

**TRAINING OF TEACHERS IN MULTIGRADE TEACHING: INTEGRATION
OF VERTICAL AND HORIZONTAL KNOWLEDGE IN POST-TRAINING.**

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ABSTRACT

The purpose of this study was to examine the training and development of teachers in multi-grade teaching in selected Eastern Cape primary schools with a particular focus on the integration of vertical and horizontal knowledge in post-training. Multi-grade teaching is the combining of learners of different grade levels in one classroom taught by one teacher. To gain better understanding of the construct of vertical and horizontal integration of knowledge within post-training environment, this qualitative case study design sampled eight teachers, four school principals and three trainers, purposively. In order to evaluate the training and development provided for teachers in multi-grade classrooms the researcher examined the training programmes, the training curriculum and transfer of training inputs. The results of the study indicate that post-training is the determinant of the extent of the effectiveness of the transfer of training skills, knowledge and attitudes gained in multi-grade teaching training. The study found a massive gap that currently exists between training in multi-grade teaching and the actual transferability of such training in multi-grade contexts. Positive transfer of training in multi-grade teaching strategies was found to be skills related to teaching strategies, lesson management, curriculum integration and social components of multi-grade teaching. Negative transfer of training included classroom organisation, lesson planning, timetabling, curriculum adaptation and assessment. Although multi-grade teacher training programme is assumed to change behaviours, attitudes, impart knowledge and improve teaching skills, the results of the study indicate that training inputs might not necessarily transform into classroom practice. In order to facilitate and ensure vertical and horizontal integration of knowledge and skills and transfer of training to classroom-based teaching, recurrent training in multi-grade teaching is therefore, suggested.

DECLARATION

I, Ncumisa Hazel Ganqa hereby declare that the thesis entitled “Training and Development of Teachers in Multi-grade Teaching in Selected Primary Schools: Integration of Vertical and Horizontal Knowledge in post training, which I hereby submit to the University of Fort Hare is my own original work and has not been submitted before for any degree at any other university. The work which I have submitted is the result of my independent investigation, and all the sources I have used or quoted have been acknowledge by means of full references.

DEDICATION

I dedicate this thesis to my family, the professionals, the academics and the research community.

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My warm heartfelt and sincere gratitude goes to the following:

God, the Beginning and the End who guided my steps, armed me with strength and gave me wisdom that no adversary may contradict or resist.

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ABBREVIATIONS

ACE	Advanced Certificate in Education
ADEA	Association for the Development of Education in Africa
ANA	Annual National Assessment
BMAP	Bhutanese Multi-grade Attachment Programme
CAPS	Curriculum Assessment Policy Statement
CEPD	Centre for Education Policy Development
CMGE	Centre for Multi-grade Education
CoP	Communities of Practise
CPD	Continuing Professional Development
CPTD	Continuing Professional Teacher Development
CPUT	Cape Peninsula University of Technology
DBE	Department of Basic Education
DBE &HET	Department of Education and Higher Education And Training
DLP	Democratic Learner Participation
DoE	Department of Education
DTOT	District Training of Trainers
ECDoE	Eastern Cape Department of Education
ECU	ECole a Classe Unique
EFA	Education For All

EN	Escuela Nueva
EPC	Education Policy Consortium
HEI	Higher Education Institution
HSRC	Human Science Research Council
ICT	Information and Communication Technology
INSET	In-service Education and Training
ISPF	Integrated Strategic Planning Framework
LGB	Learner Governing Body
LoLT	Language of Teaching and Learning
LTSM	Learning and Teaching Support Material
MDG	Millennium Development Goals
MG	Multi-grade
MGRSI	Multi-grade Rural Schools Intervention
MGT	Multi-grade Teaching
MMTTC	Malcolm Moffat Teacher Training College
MTOT	Master Training of Trainers
NGO	Non- governmental Organisation
NPFTED	National Policy Framework for Teacher Education and Development
NWED	North West Education Department
PSAM	Public Service Accountability Monitoring
PED	Provincial Education Department

PoE	Portfolio of Evidence
PPN	Post Provisioning Norms
PCO	Primary Curriculum Officers
PGP	Personal Growth Plan
PLC	Professional Learning Community
PTTC	Pre-service Teacher Training College
PTTU	Primary Teacher Training Unit
RCT	Resource Centre Training
RC	Resource Centre
RS	Resource Person
SDL	Self-Directed Learning
SDP	School Development Plan
SES	Subject Education Specialist
SIP	School Improvement Plan
SRO	School Review Officers
SS	School Supervisor
TED	Teacher Education and Development
TEI	Teacher Education Institutions
UNE	University of England
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNICEF	United Nations Children's Education Fund

UPE	Universal Primary Education
WCED	Western Cape Education Department
ZPD	Zone of Proximal Development

Table of Contents

Abstract	(i)
Declaration	(ii)
Dedication	(iii)
Acknowledgements	(iv)
Abbreviations	(v)

CHAPTER 1: BACKGROUND TO THE STUDY

1.1.Introduction	1
1.2. Background to the Study	10
1.2.1. Definition of Multi-grade Teaching.....	10
1.2.3. Status of Multi-grade Schools in South Africa	13
1.2.4. Benefits of Multi-grade Teaching.....	16
1.2.4.1. Cognitive and Non- cognitive Effects on Learner Performance.....	16
1.2.5. Challenges of Multi-grade Teaching	19
1.2.5.1. Ungraded Curriculum	20
1.2.5.2. Teachers' Attitude Towards Multi-grade Teaching.....	22
1.2.5.3. Lack of Pre-Service and In Service Training for Teachers in Multi-grade Teaching.....	24
1.2.6. Teacher Training and Development in Multi-grade Teaching	26
1.3. Problem Statement.....	29
1.4.Purpose of the Study	31
1.5. Research Questions.....	25
1.5.1. Main Research Question.....	25
1.5.2. Sub-Research Questions.....	31
1.6. Rationale of the Study.....	Error! Bookmark not defined.
1.7. Significance of the Study.....	32
1.8. Assumptions of the Study	33
1.9. Delimitations of the Study	34
1.10. Possible Contributions to the Study	34
1.11. Definitions of Key Terms.....	35

1.11.1. Teacher Training	35
1.11.2. Multi-grade teaching.....	35
1.11.3. Vertical Knowledge.....	30
1.11.4. Horizontal Knowledge.....	30
1.12. Chapters Outline	37
 CHAPTER 2: LITERATURE REVIEW.....	 32
2.1. Introduction	38
SECTION A: THEORETICAL FRAMEWORK.....	38
2.2. Andragogy.....	39
2.3. Constructivists Theory of Learning	43
SECTION B: CONTINUING PROFESSIONAL TEACHER DEVELOPMENT (CPTD).....	46
2.4. Conceptualising CPTD	46
2.4.1. Professional Training.....	48
2.4.2. Models of CPTD.....	51
2.4.1.1. Traditional Model of CPTD	51
2.4.1.2. Alternative Models of CPTD.....	53
2.5.4. Multi-grade Teaching versus Mono-grade Teaching	60
2.6. History of Multi-grade Teaching	62
2.7. Prevalence of Multi-grade Teaching.....	64
2.7.1. Multi-grade as “necessity”	66
2.7.1.1. Teacher Supply	66
2.7.1.2. Teacher Deployment.....	68
2.7.1.3. Teacher Migration	69
2.7.1.4. Teacher loss	70
2.7.1.5. Teacher Absenteeism	71
2.7.1.6. Teacher Shortage	72
2.7.1.7. Class sizes	73
2.7.2. Multi-grade Teaching as a “choice”	76
2.7.2.1. Pedagogical	76
2.8. The South African Context of Multi-grade Teaching	77
2.9. Teacher Training on Multi-grade Teaching.....	84
2.9.1. Colombia’s Escuela Nueva (EN)	84

2.9.2. Bhutanese Multi-grade Attachment Programme (BMAP)	87
2.9.3. Zambia's Ecole a Classe Unique (ECU)	89
2.10. Efforts in MGT Training in other Countries.....	92
2.10.1. Samoa	92
2.10.2. Peru	94
2.10.3. Nepal	95
2.10.4. Belize	96
2.11. Efforts on MGT Teacher Training in South Africa	98
2.11.1. Multi-grade Rural School Intervention (MGRSI)	98
2.11.2. Centre for Multi-grade Education (CMGE)	101
2.12. Teacher Training Programmes in Multi-grade Teaching	103
2.13. Conclusion.....	108
 CHAPTER 3: RESEARCH METHODS.....	 94
3.1. Introduction	109
3.2. Paradigmatic Assumptions	109
3.2.1. Meta-Theoretical: Interpretivism	110
3.2.2. Methodological Assumptions: Qualitative.....	113
3.3. Research Design: Case Study	118
3.4. Sampling Procedure.....	123
3.4.1. Purposive Sampling.....	124
3.4.1.1. Sampling Research Participants.....	125
3.4.1.2. Sampling the Research Site	126
3.4.2. Negotiation of Entry	127
3.4.2.1. Access to Research Site	127
3.4.2.2. Access to research participants.....	129
3.5. Data Collection Methods	130
3.5.1. Interviews.....	130
3.5.1.1. Semi-structured Interviews	133
3.5.2. Observations: Non-participant	136
3.5.3. Document Analysis.....	140
3.6. Data Collection Process	144
3.6.1. Piloting	144

3.6.2. Field Study.....	145
3.7. Data Analysis and Interpretation.....	147
3.7.1. Thematic Analysis	148
3.8. Triangulation.....	150
3.9. Data Trustworthiness.....	152
3.9.1. Credibility	154
3.9.2. Transferability	154
3.9.3. Dependability	155
3.9.4. Confirmability.....	155
3.10. Ethical Considerations	156
3.10.1. Informed Consent	156
3.10.2. Voluntary Participation	158
3.10.3. Anonymity and Confidentiality	159
3.10.4. Right to Privacy	160
3.10.5. Protection from Harm.....	160
3.10.6. Honesty With Professional Colleagues	162
3.11. Conclusion.....	162
 CHAPTER 4: DATA PRESENTATION AND ANALYSIS.....	 141
4.1. Introduction	Error! Bookmark not defined.
4.2. Presentation of Data.....	165
4.2.1. Profiles	165
4.2.1.1. Profile of Sampled Districts	165
4.2.1.2. Profile of the Sampled Schools	168
4.2.1.3. Profile of the Sampled Trainers	169
4.2.1.4. Profile of the Sampled Trainees	169
4.3. Categories of Responses.....	172
4.3.1. Training Sessions Observations.....	173
4.3.2. Multi-grade Teaching Training Programme.....	178
4.3.3. Classroom Observations	182
4.3.3.1. Mental Maths Demonstration Lesson	182
4.3.3.2. Classroom-based Teaching.....	183
4.3.4. Semi-Structured Interviews	187

4.3.4.1. Reasons that lead to the establishment of multi-grade	188
4.3.4.2. Respondents' conception of "Multi-grade Teaching"	196
4.3.4.3. Identification of Training and Development Needs of MGT Teachers	201
4.3.4.4. Training and Development Programme for MGT	219
4.3.4.5. Delivery of MGT Training	226
4.3.4.6. Transfer of Training in the Classroom-based Teaching	233
4.3.4.7. Monitoring and Evaluation of MGT Training	243
4.4. Findings.....	246
4.4.1. Findings from Training Sessions Observations	247
4.4.2. Findings from Training Document Analysis	250
4.4.3. Findings from Classroom Observation.....	251
4.4.4. Findings from Semi-Structured Interviews	254
4.5. Conclusion.....	265
 CHAPTER 5: DISCUSSION OF FINDINGS.....	 231
5.1. Introduction	267
5.2. Multi-grade Concept.....	267
5.3. Dichotomy of Multi-grade Teaching and Mono-grade Teaching	270
5.4. Teacher Training and Development on Multi-grade Teaching.....	275
5.4.1. Identification of Teacher Training and Development Needs.....	276
5.5. Training and Development Programmes on MGT	278
5.5.1. The Focus of the Training Package.....	278
5.5.2. The Training Curriculum Of MGT	279
5.6. Delivery of Training in MGT	280
5.6.1. Mode of Delivery.....	283
5.6.2. Instructional Method	285
5.7. Transfer of Training to Classroom-based Teaching	289
5.7.1. Implementation Strategy	290
5.7.2. Success in Transfer of Training to Classroom-based Teaching	291
5.7.2.1. Lesson Management.....	291
5.7.2.2. Curriculum Integration	292
5.7.2.3. Curriculum Differentiation	293
5.7.2.4. Teaching Strategies	294

5.7.2.5. Social Components of MGT	296
5.8. Difficulties in Transfer of Training and Development.....	298
5.8.1. Teachers' Attitudes towards Multi-grade Teaching	299
5.8.2. Classroom Organisation	299
5.8.3. Classroom Management.....	303
5.8.4. Curriculum Adaptation.....	304
5.8.5. Timetabling and Scheduling.....	306
5.8.6. Lesson Planning.....	309
5.9. Monitoring and Evaluation of MGT Training	310
5.9.1. Professional School Support	311
5.892. Peer Networks.....	313
5.9. Conclusion.....	314
 CHAPTER 6: SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS.....	273
6.1. Introduction	315
6.2. Summary of Findings	315
6.2.1. MGT Concept	315
6.2.2. Identification of Training and Development Needs on MGT.....	316
6.2.3. Training Programme on MGT	318
6.2.4. Delivery of MGT Training and Development	319
6.2.5. Transfer of MGT Training to the Classroom-based Teaching	321
6.2.6. Monitoring and Evaluation of MGT Training and Development	323
6.3. Conclusions (Implications for Practise).....	323
6.4. Suggestions for the Improvement of MGT Training	334
6.4.1. Department of Basic Education and Higher Education & Training.....	334
6.4.2. Department of Basic Education	336
6.4.3. Provincial Department of Education.....	338
6.4.3. Teachers.....	341
6.5. Conclusion.....	342
 CHAPTER 7: LESSONS LEARNT, SUMMARY OF CONTRIBUTIONS AND RECOMMENDATIONS.....	299
7.1. Introduction	343

7.2. Lessons Learnt	343
7.3. Summary Of Contributions	345
7.4. Recommendations for Further Research.....	345
7.5. CONCLUSION.....	346
REFERENCES.....	347
APPENDICES.....	a
Appendix A: Request for Permission to Conduct Interviews.....	a
Appendix B: Letter from the Supervisor to the Ethics Committee	b
Appendix E: Consent Form for participants.....	e
Appendix F: Interview Schedule for MGT District Trainers	g
Appendix G: Interview Schedule for Principal/H.O.D.	i
Appendix H: Interview Schedule for Teacher Trainees	k
Appendix I: Training Sessions Observation Schedule	n
Appendix J: Classroom Observation.....	o
Appendix K: Sample of Response from District Trainer.....	p
Appendix L: Sample of Interviews from Principal.....	s
Appendix M: Sample of Interview from Teacher Trainee.....	x

LIST OF TABLES

Table 1: Number of multi-grade schools and educators, by province in 2012.....	15
Table 2: Number of teachers trained in short courses for multi-grade education from 2010-2012....	28
Table 3: Number of learners, educators and schools in ordinary sector schools, by province, from 2011-2013	79
Table 4: Number and percentage of learners, educators and schools in ordinary school sector, by province, in 2013.	80
Table 5: Portion of the Action Plan with regards to planning for multi-grade teaching training	93
Table 6: Cascade structure of multi-grade teachers training	96
Table 7: Number of teachers, provincial and district officials trained in multi-grade education in 2010-2012	102
Table 8: Profile of the sampled schools	168
Table 9: Profile of the sampled trainers	169
Table 10: Profile of sampled teacher trainees	170
Table 11: Short course outline on multi –grade teaching	180
Table 12: Mental Maths Demonstration	182
Table 13: Classroom -based Multi-grade Teaching Observations	183

Table 14: Timetable indicating teaching and "dead time" in a multi-grade class.	186
Table 15: Differences between multi-grade classes and mono-grade classes	274
Table 16: Teaching plan for a multi-grade class	292
Table 17: Subject staggering approach timetable	307
Table 18: Common subject approach timetable.....	307

LIST OF FIGURES

Figure 1: Multi-grade schools in South Africa by province, in 2012.	14
Figure 2: Training and Development cycle.....	48
Figure 3: Comparison of learner: educator ratio in independent schools and public schools from 2005-2012.	75
Figure 4: Number of schools in ordinary school sector, by province, in 2013.....	78
Figure 5: Percentage distribution of learners in ordinary schools, by phase, in 2013.	81
Figure 6: Percentage distribution of learners in ordinary schools by grade, in 2013.....	82
Figure 7: Percentage distribution of schools, educators and learners at multi-grade schools compared with public schools in 2010.	83
Figure 8: Eastern Cape education clusters.....	166
Figure 9: Essential qualities of trainers.....	282
Figure 10: Traditional training model and outcomes-based learning model.	287
Figure 11: An example of classroom organisation of a multi-grade class	301

CHAPTER 1: BACKGROUND TO THE STUDY

1.1. Introduction

Multi-grade teaching has become one of the priority topics worldwide and it now calls for much broader operational and technical definitions to address problems and issues facing teachers in most education systems. Ensuring that education for all (EFA) and millennium development goals (MDG) reach all rural people is an urgent task for the South African community at large. One of EFA goals is to achieve the provision of quality targets by ensuring that by 2015 all children in difficult circumstances and those belonging to ethnic minorities have access to and are able to complete primary education that is free, compulsory and of good quality. South Africa in its 2010 EFA Report (2011:121) indicated that the country had made efforts to achieve this goal by increasing access to primary education so as to address the educational needs of all primary school aged children.

Recent policy reviews and policy statements acknowledge the success South Africa has experienced in improving access to basic education. The Report of the Annual Performance Plan (2012-2013) indicates that in 2009, 98.5 % of children aged 7 to 15 and 98.8% of children aged 7 to 11 years were enrolled in a school (Department of Basic Education, 2012:11). The Annual Performance Plan (2012-2013) report shows South Africa's performance in terms of access to schooling as the best among the middle income countries (DBE, 2013); there is, however, a gap in respect of compulsory schooling and the providing of quality education. While there is a small gap that must be closed with respect to compulsory schooling, insufficient

access to schooling in primary education appears not to be the primary challenge for South Africa, as it is in most developing countries.

The challenge is that the goal then compels governments to educate all children, and to find ways of keeping them in schools or in alternative but equivalent programmes (Juvane, 2007). One way in which governments with limited resources can fulfil their promise and provide all children with a good quality education is to place learners in multi-grade schools as an alternative way of providing education to all primary school age children (Commonwealth Secretariat, 2005:5). Multi-grade teaching in South African context is recognised as the viable option for promoting access to basic education for disadvantaged children especially those living in rural areas. In some parts of the world such as England and Finland, teaching and learning in multi-grade classes is embraced as the pedagogy of choice. Using figures published in EFA Global Monitoring Report 2008 the most recent statistics estimate that EFA goal of access to basic education will be achieved by 2015; then 242.45 million children will be learning in a de facto multi-grade setting (UNESCO, 2007). Little (2008:15) understands de facto multi-grade school to mean any school with more grades than teachers available which combine two or more grades in the same classroom being taught by one teacher.

Lewin (2007) points to seven zones of exclusion for children excluded from primary and secondary schooling in Sub Saharan Africa. He argues that in zone 0 and zone 1 there are children who are excluded from pre-schooling, those who have never been to school, and those who are unlikely to attend school (Ibid). Aikman & el Haj (2006) acknowledge that 15-25 million nomadic and pastoralist children are “out of school” worldwide, to the extent that if these children have a chance of schooling at

all, their schools are likely to be small, mobile and multi-grade. In South Africa DBE (2014:16) reveals that there were approximately 548 776 children aged 7 to 18 who were out of schools in 2012 and not attending any education institution. The Human Science Research Council (2011) ascertains that for millions of children worldwide the only type of schooling to which they will gain access, if they gain access at all, is multi-grade. In the light of the above statements for most learners worldwide, multi-grade is not a matter of choice between multi-grade and mono-grade but the choice between a multi-grade class or no class at all. The sad reality is that in 26% of all primary schools in South Africa nearly 3 million children are in multi-grade schools (Education Policy Consortium, 2011). Although 3 million learners attend multi-grade schools in South Africa, training of teachers in this unique teaching environment remains inadequately addressed. Research evidence suggests that teaching is often of poor quality, poorly supported by the state and fails to attract qualified teachers to work in multi-graded schools (Suzuki, 2009).

Mulkeen (2010:13) points out that, in order to meet the Universal Primary Education (UPE) and completion, the number of primary teachers in Sub-Saharan Africa multi-grade classrooms has to increase by 6% from 2.4.million to 4 million in the period from 2006 to 2015. This includes increasing the number of learners in public schools who by the end of the year will have mastered the minimum language and numeracy competencies (EFA S.A. Report, 2010). The Global Campaign for Education (2006) estimates that 1 to 22.5 million extra teachers will be needed globally to achieve EFA goal 6 and many more serving teachers urgently need further education and training. The South African teaching working force recorded in 2010 was 95.1% of qualified teachers as compared to 53% in 1990 (DBE, 2013:18). However, the South African

National Teacher Education Audit Report attest to the fragmented provision of teacher education and the high number of unqualified and under-qualified teachers in multi-grade settings (DoE, 2007).

Education Statistics 2013 shows that in South Africa there are currently 7,076 unqualified teachers in the education system who have only grade 12 qualifications (DBE, 2013). There are also 2,642 under-qualified teachers in the country, who have completed grade 12 but have completed only one or two years of tertiary studies (Ibid). Out of approximately 400 000 teachers in the South African education system, 10 000 unqualified and under-qualified teachers might seem a small number, but it is a significant number. Currently, the teacher training system is producing about a third of the country's requirement of about 25 000 new teachers a year (Ibid). To achieve EFA & MDG goals, teacher education institutions (TEI) need to produce 15 000 more teachers a year (DBE, 2013). While DBE acknowledges that SA lacks well trained teachers in multi-grade teaching, the report reveals that the country cannot train teachers fast enough to meet the current teacher demand and supply for multi-grade classrooms (Department of Education and Higher Education and Training, 2011). For the above reason EFA Monitoring Report gave prominence to teachers as achieving UPE calls for more and better trained teachers. To achieve UPE, teacher training initiatives for Sub-Saharan Africa recognised the importance of teachers in this statement:

“It is only now that people are starting to listen to those who saw shortage of qualified teachers as a major impediment to national development, and national and international authorities are beginning to realise that achievement of MDG and EFA objectives depend on the training of professionals capable of long term effort to

promote education effectively in particular through training of teachers and managerial staff in the education system” (EFA Monitoring Report, 2010:2).

Another important goal of EFA is to improve all aspects of quality of education and ensure excellence of all, so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills (Little, 2008:11). In relation to this goal with its emphasis on the quality of learning outcomes, South Africa’s performance is among the lowest middle income countries (DBE, 2012:12). The government’s commitment to improving learners’ performance and teacher quality is realised in the introduction of the Action Plan to 2014: Towards the realisation of Schooling 2025 (DBE, 2012:17). One of the key strategies that the Department of Basic Education put into place is to annually measure the progress on learner performance towards 2014 target of 60% achievement rate through the administration of Annual National Assessment (ANA) (Ibid). Over 7 million primary school learners from grades 1-6 were assessed to determine their levels of competency in literacy and numeracy, in 2013 (DBE, 2013:18). ANA results showed weaknesses in the teaching of numeracy and literacy that need urgent intervention. Without the training, development and support of teachers in multi-grade schools it might be difficult to achieve the GET Band target of 60% in numeracy and literacy, and the targets of Action Plan 2014 efforts attempted towards reaching EFA and MDG by 2015. ANA indicated that teachers of the mentioned subjects must be prioritised for short course interventions, as these subjects have been identified as key levers for improving quality across the system (DBE & HET, 2011:11). The Report of the Commission for Africa made an investment in teacher training as a major recommendation, and in doing so said:

“The push to achieve EFA will certainly never succeed without substantial investment in teacher recruitment, retention, teacher training and professional development (Kivunja, 2014:64)”.

