curriculum organization identified for multi-grade classrooms are common timetable, subject staggering and subject grouping (Pridmore, 2007). The first two approaches, subject staggering and common subject are applied more in primary schools while subject grouping is done preferably in high schools (Ibid). The relevance of the timetable is to align credit weighting of the subjects with the content to be taught and the time allocated to such subjects. The timetables are included in this study to indicate that multigrade teachers use the same timetable allocated for monograde classrooms. Furthermore, the pacesetters on teaching subjects allocated apply to monograde as well as multigrade teaching. This then implies that methods of teaching selected by teachers to teach in a multigrade classroom have to take cognizance of the times allocated to teach respective subjects in each grade and phase.



4. 5.3. Lesson Management

For the lessons to be taught in multigraded classrooms, teachers have to utilize teaching strategies and manage the lesson delivery. Planning the curriculum and managing lessons in a multi-grade classroom was found to be more difficult as teachers were expected to prepare multiple lessons and different tasks for each grade level. To cope with this challenge, Cornish (2010) point out that educators should employ various strategies of teaching learners of a multi-grade class as individuals, pairs and in groups in the same place, and simultaneously. In addition these teachers have to impart knowledge and skills effectively to all of them (Berry, 2012). Although multi-grade teachers employed different teaching; the process to modify and adapt the curricula of different grades to the multiple learners as suggested by Pridmore (2007) was not followed. Teachers organized the curriculum, managed lesson and apply teaching strategies the way they were trained in monograde teaching. This resulted in extreme cases where young learners were subjected to difficult learning material, for example when grade three learners were taught the grade four syllabus.

Another example was when grade four learners are taught a grade three syllabus while in grade four. Such learners easily become bored and ill-behaved when work does not correlate with their level of complexity (Lingam, 2012).

4. 5.3.1. Differentiated Teaching in MG classroom

Since multigrade classroom consists of learners of different levels, abilities and interests; teachers have to adapt their teaching to suit learner diversity in their classrooms thorough differentiated teaching (Pridmore, 2007). This is an approach that enables teachers to plan strategically to meet the needs of individual learners (Smit, 2015). Four management styles were suggested by Berry (2012) as a way of coping with the demanding task of teaching in multigrade classes. Different approaches observed included separate grade teaching, grade by grade approach, and thematic teaching.

4. 5.3.1.1. Separate grade teaching



The most frequently used approach is to teach two grade groups separately, with one receiving instruction while the other one undertakes individual seatwork (Berry, 2012). This study observed multigrade teachers teaching one grade in their class separately from the other grades. One group received direct teacher instructions while the other group worked on individualised tasks. In Intermediate phase multi-grade teachers taught separate grades for science and social studies and a single mathematics and physical education curriculum for all the grades in different classrooms. Furthermore, subjects like dance, art, music were taught separately in each grade level. Each grade was divided into heterogenous groups with stronger and weaker learners in each group, and then a group leader was selected for each group and for each subject. Such grouping facilitated peer communication, peer support and peer education whilst the teacher was busy with a separate grade. The finding has been attributed to strategies suggested by Berry (2012) in classroom such as mixed abilities and cross grading.

The separate grade teaching approach applied subject stagger option in designing the timetable. In subject stagger option subjects are staggered on the timetable so that grade groups learn different subjects in the same period (ECDoE, 2012). Subjects that require high teacher-pupil contact are matched with those requiring little contact (Pridmore, 2007). In the subject stagger approach, all grades have to be involved, and preplanning is vital (Ibid). The use of group leaders presented opportunities that make the subject staggering approach a success as leaders helped with the distribution of materials and explaining of instructions of the tasks. However, in this study, timetable design for multi-grade classroom was not evident nor were the multi-grade teachers aware of such options of timetabling. Yet, the lessons were managed according to subject staggering timetable suggested for use in multi-grade settings.

Table 6: Subject Staggering Timetable (ECDoE, 2012)

TIME	GRADE 4	GRADE 5	GRADE 6
8:00-9:00	Mathematics	Mathematics	Mathematics
9:00-10:00	P.E	P.E.	P.E.
10:00-11:00	BREAK	BREAK	BREAK
11:00-12:00	Science	N.S. & TECH	Social Science
12:00-13:00	Music	Dance	Visual Arts

4. 5.3.1.2. 'Grade by grade' approach

Grade by grade approach is a strategy used to teach different grade levels in the same classroom at the same time by approaching one grade at a time (Pridmore, 2007). In a 'grade by grade' approach, teachers look at the same curriculum subject e.g. Grades 1, 2 and 3 and plan two or three different lessons at different levels on the same subject. Grade groups were taught the same subject (literacy) but separately with different inputs, different activities and different expected outcomes for

different grade groups. Teachers taught one grade while making sure that the other grades were kept busy with individual work such as reading and class work until it was their turn for a lesson. However, it was noted that too much work was given to one grade to kill time in order for contact sessions with other grades to take place. This resulted in learners of the first grade feeling overwhelmed and not working constructively. Veenman (2010) cautions multi-grade teachers not to rely too much on individual learning activities that is likely not to enhance learning. Careful time management and proper preparation were seen as essential in teaching grade by grade group effectively.

4. 5.3.1.3. Individual seatwork tasks

When separate grade teaching approach or grade by grade approach are used, other grade groups undertake individual seatwork. Multi-grade classes spend more time on individual seatwork than pupils in single grade classes, and their levels of time-on-tasks are lower than during teacher instruction (Little, 2008). Muthayan (2008) is of the view that the teacher assigns seat work for the students, and this technique allows him/her to move freely around the class and instruct small groups or individuals. In individual seatwork the study found out that learners of different grade groups in the same classroom are divided into homogenous groups according to their ability and needs. The teachers would then assign tasks to each group and thus give more attention to "slow learners" providing "fast learners" with more complex learning activities to do on their own.

Since multi-grade classrooms comprise more than one grade; therefore, it is difficult for a single teacher to manage it (Joubert, 2010). This suggests that the class teacher must be skilled in managing instruction to reduce the amount of 'dead time' during which children are not productively engaged on task (Berry, 2012). Learners observed in multi-grade classrooms schools with one teacher per grade experienced different times in their learning processes known as "time on task" and "dead time". This study shows dead timetable in instances where the teacher was busy with

another group or grade learners, the other group were in non-learning mode also known as “dead time”.

Table 7: Dead Time Table (ECDoE, 2012)

TIME	GRADE R	GRADE 1 & 2	GRADE 3
8:00-08:50	Teaching	Dead Time	Dead Time
8:50-09:30	Dead Time	Teaching	Dead Time
09:30-10:15	Dead Time	Dead Time	Teaching

5.3.1.4. Thematic Teaching

Thematic teaching is seen a useful strategy specially utilized in multi-grade settings. In thematic teaching, the teacher assembles all students of different grades and ages and integrates the curriculum for teaching at the same time (Lingam, 2012). Berry (2012) points out that thematic teaching in multi-grade teaching permits students to share a common concept and allows each child to work on that concept at his level. Teachers taught the same lesson to the different grades with some variation to ensure that the more advanced pupils benefit from the inclusion of more information and more complex concepts. The researcher also observed that the learners enjoyed singing songs with their teachers about what they had learnt in the classrooms. During singing time, most of the learners were excited and motivated to learn. Before introducing the new theme learners were asked about their prior knowledge on the new concept.