In the light of the above statements teacher training is thus unanimously regarded as the responsibility of the government. Suzuki (2009:123) perceives teacher training as a direct means to enhance the quality of teaching and student achievement. One of the strategies for improving the knowledge and skills of teachers already in employment is in-service training. Although teacher training is such a key factor in the quality of education research, evidence suggests that teacher training does not necessarily result in better quality of education (Mulkeen, 2010). Good quality education is viewed (DBE, 2012) as that which enables all learners to realise the capabilities they require to become economically productive to develop sustainable livelihoods and to contribute to peaceful and democratic societies.

In spite of government initiatives to improve the quality of education, teachers are frequently not well prepared to provide good quality education lacking both sufficient understanding of subject matter and pedagogical skills (Mulkeen, 2010:93). Research indicates that existing teacher training, training programmes and curricular materials have not been developed in accordance with the need and ground realities of multi-grade classes (Vithanapathirana, 2006). Yet, the realities of multi-grade teachers stand in stark contrast, for many teachers in multi-grade classes are untrained for multi-grade teaching or are trained in mono-grade teaching (Sag, 2009:021). As a result there seem to be problems in teacher training which further lead to the deterioration of the quality of education especially in areas that are mainly characterised by a multi-grade situation. By implication, improvement of the quality of

education for this largely depends, amongst other things, on the extent to which the teachers are prepared for multi-grade settings.

The South African education system is designed for single grade classes. This is evident in the policies and practices of teacher training and the curriculum and support provided for teachers and schools. In spite of the fact that a multi-grade situation presents unique challenges, departmental support from multi-grade teaching generally, does not differ from mono-grade schools. Literature indicates that teacher training workshops for different subjects and grades run concurrently, so that teachers in multi-grade classes are forced to attend one aspect of the training, despite being responsible for teaching several learning areas and grades (Van As & Joubert, 2007). UNESCO Report (2007) clearly indicates how South Africa must go forward in solving challenges faced by government in dealing with rural schools, as opposed to urban schools. One deliberation is that learners who are taught in the rural multi-grade schools should have the same right to quality education as learners who are taught in more privileged environments. This would ensure that the most vulnerable and marginalized children are enrolled and remain in schools that seek to equip teachers in dealing with different grade levels.

The Ministry of Education draws attention to the difficulties facing teachers having to deal with multi-grade classes, which means that teachers in rural areas require appropriate forms of support and professional development (EPC, 2011:27). The submission is quoted as follows:

“One of the most challenging elements is that of multi-grade classes. Many farm schools are one or two teacher schools having multi-grade classes. As a result one educator sometimes has to teach more than two grades; some teach as many as six

grades. This indicates that the current post provisioning formula needs to be amended to take account of the needs of these small multi-grade schools. Capacity development is also required and school managers must be aware of the management skills needed to administer small schools and educators given skills to cope with multi-grade classes” (DoE, 2005:53).

The above quote points to the importance of specialised management of skills for managers and educators of small schools an issue that has been largely ignored in current efforts to address the needs of teachers in multi-grade schools. DBE (2012) ascertains that amongst objectives set for education and training is that of “improving education and training for teachers and trainers”. Thus, multi-grade is a fact of life regarding multi-grade schools which the Ministry of Education also pointed out that *“this requires special skills and educators need to receive training on how to deal effectively with large multi-grade classes (DoE, 2005:46)”*

Although large numbers of multi-grade programmes exist in both rural and metropolitan settings, it has been found that the pre-service and in-service opportunities of teacher training on multi-grade teaching is nearly non-existent in South Africa (Kivunja, 2014: 63). To that end, the National Policy Framework for Teacher Education and Development (NPFTED) introduced in 2007 stipulates the norms and standards for teacher education and development in South Africa (DoE, 2007). While the framework identifies multi-grade teaching as an issue facing teachers’ particularly in rural schools, it seems to go no further than that in terms of improving the quality of teaching in multi-grade classrooms. Other than mentioning challenges of multi-grade schools, such as unqualified and untrained teachers and

under-resourced classes the policy fails to ensure the kind of intervention required by teachers in multi-grade settings in terms of CPTD programmes.

It is for the above reasons that South Africa's Department of Basic Education and Higher Education & Training (DBE & HET) (2011) has its focus on teacher training through the establishment of the Integrated Strategic Planning Framework (ISPF) (2011-2025) for teacher education and development as an area of concern. The Department of Basic Education believes that training will contribute towards continuing professional teacher development and will ensure that teachers in rural and farm schools contribute to the achievement of the output goal of Action Plan 2014: Towards the realisations of Schooling 2025 such as improving the literacy and numeracy of grades 3, 6 and 9 learners in 6 665 multi-grade schools (DBE, 2011:123). The ISPF shaped capacity building of South African teachers in the coming years and introduced a multipronged approach to training. The approach includes a point system to encourage teachers' on-going professional development and is a departure from the traditional top down mode of in-service teacher development (DBE, 2012:18). DBE (2012) ascertains that amongst the objectives set for education and training is that of "improving education and training for teachers and trainers".

Despite the above initiatives South Africa's initial teacher education programmes continue to equip teachers for teaching in a mono-grade class context. While training should be relevant to teachers' professional needs, the question of the nature of the training of multi-grade teachers in many South African schools remains unexplored. Although in all primary rural schools where multi-grade teaching (MGT) is the norm, teachers are targeted for development in MGT strategies with particular focus on

literacy and numeracy. Research evidence suggests that the problem of teachers not performing in multi-grade classes lies with training, as teachers trained for mono-grade teaching are forced to teach in multi-grade classes (Brown, 2010). Therefore, in the light of the above perceptions, the researcher attempted to examine teacher training and development of teachers in multi-grade teaching in the selected South African primary schools with a view to its implications of continuing professional teacher development.

1.2. Background to the Study

The background to this research study highlights the definition of multi-grade concept, its status in South Africa, its perceived benefits and the challenges and training and development of teachers in multi-grade settings. Furthermore problem statement, research questions, objectives, significance, assumptions, delimitations of the study and possible contributions are dealt with. Moreover, keywords and the chapters of this thesis are outlined.

1.2.1. Definition of Multi-grade Teaching

One of the conceptions of multi-grade teaching is the result of learners in different grade levels being taught by one teacher in one class (Lingam, 2007:186). Although the most common grade combinations are two consecutive grades 1 & 2 or 3 & 4; a number of countries combine non-consecutive grades 1 & 3 or 2 & 4 (Mulkeen & Higgins, 2009:11). Grade combination implies that learners remain with the same teacher for two or more years in the same class learning alongside different learners of different grade levels. Multi-grade teaching can involve grouping learners from up

to six grades, and these multi-grade classes are often referred to as “multiple classes”/multi- level classes” or “composite/ combination classes”(Marion & Kirby, 2009). Other terms to describe multi-grade settings include “vertically grouped”, “mixed age groups” or “double classes”(Ibid).

Another conception of multi-grade teaching is that the multi-grade classes’ multi-grade teaching refers to the teaching of students of different ages, grades and abilities in the same group (Kyne, 2005:14). But, Brown (2010:192) argues that multi-grade teaching is to be distinguished from “mono-grade” teaching in which students within the same grade are assumed to be more similar in terms of age and ability. However, this is not always the case. Even in mono-grade classes with just one grade group there is always a considerable range of ages, interests, needs, abilities and maturity. The other conception of multi-grade teaching is that teachers also deal with children of different ages and ability levels of two or more phases in one class at the same time (Higgins, 2007). An appropriate definition for multi-grade teaching in South Africa would be a situation where the teacher often of a different culture and language background as from learners, teaches simultaneously all the learning areas, or some of the learning areas to learners often of different cultures and different languages who are in two or more grades or in different grades in a combination of different phases (Joubert, 2010:4).

Little (2005:15) asserts that multi-grade classes arise from necessity or choice. In cases where multi-grade arises out of necessity, the determining factors are socio-economical, geographical or cultural. For instance, in Africa as a consequence of teacher shortage, teacher loss, teacher migration, teacher absenteeism and a fluctuating number of learner enrolments facing many countries, multi-grade schools

are an inevitable option (Mulkeen, 2010:153). In South Africa multi-grade classes are most common in rural and farm schools where there are not enough learners to justify separate classes (Van As & Joubert, 2007). In such instances the number of learners is too small to warrant single grade classrooms. The low number of learners statutorily justifies the employment of a few teachers who are expected to cover all the needs of the learners.

The explanation for the existence of multi-grade schools differs for urban and rural areas. In urban areas the curriculum and subject choices encourage multi-grade teaching. Small numbers of learners do elective subjects which results in very small classes. Schools therefore combine several grades into a single class and employ additional teachers to teach these subjects and classes (EPC, 2011:18). In urban areas large schools that offer primarily mono-grade teaching can have small numbers of multi-grade classes because of curricula subject requirements and combinations of subjects (Ibid). To that effect, multi-grade teaching is practised out of necessity as it is seen as a cost effective option for reaching remote South African rural communities (EPC, 2011).

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 (Little, 2006:31). In England multi-grade teaching was deliberately adopted to implement child-centred approaches in which learners learn through social interaction with learners in different grades. With its emphasis on “learning how to learn”, and the development of cognitive as well as social skills, multi-grade as a pedagogical choice is viewed by its proponents as progressive and of good quality (Ibid). Therefore, in spite of their prevalence multi-grade schools

worldwide fulfil a function of national importance as they provide children of less accessible areas with access to education. In contrast Berry (2004:563) contends that multi-grade teaching is also common in large urban and suburban schools to make up class sizes. In such contexts multi-grade teaching is seen as a response to uneven learner enrolment.

1.2.3. Status of Multi-grade Schools in South Africa

South Africa is comprised of nine provinces namely Eastern Cape (EC), Free State (FS), Gauteng (GP), KwaZulu-Natal (KZN), Limpopo (LP), Mpumalanga (MP), Northern Cape (NC), North West (NW) and Western Cape (WC). In South Africa there seems to be little research and little data is available on the unique contexts of multi-grade teachers and schools. However the situation is gradually changing due to the increase of multi-grade schools in the country. Despite their growing numbers, government and the administrators often ignore schools practising multi-grade teaching and they are rarely supported in statistics and educational research (EPC, 2011). Figure 1 and Table 1 below show the number of multi-grade schools in the country and the number of teachers in multi-grade schools. Figure 1 indicates the number of schools in the nine provinces of South Africa that practise multi-grade teaching. An analysis below shows that 6 665 (26%) of schools in South Africa in 2012 had classes where multi-grade teaching was prevalent. DBE (2012) indicate that 6665 schools in the country have fewer than six teachers and more than 20 000 teachers as shown in table 1 are forced to practise multi-grade teaching. The unfortunate reality is that these schools form the most neglected part of the country's education system. Since there seems to be very little interest in multi-grade schools

they are as Joubert (2007) puts it for the most part seen and treated the same as the normal schools.

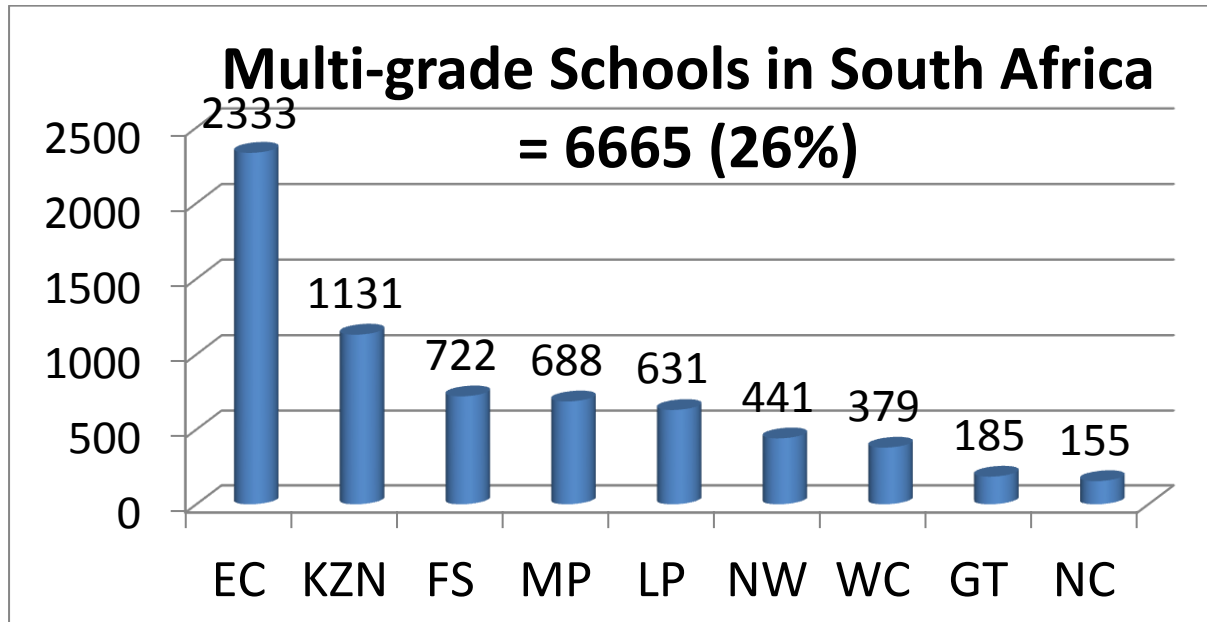


Figure 1: Multi-grade Schools in South Africa by province, in 2012(DBE, 2013).

Table 1 below indicates schools in the nine provinces of South Africa that practise multi-grade teaching that are primary schools with grades limited to Grade 7 and below. The table clearly indicates the number of schools practising multi-grade teaching in South Africa with the Eastern Cape at 2 333, KwaZulu-Natal at 1131 and Free State 722 as the provinces with the largest number of multi-grade schools. The provinces of 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 and agricultural activity representing a significant proportion of income (EPC, 2011:27). Table 1 show that Northern Cape has the least number of multi-grade schools at 155. Although the Northern Cape is the largest province in South Africa, the number of multi-grade classroom is the

smallest possible due to the amalgamation and closure of small schools and the relocation of farming communities to urban areas (EPC, 2011:27). The differences in the number of multi-grade schools in different provinces point to differences in geographical, cultural and socio-economic factors in the South African context. In 2012 there were 6665 multi-grade schools served by 2007 educators in South African primary schools in the foundation and intermediate phases offering grades 1 to 7. Notably, the number of multi-grade schools in Free State and Mpumalanga Province has decreased over years possibly due to amalgamation and closure of small schools and the relocation of farming communities to urban areas (EPC, 2011).

Province	Schools	Educators
Eastern Cape	2333	6051
Free State	722	1328
Gauteng	185	414
KwaZulu- Natal	1131	4827
Limpopo	631	2985
Mpumalanga	688	1156
Northern Cape	155	690
North West	441	1683
Western Cape	379	873
South Africa	6665	20007

Table 1: Number of multi-grade schools and educators, by province in 2012(DBE, 2013).

The Report of the Ministerial Committee highlights multi-grade teaching as a specific challenge in rural schools requiring special skills and more training on the part of teachers (DoE, 2009). Available evidence shows that multi-grade occurs across the education system from primary schools (Grade R-7) through to high schools (Grade 8-12) (Ibid). Most teachers at these schools have been trained in mono-grade teaching approaches. Since teachers in these classes have no formal training in multi-grade teaching they have limited skills in managing different contents at different levels as well as classroom management of multiple class groups. Research evidence suggests that there is a need for multi-grade schools as there are recognized benefits for learning outcomes and learner performance (Berry & Little, 2006).

1.2.4. Benefits of Multi-grade Teaching

Arguments in support of multi-grade teaching claim that multi-grade teaching has cognitive and non-cognitive effects on learner performance. In developed countries such as Norway and France, multi-grade classes have worked reasonably well and have shown success with adequate support. Pridmore (2007) affirms that teachers trained as multi-grade teachers are more likely to use instructional techniques designed for multi-grade teaching and to yield cognitive or non-cognitive effects on learners' performances.

1.2.4.1. Cognitive and Non- cognitive Effects on Learner Performance

There is evidence in developing countries that multi-grade schools can be positive places for children (Marion & Kirby, 2009). The effects of the Escuela Nueva project in Colombia which includes inputs in the areas of teacher training, curriculum

development and instructional materials received two independent evaluations (Berry, 2001). Psacharopoulos, Rojas & Velez (1993) compared achievement in the New School with achievement in traditional schools. They found significant achievement advantages in the new schools in both grades 3 and 5, although the effect was reduced in grade 5 (Ibid). A subsequent study by McEwan (2008) obtained similar results from a different data set. Cognitively, multi-age classrooms simply are no better or worse than a graded classroom, they are merely an alternative that could potentially lead some students to success (Ibid). Lungwangwa (1989) studied the impact of a pilot multi-grade teaching project in Zambia and found that the introduction of multi-grade techniques resulted in a decrease in drop-out rates from schools and an increase in enrolment. However, multi-grade teaching has its limitations in that multi-grade can be handled only by an experienced and competent teacher because of the diversity of the pupils in their achievement level (Lungwangwa, 1989). Berry (2007) also studied student achievement in the primary school system of the Turks and Caicos Islands. Findings indicated that pupils in multi-grade schools have significant advantages over pupils in mono-grade schools. This applies particularly to low achieving students (Ibid). Abdulraheem, Arindal, Abdulrahman, Olanrewaju & Olanrewaju (2011) on achievement effects of multi-grade teaching on the basic school pupils in Nigeria reported that teachers at the basic school levels had a low positive perception of the effect of multi-grade teaching on pupils performance in basic school but a higher perception of the organisational effectiveness of multi-grade teaching.

Colbert (1993) demonstrated that staff development programmes have a long term effect on effective teaching and classroom management for teachers in multi-grade

classes. McEwan (2008) also confirmed the positive effect of training on multi-grade on teacher performance. In other words, teachers trained in multi-grade teaching perform better in multi-grade classes than untrained teachers or teachers trained for single grade education. Studies show that trained teachers in multi-grade teaching have high expertise in their subject matter and better methodological know-how (Darling-Hammond, 2005). Multi-grade teachers were more likely to employ group-work than mono-grade teachers (Ibid).

Little (2007) applied curriculum adaptation strategies to train teachers in multi-grade teaching in Nepal and Sri Lanka. She discovered that multi-grade courses have a positive impact on the teaching and learning practices of schools. Each of the four curriculum adaptation strategies supports the idea of learners working in a group (Lingam, 2007; Little, 2007). Hence for Pridmore, (2007) teachers trained as multi-grade teachers are more likely to use instructional techniques designed for multi-grade teaching and yield cognitive or non-cognitive effects on learners' performances. But, Sag, Savas & Sezer (2009) question the notion of the lack of skills as a primary factor in the way multi-grade teachers teach. The authors contend that it is the will of the teachers to implement strategies developed for multi-grade programmes. However that is likely to be a greater challenge to teachers' performances in classroom practice.

In developed countries much of the research in multi-grade teaching examines its effectiveness compared with single grade (Little, 2005:485). Studies in developing countries generally conclude that there is no general difference in learner achievement results when compared to learning in single grades (Ninnes, 2006). However, studies in developing countries show in some instances cognitive

differences in favour of mono-grade schools (Little, 2005). Miller (1991) confirms Pratt's (1986) findings in that multi-grade students outperform their single grade counterparts in affective and non-cognitive outcomes. Little (2005) reviewed literature that exists pertaining to the evidence of non-cognitive effects in multi-grade classes. Likewise, in Columbia, Psacharopoulos, Rojas & Velez (1993) examined the effects of Escuela Nueva on measures of creativity, civic behaviour and self-esteem. Positive effects were found on civic behaviour but not for creativity or self-esteem. The true benefit to the multi-age model is the social effects it can have on all students specifically "At-Risk" and minority population children (Kemmis, 2011). Research in multi-grade in South African context show no similar studies conducted on benefits of multi-grade compared with single grade classes.

1.2.5. Challenges of Multi-grade Teaching

Research evidence indicates that for children to learn effectively in multi-grade environments, teachers need to be well trained and supported, well-resourced and to hold positive attitudes to multi-grade teaching. But Little (2005:14) found multiple challenges that teachers face in multi-grade teaching which include ungraded curriculum, Learning and Teaching Support Materials (LTSM), teachers' attitudes and lack of pre-service and in-service training of teachers for multi-grade teaching. Also, Brown (2010) discovered teachers' negative attitudes towards multi-grade teaching. Furthermore teachers in multi-grade classrooms are challenged with regards to curriculum adaptation and LTSM.

1.2.5.1. Ungraded Curriculum

In most countries because the same primary school curriculum and methodologies are prescribed for both urban and rural areas, the multi-grade class teacher finds it difficult to make the content meaningful to rural children (Sag, Savas & Sezer, 2009:022). One of the greatest difficulties in promoting multi-grade teaching is that the South African government requires all teaching to follow the national curricula, without specific support for multi-grade teaching (Kyne, 2007:504). Yet, the curriculum, learning and teaching support material and training of teachers is all geared towards single grade classes (Joubert, 2007; Brown, 2009; Murugan, 2011). The conceptual and skill requirements of the prescribed curriculum are too great for the teacher to cope with given the problems and concerns which have to be addressed in multi-grade teaching situations (Berry, 2007:569).

Lingam (2007) identifies government's requirement of a single curriculum as the greatest challenge of multi-grade teaching because he demands that the structure of the curricular, learner teacher material and assessment strategies employed in multi-grade teaching and learning process take on a new shape and form. Firstly, there is a need to re-organise and improve the curriculum for multi-grade teaching by way of improving curriculum content in a way which makes it relevant to the social conditions of the communities and the needs of the children. In Juvane's (2005:25) view most often, the designed curriculum lacks relevance and is dysfunctional when applied to the socio-economic needs and cultural lifestyles of multi-grade teachers, learners and their communities.

A second and related concept is integration which often involves an integration of pupils from different grade levels and competencies. Integration also involves integration of the curriculum either within or across subjects. Teachers in this context may face a considerable hurdle in managing integration given the need to know more content of primary education across two or more grades and in every subject area (Joubert, 2009). Although some subject areas can be easily integrated the problem remains a larger one since some subjects are best not taught in a whole class situation (Little, 2005). Literature (Brown, 2009; Lingam, 2007) indicates that teachers do not have time to cover the curriculum when they have more than one grade in one classroom. The difficulty of teaching two or more programmes in the time that is available to single grade teachers for teaching of one programme is also a frequent concern of multi-grade teachers (Kyne, 2004:7). Unnecessary repetition for children and insufficient time for oral instruction is one of the concerns of the teachers (Kyne, 2007:504). Teachers are ill prepared for managing the large numbers of pupils of different ages and different levels of learning that they confront in multi-grade classes (Ibid). Furthermore, principals of rural grade schools who teach fulltime are also responsible for administration as well as management and development of the curricula in their schools (Joubert, 2009:8).