A common subject timetable was utilized to teach common themes to all grade groups at the same time. Common Subject Approach refers to a programme whereby the multi-grade teacher teaches the same subject to all grades but learners are given different tasks (ECDoE, 2012). In this approach, the teacher stagger to introduce new concepts or topics to different grades. This type of timetable gives the teacher an opportunity to work with one group while other groups do some other activities.

Despite timetables suggested for a multi-grade class, constructing such tables was seen as difficult, considering the weighting of time for each learning area that is mono-graded. Since a teacher has to divide his teaching time for different grades, the total objectives of lessons of grades taught might not be fulfilled. Nor is it likely that the course content and learning outcomes of both grades will be achieved by the end of the lesson.

Table 8: Common Approach Timetable (ECDoE, 2012)

TIME	GRADE R	GRADE 1	GRADE 2
08:00-9:00	Numeracy	Numeracy	Numeracy
09:00-10:00	Language	Language	Language
10:00-11:00	BREAK	BREAK	BREAK
11:00-12:00	Life Skills	Life Skills	Life Skills



4. 5.4. Teaching Strategies

University of Fort Hare
Together in Excellence

Teaching strategies refer to approaches a teacher employs to deliver lessons to learners. Lingam (2012) argue that instructional strategies play an important role in improving the quality of teaching and learning in multi-grade classrooms. In addition, the role of the teacher changes from information giver to facilitator (Cornish, 2010). This suggests that the widely practiced approach of the teacher being a transmitter of knowledge requires reconsideration. Mulryan- Kyne (2007) suggests three strategies as effective in multi-grade teaching namely, (i) peer instruction in which students act like the teacher for one another, (ii) cooperative group work in which small groups of students work collaboratively on a given tasks, and (iii) individualized learning in which students are involved in self-study. Apart from above suggested instructional strategies, Lingam (2012) also suggested thematic teaching, various group technique, self-directed learning, team teaching and use of learning centers in the classroom as also effective strategies that can be utilized in multigrade teaching. Teachers in this study used various types of grouping techniques such as cooperative learning,

whole class and small group work. The combination of various types of groupings for different purposes was seen as the best grade combination for effective management of lessons.

4. 5.4.1. Whole Class Teaching

The whole class teaching model refers to the presentation by the learning of one learning area programme or learning area to all grades in a multiple-grade class at the same time (Mulryan-Kyne, 2007).. Mulryan-Kyne (2007) states that multi-grade teachers recognize that whole-class instruction must revolve around open task activities if all students are to be engaged. A major weakness with the whole-class teaching technique is that it is not targeted at different levels of achievement in the class (Berry, 2012). According to Berry (2012), there are ways in which whole-class teaching can be made more sensitive to a range of student needs. The author is of the idea that shared reading is a potentially useful whole-class teaching strategy. In this strategy, the teacher reads, together with the students, from a large-format book and asks questions at a level appropriate to the range of achievement in the class (Ibid). In multi-grade settings, it has been noted that teachers arrange whole group teaching, the teacher gathers all grades together and introduces a lesson of a common theme to the entire class. If the younger students in less grades do not fully understand the theme, they were assured that the same theme will be taught again the following year. Whole class teaching technique has been found to be very suitable for teachers as it allows the teacher to prepare a single lesson with a common theme for all grades with less LTSM and thus, save time and effort. However, this form of presentation is likely not to take into account the vertical differences in the grade levels. This model tends to be restrictive, instead of being flexible, teacher-centered and not learner-centered.

4. 5.4.2. Cooperative Learning

According to Veenman (2010), cooperative learning is one of the best strategies used in multigrade teaching. In this type of teaching and learning approach, students work together on the assigned task, and each student participates actively. Cooperative group work occurs when students work

together in a group small enough for each student to participate in clearly assigned collective tasks, usually independent of the teacher (Dheeraj & Kumar, 2013). Berry (2012) also maintains that this is a potentially useful strategy in both multi-grade and mono-grade classrooms because it allows the teacher to assign work to groups of students in the knowledge that they will then be able to work productively.

Cooperative learning strategy is increasingly used for developing higher order thinking and promoting pro-social behavior (Dheeraj & Kumar, 2013). Cooperative learning enables the students to be interactive, interdependent and develop team- building skills (Veenman, 2010). The cooperative learning technique employed in multigrade settings enabled the teachers to manage the lessons more effectively. Each learner in each group had a designed task and the tasks assigned were completed jointly through group effort. The cooperative learning involves working together and being responsible for both their own and each other's learning. The assignment of tasks was facilitated for instance by the use of task cards, work sheets, pictorial material, other reading material such as magazines and newspapers, and by small group activities. Group work was highly valued because the learners were encouraged to develop critical thinking abilities and to ask questions. The use of concrete learning aids was recommended to stimulate learning while playing. Although some learners managed to complete the task without guidance and supervision from the teacher; other learners were lazy and depended on the eager learners to perform activities given.

4. 5.4.3. Small Groupwork

Small group technique is seen as a part of whole group teaching. The students of different grades sit together in small groups and work on tasks specific to their grades, but students of different grades discuss work with one another. Each time, in small groups, older students assist younger students. Muthayan (2008) is of the view that increased opportunities for children who are very different from one another by age to socialize and work together, deepen and enhance effectiveness of educational environment and strategies. The teachers reported that they have to identify common

themes and thus, plan activities for teaching and learning on the basis of learners' learning competencies. Most importantly multigrade classroom grouping enables positive active interaction. Since so much of the centered-work was collaborative, students became highly skilled at listening, helping each other, sharing leadership in different activities, accommodating group changes, and introducing new classmates to the program. They learned not only to respect each other, but also to appreciate and call upon the unique gifts and abilities of their classmates.

4. 5.4.4. Self-directed Learning

Self-directed learning is defined as “a process in which individuals take initiative with or without the help of others; in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate strategies and evaluating learning outcomes” (Mulryan-Kyne, 2007). It means that in this situation, learners are responsible for their own learning. Learners follow a curriculum that has been adjusted to their needs, develop as individuals, take initiatives for learning, and not wait for the teacher to direct them. One characteristic of self-directedness is that the student should be able to shape and manage change; he should be an initiator and be responsible for his actions (Veenman, 2010). Implementing self-directed learning means that teachers should examine learner's ability to work independently his perspective as a teacher in the classroom (Smit, 2015). Successful multi-grade teaching in self-directed learning where students combine with each other, have students' skills and strategies that are improved (Ibid). Table 9 shows how the teachers managed a Mathematics Lesson in combined grade 4 & 6. The teacher would start with Mental Mathematics as whole group teaching strategy, then teach new concepts to grade 4 whilst grade 6 is engaged in a given tasks. The teacher rotates teaching strategies by teaching grade 6 whilst grade 4 is busy with an assigned task. At the end of the lesson all grade groups will reflect on the common themes or concepts of lessons learnt.

Table 9: Multi-grade Teaching Lesson Management (ECDoE, 2012)

LESSON	LESSON	ESTIMATED TIME
GRADE 4	GROUP 6	
Mental Mathematics	Mental Mathematics	10 minutes
Teacher directed learning	Learner-directed Learning	20 minutes
Learner-directed learning	Teacher-directed Learning	20 minutes
Reflection	Reflection	10 minutes

Learner-directed learning entails learners' independent learning where instructions, resources, peer tutoring, cooperative group-work and self-directed learning takes place. In multi-grade classes children receive less direct instruction from their teacher, time-on-task is lower, thus peer tutoring or across grade grouping assists learners to engage in learning (Berry, 2012). Research on effective teaching has shown that pupils learn more effectively from active interaction with their teacher/peers on instructional content than from written materials during independent seatwork (Pridmore, 2007). In this study older learners in the Intermediate Phase took the lead in assisting young learners in their work as they acted as facilitators of learning to young learners. SDL was seen as a useful strategy in the selection of common topics, and group tasks where all learners could benefit. This then implies that, learners are no longer seen as passive receivers of instruction, but are viewed as active participants in the instructional-learning process.

4. 5.4.5. Peer Tutoring

The word "tutor" is derived from the Latin word "*tueri*" and originally, it meant one who protects, guards, cares for" (Little, 2008). In a tutorial situation, not only is the tutor committed to the tutee achieving specific academic goals, but there is also a bond of trust and care. Berry (2012) define peer tutoring as cooperation between two or more students, where one individual imparts knowledge to the other(s). In addition peer tutoring can occur between students of the same age or grade (same age tutoring) or between students of different ages or grades (cross age tutoring) (Ibid). Cross-age

tutoring takes advantage of the higher status inherent in the age difference, while still retaining many of the benefits of peer tutoring. It can increase the tutees' self-esteem as a result of having an older, higher status friend. It helps to prevent feelings of inferiority that children may experience if they are of same age as the tutee (Shayi, 2015; Checci & De Paulo, 2017). Peer tutoring has been defined as a cost efficient educational intervention in which learners provide instruction for other learners (Mulaudzi, 2016). Other researchers define peer tutoring as a one-on-one teaching process in which the tutor is generally of the same age, grade or academic status as the tutee (Beinhammer & Hasher, 2015). Peer tutoring or ability-based group work conducted across grade levels help meet individual needs (Muthambi, 2015). Peer instruction engaged learners during class through activities as each student applied and explained core concepts to their fellow students. This promotes sharing of knowledge, thus, promoting meaningful engagement among learners in the classroom (Taole, 2014). There are three benefits in using peer assisted learning processes: (1) the tutees receive greater individual attention, (2) the tutors improve their own understanding of a subject, and (3) the participants show greater enthusiasm for learning.



University of Fort Hare
Together in Excellence

In terms of peer tutoring, the teaching strategy was found to be beneficial in teaching in a multigrade class. The benefit was associated with learners learning much better when taught by their peers. It was revealed that teachers also learnt the methods that learners used to make their peers understand. Learners who were shy felt more comfortable to ask questions from their peers rather than the teacher or in a larger group. This strategy was seen as a way to free up shy learners to ask from advanced learners in their class. The learners in these classrooms sought help from their peers without the teacher's intervention. This promoted a spirit of competition and willingness to help those in need of knowledge. This is in line with Berry (2012) who perceive peer tutoring as a contributing factor to the cognitive development of young learners.

4. 5.5. Utilization of Instructional Materials

Mulryan-Kyne (2007) asserts that instructional materials tend to be written for single-graded classroom and they are produced as grade-level textbooks designed to be delivered by the teacher to the students. Such materials are viewed by Little (2008) as ineffective in multi-grade teaching. According to Little (2008) and Pridmore (2007), materials found to be more suitable include a self-study element, which might be in the form of workbooks with self-correction key, or a small classroom library that can be assessed independently by the students. However, teachers need to be shown how to produce such self-study materials in a cost effective way (Cornish, 2010; Veenman, 2010). The few instructional material found to be utilized in multi-grade classroom is designed for monograde classrooms. Most schools has no textbooks, laboratories, libraries, nor computers that support reinforcement of teaching and learning.

4. 5.6. Conclusion



This chapter dealt with data presentation, interpretation and analysis. Furthermore findings and discussion of findings in line with theoretical framework and reviewed literature were highlighted.

CHAPTER 5: SUMMARY OF FINDINGS, CONCLUSIONS, SUGGESTIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

5.1 Introduction

In this chapter, a summary of findings, conclusions, suggestions and recommendations for further studies based on the study is presented.

5.2. Summary of Findings

MGT has the potential of reducing the problems of education if it can be viewed as a pedagogic approach to increase access and retention. Furthermore, it can be utilized as a strategy to address teacher shortages, particularly in small and remote schools, while improving the quality education. The study reveals that there is few literature and no curriculum policy that speaks directly about strategies of teaching different grade levels combined in one classroom. Consequently, teachers are compelled to generate their own instructional strategies. Most teaching methods utilized in multigrade classrooms are more suitable for monograde classroom. Because teachers conducting multi-grade classes had not been trained in the specific skills required for multi-grade teaching, their teaching methodologies tend to rely on passive strategies which do not create opportunities for students to be actively engaged in their learning in the Vygotskian (1978) constructivist paradigm. There is evidence that teachers opt to make use of their teaching experiences as there seem to be no guidelines on how to teach multigraded classrooms. This creates a lot of tension for teachers as they have to fend for themselves and strive helplessly to find suitable methods for teaching different grade levels in the same classroom. The findings of this research project suggest that the old typical classroom teaching lecture, recitation, seatwork and testing can be substituted with self-directed learning (SDL), Peer Tutoring (PT), Cross grade Tutoring (CGT) and Cooperative Learning (CoL). In addition, multigrade classroom offers opportunities for activity and learner-centered, experience-based approaches rather than whole group, lecture and drill method of teaching.