Moreover, officials in most district offices are very poorly informed and trained in multi-grade pedagogies (Boonzaaier, 2009). For that reason they may fail to provide the pedagogical and administrative support that would enable teachers to teach effectively in multi-grade classes. This is because the needs of multi-grade teachers and their learners have often been overlooked by education policy makers under the predominance of mono-grade teaching. Little (2008) is of the view that the

dominance of mono-grade continues to dominate the thoughts and reactions of policy makers obscuring the fact that millions of children are de facto learning in multi-grade settings. Furthermore, few teacher education systems appear not to embrace the fact that millions of children still live in sparsely populated rural areas and thus require a multi-graded model of schooling. Yet, multi-grade schools have attracted attention in the developing countries' contexts because of their potential to increase primary school participation rates. Thus the reasons for the continued disfavour of multi-grade teaching have to be attributed to the dominance of the present paradigm of schooling encapsulated in the single grade approach.

1.2.5.2. Teachers' Attitude Towards Multi-grade Teaching

Studies of teachers' perceptions and beliefs about multi-grade teaching have been carried out across a range of contexts worldwide (Sag, Savas & Sezer, 2009). Researchers have investigated the practices of multi-grade teachers in multi-grade classrooms (Brown, 2009; Kyne, 2007; Lingam, 2012). Some studies have found that teachers do not like to teach in multi-grade classes in rural areas and are often negative in their attitudes to the use of multi-grade methodology (Taole & Mncube, 2012). Research indicates that teachers who do well in multi-grade classes are those who are positive in their attitudes towards multi-grade as a pedagogical option (Lingam, 2007; Suzuki, 2004). In Namibia teachers are generally negative about multi-grade schools and in the absence of training or guidelines have more frustrations than pleasure in teaching (Titus, 2004; Beukes, 2006; Siririka, 2011). A qualitative study of the perceptions of teachers at a rural multi-grade school on curriculum implementation in the Northern Eastern Education District in Trinidad and

Tobago indicated teachers' perception of their training programmes in multi-grade teaching as negative (Zoe, 2010).

Lingam (2012) reported on how a cohort of recently qualified teachers in Fiji perceive the training programme they had completed at Vanuata Institute of Teacher Training to prepare them for the work expected of them in Vanuata multi-grade primary schools. The report showed that teachers were generally positive about the training programme but some teachers showed concern in some important areas that they considered needed improvement. Such areas of concern included assessment strategies to be employed by a certain teacher when assessing learners of different grades combined in the same classroom. But many international studies have revealed that exposure to training in multi-aged training can influence teachers to feel positive about teaching in multi-grade contexts (Ninnes, 2006; Pridmore, 2007). Although Kyne's (2004) exploratory study revealed the degree of negativeness, perceptions were more positive with features of multi-grade teaching in the Irish context.

Evidence from a few multi-grade studies conducted in South Africa also confirm that teachers attitudes towards multi-grade teaching are largely negative and attributed this to lack of training in multi-grade teaching (Juvane, 2005; Murugan, 2011). Taole (2014:531) attests that teachers often express a negative perception of multi-grade teaching and thus develop negative attitudes towards the practice. In addition the research on multi-grade teaching in the Eastern Cape found a negative attitude towards multi-grade teaching and learning with both educators and education authorities because of the heavy burden it placed on them. On the basis of the report, it believes that the pupils in rural and farm schools in the Eastern Cape were

receiving inferior education and recommended an in-service approach to improve the professional performance of multi-grade education in the province (Brown, 2010). By implication lack of pre-service and in-service training in multi-grade teaching contributes to the negative feeling teachers have towards the concept.

1.2.5.3. Lack of Pre-Service and In Service Training for Teachers in Multi-grade Teaching

There has been a lack of pre-service and in-service training programmes that provide adequate guidance on the theory and practice of multi-grade teaching. In many countries teacher education programmes continue to train teachers for teaching in a mono-grade class context. Kyne (2005) and Lingam (2007) reported on a lack of preparedness of teachers to teach in multi-grade settings. Lingam (2007) draws attention to the quality of teachers involved in multi-grade teaching. He found that teachers trained for mono-grade classes are unable to cope with multi-grade teaching owing to the depth of lack of skills knowledge, resource management and assessment required to function effectively in multi-grade (Ibid). Multi-grade teaching assumes teachers are trained, skilled and well experienced in handling multi-level and multi-ability classes. Yet there is a huge gap in what the majority of teachers have been trained for. Murugan (2011) looked at the gap in multi-grade teachers' pedagogical skills and how continuing professional development of multi-grade teachers could fill that gap. Murugan (2011:228) suggests that pre-service and in-service teacher training to increase teacher retention and professional support are all efforts that can be made to change the perception of multi-grade teaching amongst teachers. However, studies reveal inadequate preparation of teachers for the handling of multi-grade classes implying therefore that the training programmes

prepared for multi-grade teachers might not be effective enough (Little, 2006; Brown, 2009).

In many countries teacher education programmes continue to train teachers for teaching in a mono-grade class context (Little, 2005). Titus (2004:102) found that neither policy nor training is provided to facilitate multi-grade training in most parts of Africa. Joubert (2010) is of the perception that in-service education when it is provided is often of poor quality with inadequate support and follow-up available to teachers. Even teacher development workshops are geared towards mono-grade education and do not take into account the existence and special circumstances of multi-grade schools (Brown, 2010). In Lingam's (2007) view successful implementation of multi-grade teaching requires sustained support from policy makers and adequate training of teachers. In South Africa the initial teacher training received by teachers prepares them mainly for teaching in a single grade class environment (Brown, 2010; Murugan, 2011). As a result many teachers who find themselves teaching in a multi-grade environment are frequently under resourced and are often the most undereducated and under-trained members of a national teaching force (Ibid).

But, the reality is that the Education Department seems not to realise that the untrained teachers in multi-grade teaching have to deal with mixed classes. Neither do education systems acknowledge the fact that many teacher trainees might find themselves posted to multi-grade schools rather than mono-grade schools on their initial appointment. In Taole & Mncube's view (2012) lack of teacher training in multi-grade teaching hinders the use of adequate teaching methodologies, which becomes an acute problem when the teacher is working in a one-teacher school where the

student population utilises a diversity of mother tongues depending on their ethnic affiliation. Therefore, capacity building through in service-training seems to be an important determinant of the way teachers approach their tasks. Thus, much emphasis has to be placed on the training of teachers, the equipping of schools with resources and the exposure of teachers to a wide range of strategies and pedagogy in multi-grade schools.

1.2.6. Teacher Training and Development in Multi-grade Teaching

In South Africa, although the DoE (2009) acknowledges the need for specialised training, until recently very little training has been available for teachers in multi-grade classes. Of course, the Department of Basic Education (2012:10) confirms that teachers in the South African system who teach in multi-grade classes did not receive training in multi-grade education as part of their formal qualifications; but a number of measures have been put into place to address the situation. Firstly, the 2011-2025 Integrated Strategic Planning Framework (ISPF) for Teacher Education and Development (TED) has been developed to address the needs of teachers. In terms of this framework the training and professional development of multi-grade teachers is a priority. However, the ISP framework has yet to be finalised in terms of capacity building.

Secondly, Centre for Multi-grade Education (CMGE) at Cape Peninsula University of Technology (CPUT) has been contracted by the Department of Education to train teachers in multi-grade teaching. The training being rolled by CMGE at CPUT also targets the training of the district officials in multi-grade teaching so that they are equipped to offer support to multi-grade teachers in their districts. Thirdly, the

orientation of district officials and teachers to Curriculum and Provincial Statement (CAPS) has included a special focus on the teaching and assessment of multi-grade classes. Fourthly, in each province a “multi-grade specialist” has been identified to support teachers in multi-grade pedagogy. Lastly, the DBE is committed to improving the quality of education in all schools and it will therefore continue to train more teachers to teach in multi-grade classes (DBE & HET, 2011). Therefore, DBE (2012:10) indicates that a training programme in multi-grade teaching has been implemented and will be expanded under the auspices of teacher development interventions.

In the light of the above intervention strategies CPUT initiated, planned and implemented a number of actions including the online training courses which were developed for South African and African in-service teachers (Van As & Joubert, 2007). One of these initiatives was the design and implementation of a university accredited course specifically aimed at rural multi-grade teachers. To that end more than 100 teachers obtained an Advanced Certificate in Education (ACE) in 2007 in multi-grade teaching with emphasis on numeracy, reading and writing (Ibid). This was the first time in South Africa that teachers were trained specifically for multi-grade teaching and received university accredited courses (Van As & Joubert, 2007). Significantly, CPUT has been known as the only teacher training institution in South Africa that offers short courses for basic principles of multi-grade teaching, Advanced Certificate in Education in 2005, Masters level in 2008 and doctorate level in multi-grade in 2009 (www.cmge.co.za, 2012). Table 2 below indicates the years and the number of teachers trained on short courses for multi-grade teaching in different provinces in South Africa.

YEAR	NO. OF TEACHERS TRAINED
2010	50 Students in Botswana
2011	150 Students for DBE
2011	200 Students in Mpumalanga
2011	150 Students in North West Province
2011	150 Students in Northern Cape Province
2011	150 Students in Eastern Cape Province
2011	50 Students in Gauteng
2012	150 Students for DBE

Table 2: Number of teachers trained in short courses for multi-grade education from 2010-2012(www.cmge.co.za, 2012).

The table above shows that 900 teachers in South Africa completed a short course on multi-grade teaching in 2011 and 150 teachers attended the course in 2012 (www.cmge.co.za 2012). Most training was provided for teachers offering basic education in South African primary schools and neighbouring countries. Notably, Eastern Cape Province has 150 students trained for multi-grade short courses in 2011. In addition, from the intervention of online training courses; more than 1500 teachers obtained the certificate in short courses for basic principles of multi-grade teaching. Since 2009, 430 teachers have enrolled for ACE specialising in multi-grade teaching (Joubert, 2010). In spite of the numbers indicated of teachers trained for short courses in multi-grade teaching, this leaves a current shortfall of approximately 18 700 multi-grade teachers in the system who are still untrained (DBE, 2012). Although the Department of Education initiated a project to train teachers and officials responsible for providing support to multi-grade teachers, multi-grade

education has yet to be finalised in terms of capacitating teachers (ECDoE, 2009). Bearing in mind that training has both theoretical and practical components, Bernstein (1999:158) postulates that integrated learning can be accomplished if the learning and teaching programme are totally vertical integrated. Vertical integration can be defined as the integration of basic knowledge and skills in the educational context. Horizontal integration can be described as the integration of skills and knowledge between teaching and learning programmes. Such integration would make learning more relevant and worthwhile in multi-grade contexts. However, both these ideals seem to be difficult to accomplish in the traditional single-graded curriculum (Kyne, 2005:3). It is against this background that the researcher attempted to investigate training and development of teachers in multi-grade teaching in the selected South African primary schools and its implications for continuing professional development.

1.3. Problem Statement

Research studies indicate that the majority of teachers currently teaching in South African multi-grade classes have no special training for teaching these classes (DoE, 2009). Given that teachers in multi-grade settings are not trained for that purpose, they are essentially left to fend for themselves (Brown, 2010). Despite the calls for South African Higher Education Institutions to adjust their training to include multi-grade teaching (MGT) methodologies (Brown, 2010; Murugan, 2011); with the exception of the initiatives of CPUT, the issue of MGT is not adequately addressed in in-service nor is it encompassed in pre-service training of teachers (Joubert, 2009; Juvane, 2010). Although there is evidence of very few teachers being trained in

multi-grade teaching (DBE, 2012; www.cmge.co.za, 2012) research studies indicate that teachers are not sufficiently equipped to teach in multi-grade classrooms (Boonzaaier, 2009; Brown, 2010). Considering the diversity of practice of multi-grade teaching under such unsupported circumstances and without proper teacher training, management of classrooms and effective delivery of teaching in multi-grade classrooms becomes difficult (Aryal, Nuepane, Laudari & Bhattari, 2004:32). Therefore, teacher training in multi-grade teaching techniques where a mono-graded system has been deep-rooted in teachers' practice remains a gap to explore.

1.4. Purpose of the Study

The purpose of this study is to examine how teachers trained in multi-grade teaching strategies integrate vertical and horizontal knowledge in post- training in the selected South African primary schools. In South Africa teachers are prepared in accordance with the way the mainstream schools operate and learners and curriculum are organised for single grades. Teachers often leave pre-service education without being equipped on how to handle multi-grade classes. Therefore this study aims to identify teachers professional learning needs in multi-grade teaching and how these needs are addressed in professional development programmes. Furthermore this study seeks to bring light the extent of the effectiveness of the delivery of training in multi-grade teaching to teachers in multi-grade contexts. Moreover, the application and transfer of training of multi-grade teaching strategies to classroom based teaching practise is explored. To transfer knowledge into skill in the workplace the key aspects of the multi-grade teaching training programme can be implemented

with integration between the horizontal knowledge and vertical knowledge in classroom based teaching practise.

1.5. Research Questions

Research questions are divided into a main research question and sub-research questions.

1.5.1. Main Research Question

How do teachers trained in multi-grade teaching integrate vertical and horizontal knowledge in post- training in the selected South African primary schools?

1.5.2. Sub-Research Questions

- What are the training and professional development needs of teachers in multi-grade classrooms?
- What aspects of multi-grade teaching are encompassed in the training programmes for teachers in multi-grade classrooms?
- How is teacher training on multi-grade teaching delivered to teachers in multi-grade classrooms?
- Which dimensions of multi-grade teacher training programme do teachers transfer to their classroom-based teaching?
- How can vertical and horizontal knowledge of multi-grade teaching be integrated in classroom-based teaching?

1.6. Rationale of the Study

The rationale of this research study initially arose from my attendance at Curriculum and Assessment Provincial Statement (CAPS) orientation workshop held in the district for Intermediate Phase teachers. The district officials presenting the workshop deliberated the participants to acknowledge the practice of multi-grade teaching in their classrooms. During the workshop teachers were expected to draw up lesson plans and time tables for a multi-grade class. Of course CAPS is a policy while multi-grade teaching is not but multi-grade class activities were included in CAPS orientation and teachers were expected to plan also for multi-grade classes. Yet teachers did not receive initial training on multi-grade teaching during their pre-service education nor were they trained for multi-grade teaching in in-service programmes. Therefore teachers find themselves in schools which force them to adopt multi-grade teaching techniques yet they are lacking in training in multi-grade teaching. I was then prompted to dig more into the concept of multi-grade teaching and how teachers are trained and developed for the effective teaching of learners of different grade levels placed in one classroom and instructed by one teacher.

1.7. Significance of the Study

This study could help contribute to the accumulation of knowledge in the area of multi-grade teaching. The Department of Basic Education & Higher Education Training might work with teacher training institutions to revise teacher training for foundation phase and intermediate phase programmes, in-service training in multi-grade teaching and the professional development of teachers to include multi-grade

teaching pedagogy. The Department of Basic Education might provide teacher training programmes to ensure the provision of quality education where multi-grade teaching is the common practice. Provincial and district-based officials might include programmes that will deal with the curricula and pedagogies of multi-grade and instructional strategies in multi-grade teaching and support teachers in multi-grade settings. For trainers responsible for the in-service education of primary teachers, the findings would help inform their professional practice in terms of equipping future teachers with suitable pedagogical techniques to cope with teaching and learning in a range of classroom environments. The answers to the research question posed might be of use to teachers in working out strategies to adopt multi-grade teaching as an alternative instructional approach to teaching and learning in multi-grade contexts.

1.8. Assumptions of the Study.

- Information about the concept and context of multi-grade teaching in South Africa will facilitate policy making as well as an understanding of the professional training and developmental needs of teachers in multi-grade classrooms.
- Promotion of effective use of the key aspects of multi-grade teaching encompassed in multi-grade teaching training programmes in multi-grade classrooms.
- The possible lessons learnt from the study will inform effective delivery of multi-grade teacher training programmes and the transfer of training of multi-grade teaching in multi-grade classrooms.

- Pre-service and in-service education will be prepared to integrate vertical and horizontal knowledge in post-training and inform recurrent teacher training programmes to support teachers in multi-grade contexts.

1.9. Delimitations of the Study

The major focus of this research study was to investigate professional teacher development and training in multi-grade teaching in the South African context. Out of 23 districts in the Eastern Cape only 4 districts were selected for the study. In each district 4 primary schools practising multi-grade teaching and teachers in the Foundation Phase and Intermediate Phase were selected purposely. 2 training sessions of MGT Teacher Training were observed and 8 multi-grade classrooms were also observed. Only 8 teachers and 4 principals who were trained in MGT in the 2011/2012 cohort and 3 trainers who conducted MGT teacher training programmes participated in the study. Looking at the time constraints and limited resources, the study involved an in-depth study but with a relatively small number of participants.

1.10. Possible Contributions of the Study

The study might help contribute to the understanding of the concept of multi-grade teaching in the South African context. Furthermore, this research study could help contribute to the accumulation of knowledge in the area of training teachers in multi-grade teaching. Moreover, suggestions made might provide viable solutions in overcoming challenges on the transfer of teacher training in multi-grade teaching in

the Foundation and Intermediate Phase classrooms. In addition, the study could act as a catalyst for further research in varying issues pertaining to delivery of recurrent teacher training in multi-grade teaching.

1.11. Definitions of Key Terms

1.11.1. Teacher Training

Teacher Training is the direct means to enhance the quality of teaching and student achievement. In-service training (INSET) also known as Continuing Professional Development (CPD) is one of the strategies used for improving knowledge and skills of teachers already in employment. CPD refers to any professional development activities, engaged in by teachers, which enhances their knowledge and skills and enables them to improve the quality of teaching and learning processes (Earley & Bubb 2005:4). Ono & Ferreira (2010) state that, “Continuing education refers to the provision of opportunities for qualified professionals to update their professional knowledge, skills and attitudes to enable them to remain competent professionals”. Thus, CPD or INSET embraces professional training, education and support activities engaged in by teachers following their initial certification.

1.11.2. Multi-grade teaching

Multi-grade teaching refers to the teaching of learners of different grades in the same classroom settings. Also, it is a situation in which one teacher has to teach many grades all at the same time in all the schools where there are more grades than teachers. In MGT teachers also deal with children of different ages and ability levels

of two or more phases in one class at the same time. In a nutshell, multi-grade teaching refers to the teaching of students of different ages, grades and abilities in the same group... it is to be distinguished from “mono-grade” teaching in which students within the same grade are assumed to be more similar in terms of age and ability (Brown 2010:192).

1.11.3. Vertical Knowledge

Vertical knowledge is referred in the educational field as sometimes to as “school knowledge” (Bernstein, 1999:158). Vertical knowledge takes the form of a coherent, explicit, and systematically principled structure, hierarchically organised. Vertical knowledge consists not of culturally specialised segments but of specialised structures of explicit knowledge and skills. The National Skills Development Act 652 of 2006 define skill as the work based and industry oriented activities which aim to provide the knowledge, skills and attitude required for effective and efficient performance of a task or a job and includes refresher, further, updating and specialised job related training (DBE & HET, 2011). The procedures of vertical knowledge are then linked not by contexts, horizontally but the procedures are linked with other procedures culturally. The official pedagogy of vertical knowledge is not consumed at the point of its contextual delivery but it is an ongoing process in an extended time (Bernstein, 1999:161).

1.11.4. Horizontal Knowledge

Horizontal knowledge in the educational context is seen as everyday knowledge, common sense and local knowledge (Bernstein, 1999:158). A horizontal knowledge entails a set of strategies which are local, segmentally organised, context specific

and dependent for maximum encounters with persons and habits. This type of knowledge has a group of well-known features as it is likely to be local, context-dependent and specific, tactic, multi-layered and contradictory across and within contexts. In the case of horizontal discourse its knowledge and competences are segmental, contextually specific, and context embedded in on-going practises and directed towards specific immediate goals highly relevant to the acquired in the context of his or her life (Bernstein, 1999:159).

1.12. Chapters Outline

Chapter one provides the background information to the study, the problem statement, the research questions, the purpose and the objectives of the study, the rationale, assumptions, significance of the study, delimitations of the study as well as possible contributions to the study. Chapter Two presents the critical discussions of the relevant literature on theories, concepts, ideas and experiences relevant to the research study. Chapter Three discusses research methods with descriptions and justifications of how the research methodology was employed. Chapter Four consists of the presented data analysed through a thematic approach. Chapter Five discusses the results of the findings of the research study. Chapter Six highlights the summary of findings, implications for practice, suggestions and recommendations for further study and the conclusions of the study.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter is divided into three sections. Section A deals with the theoretical framework on which multi-grade teaching is based. Section B examines and reviews literature on the concept of Multi-grade Teaching. Section C discusses continuing professional development for teachers in multi-grade environments.

SECTION A: THEORETICAL FRAMEWORK

Theoretical framework forms the underlying structure which can be compared to the construction of a new building wherein there is a foundation upon which the structure is built. Based on the above perception no one theoretical perspective can be sufficiently adequate for gaining an insight and understanding of teacher training in multi-grade teaching and its implications for continuing professional teacher development as such an approach would be one dimensional. Therefore, the researcher anchored this research project to Knowles (1984) theory of andragogy and the constructivist theory of learning Vygotsky (1978). These theories were utilised as the lens through which to view continuing professional teachers' development (CPTD) on multi-grade teaching.

2.2. Andragogy

The adult learning process is complex, context bound and highly personal (Brookfield, 2005). As a result there is no single explanation or all-encompassing theory that explains how adults learn. Nor is there a single theory that can be applied to all adults. Instead the literature has yielded a variety of models, set of assumptions and principles, theories and explanations that make up the adult learning knowledge base. To understand the meaning of adult education it is important to mention Lindeman (1926:4) quoted in Brookfield (2005) who observed that adult education is called “Adult Education” not because it is confined to adults but because adulthood and maturity define its limits. All over the world, two general purposes of adult education namely individual development and societal development as identified by Lindeman (1926) in Brookfield (2005) have remained central to the field of adult education which yielded the Adult Learning Theory. Scholars in the field of adult education have defined Adult Learning Theory in several ways. Taylor (2007) provides a more comprehensive definition of adult education as:

- *“the entire body of organised educational processes, whatever the content, level, method whether formal or otherwise whether they prolong or replace initial education in schools, colleges and universities...improve their technical or professional qualifications or turn in a new direction and bring about changes in their attitudes, behaviours in a twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development.”*

Considering the broad definition given above, it is important to point out that adult education is likely not to be considered as a separate learning experience but as an integral part of lifelong education and learning. Various terms that have been used to refer to adult education include in-service training or continuing professional development (CPD), out-of-school-education, community development, distance education and informal education. All these forms of adult education reflect the diversity of adult education programmes in which adult learners engage.