5.3. Conclusions

5.3.1. Instructional Strategies Used in a Multi-grade Classroom

The study concludes that instructional practises in multigrade classrooms can take form of peer tutoring (PT), separate grade teaching (SGT), “grade by grade” approach, cooperative learning (CoL) and self-directed learning (SDL). Peer tutoring or ability-based group work conducted across grade levels to help meet individual needs. Research has shown that pupils learn more effectively from active interaction with their teacher/peers on instructional content than from written materials during independent seatwork. Separate grade teaching is seen as the most frequently used approach is to teach two grade groups separately, with one receiving instruction while the other one undertakes individual seatwork. In grade by grade teaching approach, teachers look at the same curriculum subject and plan two or three different lessons at different levels on the same subject. Combined grade teaching or Cooperative Learning generally teach a single curriculum. In SDL learners are either engaged in individual seatwork, taught by peer tutors or involved in cross grade tutoring. However, there is evidence that in multi-grade class settings; teachers still use at large whole class teaching, repetition, drill, chalk and talk method. This then implies that teachers lack the knowledge of employing multiple teaching methods suitable for a multigrade class. In the absence of guidance on which teaching strategies to employ in multi-grade situations, teachers opted for traditional chalk and talk and teacher-led type of instructions.

5.3.2. Pedagogical Practices

Multi-grade teaching has a potential to improve the quality of teaching, thus contributing to the global effort of achieving the Education for All (EFA) goals and the education-related SDGs as a way of keeping learners in schools or into equivalent programs. In order to make education economically viable and to provide access to education, the multi-grade education model seems to be the only option in many rural areas. The study concludes that the true nature of MGT is not officially recognized, lacks official support and facilitation, and is not implemented in its true sense and spirit.

In MGT classrooms, teachers have to deal with varying degrees of diversity of learners in different grade levels yet CAPS is still organized based on the assumption of mono-grade teaching, with topics arranged in a hierarchical progression. The CAPS document seems not to give guidance to multi-grade teachers on how they can approach the curriculum in order for them to be able to effectively offer it in their multi-grade classes. Teachers in multi-grade settings are not properly trained for MGT; as a result, teachers were found to be negative and demotivated towards their own teaching.

5.3.3. Utilization of LTSM

Teachers struggle to meet the expectations of CAPS using syllabi and teaching guides and LTSM prepared for monograde classrooms. Instructional materials play an important role in the teaching and learning process and is considered an integral part of multi-grade teaching. However, the study indicates few instructional materials were made available for effective teaching. LTSM provided to multi-grade schools seem not to support independent study and self-directed learning. In the multi-grade contexts, the importance of teaching and learning materials is greater, as learners spend more of their time working without direct teacher-led instruction. The quality of activities that can be set for learners is partly determined by the supply of appropriate teaching and learning materials. The study indicates less use of technology in multigrade classrooms that supports teaching and learning. Yet, the use of technology can help teachers to work with different levels of age and abilities in a classroom and can greatly enhance the quality of teaching and learning.

5.4. Suggestions

5.4.1. DBE and PED

The absence of official government policy advocating and supporting the implementation of multigrade pedagogy. Furthermore, the problem of lack of training of teachers for multi-grade teaching is exacerbated by the absence of a curriculum developed to support the teaching of multi-grade classes. Instead, teachers in multi-grade contexts have to rely on the same curriculum that is

developed for monograde teaching. Teachers are not adequately prepared to teach in multiclass environments it is likely that they will adversely affect the education of their learners. Nevertheless, coping mechanism in teaching different grade levels combined in one class is the use of different teaching strategies. The study suggest a well-designed curriculum that is adjusted, adapted and encourages the integration of subject matter and a variety of instructional strategies to suit multigrade classroom. The curriculum should be flexible enough as to provide teachers with an opportunity for remediation and enrichment activities especially for learners with different levels of abilities. It is also recommended that the curriculum must be activity based and student-centered. It is recommended that there should be a separate curriculum for multi-grade teaching that should be both vertically and horizontally sequenced. The instructional material and resources supplied to MG schools have to respond to the diverse needs of learners engaged in MGT classroom based learning. The advancement of quality teaching and learning in multi-grade schools should extend beyond providing teacher development in multi-grade pedagogy. To support and improve MG schools and teachers in MG classrooms, DBE has to facilitate and arrange special workshops and seminars. In addition Professional Learning Communities should be encouraged for teachers to work together and share pedagogical practice and instructional techniques utilized in multigrade settings.

5.4.2. CES and SES

CES and SES can innovate and experiment with different age groups to deal with curriculum content across subject areas. More meticulous record keeping is needed to keep track of learners' progress, curriculum development and implementation. Interventions in multi-grade schools should target improving the quality of teaching and learning in the classroom with the inherent output goals being to enhance learner performance. An immediate step to be taken should be to provide in-service training to teachers on various aspects of multigrade teaching competencies, including curriculum adaptation, classroom organization, teaching strategies and learner assessment. Appropriate instructional materials must be provided to each multi-grade school. Usage of special instructional

material, with same approaches and resources as applied in monograde classes, would perhaps generate similar or even greater effects if applied to multi-grade classes. Lesson Plans in all subjects; Exemplar assessment tasks in each subject; and Exemplar timetables for multi-grade schools to heighten the delivery of the curriculum, the design, reproduction and distribution of large quantities of self-study materials to support MG rural schools. Available resources should be less teacher-centred, more interactive and facilitate independent learner study practice to maximise instructional time. Inclusion of essential ICT based resources that will enhance administration and management of the schools is necessary. It is further recommended that teacher must be equipped through in-service training programs to overcome challenges experienced in utilizing instructional techniques and teaching approaches suitable for multigrade settings. In order to ensure professional development, teachers in multi-grade classes can plan teaching as teams rather than in isolation. Planning together can ensure progression and continuity in terms of content to be covered by specific grades. Furthermore, team-teaching for specific skills that learners find challenging such as Numeracy, Mathematics or content subjects is essential. Such subjects can be taught by teachers who have expertise in the field in all grades repeatedly.

5.4.3. SMT and MGT Teachers

A teacher who is well prepared to actually serve as the facilitator of learning rather than as the only source of knowledge can also apply a variety of instructional strategies and techniques in order to meet the varied needs of learners in the multigrade classroom. Teachers can make the most of inter-age and multilevel to facilitate learning processes. Teachers can get to know the learners and carefully assess their needs and adopt appropriate teaching strategies. However, more careful study of learners' developmental characteristics across age levels involved in class, requires strategies and approaches that are viable within a multigrade class. Cooperative learning is predominant and offers maximum learner participation and engagement. Learners learn to work independently and thus embrace Self-directed Learning. This in turn promote leading and supporting roles as needed

in real life situations. Therefore, the opportunity for the use of peer tutoring learning strategies should be promoted and encouraged as higher achieving and older learners 'cement' their learning through teaching and helping others. Other effective instructional strategies that can be used in a multigrade classroom include independent study and individualized tasks. Individualising tasks can involve teachers observing learners working with each other and offer assistance where necessary. Teachers can take into cognizance that in a multilevel environment learners do not need to spend time on concepts and skills they have already mastered. Instead, learners who have not attained specific learning outcomes by the end of the school year have the opportunity to achieve them the following year.

5.5. Recommendations for Further Research

The study recommends an extension for further research on how ICT resources as instructional materials that support and reinforce learning in MG pedagogy. In addition, research can be conducted on the cognitive and social effects of enrichment programs such as Blended learning, Blackboard Learning Systems and all other computer based programmes enhancing multi-grade teacher and learner directed activities.