Adult Learning also called “andragogy” was originally used by Alexander Kapp in 1833 and was developed into a theory of Adult Education by Malcolm Knowles. Knowles (1984) observed that many principles of teaching and learning methods have been developed with and for children and argued that teaching adults requires a different set of instructional strategies. In an attempt to document differences between the way adults and children learn, Knowles (1984) popularized the concept of “andragogy”; the art and science of helping adults learn contrasting it with “pedagogy”; the art and science of teaching children. The term “andragogy” was originally used by a German teacher Alexander Kapp to describe elements of Plato’s educational theory with “*andras*” meaning “man” and “*paidos*” meaning “child” and “*agogos*” meaning “guide” (Ibid). However, it was in the 1960s and the 1970s that the Adult Learning theory became legitimized by Knowles and the use of his term “Andragogy” adopted to refer to the learning process of adults distinguishing adult learning from that of children in formal education. Knowles’ theory of andragogy was originally based on five assumptions which were later developed into six core adult learning principles as follows:

- Adults need to know why they should learn something, meaning the reason they need to learn something or how it will benefit them. Adults need to be involved in the planning and evaluation of their instruction (Self-concept).
- Adult's experience should be used in their new learning and the technique should include ways to include adult knowledge as a tool that they can draw upon and also to provide engagement by acknowledging them for their experience. Adults are more interested in learning subjects that have immediate relevance to their job or personal life (Readiness to learn).
- Internal motivators are more important than the external motivators that adults may receive for more learning. These internal motivators can come in the form of increased job satisfaction, self-esteem and quality of life (Motivation to Learn).
- The Adult learning experience should be problem-centred rather than content-related; the new learning should clearly define how it will apply to their life in some fashion (Orientation to Learning).
- It should provide an opportunity to gain experience, including mistakes and provide the basis for learning activities (Experience).
- Adults' fight against others imposing their wills on them, but they need to be moved into self-directed learning where they are responsible for their own learning and the direction it takes. They are largely self-directed and require a climate of trust, openness, respect and collaboration to learn effectively (Self-Directed Learning).

Adopted from Taylor (2007).

Self- Directed Learning (SDL) is a process in which individuals take initiative without the help of others in planning, carrying out and evaluating their experiences (Knowles, 1984:74). Mezirow (2000:198) in his Transformative Theory on Adult Learning gives the same explanation of Self-Directed Learning. What qualifies learning as “self -directed” is the learner who makes decisions about the content, methods, resources and evaluation of learning (Ibid). The benefit of SDL as perceived by Taylor (2007:180) is that learning can be easily incorporated into daily routines at adult learners’ convenience. In the same line of thought Mezirow (2000) articulates that SDL can involve adult learners in isolated activities such as researching information on the Internet. It can be noted that Transformative Learning promotes Self-Directed Learning in an adult learner who takes responsibility for his own learning and makes informed decisions. However, Knowles (1984) warns that SDL can be difficult for adults who lack independence, confidence, internal motivation or resources. One of the most challenging and difficult but essential tasks of the facilitator is to set a climate for learning and to assist in the development of a group culture in which adults can feel free to challenge one another and can feel comfortable with being challenged (Brookfield, 2005:13-14).

Taylor (2007:189) observed that not all adult learners prefer SDL but those learners who are engaged in SDL also engage in more formal educational programmes such as teacher directed courses. As learners, adults come to learning as volunteers and have the power to engage or withdraw from the proceedings at any stage, depending on how they perceive the fulfilment of their expectations (Brookfield, 2005:9). By implication, if adult learners wish to engage in a learning process, they may do so with intention and enthusiasm. This then implies that embarrassing adults publicly

and displaying disrespect as Knowles (1984) put it, is likely to cause certain withdrawal from professional development programmes.

Therefore, thinking about how adults learn thus becomes crucial for anyone involved in Continuing Professional Development. When training adults Lee (2005) acknowledges that Knowles's (1984) principles of andragogy are of particular relevance to the Continuing Professional Development of teachers as Adult Education takes into account the professional performance of teachers. Knowles theory of Adult Learning does not have clear evidence to support it and is criticised by other researchers (Brookfield, 2005; Taylor, 2007) as being more predictive than descriptive. Since no one theoretical perspective can be adequate, the researcher also viewed teacher training on MGT through the constructivist theory of learning.

2.3. Constructivists Theory of Learning

This research study is also positioned within a constructivist learning theory as the researcher considers constructivism to be the foundation from which to view Continuing Professional Development of teachers in Multi-grade Teaching. The constructivist perceives learning as a process of constructing meaningful representations of making sense of one's experiences, culture and beliefs (Vygotsky, 1978). In this process of constructing meanings of knowledge and belief teachers acquire new knowledge, skills and approaches and then interpret their meaning and significance in their practices (Wenger, 2007). Based on this notion, it is implied that teachers construct knowledge of their own by deconstruction, interpretation and reconstruction when engaged in activities and in social discourse that take place in a

certain context. Such a context acknowledges Vygotsky's (1978) claim that knowledge is socially and culturally constructed. Proponents of constructivism support the understanding that the adults are active learners who are constantly searching for meaning and seeking patterns and connections. Since the emphasis of constructivists is on active learning, constructivist strategies are often called student-centred approaches to learning (Vygotsky,1978).

Learner-centeredness implies that learning in professional development programmes has to take place from the teachers' point of view. In other words a learner-centred approach can be assumed by identifying the teachers' learning gap which Vygotsky (1978:86) calls, "Zone of Proximal Development". Vygotsky (1978) developed the Zone of Proximal Development (ZPD), a concept that arose from his belief that in order for one to learn, a challenge is needed which will maximize ones intellectual development (Snowman & Biehler, 2006:49). While ZPD can be interpreted as the difference between the teachers' capacity to solve problems on his own and his capacity to solve them with assistance; Vygotsky (1978:90) maintains that ZPD is, "the distance between one's present development level and the level of potential future development". The author further warns that the ZPD is not the quality of an individual learner but rather the potential for his intellectual development created by the internal mental reaction that occurs as the learner participates in activities. Seemingly, working within ZPD requires a great deal of guided participation, support and follow up. Hence, teachers' development to become effective multi-grade teachers may take place under the guidance of competent and committed trainers which Vygotsky (1978) terms "scaffolding".

A scaffold is normally a temporary structure that is erected around a building to support the building process until it is complete and gradually removed as it ceases to be needed. Snowman & Biehler (2006:52) understand scaffolding to mean the guidance that the teachers receive to enable them to achieve what they are unable to achieve independently. Also, professional development provides a social context where the trainers of multi-grade teaching play a vital scaffolding role in assisting and guiding teachers to move from the ZPD to the next level of becoming confident and independent in teaching in multi-grade environments (Ono & Ferriera, 2010).

By implication, as the teachers develop and become skilled at applying the knowledge and skills gained from multi-grade teacher training, the input of the trainer will gradually be reduced as the teacher works on his own towards the transfer of training in his classroom. The constructivist theory is criticized for its tendency to assume that all adult learners have the intellectual to construct their own meanings. Since Continuing Professional Development (CPD) is said to build on existing knowledge and understandings and aims to ensure that teachers have access to the knowledge needed to be effective; the researcher looked at how effectively professional development programmes deepen teachers' understanding, transform their assumptions and lead to continuous classroom actions that change their practices.

SECTION B: CONTINUING PROFESSIONAL TEACHER DEVELOPMENT (CPTD)

2.4. Conceptualising CPTD

One of the hallmarks of being identified as a professional is to continue to learn throughout a career (Earley & Bubb, 2005:3). Several terms are used to describe the training and development that occur after teachers have received their initial training preparation for the job of teaching as in-service training (INSET), staff development or professional development. Ono & Ferreira (2010) define professional development as “activities that develop individual skills, knowledge and expertise and other characteristics as a teacher”. Similarly, Steyn (2011:211) views professional development as a process that transforms teachers’ experiences into expertise which takes place when they develop their own theory from their experiences. Professional and staff development therefore, connote the idea of comprehensive development which may include training, on-going support, career growth and incentives. In Coe, Karl & Frick’s view (2010:206) the term “in-service” often conjures up the narrow definition of short training sessions provided away from school settings.

In this research study the terms “professional development” and “INSET” are used interchangeably to refer to the range of lifelong learning activities which include both training and support while teaching on the job. This is consistent with the term used for on-going education and training for the professions which encompasses all formal and non-formal learning which enables individuals to improve their own practices known as continuing professional development. Continuing Professional

Development refers to any professional development activities engaged in by teachers which enhance their knowledge and skills and enables them with a view to improving the quality of teaching and the learning process (Chalmers & Keown 2006:145). Fratt (2007:57) affirms that, “continuing education refers to the provision of opportunities for qualified professionals to update their professional knowledge, skills and attitudes to enable them to remain competent professionals”. Similarly Greenland cited in Steyn (2011) identifies four categories of CPTD/in-service training education by their purposes: for certification of unqualified teachers, to upgrade teachers, to prepare teachers for new roles, and curriculum related dissemination or refresher courses. An analysis of literature reveals a number of slight differences in the different concepts used. A simple conceptual breakdown is offered by Earley & Bubb (2005) to make a distinction between:

- Professional training- short courses or workshops (practical information and skills).
- Professional education- long courses (theory and research- based knowledge).
- Professional support- activities that aim to develop job experience and performance.

In a nutshell most definitions of CPTD stress as its main purpose the acquisition of concerned knowledge and teaching skills where as it has to go beyond that and include the role of the teacher as the change agent in the teaching profession. Of importance is that CPD is an on-going process of professional training, education, learning and support taking place in either external or work based settings.

2.4.1. Professional Training

A professional training model which consists of stages of CPTD training is illustrated in the figure below indicating the cycle of identification of training and development needs.

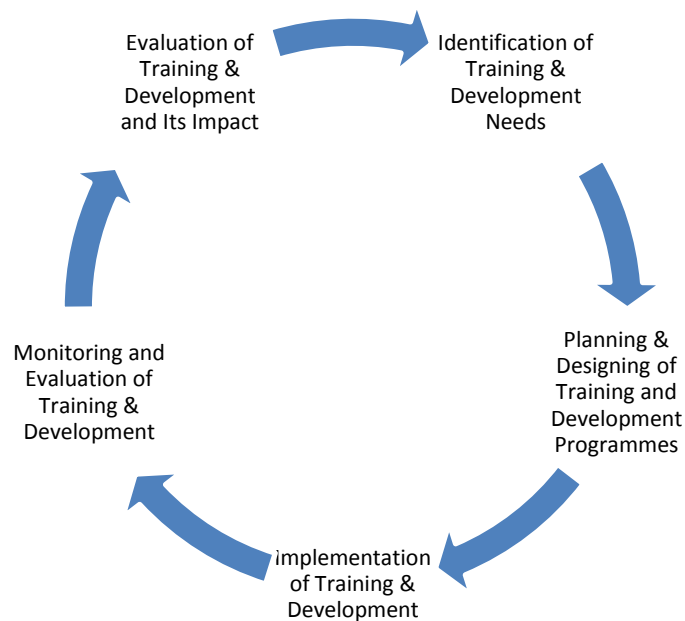


Figure 2: Training and Development cycle (Earley & Bubb, 2005:74)

The first two stages of the development cycle are concerned with identification of staff needs and their analysis. Needs identification is about discovering individual needs for training and areas in which training and development might be most effective. To minimise tensions that may exist between individual staff and their schools CPD programme coordinators have to ensure that training and development

meet the needs of the individual as well as the needs of the schools through personal growth plans and school development plans. Staff individual personal development is important in relation to professional development which leads to school improvement. Planning, designing and implementation of training and development programmes might include self-study, observations, courses, school-led training, INSET, videos, and action plans (Earley & Bubb, 2005:76). The final stages in the staff development cycle are concerned with monitoring and evaluating the impact of professional development and training.

Monitoring of continuing professional development consists of checking that what has been planned has happened. This can be carried out through a wide range of ways by asking for progress reports, action plans, and reflections on what has been learned which are all valuable (Earley & Bubb, 2005:77). However measuring teachers' might not necessarily ensure that growth and improvement has taken place other than checking the natural effects the training has had on the individuals. Evaluating continuing professional development for its impact is challenging as it involves the links of a long chain between a training programme for individuals and beneficial results for the school. Schools make use of systematic evaluations to assess the training inputs. The principle of evaluation entails performance indicators and evidence. Models for evaluating training impact have been devised over the years. One of the frameworks for evaluating training and its impact has been developed by Kirkpatrick. The author explores the relationship between training and the workplace at four levels namely:

- Reactions- by evaluating reactions one finds out if the participants enjoyed the training and if the trainers were capable and credible.

- Learning-one determines the extent to which trainees have changed their attitudes, improved their knowledge or increased their skills.
- Behaviour- one determines if the trainees are using or transferring their newly acquired knowledge, skills and behaviours on the job.
- Results- one determines if the training has affected the school results or contributed to the achievement of the training and development objectives (Earley & Bubb 2005:79)

In the light of the above perceptions professional development and professional learning can both be located within the broader concepts of “teacher change” (Fullan, 2007). Thus there is a link between training and change. Research evidence reveals two models of training and change in the quality of education: the model of “providers” and the model of “recipients”. The first model argues that training can make a change with its emphasis on “providers and their inputs”(Lewin, 2007). When training is developed by specialists with knowledge proved by scientific research within the wider social systems, the training is rationally justified by the recipients (Ibid). In addition when training is well diffused through good communication media, the training can reach classroom practice (Ibid). The second model puts emphasis on “recipients” as it maintains that change occurs when teachers attempt to use a new element introduced through training (Fullan, 2007). By implication, of the most concern in the second model are the training needs of the recipients and conditions of classroom practices. In simpler words, training seems meaningless in situations where teachers’ needs and circumstances are not considered as a priority. Fullan (2007:315) stated the following:

- *“Nothing has promised so much and has been so frustratingly wasteful as the thousands of workshops and conferences that led to no significant change in practice when the teachers returned to their classrooms”.*

In the light of the above statement training might fail to achieve its purpose if the implementation of training tends to overlook “recipients” in favour of “providers’ inputs” in the form of the training curriculum and training materials. Various models are used to provide professional support for teachers as on-going support for types of training throughout their career.

2.4.2. Models of CPTD

Traditional models of CPTD or alternative models of CPTD identified have been noted for their effectiveness in changing or not changing classroom-based practice.

2.4.1.1. Traditional Model of CPTD

Continuing Professional Development is generally based on the deficit of a master model which uses “one shot” professional development (Lee, 2005). When teacher training is delivered the cascade model is often used. Suzuki (2006) argues that the cascade or “multiplier” approach transmits the knowledge or information from the top to the lower stratified groups of teachers. This consequently entails “training-the trainer” to ensure that the message “flows down” from experts and specialists, eventually to the teachers (Fraser, Kennedy, Reid & McKinney, 2007:154). By implication, a cascade model is used as a mechanism for delivering training messages from trainers at the central level to trainers at the local level through several layers. Putting it simply, Gray (2005) asserts that a cohort of teachers is given short training courses and the teachers are then required to pass on their

knowledge and skills to further cohorts of teachers through formal courses. In this sense a cascade model can deliver many trained teachers quickly and economically and envisages a series of consecutive training sessions with each session taking place as a result of the previous one. Therefore one of its advantages is its potential for training a large number of people within a limited period of time.

However, despite its advantages it is often criticised for its ineffectiveness because the message is often distorted through a long distance one-way process. The intended messages are often altered and their effects diluted through miscommunication and different interpretations of the same messages. Another weakness of the model is the distance between the central and the local level. In addition there are few opportunities to check the process and the outcomes of each stage. For example the evaluation study of a 3 layered cascade model in Uganda indicated problems especially at the lowest level (Kabizwe, 2004). The trainers for the training at the lowest level had not internalised the message from their own training. Consequently they could not adequately perform some steps of the training contents. Although each training takes place as a result of the previous one, there may be no continuity within the layers. Training plans and guidelines are likely to be loosely followed in the process of the training. Furthermore different strategies may be adopted and new elements introduced.

A third limitation is one way transmission as it is constructed according to a centre periphery and top down approach structure so that it is too inflexible to respond to the needs at grass root level. In addition the higher levels often lack experience of primary school teaching which widens the gap between the levels. For example, the evaluation study conducted in Botswana reveals that the cascade model failed to be

the means of transferring ideas or of changing behaviour because it had little impact on commitment (Moselwa, 2006:426). Therefore the message on the one hand, might be distorted through long distance. On the other hand, the top- down approach is likely not to encourage participation and commitment. Some researchers believe the failures of the cascade model lie in the model itself. Others argue that the quality of a cascade model depends on the quality of planning and implementation rather than on the inherent weaknesses of the model itself. Nonetheless, the cascade model efforts have been criticised by many researchers when compared to alternative models of CPTD.

2.4.1.2. Alternative Models of CPTD

Recognising the limitations of traditional approaches to professional development; modern views of professional development characterise professional learning not as a short term intervention but as a long term process extending from teacher education at tertiary level to in- service training at the work place (Fratt, 2007). Partly, in response to social learning theories and constructivists approach to interpretations of learning, an alternative approach to teacher learning has been proposed (Darling- Hammond, 2005). Proponents of the alternative model of CPD maintain that professional development programmes should be learner-centred, knowledge- centred, assessment-centred and community-centred to optimise teacher learning. In the same vein Wenger (2007) thinks that that a new perspective of professional development should be based on constructivism; perceived as a long-term process taking place in a particular context. Similarly, Chalmers & Keown (2006:147) contend that professional training and development need to take the form of coaching as in the Communities of Practise (CoP). Communities of Practise is a

socio-cultural theory of learning in which the process of becoming a member of an educational community in terms of participation in the practices of that community can be studied and understood (Wenger, 2007). Wenger (2007) further argues that a research community is held together by their practices hence the term, “Community of Practice”. To him working within a community reinforces shared beliefs and interactions which can contribute to the reconstruction of personal and professional development (Ibid). Interactions can be classified as formal versus informal interaction, face to face versus virtual, horizontal versus vertical. Formal and informal is a common way to categorise interactions both in and out of school. In learning through watching peers and colleagues is key in a situated learning where knowledge is viewed as embedded. Interactions can be horizontal or vertical. In the Communities of Practice framework the communities are described as emergent, horizontal communities from more or less the same occupation. While a horizontal community is the group of people who consider themselves to be engaged in the same sort of work, who share values, norm and perspectives that apply to but extend beyond work related matters (Chalmers & Keown, 2006:147). The occupational group interact vertically during tasks performance (Ibid). Compared to horizontal interactions, vertical interaction appears to be more formalised and the vertical interactions are a part of the division of labour where employees are involved with each other and interact out of necessity of performing a task.

The several theoretical approaches discussed above ably dwell on theoretical frameworks on which multi-grade teaching is based and continuing professional development for teachers in multi-grade contexts. These theories align with the research questions which state “How are teachers whom are in multi-grade

classrooms trained for multi-grade teaching in the selected South African primary schools". The implication of the reviewed literature link thereof, with the need to combine the theoretical and practical aspects of multi-grade teaching during transfer of training in classroom based teaching practise. Thus vertical and horizontal integration of knowledge skills in multi-grade teaching in post training seem to be of utmost importance. It is in the light of the above perceptions that the conceptualisation of multi-grade teaching in different contexts is explored.

SECTION C: MULTIGRADE TEACHING

2.5. Conceptualising Multi-grade Teaching

Multi-grade teaching assumes different interpretations not only from different researchers but also in different countries across the world. There is no consensus on the common meaning amongst researchers of what multi-grade teaching is or is not. The controversy surrounding multi-grade teaching is largely based on different perceptions and definitions of the concept.

2.5.1. Multi-grade Teaching

In spite of its potential for broad interpretations multi-grade teaching is defined by Little (2005) as the term that refers to the teaching of learners of different grades in the same classroom. MGT occurs in situations in which one teacher has to teach many grades all at the same time where there are more grades than teachers (Joubert, 2007). Multi-grade teaching also occurs in situations where one teacher teaches consecutive grades (grade 2&4) or non-consecutive grades (3&5) or as a combination of any grades in the same classroom setting (grade, 1-7) (Mulkeen &

Higgins, 2009). In MGT teachers deal with children of different ages and ability levels of two or more phases in one class at the same time (Kyne, 2007).

One feature that is of concern is that for some authors (Joubert, 2007; Vithapanathirana, 2006) factors such as age, grade levels and student abilities appear to be the deciding factors on defining what multi-grade teaching is. In a case of the one-teacher school in Peru, a teacher can be faced with an age range from 3-4 years up to 15 or 16 years, divided into nursery grade (initial) and six grades (Ames, 2004; Berry, 2006). Faced with this situation, a Peru multi-grade teacher will often divide the students into two groups. The first grades 1 and 2, comprise the monolingual mother tongue students and the second, grades 3 to 6, comprise students with at least some understanding of Spanish (Ibid). Given that each grade contains students who are repeating the grade and students new to the grade there may be considerable variation in ability and age within each grade (Ames, 2004). In China the terms “multi-grade class” or “multiple groupings” reflect more ability level and age based grouping than grade level (Berry & Little 2006).

However, for other authors (Brown, 2010; Berry & Little, 2006) the main criteria seem to be the grade levels. Nawab & Baig (2011:166) claim that in Pakistan sometimes more than three levels are grouped in one classroom and taught by a single teacher. In Senegal most multi-grade schools have two grades per teacher but a few one teacher schools have been established to examine the viability of this concept (Mulkeen & Higgins, 2009). Since there is no policy regulating how and which grades are combined in South African classrooms the grade level determines multi-grading (Brown, 2009:65).

Another feature of MGT is that in certain instances the number of learners is too small to warrant one grade classroom (Berry & Little, 2006). In most multi-grade classrooms a single teacher teaches more than one level in one classroom. But, in Indonesia and in Nepal multi-grade teaching involves a teacher teaching more than one grade at the same time in either different classrooms or in the same room divided by a partition (Little, 2005; Suzuki 2009). This practise has developed into two practices either more than one grade learners is seated in a single room and the teacher teaches each grade by taking turns or each of the grades is seated in a separate classroom and the teacher teaches each grade in separate classrooms by taking turns (Ibid). The other setting has separate classrooms for different grades where the teacher teaches these grades by visiting the separate classroom. Such type of instructional arrangement is known as “multiclass teaching” (Suzuki 2009:15).

The other feature which complicates more the meaning of multi-grade teaching is the use of many terms found in literature to describe multi-grade settings such as “combination classes”, “double classes”, “split classes”, “vertically grouped classes” and “blended classes” (Little, 2005). The practice of multi-grade teaching which refers to the teaching of students of different ages, grades and abilities in the same group is sometimes referred to as “vertical grouping” (Kyne, 2007:502). The terms “combination classes”; forced mixed age classes”; or “forced mixed grades”; usually refer to settings arising through necessity and the characteristics of enrolment (Little, 2005). Furthermore, “one-teacher schools”; “unitary schools”; “multi-level class”, “multiple class”, “family class”; “multi-age class” and “composite class” (Kyne, 2005) are also associated with classes with more than one grade level.

2.5.2. Multi-Age

Multi-age suggests the existence in a classroom context of age variations and differentiations among students (Brown, 2010:7). Although “multi-grade”, “multi-age” and “composite class” are often used interchangeably; Kemmis (2011) contends that these terms are not synonymous. Other researchers (Brunswic & Valerien, 2004; McEwan, 2008), distinguish between multi age and multi-grade (Little, 2008). In education systems where categories of age and grade overlap, the synonymous use of “multi-age” and “multi-grade” classes may be appropriate. For example in industrialised countries where studies of mono-grades and multi-grades have been conducted including USA, Canada, England, Finland, The Netherlands and Sweden where the majority of students enter school at the official entry age and move through the grades without repetition (Pratt, 1986); the age and grade identities of students converge (Kemmis, 2011). However, in North America where age and grade are congruent, the terms “multi-age” and “multi-grade” are often used synonymously (Marion & Kirby, 2009).

Birch & Lally (1995:319) describes multi-grade classes as those in which children follow grade specific curricula and grade level assignment. “Multi-age” by contrast deliberately mixes age and grade levels and students stay with the same teachers for a number of years usually three (Ibid). Although students are multi-age, they are taught as a single grade. While multi-grade classes are formed of necessity; multi-age classes are formed out of choice based on perceived educational benefits (McEwan, 2008). Proponents of mixed age groupings argue that there are sound pedagogical reasons for placing students of different ages together in the same

classroom (Berry, 2006). Mixed-age classes it is argued stimulate children's social development and encourage greater classroom co-operation (McEwan, 2008).