5.6. Conclusion

This study assessed multigrade teaching strategies used in multi-grade teachers in rural primary schools. Therefore, this chapter concluded the study by presenting a summary of the findings; implications for practice; suggestions and recommendations for future research.

6. REFERENCES

- Babbie, E.F. (2013). *The Ethics and Politics of Social Research: The Practice of Social Research*, 12th Edition, CA, Wadsworth, pp 63-76.
- Balfour, R.J. (2012). Rurality research and rural education: Exploratory and explanatory power, *Perspective in Education*, 30(1), 9-19.
- Beckett, C. & Taylor, H. (2010). *Human growth and development*, (2nd ed.), London: Sage Publishers.
- Beinhammer, E.K. & Hascher, T. (2015). Multigrade teaching in primary education. As a Promising pedagogy for teacher education in Austria and Finland. *International Teacher Education: Promising Pedagogies*, 22(3), 89-113.
- Berry, C. (2011). Achievement effects of multigrade and monograde primary, *International Journal of Educational Development*, 21(6), 537-552.
- Berry, C. (2012). *Multigrade Teaching: a Discussion Document*. Turks and Caicos Islands, Available <http://www.ioe.ac.uk/multigrade>. Accessed 23 October 2019.
- Boonzaaier, P.J.V. (2009). *Baseline Report on Multi-Grade Education in South Africa*. Wellington: Centre of Multigrade Education.
- Brinkmann, K. (2015). *Interviews: Learning the Craft of Qualitative Research Interviewing*. (3rd ed.). Thousand Oaks, CA: Sage.
- Brown, B.A. (2008). *Multigrade Teaching: A Review of Selected Literature and Implications for Teacher Education and Training in South Africa*, South Africa, Faculty of Education, University of Fort Hare.
- Brown, B. (2009). Preparation of teachers for multi-grade teaching. Global lessons for South Africa, *Southern African Review of Education*, 15(2), 61-84.
- Brown, B. A. (2010). Teachers' Accounts of the Usefulness of Multi-grade Teaching in Promoting Sustainable Human Development Related Outcomes in Rural South Africa, *Journal of Southern African Studies*, 36(1), 189-207.

- Centre for Multi-grade Education (2010). *Multigrade Teaching*, Western Cape: Cape Peninsula University of Technology, Centre of Multigrade Education.
- Cohen, L., Manion, L. & Morrison, K. (2018). *Research methods in education*, London: Routledge.
- Checci, D. & De Paola, M. (2017). *The Effect of Multi-grade Classes on Cognitive and Non-Cognitive Skills: Casual Evidence Exploiting Minimum Class Sizes Rules in Italy, Discussion Paper Series*, Italy: University of Milan and IZA.
- Colbert, V., Chiappe, C. & Arborleda, J. (1993). The new school program, more and better primary education for children in rural areas in Colombia. In Levi, H.M., Lockheed, M.E. (Eds). *Effective schools in developing countries*, London: Falmer Press.
- Cornish, L. (2010). *Multi-grade education in Australia*. Paper presented at The Southern African, Multigrade Education Conference, Paarl, South Africa.
- Creswell, J. W. (2015). *Educational research: Planning, conducting, and evaluating quantitative and Qualitative research* (5th Edition), Boston, MA: Pearson.
- Creswell, J. W. & Poth, C. N. (2017). *Qualitative inquiry & research design: Choosing among five Approaches* (4th Edition), Thousand Oaks, CA: Sage Publications.
- DBE. (2015). *Multigrade Strategy and Basic Education Sector Plan: Strengthening the Provision Of Quality Teaching and Learning in Multigrade Schools*, Pretoria: Department of Basic Education.
- DBE (2011). *National Development Plan: Vision for 2030*. National Planning Commission. Pretoria: Republic of South Africa.
- DBE & HET. (2015). *Annual Survey of Ordinary Schools 2014*. Department of Basic Education, Pretoria, Republic of South Africa.
- De Vos, A.S. (2013). *Research at grass roots: For the social sciences and human service professionals*, Cape Town: Van Schaik Publishers.
- Denscombe, M. (2014). *Open up study skills: The good research guide for small-scale social research project*, New York: Open University Press.
- Denzin, N. K. & Lincoln, Y. S. (2011). *The SAGE handbook of qualitative research: The discipline and practise of qualitative research*. Thousand Oaks: Sage Publishers.
- De Vos, A., Strydom, H., Fouché, C. & Delport, C. (2011). *Research at Grass Roots*. Cape Town: Van Schaik Publishers.
- Dheeraj, D. & Kumar, R. (2013). Effect of co-operative learning on achievement in environmental

- Science of school student, *International of Scientific and Research Publications*, 3 (2), 2-3.
- Du Plessis, A. & Subramanien, B. (2014). Voices of despair: Challenges for multi-grade teachers in A rural district in South Africa, *Educational Research for Social Change*, 3(1), 20-36.
- EPC. (2011). *Research Report: Teaching Literacy & Numeracy in Multigrade Classes in Rural and Farm Schools in South Africa*. South Africa: Centre for Education Policy Development
- Ganqa, N. H. (2014). *Training and development of teachers on multi-grade teaching in selected Primary schools: Integration of vertical and horizontal knowledge in post-training*, An unpublished PhD Thesis, South Africa, University of Fort Hare.
- Gardiner, M. (2008). Education in Rural Areas, *Issues in Education Policy*, (4).
- Joubert, J. (2010). *Multi-grade schools in South Africa: Overview of a baseline study conducted in 2009 by Centre of Multigrade Education*, Cape Town: Cape Peninsula University of Technology.
- Khan, S. B. (2010). Problems in Universalization of Primary Education in Pakistan, *Pakistan Journal of Commercial Social Science*, 4(20), 147-155.
- Kivunja, C. (2014a). Perceptions of Multi-grade Teaching: A Narrative Inquiry into the Voices of Stakeholders in Multigrade Contexts in Rural Zambia, *Higher Education Studies*, 2(5), 2010-2015.
- Kivunja, C. (2014b). The Urgent Need to Train Teachers for Multigrade Pedagogy in African Schooling contexts: Lessons from Uganda and Zambia, *International Journal of Education*, 3 (2) 63-72.
- Kivunja, C., Kucita, P., Kuyini, A. B. & Maxwell, T. (2012). Factors influencing Bhutanese teachers' Knowledge and teaching practices, *Bhutan Journal of Research and Development*, 1 (2), 109-123.
- Kivunja, C., Kucita, P., Maxwell, T. & Kuyini, A. B. (2013). Bhutanese Stakeholders' perceptions about multigrade teaching as a strategy for achieving quality universal primary education, *International Journal of Educational Research and Development*, 33 (2), 206-212.
- Kivunja, C. & Wood, D. (2012). Multi-grade pedagogy and practice: Accelerating millennium Development goals for Sub Sharan Africa, *International Journal of Learning*, 18 (11), 17-32.