However, in developing countries many students enter school at an age older than the official age of entry (Higgins, 2007; Juvane, 2007). In such settings the synonymous use of the terms multi-grade and multi-age is inappropriate (Little, 2005:483). In some countries where access to education is constrained, multi-age teaching strategies obviate the need for multi-grade teaching. This is common in African countries where education is often limited (Gardiner, 2008); or where children enter school for the first time at varying ages (Juvane, 2007) and where grade repetition is common (Joubert, 2007). In such instances the term "multi-age" takes on a special meaning. Kemmis (2011) concludes that a multi-age educational model can be a successful alternative to the traditional mono-graded system, but specific consideration and attention to detail are vital for such a program to be successful.

2.5.3. Composite Class

A composite class comprises two or more classes working together in the same classroom with one teacher but usually with different curricula (Brown, 2010; Berry & Little, 2006). This is line with Vithanapathirana's (2006) claim that multi-grade teaching refers to a teaching situation where a single teacher has to take responsibility for teaching pupils across more than one curriculum within a specified period. By implication each grade follows its own designated learning programme or curriculum. Although the students share the same classroom and the same teacher, the curriculum is mono-graded. A qualitative study of the perception of teachers at a rural multi-grade school on curriculum implementation in the North Eastern

Education District of Trinidad discovered that teachers could not implement the single graded curriculum in a multi-grade class (Zoe, 2010).

Regardless of age, learners are taught by one teacher in the same classroom and the curriculum is integrated and differentiated, this then implies that multi-grade is different from both the multi-age class and the composite class. What multi-grade teaching is not is a mixed ability teaching in a single grade group. Nor is it one teacher teaching separate grades with separate curricula or two classes seated separately and taught separate curricula. Rather it is the teaching of learners of different grades by one teacher in one classroom a single curriculum which is differentiated according to their grade levels. It is arguably an alternative to age grade forms of school and classroom organisation in which students of the same age are grouped into the same grade regardless of other factors pertaining to levels of attainment. Multi-grade teaching needs also to be distinguished from mono-grade teaching in which students within the same grade are assumed to be similar in terms of age and ability.

2.5.4. Multi-grade Teaching versus Mono-grade Teaching

Most systems of education worldwide are predicated on the notion that learners enter, progress through and exit from grades alongside a group of peers. Thus grades correspond closely with the ages of learners. The entry of learners varies by more than one year and each grade group comprises one or more classes of learners depending on the number of learners. Each class is usually taught by a single teacher at any one time. These classes are referred to as mono-grade classes. The distinction between multi-grade and mono-grade teaching as cited by Lingam (2007:188) is that “mono-grade class” or “straight class” teaching refers to a

situation where the teacher handles the teaching and learning process of just a single year group in a classroom. Joubert (2007:2) gives the explanation that multi-grade teaching refers to settings where the teacher is responsible for teaching children of different grade levels at the same time. While multi-grade and mono-grade are explained differently, they share some common features. The Commonwealth Secretariat (2005) believes that teachers in multi-grade and mono-grade classes tend to have undergone similar pre-service training for teacher education programmes and thus might have similar qualifications.

Commonwealth Secretariat (2005) claim both teaching situations involve teaching and learning, a single curriculum and resources. The distinction between mono-grade and multi-grade is that in non-graded classrooms there is less likely to be pressure on the teacher to cover a grade-related curriculum for each grade. It is this coverage that makes the traditional model of teaching difficult for the multi-grade teacher. As a result a multi-grade teacher has to search for models that allow the teacher to consider different levels of achievement at any one time. Lingam (2007:189) confirms that multi-grade teaching is distinguished from single grade teaching by various factors which include curriculum differentiation, curriculum integration and curriculum adaptation and grade levels. In the same line of thought Kyne (2005) claims that learners must learn the curriculum appropriate to their own grade levels despite being combined in one class. To that effect, Pridmore (2007:559) developed a model of curriculum integration which teachers could use to modify the single grade curriculum to suit multi-grade teaching. Despite the common features however, multi-grade teaching can be differentiated from single grade classes in cases where pupils within the same grade are assumed to be similar in

terms of age and ability. The learners in mono-grade classes are usually of the same age and in the same grade but differ in abilities yet those in multi-grade classes are in different ages in different grades with different abilities. However, substantial variation in ability within a grade often leads to 'mixed ability' teaching.

2.6. History of Multi-grade Teaching

Multi-grade Teaching dates back to the origins of formal education and it was not until the late 1800s that the teaching of one grade in a classroom at a time became prominent. In India multi-grade teaching dates back to ancient times (Blum & Diwan, 2007) while in Canada it has been in existence for over a century (Marion & Kirby, 2009). In the 1960s and 1970s in America, the ungraded schools open education and individualised instruction became a driving force in school instruction. The introduction of multi-grade or vertically grouped classes in many England primary schools in both urban and rural areas in the 1960s and the 1970s was part of a reform of the pedagogy of primary education. Several writers (Marion & Kirby, 2009; Brunswic & Valerien, 2004) have pointed out that the first state supported schools in North America and Europe were ungraded. The school often consisted of a single room in which one teacher taught basic literacy and numeracy to children from six to fifteen years of age. Miller (1991) noted in his book that in 1918 there were 196,037 one room schools representing 70, 8 % of all public schools in the United States. Therefore, the practice of amalgamating learners of different grade levels into a single class had its origins in the "small school" or "one teacher school" movement of the 19th century in the United States of America (Miller, 1991). This type of classroom organisation was altered when the industrial revolution brought about large scale urban growth creating a demand for mass public education. The

influence of manufacturing principles on education and the move toward the industrial model of schooling divided learning into age bound grades.

The introduction of graded classrooms initially took place following the visit of an American Secretary of Education, Mann to Prussia in 1843. Mann's report led to schools in America being:

...divided along the lines of age and grade....The mono-grade model was to become a universal ideal in the late 19th and 20th century and came to dominate the basis of school, class and curriculum organisation...(Little, 2005:1).

Following Mann's Report urban education administrators in the United States soon recommended that schools be divided on the lines of age and grade; a development which was consistent with the division of labour in the industry. As Pratt (1986) puts it,

- *"The principle of division of labour holds good in schools as in mechanical industry."*

According to Miller (1991) graded schools are designed to manage large numbers of children rather than to meet individualised needs. Therefore it looked as if it was easier to manage the students by putting them in grades. This structure was accompanied by the advent of graded textbooks, state supported education and the demand for trained teachers. Later, the mono-grade model was to become a universal ideal in the late 19th and 20th centuries and came to dominate the basis of the school, class and curriculum organisation central authorities. Since the 1930s the limitations of rigidly graded systems have received increasing scrutiny as researchers have espoused the benefits of mixed age grouping.

Critically, the authors Brunswic & Valerien (2004); Pridmore (2007) McEwan (2008) and Marion & Kirby (2009) argue that because of the way teaching practises are conceptualised within the predominant model of industrial education this necessarily puts emphasis on what appear to be disadvantages of the practice. They call for an abandonment of this industrial model of education (mono-grade) and a move towards what they term a “family” model comparing the multi-grade model to the family in that it affords opportunities to socialise across the grades and often at age levels where several grades work together. To them multi-grade teaching approximates the natural mix of different ages familiar to their own families. Taken within the contexts of the “family” concept of education model proponents of multi-grade teaching argue that the conditions of multi-grade schools can now be seen as assets rather than constraints. Yet despite mono-graded schooling, multi-grade education has characterised many schools throughout the 20th century and continues to do so in the 21st century. However, multi-grade is still an important feature in schools throughout the world as it is seen as a vital solution in providing education to children in isolated and rural areas both in developing and developed countries. In different countries worldwide, multi-grade manifests itself due to various circumstances.

2.7. Prevalence of Multi-grade Teaching

Literature indicates that there are various conditions that result in the adoption of multi-grade teaching. Little (2005:4) gives a broad description of the conditions for the manifestation of the different contexts of the concept of multi-grade 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 mono-grade.
- (iii) Schools in areas where the learners and teacher numbers are declining and where there was previously mono-graded teaching.
- (iv) Schools in areas of population growth and school expansion where enrolment in upper grades remains small and teachers are few in numbers.
- (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.
- (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 mono-grade teaching but where the actual number redeployed is less.

(x) Schools in which learners are organised in multi-grade groups rather than mono-grade 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 (Kyne, 2005).

2.7.1. Multi-grade as “necessity”

In cases where multi-grade arises out of necessity the determining factors are socio-economical, geographical or cultural which might include teacher supply, teacher deployment, teacher shortage, teacher migration, teacher absenteeism, decline in learner enrolment, class sizes, lack of professional training and development and lack of professional support (Jimana, 2012; Mulkeen, 2010; Appleton, Morgan & Sives, 2006; Bennell & Akyeampong, 2007).

2.7.1.1. Teacher Supply

Multi-grade practice is to supply teacher quotas on the basis of the number of learners enrolled in a school. A lack of the required number of students in the schools in remote and rural areas of the country often results in the inadequate supply of teacher quotas for the number of classes (Aryal, Neupane, Luadari &

Bhattari, 2004). The problem of teacher supply has taken different forms in developing countries which impacts on the number of unqualified teachers to pupils' ratio. For many developing countries it is difficult to hire teachers for each grade level due to budgetary constraints and lack of resources (Bennell & Akyeampong, 2007). One of the reasons is lack of availability of teachers who are willing to work in sparsely populated and remote rural areas (Taole & Mncube, 2012). Mulkeen (2010:116) is of the opinion that the inadequate teacher supply of qualified teachers results in a large scale use of unqualified teachers in primary schools. For example in Peru in the Andean Department of Apurimac, more than 85% of teachers in one-teacher schools have had no teaching qualifications (Ames, 2006). In the Tambo region in the Central Rainforest, one-teacher schools are staffed by local teachers who have had only some years of primary schooling plus a few summer vacation courses (Ibid).

Currently South Africa is not producing sufficient new teachers to meet the demands of the schooling system. It is estimated that between 12000 and 16000 new teachers are required annually by the system (HSRC, 2010). In 2008 fewer than 6000 new teachers were produced in South Africa (Ibid). However, the foundation phase teacher production has been identified as an area needing urgent intervention (DBE & HET, 2011:15). On the supply side international figures indicate a net annual loss of teachers from South Africa on the annual number of graduates from initial teacher education programmes who make themselves available for employment for the first time (DoE, 2011). But this graduate output is reduced by the number of students who choose not to teach or not to teach in South Africa. A further variable that affects teacher supply is the number of qualified teachers who are not currently employed in

education. The perceived causes include diminishing interest in the profession, unwillingness to work in rural areas and uncertainty about where new teachers would be placed after qualification (Taole & Mncube, 2012).

While the obvious long term solution is to increase the supply of trained teachers, most developing countries have little option but to allow recruitment of unqualified teachers (Juvane, 2007). Recruitment of unqualified teachers might firstly provide an immediate solution to shortages and secondly it can reduce wastage. In some countries teachers who are trained never actually enter the teaching profession adding to the statistics of the phenomenon known as “wastage” (Mulkeen, 2010:58). Thirdly, it might help to recruit teachers from rural communities and may contribute to reducing inequities of deployment. However, there is a legitimate concern that the use of untrained teachers may reduce the quality of teaching. To that end the inadequate supply of teachers as per the fixed learner teacher ratio and inadequate numbers of classrooms might force the use of combined teaching as a reality.

2.7.1.2. Teacher Deployment

Teacher deployment is teacher distribution - by implication it is getting teachers to the right places. In principle there are two main approaches of teacher deployment. The first approach is planned deployment where education authorities assign teachers so as to respond to an assessment of need (Bennell & Akyeampong, 2007). The second teacher deployment involves allowing teachers to apply for jobs in specific locations thus deploying themselves (Appleton et al. 2006). Planned deployment is most commonly arranged in a two level manner where central authorities deploy teachers to a region or a district and the district deploys teachers

to specific schools (Mulkeen, 2010:74). Teacher deployment has a number of implications. Firstly, it is likely to result in a loss of qualified teachers from primary level where they might be replaced by untrained teachers.

Secondly, deployment systems are likely to be weakened by poor ability to enforce deployment as teachers either fails to take up the unpopular posts or quickly arrange to leave the posts. Mulkeen (2010:125) is of the opinion that the cumulative effect of these is a greater number of unfilled posts in remote areas and less experienced staff. In Eastern Cape 60 820 educator posts were declared in 2012. According to Eastern Cape Department of Education (ECDE) (2013) there are 6 781 additional permanent educators and 8 825 substantive vacancies. While ECDE (2013) has managed to declare posts for two consecutive years in the province, the distribution of educators in excess across the province has not yet taken place. Thus the problem of teacher shortages still persists in exacerbating tensions in the schools that are likely to create multi-grade classes in the meanwhile.

2.7.1.3. Teacher Migration

Literature reveals that developed countries primarily the United Kingdom, Canada, Australia and the United States are actively recruiting teachers from developing countries including South Africa to meet their own needs for teachers (Bennell, 2004; Appleton, Morgan & Sives, 2006; Higgins, 2007). Recruitment of teachers from developing countries has become a popular solution to rectify a shortage of teachers in many industrialised countries at the expense of the developing countries (Mulkeen & Higgins, 2009). However, the reasons teachers cite for migrating to other countries include among others, higher salaries, opportunities of travel and professional development which are “pull” rather than “push” factors (Appleton et al., 2006;

Bennell, 2004). Usually the more qualified and more experienced teachers are targeted by recruitment efforts in developed countries to serve in their schools leaving a “brain drain” in the developing countries (Commonwealth Secretariat, 2005).

It is argued that the “brain drain” of teachers to other developed countries is negatively impacting on teacher supply and retention in a growing number of developing countries (Commonwealth Secretariat, 2005). It is further stated that this international recruitment often leaves the developing countries with insufficient teachers to staff their own education systems. The basic determinants of demand in South Africa are the number of teachers leaving the system and needing to be replaced and the number of teachers required because of increased or decreased learner enrolment (DoE, 2007:10). The two exceptional factors that affect aggregate requirements are the unusual mortality rate and the large scale migration of families from rural areas to urban areas and metropolitan centres which reduces the demand for teachers in some provinces. HSRC (2011) indicates that approximately half of all rural districts in South Africa undergo a net loss of population due to rural-urban migration. This can have an impact on the quality of teaches left in remote rural areas. To that end the school system might rely more on less qualified teachers with less experience resulting in a decrease in the quality of education. In such situations of teacher migration, the viable option for education systems of the developing countries becomes multi-grade teaching.

2.7.1.4. Teacher loss

One of the key principles in managing teacher supply is an understanding of teacher attrition. Teacher attrition is the number of teachers leaving the profession for any

reason including retirement, illness, death, resignation, or movement to non-teaching posts (Mulkeen, 2010). ECDoE (2009) cited in Jimana (2012:19) claims teacher attrition or “teacher loss” occurs when a school loses a teacher either through attrition or mobility/migration/turn-over. Attrition refers to change of career, retirement, dismissal, illness or death whereas mobility refers to the transfer or movement of teachers from one school to another school local or International (Ibid). Teacher loss could either be permanent or temporary that is the teacher leaving the school or the profession or temporal teacher is on leave or attending workshop (Ibid). Bennell (2004) adds that teacher loss can be either voluntary or involuntary. Voluntary teacher loss includes resignation, early retirement or transfer, while involuntary teacher loss includes death illness, dismissal. According to Bennell (2004) there are five main types of teacher loss: departure of teachers at school level, movements of teachers between public and non-state schools, teacher upgrading, occupational attrition (teachers leaving the profession to take up other jobs) and international migration. One of the strategies employed in times of teacher loss is multi-grade teaching (Jimana, 2012:129).

2.7.1.5. Teacher Absenteeism

Evidence shows that the establishment of multi-grade classrooms is due to teacher absenteeism for a number of different reasons (Mulkeen, 2010). Different types of absenteeism can be distinguished as non-discretionary absence, discretionary absence and employer initiated (Ibid). In the case of non-discretionary absence a teacher is unable to attend class as a consequence of factors beyond his control. Typical example of such factors might include severe illness, injury or failure of public transportation systems. Discretionary absence is teacher initiated in cases

where the teacher could attend school but chooses not to (Bennell & Akyeampong, 2007). Examples might include attending community or cultural activities such as weddings, funerals or having a second job. In employer-initiated absence the teacher is absent because of actions of the employer whether it be school or educational administration (Bennell & Akyeampong, 2007). Examples might include attending courses or workshops during tuition time, or marches for a variety of benefits such as increase in salary or transfer and redeployment or simply because the teacher does not feel like attending school.

Bennell (2004) maintains that although most teacher absenteeism may be for valid reasons and justifiable, whether planned or unplanned it creates a host of problems. Amongst those problems is that classes are often not taught which creates a heavier load for the remaining teachers who have to combine classes (Jimana, 2012:133). For Vithanapathirana, (2006) where teacher absenteeism is high it undermines the quality of education as learners are left to study alone. In countries where absenteeism is high and there is no 'cover'; grades may be combined to avoid having a class with no teacher present (Joubert, 2007). Therefore high teacher absenteeism can result in schools opting for multi-grade teaching and in such cases multi-grade teaching becomes an unavoidable reality.

2.7.1.6. Teacher Shortage

Although teachers are the largest single occupational group and profession in South Africa numbering 425 167 in public and private schools (DBE, 2013); presently, South Africa is facing difficulties in recruiting and retaining teachers which in turn leads to a teacher shortage. Most research studies indicate an impending shortage

of teachers in the country although its magnitude and timing is a matter of debate. Teacher shortage is not only experienced in scarce skills learning areas such as Maths, Science and Technology in but is also reported by Foundation and Intermediate phases in the system (DoE, 2007:11). The South African Ministry of Education noted a shortage of qualified and competent teachers in multi-grade classrooms (DoE, 2005). Evidence in South Africa has shown that multi-grade teaching is a response to a number of necessities such as teacher shortage and fluctuating learner enrolment (Van As & Joubert, 2007; Boonzaaier, 2009; Jimana, 2012).

One of the consequences of teacher shortage has been teacher migration of teachers trained in primary level into secondary schools (Appleton, Morgan & Sives, 2006). The relative decline in working conditions and reduced morale are some of the factors that cause a concern in relation to practising multi-grade teaching (EFA S.A. Report, 2010). Given the qualification profile of the teaching force, most South African reports indicate that the majority of teachers have not yet been sufficiently equipped for multi-grade classrooms (DBE & HET, 2011). In countries where there is teacher shortage, the few teachers available have to be distributed amongst the schools. Since multi-grade schools often serve small isolated communities these schools and communities always end up with the poorest qualified teachers (EPC, 2011: 21). Therefore, chronic shortage of teachers is a reality that demands the application of an alternative approach to teaching and learning.

2.7.1.7. Class sizes

The variables affecting the need for teachers in schools are amongst others the teacher: pupil ratio and the number of learning areas (DoE, 2007:10). Ministries of

Education in most countries have set a ratio of learners to educators. Amongst a number of other factors that influence the existence of multi-grade schools are class sizes which can reach more than 75 students in one classroom (Little, 2008). Looking at the fluctuating learner enrolment; the number of teachers relative to students in some African countries is generally very low (Mulkeen, 2010). More than 60% of Sub-Saharan countries have more than 40 pupils per teacher in class (Adededeji & Olaniyan, 2011:41). In situations in some countries where ratios are less than 40:1 there is a wide disparity (Brunswic & Valerien, 2004). For example in Nigeria the ratio is much higher in the northern region than the southern region of the country (Adededeji & Olaniyan, 2011:44). Some countries such as Chad, Rwanda and Mozambique have ratios exceeding 60:1(EPC, 2011). Despite the national ratio of 35 learners per teacher some multi-grade schools in Namibia have up to 100 learners in one class (Titus, 2004:21; Siririka, 2011). The number of teachers needed in South Africa is governed by the need to maintain predetermined levels of educators relative to the learner population.

The current target of Department of Basic Education is one educator to every 40 learners in ordinary primary schools. The learner to educator ratio is used as a proxy indicator for the quality of education as it is assumed that fewer learners per educator will result in greater contact between the two and lead to enhanced learning. It is generally accepted that the lower the learner educator ratio (L: ER); the more contact an educator might have with a learner during the teaching and learning process (DBE, 2013). Despite the DBE success in reducing class sizes in historically disadvantaged schools the stress is now on the uneven distribution of teachers across the provinces and specifically in rural areas where there are quantitative

teacher shortages in multi-grade schools. Currently the average ratio of learner to educator is 30.4 to 1 (Ibid). The table clearly indicates the fluctuating learner enrolment that affects the learner educator ratio. South African public schools and independent schools are compared to show the learner educator ratio from 2005 to 2012.

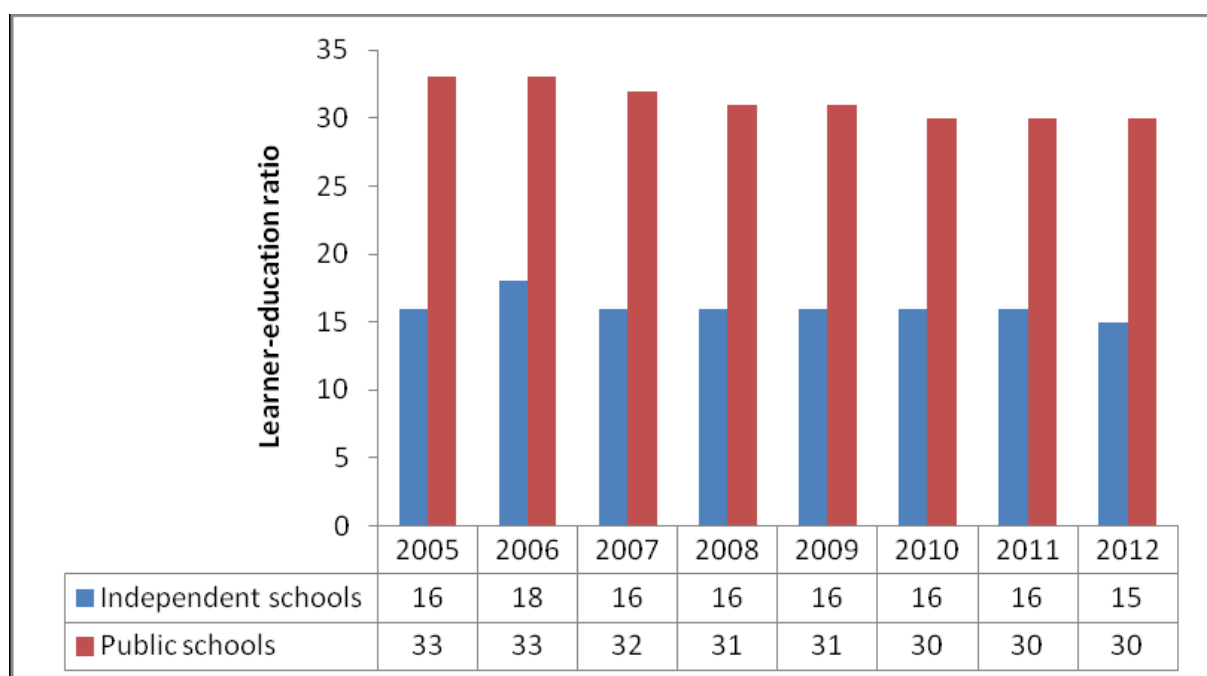


Figure 3: Comparison of learner: educator ratio in independent schools and public schools from 2005-2012 (DBE, 2013).

Looking at the figure above South Africa saw a slight decrease in the LER for ordinary public schools between 2005 and 2012 from 33:1 in 2005 to 30:1 in 2012. The reduction of learner to educator ratios has been a strategic objective of the DBE and funding for this purpose was secured in 2009, mainly to provide support to targeted schools in the form of additional posts. However, the aggravating factor is

that the DBE provision of teachers is based on the number of learners rather than on the number of grades the school offers. The fluctuating number of learners often results in the creation of multi-grade classes in urban and suburban settings. Thus, class size and the low number of students statutorily justifies the employment of multi-grade teaching as an alternative instructional approach to teaching and learning.

2.7.2. Multi-grade Teaching as a “choice”

In cases where multi-grade teaching arises out of choice the determining factors are pedagogical reasons. The terms “vertical groupings”; “ungraded”; “non-graded”; “family grouping” usually refer to settings arising through pedagogic choice. In developed countries multi-grade teaching which arises out of choice is linked to the multi-age perspective (Berry & Little, 2006).

2.7.2.1. Pedagogical

In cases where multi-grade teaching arises out of pedagogical choice; the decision is made by policy makers and teachers to adopt a multi-grade arrangement for pedagogical reasons (Little, 2006:31). For example in England multi-grade teaching was deliberately adopted to implement child-centred approaches in which learners learn through social interaction with learners in different grades. Proponents of mixed age grouping argue that there is sound pedagogical reasoning for placing students of different ages together in the same room (Pridmore, 2007). Mixed age classes it is argued stimulate social development and encourage greater classroom participation (McEwan, 2008). As the school resembles a “family” setting (Brunswic & Valerien, 2004; Pridmore, 2007); learners can learn from their peers. Multi-grade teaching has

social benefits, a richer learning environment and a greater community involvement (Commonwealth Secretariat, 2005). Vithanapathirana (2006) confirms that certain education systems deliberately adopt multi-grade teaching considering the advantages that can be drawn from the practice. One of the advantages of MGT is that it could offer a solution because it allows small schools to operate in rural areas (Ibid). By bringing the school closer to the community, more children are encouraged into learning. Beukes (2006) stated that multi-grade teaching has cognitive and non-cognitive effects on learner performance. Multi-grade teachers were more likely to employ group-work than mono-grade teachers (Ibid). There is also literature pertaining to the evidence of non-cognitive effects in multi-grade classes where social values were operational in learners of different grades (Colbert, 1993). In a nutshell, multi-grade teaching also exists as a pedagogical response to increase access and retention, as a strategy to address teacher shortages particularly in small schools and as a deliberate response to educational problems in most developed and developing countries.

2.8. The South African Context of Multi-grade Teaching

An overview of the education system in South Africa shows that South Africa comprises nine provinces with schools categorised as independent schools and ordinary schools. A public school is one such as is contemplated in Chapter 3 of the South African Schools Act No 84 of 1996 while an independent school is one registered, or deemed to be registered, in terms of section 46 of SASA No.84 of 1996. Independent schools are established by private persons/ organisations and must be registered with Provincial Education Department (PED) (DBE, 2013). Public

and independent schools are herein collectively referred to as ordinary schools. Figure 4 and Table 3 below show the number of ordinary schools in South Africa per province, in 2013.

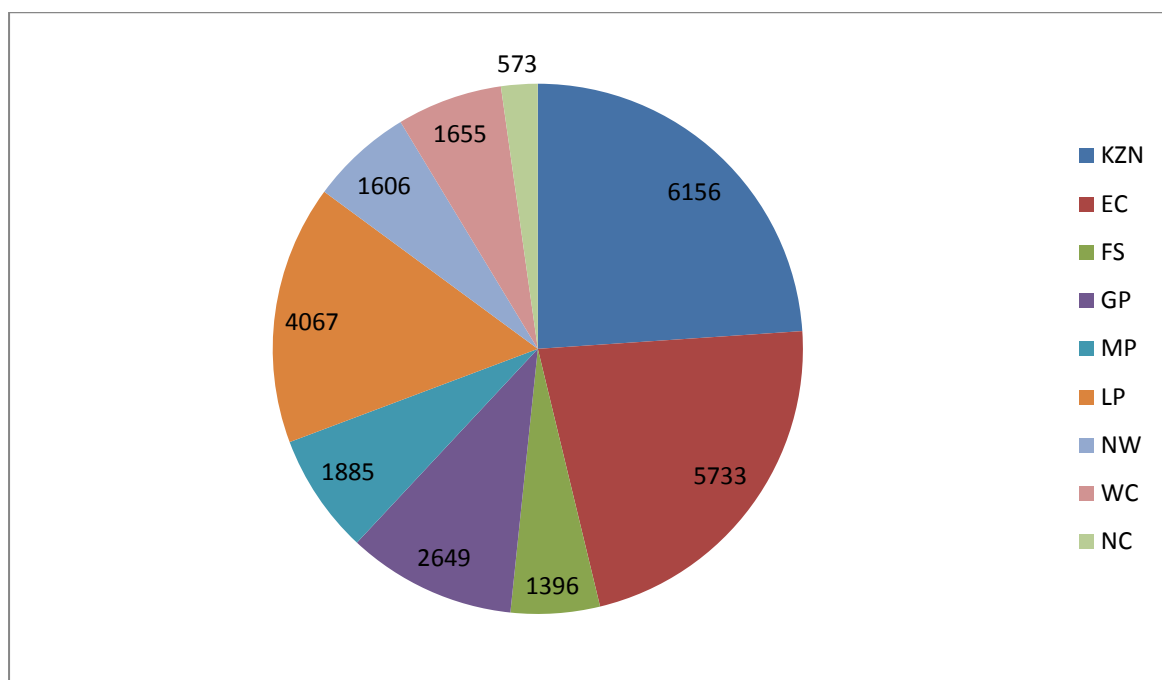


Figure 4: Number of schools in ordinary school sector, by province, in 2013(DBE, 2013).

In 2013 there were 25 720 schools in the ordinary school sector in South Africa. Of these the majority of schools 6156 were found in KwaZulu- Natal followed by Eastern Cape with 5733 while the Northern Cape at 573 had the lowest number of schools. Figure 4 and Table 3 reflects a slight increase in the number of schools in 2012 and a massive decrease in the number of schools from 2012 to 2013 with a difference of 106 schools. The slight decrease might be caused by the number of schools that closed or merged due to multi-grade practice.

	Learners			Educators			Schools		
Province	2011	2012	2013	2011	2012	2013	2011	2012	2013
EC	1963578	1951523	1938078	68499	67936	66007	5755	5754	5733
FS	658010	661974	664508	24057	24826	24475	1437	1419	1396
GP	2022050	2075387	2129526	71532	73960	74823	2559	2611	2649
KZN	2847378	2877969	2866570	93266	94932	96057	6180	6176	6156
LP	1695524	1715778	1714832	58016	57670	57108	4073	4078	4067
MP	1046551	1054783	1052807	34623	34664	34936	1931	1920	1885
NC	274745	277494	282631	8899	8864	8972	611	580	573
NW	765120	775142	788261	25897	25924	26194	1669	1645	1606
WC	1015038	1038019	1052435	35819	36389	36451	1636	1643	1655
S.A.	1228799	1242806	1248964	42060	42516	42502	2585	2582	25720
	4	9	8	8	7	3	1	6	0

Table 3: Number of learners, educators and schools in ordinary sector schools, by province, from 2011-2013 (DBE, 2013).

Table 3 indicates the number of learners, educators and schools in the ordinary school sector, by province in South Africa from 2011 to 2013. In 2013 there were 12 489 648 learners in ordinary schools who attended 25 720 schools and were served by 425 023 educators. From the figures reflected above it can be deduced that from 2011 to 2013 the number of learners and educators nationally increased by 1.6 % and 1.0% respectively while the number of schools decreased by 0.5 %. The Eastern Cape is the only province that experienced a drop of 2% in learner and educator numbers in 2013. Table 4 reveals the number and percentage of learners, educators and schools in ordinary school sector by province in 2013. It further shows

that the highest percentage of learners, educators and schools in the ordinary sectors occurred in KwaZulu-Natal and Northern Cape respectively. The highest percentages occurred in KwaZulu-Natal at 23.2%, Gauteng follows at 16.7% and Eastern Cape at 15.7%. The Northern Cape at 2.2 % has the lowest percentage of the national total. The table also shows that the Eastern Cape is the only province that experienced a drop in learner and educator numbers. The decrease in the number of learners inevitably results in multi-grade classroom practices.

Province	Learners	Percentage	Educators	Percentage	Schools	Percentage
Eastern Cape	1 938 078	15.5	66 007	15.5	5 733	22.3
Free State	664 508	5.3	24 475	5.8	1 396	5.4
Gauteng	2 129 526	17.1	74 823	17.6	2 649	10.3
KwaZulu-Natal	2 866 570	23.0	96 057	22.6	6 156	23.9
Limpopo	1 714 832	13.7	59 108	13.4	4 067	15.8
Mpumalanga	1 052 807	8.4	34 664	8.2	1 885	7.3
Northern Cape	282 631	2.3	8 864	2.1	573	2.2
North West	788 261	6.3	25 924	6.2	1 606	6.2
Western Cape	1 052 435	8.4	36 389	8.6	1 655	6.4
South Africa	12 489 648	100.0	425 023	100.0	25 720	100.0

Table 4: Number and percentage of learners, educators and schools in ordinary school sector, by province, in 2013 (DBE, 2013).

Education in ordinary schools is grouped into either the GET or FET band or the traditional primary or secondary phases. The GET band caters for Foundation phase Grade R-3; intermediate phase grades 4-6 and senior phase grades 7 to 9. The FET band caters for Grade 10 to 12 learners, excluding learners in FET Colleges.

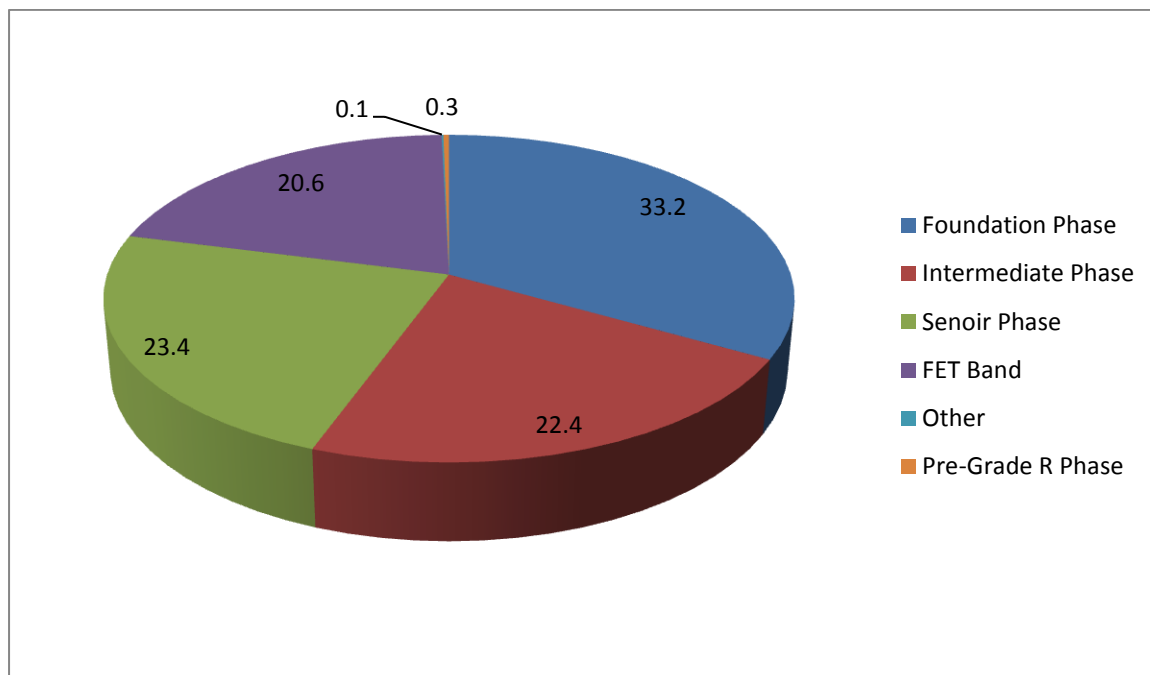


Figure 5: Percentage distribution of learners in ordinary schools, by phase, in 2013 (Education Statistics, 2013).

Figure 5 above reveals that the highest proportion of learners in ordinary schools nationally are located in the foundation phase (33.2%) followed by the intermediate phase and the senior phase at 22.4% and 23.4% respectively. Pre-Grade R is at 0.3% while and other phases share 0.1%. Grade R refers to the reception years for learners before entering grade 1. Pre-Grade R and grade R were introduced by government to address the school unpreparedness of learners entering grade 1.

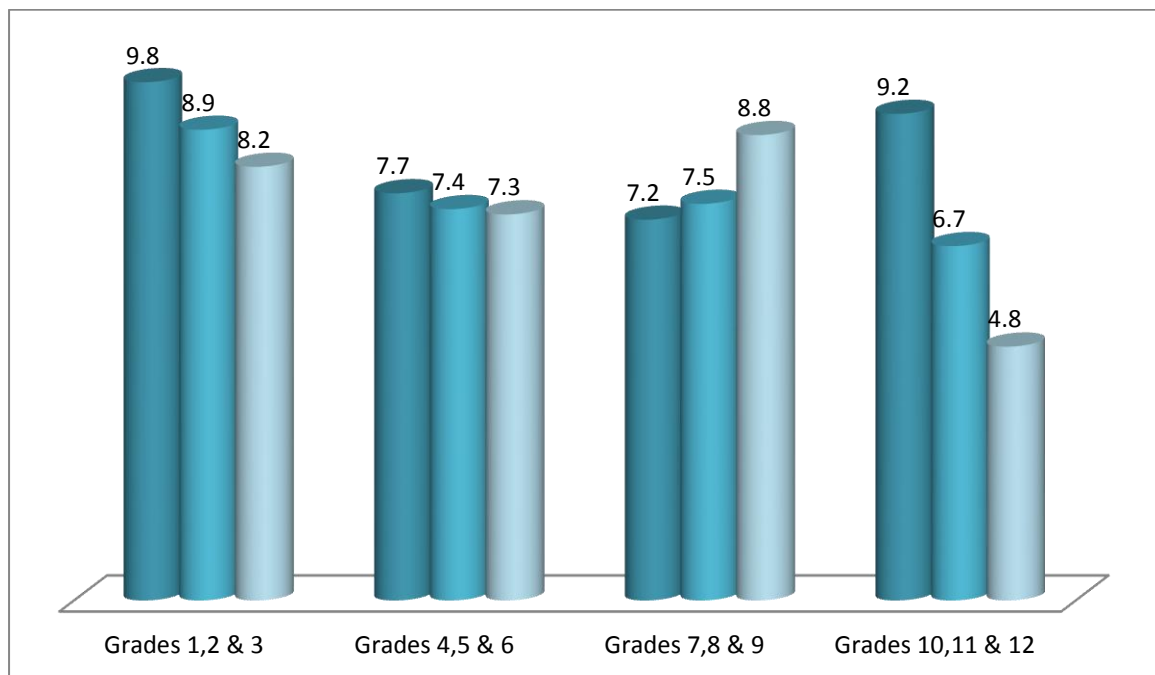


Figure 6: Percentage distribution of learners in ordinary schools by grade, in 2013 (DBE, 2013).

Figure 6 indicates that the enrolment is generally high in Grade 1 at 9.8 % and declines as learners move to higher grades within the schooling system with 4.8 % in Grade 12. Available evidence shows that multi-grades occur across the education system from primary schools (Grade R-7) through to high schools (Grade 8-12) (DoE, 2009). Although multi-grade teaching is practised at both primary and secondary school level, the bulk of cases of multi-grade schools are at the primary level.

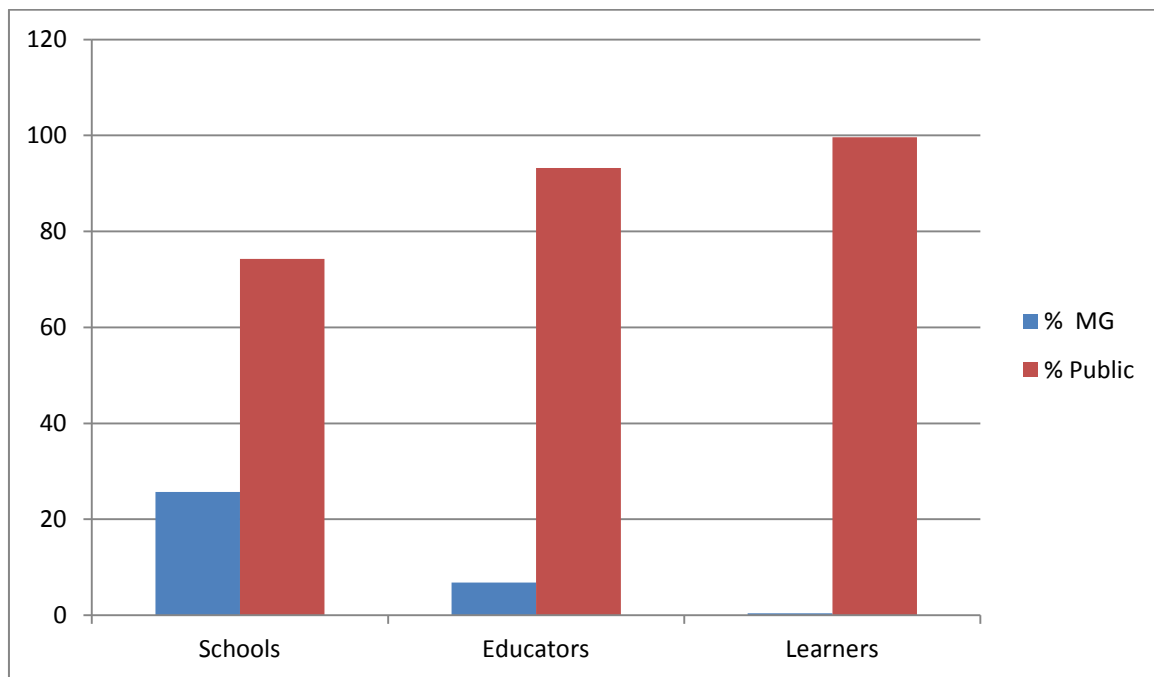


Figure 7: Percentage distribution of schools, educators and learners at multi-grade schools compared with public schools in 2010 (EPC, 2011).

Figure 7 gives an overall picture of the multi-grade situation in South Africa and the percentages of schools, educators and learners compared with public schools in the country. These schools are inaccessible and learner enrolments are low and MGT is practised out of necessity. In a national total of 6665 multi-grade schools; such schools have less than 6 teachers and are likely to practise multi-grade teaching (DBE, 2012). The common assumption that multi-grade takes place only in rural schools is disputable taking into cognisance the number of multi-grades in highly urbanised provinces in the country. Despite the statistics provided the national education policy seems not to acknowledge multi-grade teaching as a reality. The unfortunate reality is that these schools form the most neglected part of the country's education system. Since there seems to be very little interest in multi-grade schools they are as Joubert (2007) puts it for the most are seen and treated the same as the normal schools.

2.9. Teacher Training on Multi-grade Teaching

Every country has its guiding principles for training and preparing teachers for the educational system but data on training levels are one of the few indicators, systematically collected about the teachers (Adedeji & Olaniyan, 2011:44). In addition there are a number of small studies of teacher training in multi-grade teaching (Suzuki, 2004; Van As & Joubert, 2007; Adedeji & Olaniyan, 2011; HSRC, 2011; McEwan, 2008; Mulkeen, 2010; Koulouris & Sotiriou, 2006; Berry & Little, 2006; Brown, 2009). Collectively, they came to the conclusion that if multi-grade is to be taught effectively teachers need to be well-trained and well resourced. However teacher development and teacher training in most developing countries is badly coordinated, poorly monitored and confusing (DBE, 2011). Of course there are now proven models for multi-grade teaching in both developed and developing countries such as Colombia's Escuela Nueva (EN), the Bhutanese Multi-grade Attachment Programme (BMAP) and Zambia's Ecole a Classique (ECU). Other countries such as Nepal, Samoa, Peru and Belize also made efforts to train teachers in multi-grade teaching.

2.9.1. Colombia's Escuela Nueva (EN)

The Escuela Nueva in Colombia is a well-known document a very successful example of an integrated approach to learning in rural multi-grade settings. The Escuela Nueva Programme started in Colombia in the early 1970s piloting methodologies and strategies for multi-grade teaching. The effectiveness of these methodologies and strategies has been followed in many countries and is replicated in countries as diverse as Egypt. Its approaches to the emphasis of the changed role

of the teacher, the variety of teaching and learning methods and self- study have been the subject of research for years. In 1975 Escuela Nueva - the New School programme - was organised in an attempt to address the problems of rural education which persisted in spite of the unitary school approach. The Escuela Nueva has evolved from a local community initiative to a national policy, resulting in the implementation of the programme in rural schools as well as in urban areas. According to Schiefelbein (1992) and Colbert, Chiappe, & Arboleda (1993), the Escuela Nueva Programme is usually run by one or two teachers per school and class work and assignments which are normally assigned to individual learners in a traditional single grade school are combined with group-work. Escuela Nueva Programme provides active instruction, a stronger relationship between the school and the community, and a flexible promotion mechanism adapted to the lifestyle of the rural child. Furthermore, it comprises four main components - curriculum, training, administration and community relations. Other components of the Escuela Nueva include curricula based learning corners, a library, a systematically integrated curriculum, in-service training, follow-up for teachers, and administrative strategies linking the school and the community (Psacharopolous,Rojas & Velez, 1993).

The Escuela Nueva programme assumes that the rural schools involved in the programme are multi-grade and that innovations in the curriculum and teacher training need to be organised with this type of school in mind. Student self-instruction, learning centres and teacher training are central to the multi-grade strategy adopted in these new schools in Colombia. Self- instructional guides are developed for children in grades 2 to 5. The self-instruction study guides are developed for children from grades 2 to 5 in four basic curriculum areas natural

science, mathematics, social studies and language. The guides contain sequenced objectives and activities and adopt a method which promotes active learning, cognitive skills, discussion, group decision-making and the development of application skills within the local environment. Learners work at their own pace which implies that even if they drop out of school for a time and return later to school; they can simply pick up where they left off (Scheifelbein, 1992). Having mastered the present objectives and activities, learners are then promoted to the next grade and thus do not repeat grades.

In-service teacher training is an integral part of the New School strategy. Each teacher attends three one week workshops over a period of one year with a series of follow up workshops thereafter. The first workshop initiates the teacher in the basic concepts and methods of the programme, the purpose of involving students in the organisation of the school, the use of learning centres and group work in the organisation of learning, and the mobilisation of community resources for the development of the school. All these objectives are written up as self-study units in a teacher's training manual and the teachers follow these, engaging in active learning, in exactly the same manner as children will follow their guides in the classroom.

The second workshop is on the use and adaptation of the children's study guide and takes place only after the school has been reorganised and the community mobilised. During the workshop teachers study the children's materials and learn how to use them for multi-grade teaching and "flexible promotion". Sets of materials for the children's use are delivered to the teachers during the workshop. The third workshop encourages the teachers to play their role using the library as a complement to the study guides and learning centres. The follow up workshops

known as local non- formal workshops and which are later formalised into micro-centres are organised monthly to exchange ideas, analyse problems and discuss results.