- Lingam, G. (2012). Preparing Teachers for Rural Schools: An Empirical Evidence from a Fiji Case, *Greener Journal of Educational Research*, 2 (2), 001-012.
- Lingam, G. (2007). Pedagogical practices: The case of multi class teaching in Fiji primary school, *Education Research and Review*, 2(7), 186-192.
- Little, A. (2008). *Education for all and multi-grade teaching: Challenges and opportunities*, Dordrecht: Springer.
- Matshoba, S. (2011). *Multi-grade teachers' perceptions of the benefits and challenges of learning and teaching in multi-grade settings: A case study of selected primary schools in East London*. Unpublished M. Ed dissertation at the Faculty of Education. East London: University of Fort Hare.
- McEwan, P.J. (2008). Evaluating Multi-grade School Reform in Latin America, *Comparative Education*, 44(4), 465-483.
- Merriam, S. B. & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation*, 4th Edition, San Francisco, CA: Jossey Bass.
- Mulaudzi, M.F. (2016). *Challenges Experienced by teachers of multi-grade classes in Primary Schools at Nzelele East Circuit*, Unpublished M.Ed dissertation, Pretoria: University of South Africa.
- Mulryan-Kyne, C. (2004). Teaching and Learning in Multi-grade Classrooms: What Teachers Say, *The Irish Journal of Education*, 32, 5-19.
- Mulryan-Kyne, C. (2007). Preparation of Teachers for Multi-grade Teaching. *Journal of Research in Rural Education*, 23(4), 501-504.
- Muthayan, S. (2008). *A case study on multi-grade teaching in Canada, Implications for South Africa*. South Africa: Rhodes University.
- Mulkeen, A., & Higgins, C. (2009). *Multigrade Teaching in sub-Saharan Africa: Lessons from Uganda, Senegal and The Gambia*, Washington, USA: The World Bank.
- Muthambi, S.K. (2015). *Implications of Peer Tutoring as a multi-grade Teaching and Learning Strategy for Learner Performance in Selected Multi-grade-Schools*. PhD Thesis, Department of Curriculum Studies, University of Venda.

- Murugan, P. (2011). *Multi-grade Teachers' Experiences in Implementing a Curriculum Streamlined for Single Grade Class Settings and their Professional Developmental Needs*. University of Fort Hare: Unpublished PhD Thesis.
- Nawab, A. & Baig, S. R. (2011). The possibilities and challenges of multi-grade teaching in Pakistan. *International Journal of Business and Social Science*, 2 (15).
- NEEDU. (2017). *Schools that Work: Lessons from the Ground*, National Education Evaluation and Development Unit, Republic of South Africa, Department of Basic Education,
- Neuman, W. L. (2011). *Basics of Social Research: Qualitative and quantitative approaches*. Boston: Allyn and Bacon.
- Pridmore, P. (2007). *Adapting the primary school curriculum for multi-grade classes in developing countries: A five step plan and agenda for change*, London: Institute of Education, University of London.
- Shayi, M. H. (2015). *Educators' perceptions and experiences of multi-grade primary schools*. <https://repository.up.ac.za/bitstream/handle/2263>. Accessed 19 Oct. 2019.
- Silverman, D. (2010). *Doing Qualitative Research: A Practical Handbook* (3rd ed.), London: Sage Publications.
- Sims, M. (2015). Perceptions of Multigrade Teaching: A Narrative Inquiry into the Voices of Stakeholders in Multigrade contexts in Zambia, *Higher Education Studies*, 5(2), 10-20.
- Slavin, R. E. (1995): *Cooperative Learning: Theory, Research and Practice*. Massachusetts: Allyn and Bacon.
- Smyth, E. (2014). Multi-grade teaching and age composition of the class: The influence on academic and social outcomes among students, *Teaching and Teacher Education*, 43, 80-90
- Subramanien, B. (2014). *Exploring teachers' perceptions of the barriers and solutions to using one Laptop per class in Multigrade context: The case of Intel Teach- ICT Implementation*, Nelson Mandela Metropole University, Port Elizabeth, South Africa.
- Taole, M. (2014). Quality Basic Education For All: Challenges in Multi-grade Teaching in Rural School, *Mediterranean Journal of Social Science*, 5 (1), 531-536.
- Taole, M. & Mncube, V.S. (2012). Multi-grade teaching and quality of Education in South African Rural School Experiences, *Studies of Tribes & Tribals*, 10(2), 151-162.

- Tsolakidis, K. (2010a). What challenges do foundation phase teachers experience in Multigrade Classrooms, *South African Journal of Childhood Education*, 4(2).
- Tsolakidis, K. (2010b). *Multi-grade issues: A policy required*. Paper presented at the Southern African Multigrade Education Conference, Paarl, South Africa.
- UNESCO. (2015). UNESCO Science Report. Global monitoring report published by United Nations, <https://en.wikipedia.org>. Accessed October 2019.
- Veenman, S. (2010). Cognitive and Non-Cognitive Effects of Multi-grade and Multi-Age Classes: A Best Evidence Synthesis, *Review of Education Research*, 65(4), 319-381.
- Yin, R. K. (2017). *Qualitative Research from Start to Finish*. New York: Guilford.
- Vygotsky, L.S. 1978. *Mind in society: The development of higher psychological processes*, Cambridge: Harvard University Press.



University of Fort Hare
Together in Excellence

7. APPENDICES

Appendix A: Application letter requesting permission to conduct research

P.O. Box 164

Willowvale

5040

24 July 2018

University Research Ethics Committee

Faculty of Education

University of Fort Hare

Dear Sir/Madam



REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH

I am currently registered for the degree of Master in Education (MEd) at the University of Fort Hare.

My research topic is on: ***“Pedagogical strategies in multi-grade classroom settings of rural primary schools at Amatole East Education District”***.

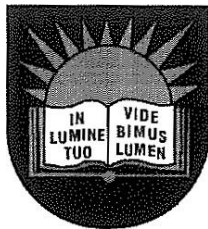
I undertake to strictly adhere to Ethics University Policy and ensure ethical consideration in carrying out this research.

Regards.

Nocawe Masebe

Student Number: 201112976

Appendix B: Ethical Clearance Certificate



University of Fort Hare

Together in Excellence

ETHICAL CLEARANCE CERTIFICATE REC- 270710-028-RA Level 01

Certificate Reference Number: GAN011SMAS01

Project title: **Pedagogic strategies in multigrade classroom settings of rural primary schools at Amatole East Education District.**

Nature of Project Masters in Education

Principal Researcher: Nocawe Masebe



Supervisor: Dr N. H. Ganqa

University of Fort Hare
Together in Excellence

Co-supervisor: N/A

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above- mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above. This certificate is valid for a year from the date of approval; thereafter, the Principal investigator/s will be expected to apply for renewal.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document;
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research.

The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per the official regulations of the act must take the following into account:

Note: The UREC is aware of the provisions of Department of Health Charter of Ethics in Health Research Principles, Processes and Structures; DOH 2015, signed by the Minister of Health in March 2015. This certificate is granted in terms of the provisions of the above-mentioned document.

The UREC retains the right to:

6. Withdraw or amend this Ethical Clearance Certificate if
7. Any unethical principal or practices are revealed or suspected;
8. Relevant information has been withheld or misrepresented;
9. Regulatory changes of whatsoever nature so require;

The conditions contained in the Certificate have not been adhered to.

Request access to any information or data at any time during the course or after completion of the project.

In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office.

The Ethics Committee wished you well in your research.

Yours sincerely



20/11/2018

Professor Pumla Dineo Gqola

Dean of Research

12 November 2018

Appendix C: Letter from the Department of Basic Education



STRATEGIC PLANNING POLICY RESEARCH AND SECRETARIAT SERVICES

Steve Vukile Tshwete Complex • Zone 6 • Zwelitsha • Eastern Cape

Private Bag • Bhisho • 5605 • REPUBLIC OF SOUTH AFRICA

Tel: +27 (0)40 608 4691/4773 • Fax: +27 (0)86 742 4942 • Website: www.ecdoe.gov.za

Enquiries: B Pamla

Email: babalwa.pamla@ecdoe.gov.za Date: 12 June 2019

Ms. Nocawe Masebe

P.O Box 164, Willowvale, 5040

Dear Ms Masebe



PERMISSION TO UNDERTAKE A MASTERS STUDY: MULTI-GRADE PEDAGOGIC STRATEGIES IN MULTI-GRADE CLASSROOM SETTINGS AT RURAL PRIMARY SCHOOLS OF AMATHOLE EAST

Thank you for your application to conduct research.

1. Your application to conduct the above mentioned research involving 12 participants from selected schools under the jurisdiction of the Amathole East District of the Eastern Cape Department of Education (ECDoE) is hereby approved based on the following conditions:
 - a. there will be no financial implications for the Department;
 - b. institutions and respondents must not be identifiable in any way from the results of the investigation;
 - c. you seek parents' consent for minors;
 - d. it is not going to interrupt educators' time and task;
 - e. you present a copy of the written approval letter of the Eastern Cape Department of Education (ECDoE) to the Cluster and District Directors before any research is undertaken at any institutions within that particular district;
 - f. you will make all the arrangements concerning your research;
 - g. the research may not be conducted during official contact time, provided that an arrangement to do research at the school including getting inside a classroom has been arranged and agreed upon in writing with the

- h. should you wish to extend the period of research after approval has been granted, an application to do this must be directed to Chief Director: Strategic Management Monitoring and Evaluation;
 - i. your research will be limited to those institutions for which approval has been granted, should changes be effected written permission must be obtained from the Chief Director: Strategic Management Monitoring and Evaluation;
 - j. you present the Department with a copy of your final paper/report/dissertation/thesis free of charge in hard copy and electronic format. This must be accompanied by a separate synopsis (maximum 2 — 3 typed pages) of the most important findings and recommendations if it does not already contain a synopsis.
 - k. you present the findings to the Research Committee and/or Senior Management of the Department when and/or where necessary.
 - l. you are requested to provide the above to the Chief Director: Strategic Management Monitoring and Evaluation upon completion of your research.
 - m. you comply with all the requirements as completed in the Terms and Conditions to conduct Research in the ECDoE document duly completed by you.
 - n. you comply with your ethical undertaking (commitment form).
 - o. You submit on a six monthly basis, from the date of permission of the research, concise reports to the Chief Director: Strategic Management Monitoring and Evaluation
2. The Department reserves a right to withdraw the permission should there not be compliance to the approval letter and contract signed in the Terms and Conditions to conduct Research in the ECDoE.
3. The Department will publish the completed Research on its website.

EDUCATION DISTRICT wishes you well in your undertaking. You can contact the Director, Ms. NY Kanjana on the numbers indicated in the letterhead or email nelisa.kanjana@ecdoe.gov.za if you need any assistance.

4. The Department
Kanjana on the
should you need

NY KANJANA
DIRECTOR: STRATEGIC PLANNING POLICY AND RESEARCH
FOR SUPERINTENDENT-GENERAL: EDUCATION



Ikamva eliqagambileyo!

Appendix D: Informed Consent Letter

INFORMED CONSENT

I hereby agree to participate in research regarding I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop this interview at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.

I have received the telephone number of a person to contact should I need to speak about any issues that may arise in this interview.

I understand that this consent form will not be linked to the questionnaire, and that my answers will remain confidential.



University of Fort Hare
Together in Excellence

I understand that if at all possible, feedback will be given to my community on the results of the completed research.

.....

Signature of participant

Date:

I hereby agree to the tape recording of my participation in the study

.....

Signature of participant

Date:

Appendix E: Editors' Certificate

23 Elfin Glen Road, Nahoon Valley Heights, East London, 5200



To whom it may concern:

This document certifies that the research document whose title appears below has been edited for proper English language, grammar, punctuation, spelling and overall style by Rose Masha, a member of the Professional Editors' Group whose qualifications are listed in the footer of this certificate.

Title:

**Pedagogical Practises of Multi-grade Teaching Strategies
In Multi-grade Rural Primary Classrooms at Amatole East Education
District**

Author:

Nocawe Masebe

Date Edited:

04 March 2020


Signed

A handwritten signature in black ink, appearing to read "Rose Masha", enclosed within a faint, light-colored rectangular border.

Dr. Rose Masha

B. Library & Inf. Sc.; HDE; Hons. ELT; M. Phil. Hyll.; PhD Ed.

Appendix F: Interview Schedule for MG Teachers

SEMI-STRUCTURED INTERVIEW QUESTIONS:
<u>SECTION A</u> BIOGRAPHICAL INFORMATION Nationality Race Language Age Gender Marital Status Highest Academic Qualifications Working Experience Years working in multi-grade settings Grades Taught
<u>SECTION B</u> <div style="text-align: center;">  <p>University of Port Harcourt Together in Excellence</p> </div> <ul style="list-style-type: none"> ➤ What is your conception of multi-grade and multi-grade teaching? ➤ Were you trained for MGT? If yes when and how? If not, how were you trained as a teacher? ➤ What do you think are the benefits and challenges of working with different grades in one classroom? ➤ Which curriculum do you use and how effective is it? ➤ Can you explain the teaching strategies you use for lesson delivery in your multi-grade class? ➤ How do you apply the teaching strategies you have mentioned in your MG class? ➤ How do learners respond to the content, resources and learning that takes place in your classroom? ➤ What LTSM do you use to support the lessons taught? ➤ How do you assess learning taught in your MG class? ➤ How do you ensure that effective teaching and learning has taken place in your multigrade classroom? ➤ Do you receive any support from the district officials, SMT or colleagues? Please specify. <p style="text-align: center;">THANK YOU</p>