During the initiation workshops teachers visit a school which is effectively implementing the curriculum approach and which is operating as an effective community centre. Demonstration schools also play an important role in the learning of the multi-grade teacher. Both micro-centre and demonstration schools maintain a horizontal training network and are regarded as “decentralised in-service, low cost mechanisms to maintain quality in the process of going to scale”. The follow-up workshops are described as:

- *“A participatory experience where teachers could evaluate, create, enrich their own experiences, innovate, criticize, analyse and carry out projects for the improvement of the school and the community”* (Colbert et al 1993: 59).

Studies have evaluated the extent to which teachers improve their teaching practices following exposure to the training (Suzuki, 2009). In a large scale evaluation of the widely reported model of the multi-grade teaching of the Escuela Nueva of Colombia it was reported that three quarters of the teachers who introduced self-instructional techniques in Escuela Neuva multi-grade schools and who participated in 3 training workshops on multi-grade methodology were found better than the traditional rural teachers who did not attend the workshop (Colbert, Chiappe & Arboleda, 1993).

2.9.2. Bhutanese Multi-grade Attachment Programme (BMAP)

The Bhutanese Multi-grade Attachment Programme was to address teacher training in multi-grade teaching. Multi-grade teaching was seen as a key strategy and a way

forward for the new small schools in the Bhutanese education system. However, there was a short supply of teachers trained in multi-grade teaching. The Bhutanese developed the multi-grade attachment programme between a number of agencies and institutions in Australia and the University of England (UNE). An in-service training system has been established so that local pre-service training can be supplemented by annual training camps. By the mid to late 1990s the curricula of the primary schools had been adapted to the Bhutanese context. Blocks of placements over 6 weeks were supplemented by workshops at UNE which drew out implications and talked through observations. Each year up to 16 placement school communities are involved in the introductory, the first and the second placements (Ninnes, 2006). The programme is divided into three phases with the first phase beginning with organising dates and venues for the training of teachers. The second phase consists of six weeks in-service training which the Bhutanese spent in Australia. The third phase revolved around reporting, meaning reflection upon experience (Halloway & Maxwell, 2006).

In UNE the deficit model of training was not used as Bhutanese teachers were encouraged to take control of their own learning. Instead a post-colonial approach was practised as considerable power was given to Bhutanese teachers who documented their experiences in their professional diaries and who learn and work together thus establishing what Wenger (2007) terms Communities of Practice. BAMP contrast directly with the “one shot” model of continuing professional development which was heavily criticised. A one shot model usually has a single “shot” out of school experience most often led by experts (Ninnes, 2006). By implication training messages are delivered by experts to trainers who in turn

transmit the information to trainees of multi-grade teaching training programmes CPD remains a relevant classroom practice issue for Bhutanese teachers. Thus there is an expectation of active collaboration in the specific nature of INSET within multi-grade teaching. Focus is upon practice and materials supporting multi- grade practice. The Bhutanese work in pairs so that each person has another with whom to share immediate experiences in their own language.

2.9.3. Zambia's Ecole a Classe Unique (ECU)

Zambia also introduced multi-grade teaching as part of a consciously formulated project supported by the Ministry of General Education and Culture (Tambulukani & Silwimba, 2004). Known as Ecole a Classe Unique (ECU), this Zambian model had one teacher working with up to six grades simultaneously but the effectiveness of this approach was difficult to determine (Tambulukani & Silwimba, 2004). Multi-grade teaching was introduced to a number of Zambian primary schools in rural areas in the mid-1980s as part of a consciously formulated "project" supported by the Ministry of General Education and Culture and the Swedish International Development Authority. It started from a very small base in four schools in Mkushi district and was extended to a further 40 schools in 1986 and 50 in 1987. It was argued that multi-grade teaching would enable small schools with low enrolments in each grade to upgrade themselves to complete primary schools grade 7 without requiring additional classrooms and teachers (Tambulukani & Silwimba, 2004; Mulkeen & Higgins, 2009; Juvane, 2007; Lungwangwa, 1989; Brunswic & Valerien, 2004). Tambulukani & Silwimba (2004) ascertains that in Zambia 26% of schools reported that they had only one teacher for different grades in one classroom. Multi-grade classes involve

grouping learners in up to six grades in the same classroom (Birch & Lally, 1995). Such classes are known as *Ecole a Classe Unique* (ECU) in Zambia.

In-service training courses in multi-grade teaching were developed and mounted by the Malcolm Moffat Teachers' Training College (MMTTC). The MMTTC is the Zambian-designated institution for the formal in- and pre-service training of multi-grade teachers. Keen support was lent to the idea of multi-grade teaching by the principal, vice- principal and the multi-grade "coordinator" had some exposure to multi-grade teaching in Australia. Other "inputs" to the project consisted of language and maths texts and exercise books, follow-up seminars, inspections, evaluations and the incorporation of multi-grade teaching as part of the regular pre-service teacher training programme. Since most members of staff had had no experience of multi-grade there was anxiety and a general lack of enthusiasm for it. An evaluation of the four pilot schools and the College's involvement in teacher's training was undertaken by Lungwangwa (1989). Lungwangwa (1989) studied the impact of a pilot multi-grade teaching project in Zambia. He found that the introduction of multi-grade techniques resulted in a decrease in drop-out rates from school and an increase in enrolment. The evaluation addressed the extent to which the multi-grade system had enabled all children in a school catchment area to have access to the full primary level programme; the role of the teacher and the nature of his pedagogical activities in a multi-grade school (Lungwangwa, 1989:13-14).

Despite the obvious enthusiasm of the key individuals in implementing multi-grade teaching a number of problems have been encountered in the implementation of the training programmes. Lungwangwa's (1989) review notes that;

- By 1988 the multi-grade teacher education course had not been well integrated into the mainstream programme for teacher preparation.
- Multi-grade training has enjoyed the status only of an extra-curricular activity since its inception and has been time-tabled to occur during the "last few days before teaching practice commences".
- The lecturers involved in the multi-grade programme feel "overstretched" because their teaching loads are already full. They feel that the absence of special remunerations and formal training in multi-grade affects their recognition and status
- A scarcity of resources in the schools restricts what the trainees can do during their multi-grade teaching practice.
- Teachers at the pilot school felt a need for more in-service training in MGT even though they were given two weeks MGT training. They stated that training should be introduced during pre-service.

Despite the perceived constraints, however, MMTTC staff believes multi-grade can have some positive outcomes. Firstly multi-grade can enhance independent learning, and encourage teachers to adopt pupil centred approaches to teaching. Secondly multi-grade teaching can facilitate the revision of materials covered in earlier grades. Thirdly it can increase pupil interaction and contribute to the country's objective of universalising basic education

2.10. Efforts in MGT Training in other Countries

In most countries where multi-grade is prevalent attempts have been made to train teachers in multi-grade teaching in pre-service education or in-service education. Some of the countries that have trained and developed teachers in their education systems are Samoa, Peru, Nepal and Belize.

2.10.1. Samoa

Like some developing countries, Samoa has been facing the problem of teacher shortages due to redeployment and insufficient supply of primary teachers and the capacity to provide well trained and qualified teachers for a number of years (Common Wealth Secretariat, 2008). To meet the needs of Samoan primary teachers in multi-grade classrooms, the Ministry of Education, Sports, Arts & Culture adopted the Education Strategic Policies and Plan for 2006-2015. The Education Sector Project reported that in 2002 88 of 141 government primary schools (62%) had multi-grade classes which escalated to 64% in 2007 (Ibid). To support the quality of teaching, INSET training was provided. The trainings aimed at introducing the use of multi-grade, managing timetables and multi-grade classrooms. The participants were encouraged to develop the Action Plan on a short, medium and long term. The selection of trainers was aligned with the Ministry's concept of sustainability. The principals of the 141 government primary schools were selected as trainers. Not only did the principals co-ordinate, facilitate and conduct training on multi-grade teaching modules in their respective clusters; but they also were responsible for training teachers within their schools. Furthermore, the on-going

professional development of teachers was also their responsibility. Twenty one School Review Officers (SRO's) took up the role of supervisors in their respective districts. In 2006 all Primary Curriculum Officers (PCOs) were trained in multi-grade teaching; the trainers then trained the primary school teachers. In 2007 all 141 trainers trained from government schools were to carry out the training of 781 primary teachers (Common wealth Secretariat, 2008).

Recommendations	Module Content	Capacity Building
Short Term(2007-2008)	Coordinate & implement INSET and pilot multi-grade curriculum. Review training with multi-grade teachers	Principals, SROs, Primary Curriculum Officers
Medium Term	Up-skilling of school personnel by school principals	Teachers and volunteers
Long Term	Faculty of Education to develop a course on MGT. Finalise curriculum	Pre-service teachers and principals

Table 5: Portion of the Action Plan with regards to planning for multi-grade teaching training (Commonwealth Secretariat, 2008).

Table 5 above shows the portion of the Action Plan with regards to planning for multi-grade teaching for teachers in Samoan primary schools.

2.10.2. Peru

Ames (2004) states that Peru Teacher Training Colleges (Institutos Superiores Pedagógicos) show little concern for training new teachers to cope with multi-grade classes. The rural indigenous one -teacher schools do not have teachers with training and many such schools find it difficult to find even untrained teachers. They produce teachers trained mainly for urban one teacher pre grader schools. This reflects the orientation of teacher training in Peru towards teaching in well-equipped urban schools where there is one teacher per grade. Not only is this type of school in the minority but within the education system it is the most prestigious and the most lucrative (Ames, 2004). Nevertheless, there is a growing concern for improving the quality of primary school education for indigenous peoples in Peru, which has taken the form of a Ministry of Education directive instructing all Instituto Superiores Pedagógicos to offer training courses for indigenous teachers in intercultural bilingual education (Little, 2006). But the training does not encourage the development of new styles of pedagogy and classroom organisation which would enhance the tasks of the multi-grade teachers. Rather the new courses are designed to encourage teachers to adapt the content of the existing six grade curriculum, with its rigid system of grade promotion through formal exams (Ibid).

The training on these new courses is primarily concerned with developing a satisfactory methodology for teaching Spanish as a second language. The national curriculum is presented in terms of textbooks for each grade comprising lesson plans and structured in such a way that certain subjects or themes appear through all grades with appropriate levels of ability. However, a study in indigenous Amazon schools has shown that teachers appear to lack the ability to organise the official curriculum in terms of thematic units (Commonwealth Secretariat, 2010). They work

instead with each grade independently and may be dealing with several different topics with several different grades simultaneously (Ibid).

2.10.3. Nepal

Although there are fewer examples of multi-grade teaching being addressed within pre-service teacher training courses in some countries; a number of Asian countries such as Sri Lanka, Vietnam, Nepal and Belize have already embedded multi-grade teaching in their national teacher education and training curricula (Little, 2006; Ninnes, 2006; Pridmore, 2007; Vithanapathirana, 2006). MGT Training for Multi-grade teaching in Nepal (has been organised in a 3 layered cascade model (Suzuki, 2006). In-service training is one of the strategies for improving the knowledge and skills of teachers. When INSET training is delivered the cascade model is often used. The cascade model means that the training messages flow down from experts and specialists through a layer of personnel and eventually to teachers. Firstly, Master Training of Trainers (MTOT) is organised in six zones throughout the country. A Section Officer from the Primary Teacher Trainer Unit (PTTU) is the Master Trainer and three School Supervisors (SS) or Resource Persons (RP) from 6 districts participated as trainees. Secondly, District Training of Trainers (DTOT) is organised in their districts. Thirdly, Resource Centre Training (RCT) is organised in Resource Centres (RC). The trained School Supervisors or Resource Persons of DTOT return to their RC and train primary school teachers.

Training	Trainers	Trainees
MTOT(zones)	Section Officers, PTTUT	Selected Schools
DTOT(districts)	MTOT Trainers	Supervisors & Resource Persons
RCT	DTOT Trainers	Primary School Teachers

Table 6: Cascade structure of multi-grade teachers training (Suzuki, 2006).

Table 6 above indicates the 3 layered cascade structure of multi-grade teachers training in Nepal. The table shows that training messages were delivered from a top down structure from zones to districts, trainers to trainees and schools to teachers. On teacher training in Nepal the strengths of multi-grade districts were found to have been the skills related to classroom organisation, classroom management and preparation of timetable construction of self-study materials. Yet, transfer of teacher trainers lack of experts in multi-grade knowledge-bases of trainers and the low ability of the teachers to grasp the content of the training were identified as the major obstacles to the effective delivery of the training. But the delivery of the recurrent multi-grade training in the use of skills such as class control, time management and use of monitor and timetabling are considered useful for practising multi-grade teaching in the schools (Aryl, Nuepane, Luadari & Bhattari, 2004:11).

2.10.4. Belize

The first multi-grade research done in Belize suggested that teachers in multi-grade teaching assignments were seriously deficient both in content and teaching strategies and in approaches to multi-grade teaching. Many teachers are on trial or ask their colleagues for assistance in multi-grade teaching. Steps taken for multi-grade training for multi-grade teachers in Belize colleges were:

- Training was provided to the faculty members in multi-grade teaching
- Some faculty members participated in writing the content of multi-grade teaching materials
- The first draft of these materials was used by the supervisors to conduct workshops for principals and teachers in multi-grade schools
- These materials were also used to provide training for the Principals in a certificate programme for educational administration at the primary school level.
- The content of the multi-grade teaching modules were changed into distance learning materials
- A unit of multi-grade teaching was included in the Classroom Organisation and Management Course expanding it from 5 hours to 60 hours to offer this training through a distance learning mode rather than the face to face mode.

A common aspect in these training programmes is that modules are designed to address specific needs amongst multi-grade teachers and the contextual situation in which they teach. In other developed countries such as Finland multi-grade teaching is embedded in teacher education curricular (Tsolakidis, Sotiriou & Koulouris, 2005). In Asian countries like Vietnam multi-grade teachers are trained to give different lessons at the same time to students at different graded levels (Pridmore, 2007). Pridmore (2007) further states that multi-grade teachers are trained to deliver grade specific lessons simultaneously. In Sri Lanka modules are designed to develop teacher knowledge on multi-grade teaching and to address specific needs such as timetabling, classroom organisation and management, curriculum adaptation and resource development (Vithanaparathirana, 2006:1-12). Therefore, specific modules

on multi-grade teaching are incorporated in the teacher education and training programme.

2.11. Efforts on MGT Teacher Training in South Africa

Like many developing countries, South Africa made its own efforts in training teachers in primary schools to address the needs of learners of different grades combined in one classroom. The South African government has made education a key priority for the next 5 years to reach EFA goals by 2015. However, Brown (2010) maintains that multi-grade teaching is not specifically addressed in teacher education programmes in the majority of African countries although there are examples of ad hoc training schemes mainly at school level to meet the needs of the multi-grade teachers. In South Africa two examples wherein multi-grade practices were applied in the training of rural teachers were through Multi-grade Rural School Intervention (MGRSI) and Centre for Multi-grade Education (CMGE).

2.11.1. Multi-grade Rural School Intervention (MGRSI)

Many South Africans are not trained to teach in multi-grade settings during their initial teacher education and in-service education and training programmes in higher education institutions do not include multi-grade teaching as a curricula topic (Brown, 2009:65). A systemic survey of the special needs of multi-grade schools led to a report which emphasises the urgency of the intervention in this domain. The Ministerial Committee for Rural Education (DoE, 2005) discovered the difficulties

facing teachers dealing with multi-grade classes in implementing the curricula and pedagogies of rural schooling planned the same as in urban settings. The Rural Education Directorate of South Africa created a framework for closing and merging schools thereby resolving to eliminate multi-grade schools rather than developing and supporting them (DoE, 2009; EPC, 2011). Yet, the United Nations Children Education Fund (UNICEF)'s documentation clearly indicates that the solution is not to close these schools but rather to support multi-grade teaching in order to provide schooling in all situations where the alternative would be no schooling at all (UNICEF, 2010). The North West Education Department (NWED) developed a provincial response namely, Farm and Rural School Strategy which emerged and closed some schools (NWED, 2007). This is an issue of concern given that there are teachers and learners in these schools who require specific support given their multi-grade reality. Although closing and merging schools might minimise the need for multi-grade teaching; it is likely to remain a feature of rural schools. By closing or merging schools; in Boonzaaier's view (2009: 44) one may not only contribute to the drop-out rate of learners, but will consequently add to the cycle of poverty.

Instead of closing multi-grade schools, Beukes (2006) suggested the need for an intervention project with the intentions of improving multi-grade teaching in the Western Cape Province. As their contribution towards rural upliftment, the Western Cape Education Department (WCED) implemented the Multi-grade Rural School Intervention (MGRSI) in 2002 (Van As & Joubert, 2007:2). The reasons for addressing the needs for MGRIS with the intention of improving multi-grade rural districts of the Western Cape Province as identified by Beukes (2006:31) were as follows:

- The training of teachers for multi-grade classes does not meet the required standard in either quality or quantity.
- Among other constraints identified in multi-grade rural schools are teacher isolation, poverty and poor health of learners
- Assessments of learning at the end of grade 3 in 36 rural schools indicated that learners were already a good two years behind their counterparts in developed countries
- In-service training activities are often ineffective if they consist of a one shot activity or short term activities without any follow up support.

Based on the core programme theory of MGRIS according to Mouton (2003:8) quoted in Boonzaaier (2009:9) if teachers are trained to effectively manage and organise their multi-grade classrooms then the quality of education in multi-grade schools will improve. If teachers in these schools are trained to use, develop and apply learning programmes optimally with the support of Information Communication Technologies (ICT) then learners performances in reading, writing and mental maths will improve. The strengths of MGRSI were knowledge of e-learning, demonstration strategy, improvement in teaching strategies and communication in cluster context. However, the weaknesses of MGRSI were lack of sustainability, lack of commitment by schools, gaps identified with regard to teacher training, lack of structured follow-up and lack of focus on all learning areas (Boonzaaier, 2008:343). Although Boonzaaier (2008) identified the risks for MGRSI as availability of key staff, bureaucracy, and electronic communication medium; termination of MGRSI was however, inevitable. Boonzaaier (2009:351) found that other sustainable implementations of multi-grade strategies needed thorough follow up support. The

strategies followed by MGRSI such as the setting up of model schools, demonstration lessons, videos, training in relay groups, teacher guidelines and implementation of ICT linked well with international strategies.

2.11.2. Centre for Multi-grade Education (CMGE)

Recent developments in South Africa saw a change through the intervention of the Western Cape Education Department. A look at the current teacher training practices revealed that certain institutions are beginning to act in terms of preparing multi-grade teachers. One such effort is found at CPUT and the University of Venda which have incorporated multi-grade teaching aspects into initial teacher training programmes (Joubert & Van As, 2007). In an effort to protect the MGRIS, CPUT initiated planned and implemented a number of actions. CPUT established a centre for multi-grade education (CMGE) which specialises in training for multi-grade teaching in Africa.

The Centre for Multi-grade Education (CMGE) was established in 2009 through a grant from the Royal Netherlands government to enhance the development of multi-grade education solutions and to develop the capacity to make a significant difference to the situation of rural primary school children. To obtain the necessary information about multi-grade teaching in South African classrooms; the Centre for Multi-grade Education initiated baseline studies by collecting all relevant information from the nine provinces. One of the initiatives was the design and implementation of a university accredited course specifically aimed at rural multi-grade teachers. The CMGE also offers ACE in MGT and training up to doctoral level. Since the elimination of multi-grade schools was not a viable option, the South Africa Centre

for Multi-grade Education (CMGE) rolled out a large scale teacher training programme aimed at transforming teaching methods at multi-grade schools (www.cmge.co.za, 2012). South Africa's largest MGT teacher training multi-grade short course spearheaded by CPUT academics is changing the face of teaching. A large scale teacher training programmes aimed at transforming teaching methods at multi-grade schools has been rolled out (www.cmge.co.za, 2012).

	CPUT		IN-HOUSE
	2010/11	2011/12	
TEACHERS	104	324	MORE THAN 200 MP
DISTRICT OFFICIALS	16	27	
PROVINCIAL OFFICIALS	8		

Table 7: Number of teachers, provincial and district officials trained in multi-grade education in 2010-2012 (www.cmge.co.za, 2012).

Table 7 above shows the number of teachers, districts and provincial officials trained in South Africa in multi-grade teaching from 2010-2012. In the table the Department of Education acknowledges that CMGE trained the first cohort of 104 teachers, 16 district and 8 provincial officials. All were trained in multi-grade teaching in 2010/2011 in eight provinces namely, KwaZulu- Natal, Eastern Cape, Free State, Gauteng, Limpopo, Mpumalanga, Northern Cape and North West (DBE & HET, 2011:128). The second cohort of 324 teachers and 27 district and provincial officials were trained to support teachers in multi-grade pedagogy in 2011/2012. The third cohort of 140 personnel per province annually will be trained in 2012/2013 (DBE, 2012:31). DBE believe that the training will contribute towards continuing

professional teacher development and will ensure that teachers in rural and farm schools contribute to the achievement of the output goal of Action Plan 2014: Towards the realisation of Schooling 2025 such as improving the literacy and numeracy of grades 3, 6 and 9 learners in approximately 7000 multi-grade schools (DBE & HET, 2011:123). Despite the above initiatives South African initial Teacher Education Institutions (TEI) continue to train teachers for teaching in a mono-grade class context.

2.12. Teacher Training Programmes in Multi-grade Teaching

Different countries worldwide have developed teacher training programmes to assist and support teachers in multi-grade contexts. UNESCO (1988) produced multiple class teaching in primary schools: A Methodological Guide. A methodological guide for Multiple Class teaching in primary schools is a synthesis of material from guides produced separately in India, Japan, Malaysia and Nepal full of practical advice on teaching in multi-grade classes. Although full of practical advice on teaching in multi-grade classes, it is probably not intended for use as a primary teachers handbook but rather as a resource for the production of such a book in other counties. Principles and practical suggestions are presented on school and classroom organisation, teaching strategies and techniques, materials production, assessment and record keeping. The book adopts the position that multi-grade school organisation is a response to difficulties and shortages rather than being a practice to be recommended on educational grounds but it lists the advantages of the approach as well as the disadvantages. Many suggestions in this book are generally applicable rather than being purely of relevance to multi-grade classes.

In addition to the Commonwealth Secretariat multi-grade training materials, Miller (1989) developed *The Multi-grade Classroom: A Handbook for Small, Rural Schools* which has been reviewed in order to serve 3 general purposes:

- To provide an overview of current research on Multi-grade Instruction
- To identify key issues teachers face when teaching in a multi-grade setting
- To provide a set of resource guides to assist novice teachers and experienced teachers in improving the quality of instruction.

Because of the complexity of multi-grade teaching this handbook serves as a starting point for teachers who want to learn new skills or to re-skill themselves by refining those they already possess. The book is designed to be used as a research-based guide which includes the following modules: Review of the Research on Multi-grade Instruction; Classroom Organisation; Classroom Management and Discipline; Instructional Organisation, Curriculum and Evaluation; Instructional Delivery and Group; Self- Directed Learning and Planning and Using Peer Tutoring.