Appendix G: Interview Schedule for SMT

SEMI-STRUCTURED INTERVIEW QUESTIONS:
<u>SECTION A</u> BIOGRAPHICAL INFORMATION Nationality Race Language Age Gender Marital Status Highest Academic Qualifications Working Experience Years working in multi-grade settings Grades Taught
<u>SECTION B</u> <ul style="list-style-type: none">➤ What is your conception of multi-grade and multi-grade teaching?➤ Why is your school an MG school?➤ Which curriculum is implemented in your MG classrooms?➤ How do you manage curriculum implementation in multigrade classrooms?➤ What benefits does the school experience in having MG classes?➤ What challenges do you experience as a principal in a school with multi-grade classes?➤ Can you please elaborate on the kind of activities taking place in MG classes?➤ How do you ensure that effective teaching and learning has taken place in MG classrooms?➤ What do you think should be done to ensure effective teaching and learning in multi-grade classes?➤ How do learners respond to the content, resources and learning that takes place in MG classroom?➤ What LTSM is used to support the lessons taught in MG classrooms?➤ How is learning assessed in MG classrooms?➤ Please specify the kind of support, if any, you receive from the Department and colleagues with regards to the pedagogical practices in your MG classes? <p style="text-align: center;">THANK YOU</p>

Appendix H: Sample of Teachers' Responses

"To be honest, I really can't tell the difference between teaching a multi-grade and a monograde class. All I can tell you is that I am teaching two combined different grade levels at the same time in one classroom. As multi-grade teachers, we teach a class supposed to be taught by 2 or more teachers. Though I am responsible for both grades at the same time, I teach these different grades different syllabi. Teaching a multi-grade class is like adding a cement bag on shoulders of a teacher responsible for such class settings based on overload of planning and preparations for different grade levels' work. Multi-grade teaching needs teachers with teaching experience, and who are subject experts. Time is always a burden to a multi-grade class teacher; at the end, you have to separate each grade. As a multi-grade teacher, I have to juggle between two different grade levels or more at the same time within time allocated for a single class. Immediate feedback and remedial work is virtually inapplicable. Teaching a multi-grade is so confusing as far as I am concerned for example, we find it difficult to express ourselves in both IsiXhosa for Foundation phase and English for Intermediate Phase. Each grade has its own annual teaching plan, work schedule and lesson plans. To plan and to prepare for reach all grades at the same time means that at times not all learners are engaged in learning. Everyday, I give instructions to one grade while the other learners are engaged in other tasks. I usually ask older learners to assist young learners to complete their work. The main challenge in our school based on multi-grade teaching classrooms discipline. Disciplining unruly learners is killing me. We have shortages of learning and teaching material here at our school. We improvise where possible by incorporating common concepts from different learning areas and grade levels into graded learning materials".

Appendix I: Sample of SMTs' Response

"I understand multigrade as the combination of different grade groups into one classrooms taught by one teacher. Nobody tells us how and which grade to combine. There is also no document that give us pointers on what to do so I decided to combine learners of different grade levels as I like. As a School Management Team, we assign to different grades combine with varying reasons such as being an experienced teacher in a particular grade to having exceptional subject knowledge in a particular learning area. There is no space for organizing proper group groups because we are using small classrooms. Lesson planning is seen as burdensome, time consuming and problematic since the teachers have to plan for all grade levels. Teachers do lesson planning differently planning lessons for either each grade or phase. Others plan according to common themes that appear in the content of all grades content, then plan later for separate topics. An approach that we use in our school to planning together but teaching takes place separately. After school we all sit and plan lessons together for common or different grades. Before we start with a certain topic, we would discuss as to what are important concepts are to be taught in the week and brainstorm the best techniques how to approach those concepts. Then after discussion, each of us would then go to our individual classes and teach. At the end of each month we meet to reflect on what worked or did not work and correct our mistakes or consult other colleagues for advise where necessary.

There is too much work for teachers for multi-grade classrooms as it involves planning, teaching, assessment, managing and administration. Some teachers have teaching plans and others do not plan what to teach but used their experiences. Other teachers keep their lesson plan in their portfolio and do not use them even during lessons. Teachers in Intermediate phase complain about the six learning areas they teach in addition to other school programs. The teaching strategies mostly used in this school are basically the same as in schools with monograde classes. I often hear learners in class learning in chorus, reciting work, memorising things and doing tasks repeatedly. We promote

groupwork, learners learn best from other learners than from the teachers. But the major problem is lack of resources, no textbook, worn out chalkboards although we do requisition on time.

We are given pacesetters by the department of education which prescribe the content that needs to be covered by a specific grade. The challenge is on how to teach these pace setters, hence teachers opt for theme teaching. Teachers are dissatisfied with teaching in multi-grade classes because there is too much work to be done, and this compels them to work extra hours. Lack of resources like computers, libraries, playing ground and simple things such as storage spaces, cupboards, enough stationery and play toys makes teaching in MGT classes extremely difficult. Yes, we have heard that there is a roll out for computers to all Eastern Cape teachers yet we have not seen one computer delivered to our school”.



University of Fort Hare
Together in Excellence

Appendix J: Classroom Observation Checklist

Observed aspects	Good	Average	Bad
CLASSROOM ORGANISATION			
Seating Arrangement		✓	
Grades Combined		✓	
CLASSROOM MANAGEMENT			
Arrangement of furniture			x
Wall charts			X
LTSM			
Display of resources			x
Textbooks			x
Learner Centres			X
Reading Corners		✓	
Use of chalkboard		✓	
LESSON MANAGEMENT			
Whole class Teaching	✓		
Group-work		✓	
Individual Learning			x
LEARNER ENGAGEMENT			
Cooperative Learning	✓	✓	
Peers	✓	✓	
Whole class	✓		
TEACHING METHODS			
Repetition	✓		
Miming	✓		
Discussion		✓	
Presentations			x

Appendix K: Multi-grade Timetable

Summary of Timetable for Intermediate Phase

Offered Learning Area	Allocated Hours	Grades
Home Language (HL)	6 hrs.	1 – 7
First Additional Language (FAL)	5 hrs.	1 – 7
Mathematics (Mathematics)	6 hrs.	1 – 7
Natural Sciences & Technology (NS &Tech)	3, 5	4 – 7
Social Sciences (SS)	3	4 – 7
Life Skills (LO)	4	1 – 7

Summary of Timetable for Foundation Phase

The instructional time in the Foundation Phase is as follows:



Subject	Grade r (Hours)	Grades 1-2 (Hours)	Grade 3 (Hours)
Home Language	10	8/7	8/7
First Additional Language		2/3	$\frac{3}{4}$
Mathematics	7	7	7
Life Skills	6	6	7
• Beginning Knowledge	(1)	(1)	(2)
• Creative Arts	(2)	(2)	(2)
• Physical Education	(2)	(2)	(2)
• Personal and Social Well-being	(1)	(1)	(1)
Total	23	23	25