Collingwood's (1992) book "Multi-class Teaching in Primary Schools" is full of practical suggestions intended for use in a five day in-service workshop for multiclass teachers. The first part of the book begins with a brief review of difficulties and advantages of the multiclass teaching but consists mainly of seven chapters of advice profusely illustrated with concrete examples. This covers school and classroom organisation, planning, classroom routines, grouping, peer teaching and use of the local community. The second part is intended for organisers of such INSET workshops and suggests a timetable for the coverage of the first part of the book. Many of the suggestions are simply useful for good teaching practices. The

book would be of practical use to all teachers in mono-grade as well as multi-grade classes.

Birch & Lally (1995) produced a monograph with Vietnam as its context but with a wider application to Asia and the Pacific providing a theoretical overview of multi-grade teaching as well as practical guidance. In its overview, it stresses the political nature of all education and promotes a paradigm shift in educational thinking, teacher education and the role of the pupils, parents and the community in multi-grade teaching in issues relating to quality and evaluation. The monograph stresses practical issues such as organising the curriculum in which the author emphasises the importance of flexibility and integration, teaching- learning strategies, materials development and teacher training. The monograph concludes with a statement of the need for more research into methods and techniques of multi-grade teaching.

Vincent & Ley (1999) developed a handbook for teachers of Multi-grade Classes: Volumes One and Two are aimed at improving performance at the primary level. The two volumes reflect the shared experiences of countries with multi-grade classes. They are not intended to replace existing materials in use for formal teacher education programmes but it is for use in the in-service training of teachers working in multi-grade environments. Volume One comprises ten units each one consisting of common experiences, cases to be reviewed, activities to carry out, possible responses and a summary of what was learnt. The approach is essentially practical rather than theoretical and is designed to assist in dealing with day to day problems which multi-grade teachers face. Teachers are shown how they can acquire skills and strategies and the confidence they need to build the necessary partnership not only with the community but also with other teachers working in similar schools.

Suggestions are provided in the handbook on how to modify and adapt the national curriculum in order to accommodate different learners' learning styles, and to identify and obtain available teaching aids and the monitoring and evaluation of learners' progress.

The Commonwealth and ADEA Working Teaching Profession designed seven modules on MGT in a wide effort to assist countries to achieve quality universal primary education (Commonwealth, 2005). The modules were developed in Tanzania in 2000 and reviewed in Uganda in 2008. The book: "A Multi-grade Teaching Programme" consists of the following modules:

- An Introduction to MGT;
- Effective Teaching and Learning in Multi-grade Classrooms;
- Classroom Management and Organisation;
- Approaches to Teaching in Multi-grade Classes;
- Instructional Resources and Resource Management;
- Assessment and Evaluation;
- Planning a Programme of Instruction for Multi-grade classes.

The modules demonstrate what pedagogy is about and how teachers teach.

Other countries have developed a set of training modules that can be used for both self-study and face to face training (Berry, 2006). For example, the District Primary Education programme has in various states of India, in recent years organised in service training for multi-grade teaching (Blum & Diwan, 2007). Many Non-Governmental Organisations (NGOs) working in rural areas in India train teachers to work with combinations of grades in primary schools (Blum & Diwan, 2007). Nawab

& Baig (2011:166) argue that multi-grade courses have a positive impact on teaching and learning practices in multi-grade schools. However, the government has to play a key role in sustaining the implementation and the impact of multi-grade course strategies. In response to that call multi-grade teaching was implemented with varying degrees of success largely related to the provision of inputs such as training and materials in Cambodia (UNICEF, 2010). The two programmes Accelerated Learning and Multi-grade teaching were introduced in Cambodian schools in response to two associated problems a gap in enrolment and overage children (UNICEF, 2010:5). As a result multi-grade teaching has been applied since 2003 and now operates in ten provinces or municipalities.

In Sri Lanka various booklets have been produced by teacher education institutions for in-service training and at the University of Colombia teachers were trained in the theory and practice of multi-grade teaching (Vithapanathirana, 2006). McEwan (2008:323) in Latin America compared the 3 multi-grade reforms (1) the Colombia Escuela Nueva, (2) Guatemala Nueva Escuela (3) Chile's MECE. Each of these reforms endowed primary teachers and students with special training and instructional material and encouraged new kinds of instruction in rural classrooms with the goal of improving student learning. Yet, even with the best cases of intervention in multi-grade schools; multi-grade teaching was not fully implemented (Ibid). In countries such as England, Northern Ireland, Scotland and Wales where multi-grade teaching is a deliberate pedagogical choice the needs of multi-grade classrooms have been addressed indirectly (Marion & Kirby, 2009). The principle of curriculum differentiation in many pre-service training curricula has been used in teacher education courses (Joubert, 2007).

2.13. Conclusion

The chapter provided various arguments on the theoretical frameworks and conceptual frameworks on which multi-grade teaching is based. Critical perspectives on how theories of adult learning and development illuminate how adults can be supported when they engage in professional development. Both adult learning theories and constructivist learning theories shed light on understanding adult development and growth in order to support the development of adults' knowledge and skills. On one hand andragogy and constructivist learning theories provided a framework for understanding professional development and teaching in the classrooms. On the other hand they informed methodological approaches to this study. This study links the literature reviewed to vertical and horizontal integration of knowledge in classroom-based teaching practise. The practical opportunity to learn and create knowledge in interaction with colleagues vertically and horizontally in classroom-based settings is described in the theoretical framework chosen for this study. Also how opportunities are facilitated as the physical space for conversation in the Communities of Practise is mentioned. These opportunities for learning and knowledge creation are largely operationalized as interaction at schools, in classrooms, in meetings and training workshops.

CHAPTER 3: RESEARCH METHODS AND METHODOLOGY

3.1. Introduction

This study is intended to investigate teacher training in multi-grade teaching, delivery and transfer of such training in classroom practices. In this chapter the researcher hoped to achieve the purpose of the study by exploring the applicability of paradigmatic assumptions and qualitative research methods using a case study design. Therefore the researcher tried to describe, explain and justify the use of research methodology and adherence to ethical considerations. A pilot study was conducted as a preliminary investigation. An account of the field study is given highlighting sampling procedures, data collection methods, data collection process and data analysis.

3.2. Paradigmatic Assumptions

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). Neuman (2011:60) perceives a paradigm as an important theoretical construct for illuminating fundamental assumptions about nature. On the same line of thought Punch (2009:16) views a paradigm as a systematic set of beliefs and methods that provide a view of the nature of reality (ontology), the relationship between the researcher and

the reality (epistemology) and what methods can be used for studying reality (methodology). Putting it in simpler terms a paradigm is a way of looking at the world and a set of assumptions about the world and how it should be understood and studied. Neuman (2011:62) states that there are certain philosophical assumptions which guide the way and direct the thinking and action as the researcher looks at the world. To look at the nature of reality, various paradigms can be employed. These are known as positivism and interpretivism.

3.2.1. Meta-Theoretical: Interpretivism

When people try to understand the meaning of their lives, Silverman (2010) suggests that the appropriate research paradigm is interpretivism. Cohen, Manion & Morrison (2011) advocate the interpretivist paradigm because of its nature to emphasise understanding and interpretation of the phenomena and to create meaning out of this process. Since the researcher attempted to gain insight, explore and describe the phenomena under study from the participants' point of view this study then falls within the interpretive paradigm. Interpretivism however has different meanings to different writers. To some scholars "qualitative research", "naturalistic inquiry", and "interpretivism" means the same. For example Punch (2009:29) subsumes interpretivism under qualitative research suggesting that "qualitative" and "interpretive" are interchangeable. In the same vein Neuman (2011) postulates that the term "qualitative research" is used synonymously for a number of research approaches associated with interpretive and critical science perspectives.

Berg (2007:107) maintains that there is a difference between qualitative and interpretive although qualitative methods are central to interpretive research. For

Leedy & Ormrod (2005:94) the qualitative approach to research is sometimes referred to as “interpretivism”, “constructivist” or “post-positivist”. Berg (2007) agrees with Leedy & Ormrod (2005) that the interpretivists paradigm resonates largely with a constructivist approach to education. Furthermore, Berg (2007:106) referred to their methodology of naturalistic enquiry as “constructivism” as he believes reality is a construction in the minds of individuals. Constructivists share the interpretivist emphasis on the world of experience as it is lived; however, Silverman (2010) makes a distinction between interpretivism and constructivism claiming they differ in epistemological assumptions and claims of methodology.

In spite of different interpretations there are claims that claim interpretivism is the opposite of positivism (Wolcott, 2009). Proponents of positivism hold the view that human beings behave in the same manner as matter or animals in that they react mechanically to external stimuli (Bryman, 2008:14). By implication positivists claim that human’s behaviour can be observed and explained in terms of their reactions. In contrast the interpretivists reject the assumptions made by positivists regarding the nature of human beings using the same philosophical base as used in studying physical objects or animals. Interpretivists contend that humans do not react to external stimuli but claim that human life can be understood within (Maree, 2011:59). Human beings are seen by interpretivists as active agents with notions of choice, free will and individualism (Flick, 2011). Furthermore, human beings are purposive and active and are involved in their life experiences (Ryan, Coughlan & Cronin, 2007:739). This implies then that humans are active conscious beings who make their own choices.

Positivists hold the view that what is regarded as truth are “facts” and that knowledge is verifiable by empirical evidence (Wolcott, 2009). Bryman (2008:15) also acknowledges that positivism entails a belief that only those phenomena that are observable can be warranted as knowledge. Scientific knowledge is arrived at through the accumulation of verified facts (Ibid). In contrast Babbie (2006) claims that qualitative research is not seeking to verify some truth but the goal of interpretivism is the grasping or understanding of meaning of social phenomena as individuals construct their own knowledge and make sense of their meaning. Interpretivism therefore concentrates on the meanings people bring to situations and behaviour and which they use to understand their world (O'Donoghue, 2007:16-17). In the light of the above perceptions Maree (2011:59) ascertains that in order to understand the meaning of reality, interpretivism assumes that reality is not objectively determined but socially constructed (Maree, 2011:59). Therefore, the researcher sought neither measurable or observable behaviours nor to verify some truth, but looked for meanings, beliefs, perceptions and intentions of the training of teachers in multi-grade teaching which are regarded as important in this research study. The interpretivist approach allowed the researcher to take account of the social context within which the phenomenon under study operates.

Interpretivists maintain that there are multiple realities and not a single reality of the phenomenon because the social world does not exist independently of human knowledge (Berg, 2007:105). Liamputtong (2010) is of the opinion that interpretive research assumes that “our knowledge of reality is gained through social constructions such as language, consciousness, shared meanings and multiple realities”. Therefore in the eyes of the interpretivists, knowledge is not static but is

constantly created, changed modified and developed through social interaction. The above view is justified through the multiple realities that the researcher sought through making use of multiple data collection sources and different contexts to gain a deeper understanding of the teacher training in multi-grade teaching.

To interpretivists humans interpret their world on their own based on what human beings know of the objects or people with whom they are interacting (O Donoghue, 2007:17). Therefore understanding is a precondition to correct interpretation. First, human actions are assumed to be meaningful. Second, interpretivists believe that it is possible to study social phenomena which are subjective in an objective manner. Third, interpretivists believe that the researcher is able to reconstruct the original meaning of the actions (Silverman, 2010). Thus, the researcher tried to make correct interpretations of what the participants were engaged in by looking at the emerging themes, trends and patterns of the data collected. However, one of the criticisms levelled at the interpretivist approach is that it maintains the status quo and produces a kind of social inertia (Kumar, 2011). Thus, the researcher's interpretation might play a key role in this study in bringing subjectivity to the fore with quality arguments.

3.2.2. Methodological Assumptions: Qualitative

Research methodology refers to an organized set of processes or procedures that are followed while executing a research project, thus referring to all the processes that take place whilst executing a research project and not being restricted to the research method section of a project (Kumar, 2011). The author further argues that research methodology directs the researcher in planning and implementing the study in a way that is most likely to achieve the intended goal (Ibid). Babbie (2006)

confirms that research methodology therefore assists in explaining the nature of the data, and highlights the methods employed that will lead to the generation of appropriate conclusions through applicable data processing. In terms of research methodology, two methods namely qualitative and quantitative approaches can be employed (Silverman, 2010:12). Each approach is characterized by specific paradigms, designs, data collection and analysis methods (Ibid). Depending on the nature of the study, the researcher may use either or both of qualitative and quantitative methods.

Although both approaches involve similar processes such as problem formulation, review of literature, collection and data analysis, these processes are carried out in different ways leading to distinctly different research methods. The terms “qualitative” and “quantitative” denote contrasting positions in relation to a number of research aspects. For instance quantitative researchers usually start with a hypothesis to be tested (Leedy & Ormrod, 2005:94). They isolate the variables they want to study, control the variables and use standardised procedures to collect some form of numerical data and use statistical procedures to analyse and draw conclusions from the data (Ibid). In contrast, qualitative researchers often start with a research question rather than specific hypotheses, collect an extensive amount of verbal data from a small number of participants, organise those data into themes and use verbal descriptions to portray the situation they have studied (Denzin, 2006). A qualitative approach was used to elicit information from participants’ viewpoints of their training in multi-grade teaching and how such training is transferred to classroom based teaching.

As a holistic and inductive approach where the researcher explored, understood and described the experiences of teachers trained in multi-grade teaching, a qualitative approach was chosen as suitable for the study. Qualitative research is referred to as naturalistic research into everyday living and direct observations made of human behaviour in everyday life (Berg, 2007:109). Qualitative designs are naturalistic inquiries to the extent that the research takes place in real world settings and the researcher does not attempt to manipulate the phenomena of interest (Denzin, 2006:39). Bryman (2008) contends that qualitative research methods involve prolonged immersion in or contact with the setting. Qualitative research seeks answers to questions by examining various social settings and the individuals who inhabit these settings (Ryan, Coughlan & Cronin, 2007: 741).

While Cohen et al. (2011:59) perceive qualitative research as a subjective approach used to describe life experiences and give them meaning; Creswell (2009:18) asserts that in qualitative research “claims of knowledge are based upon constructed perspectives from multiple social and historical meanings of individual experiences”. Leedy & Ormrod (2005:134) maintain that a qualitative approach looks at the narrative and descriptive nature of situations, relationships or people, dealing with the description of human beliefs, attitudes, thoughts, perceptions, emotions and feelings. Therefore, the researcher’s aim was to make sense of the participants’ meanings, perceptions and experiences. Denscombe (2004:103) acknowledges that a descriptive in-depth investigation will pull out what is happening within and among people’s daily experiences on the phenomena under study. The purpose of qualitative research as Leedy & Ormrod (2005:94) put it is to answer questions about the complex nature of the phenomena from the participants’ point of view. In simpler

terms qualitative research is therefore more concerned with the explaining “why” and “how” of a phenomenon rather than the “what”, “where” and “when” “how many” or “how much” (Yin, 2011). In doing the investigation the researcher was interested in the meanings attributed to concepts of multi-grade teaching and the research participants themselves rather than with the identification of cause- effect relationships.

Qualitative research is known for giving voice to people, to hearing peoples own personal narratives and for using the language of the participants(Liamputtong 2010:10). Since qualitative research relies heavily on ‘words’ or stories that people tell the focus of this research study was on the social world instead of the world of nature. Hence, Strauss (2005) emphasis on “voice and subjectivity” shows how an interest in subjectivity and authenticity of human experience is a strong feature of qualitative research. Essentially, qualitative research aims to capture lived experiences of the social world and the meanings people give these experiences from their own perspective (Ibid). Qualitative research uses detailed descriptions from the perspective of the research participants themselves as a means of examining specific issues and problems under study (Cohen, Manion & Morrison, 2011). Since description is done when little is known about the phenomenon under study (Berg, 2007:113), the researcher intended to unearth teacher training in multi-grade teaching as there seems to be little known literature about how they are trained.

The word “quality” in qualitative research usually relates to value and is associated with research with a small number of people but with more detailed valuable in-depth information being collected (Hammersely, 2011:288). Similarly, Strauss (2005)

maintains that qualitative research is an approach that utilises methods that seek to discern the quality as opposed to the quantity of its subjects. While quantitative studies tend to be associated with large scale studies qualitative studies use small scale studies. As qualitative studies require a small number of research participants (Silverman, 2010); therefore a small number of teachers trained in multi-grade teaching were sampled to participate in this research study.

Qualitative research is empirical research where data are in the form of words and images rather than numbers (Punch, 2009:3). Because quantitative research deals with numbers and statistics, it was not adequate to capture the insights of multi-grade teachers in multi-grade teaching as the researcher was looking for rich in-depth data of the participants. Thus, a quantitative approach was seen as inappropriate to address the research questions in this study. Findings in quantitative studies are communicated in numbers, statistics and scientific style; but the qualitative research reports findings in words, narratives and in literary style (Leedy & Ormrod, 2005:96). But, qualitative research is an approach that explores the richness, depth and complexity of a phenomenon and produces findings not arrived at by means of statistical procedures or by means of quantification (O Donoghue, 2007). The interpretive and flexible approach was necessary for this research study because the focus was on meaning and interpretation of teachers trained for multi-grade teaching in primary schools. Hence, the researcher attempted to present the results of the findings of this research study in the words and stories of students themselves using a qualitative approach.

Literature reveals that qualitative research includes a variety of research designs in the form of case study, ethnography, grounded theory, historical research, action

research and phenomenology. Various qualitative approaches have been considered by the researcher, but many approaches seem to be normative in design and were likely to be inadequate in addressing the purpose of this research project. For example, ethnography was likely to present difficulties in gaining access to the research venue and can be very costly to conduct. The research question of this research project renders grounded theory as inappropriate. Grounded theory is an approach dedicated to generating theories (Denscombe, 2004:110). In this sense it contrasts with approaches concerned with testing theories and is different from research whose main purpose is to provide descriptive accounts of the subject matter (Ibid). Phenomenology has its base in philosophy and is concerned with “lived experiences” as perceived by the individual. Action research might probably subject the study to unrestricted access to research participants and to potential researcher bias (Flick, 2011). Thus, a case study was chosen as a valuable approach to explore teacher training in multi-grade teaching.

3.3. Research Design: Case Study

Research design is the plan and structure of the investigation used to obtain evidence to answer the research questions (Simons, 2009:11). On a similar note Punch (2009:117) contends that research design is a plan or strategy which the data gathering techniques and the selection of respondents move from the underlying philosophical assumptions to specifying data collection methods to be used and data analysis to be done. In addition Thomas (2012:13) maintains that the research design is the logical sequence that connects the empirical data to a study's initial research question and ultimately to its conclusions. In simpler terms, Yin, (2009:20)

perceives a research design as a logical plan from “here” to “there” where “here” may be defined as the initial set of questions to be answered and “there” as some set of conclusions about the research questions. With particular reference to this research study “here” may refer to the research questions posed for the study while “there” may refer to some conclusions that will be drawn from the collected and analysed data. Between here and there were steps which included data collection and data analysis. Since, qualitative research is open to change and research design steps are not linear (Stake, 2005:443). The researcher went back and forth between the research steps and research issues.

In planning a research design Flyvberg (2006:234) warns that it is very important not only to select a viable research problem but also to consider the kind of data required and a feasible means of collecting and analysing such data. In taking heed of the warning, the researcher employed a research design that linked data to be collected to the main research question. The researcher used the case study to gather information about the training of multi-grade teachers in multi-grade teaching for the purpose of learning more about what Yin (2009:135) refers to as “unknown or a poorly understood situation”. In the word case study, the word case is taken from two similar-sounding Latin roots:

- capsā, meaning box and thus “case”
- casus, meaning event, happening, accident and thus “case” (Thomas, 2012:12).

While the first meaning of case is about the physical, concrete meaning of something “bounded”; the second meaning is of a case as an event, situation or happening and

means “it is the circumstances of the instance that are being studied” (Ibid). In a sense as Thomas (2012:13) puts it, “we have a state of affairs bounded by the case and we study the complexity of what is in there”. Punch (2009:120) identified characteristics of case studies as follows:

- The case is a “bounded system” meaning it has boundaries
- The case is a case of something
- There is an explicit attempt to preserve the wholeness, unity and integrity of the case.

Thomas (2012) agrees with Punch (2009) that a case study allows for an examination of a bounded system, a specific phenomenon, programme, process, event or institution but that it does not necessarily mean that one site only is studied. In this research study teachers trained in multi-grade classrooms in the selected small schools constituted the “bounded system”. The researcher also recorded details about the context surrounding the case being studied. These included the physical environment and any historical, economic or social event that had a bearing on the event. In Stake’s (2005:442) opinion a case study research comprises two parts; a subject and an object. The concept “study” in “case study” is described by Punch (2009:78) as to look at, go into or over, scan, examine, analyse, inspect, investigate, scrutinise, survey, observe, review and reflect on. For Flyvberg (2006:221) the term “case study” has multiple meanings as multiple definitions are found in the literature. Punch (2009:119) claims that case study research is a systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest. Stake (2005:443) puts it this way:

•*“Case study is not a methodological choice but a choice of what is to be studied....by whatever methods we choose to study the case. We could study it analytically or holistically, entirely by repeated measures.....and by mixed methods”.*

The case study as a research strategy comprises an all-encompassing method covering the logic of design, data collection techniques, and specific approaches to data analysis (Yin, 2009:14). In this sense the case study is not merely a research design nor data collection technique, but also a comprehensive research strategy. As a result Punch (2009:120) emphasises that a case study relies on multiple sources of evidence with data needing to converge in a triangulation fashion. Flyvberg (2006:221) acknowledges that the key strength of the case study method is the use of multiple sources and techniques in the data gathering process. Similarly, Thomas (2012:4) advocates that case studies must look at a three dimensional picture or what Foucault called a “polyhedron of intelligibility”. By this Foucault quoted in Thomas (2012:4) meant “By looking at our subject from several directions, a more rounded, richer, more balanced picture of our subject is developed and we get a three dimensional view”. Therefore, the case study in a qualitative research concentrates on many if not all variables present in a single unit (Yin, 2009). Furthermore, a case study is described as a research design best used to keep records of events for further analysis and reporting (Simons, 2009:21).

Simons (2009:21) sums up the definitions of the case study:

“Case Study is an in depth exploration from multiple perspectives of the complexity and uniqueness of a particular object, policy, institution, programme or system in a real life context”.

Wolcott (2009) warns that one cannot generalise from a case study. In other words a case study is an in-depth investigation into a specific and relatively small area of interest (Simons, 2009) and is not an intended study of the entire organisation but rather is intended to focus on a particular issue, feature or unit of analysis. Taking heed of Wolcott's (2009) warning a case study chosen as a research strategy in this study was about the particular case of teacher training with particular reference to multi-grade teaching rather than the general concept of teacher training. Thus, the unit of analysis for this research study was multi-grade teachers trained in multi-grade teaching. Despite its usefulness, a case study as a research design and a research strategy has its own limitations.

Criticism against case study methodology is frequently levelled against its dependence on a single case and it is therefore claimed that case study research is incapable of providing a generalising conclusion (Flyvberg, 2006:232). Yin also (2009:8) claims that the concern over case study research design is that it provides little basis for generalisation. However, it is not the intention of this research study to generalise, but rather to understand the case of multi-grade teaching in its complexity and its entirety as well as in its context. Another complaint about case studies is that it takes too long and results in massive unreadable documents (Flyvberg, 2006:232). Furthermore it has been criticised for the lack of rigour and objectivity (Ibid).

Yin (2009:11) also warns researchers who adopt case study to be conscious that their findings will be challenged. Since adopting the criteria proposed by Yin (2009:13) to overcome challenges; instead of seeking answers to questions "how much" and "how many" this case study design was used for answering the "how" and

“why” of the research questions. The case study for this research study provided a rich lens through which the researcher examined and scrutinised teacher training in multi-grade classes in an attempt to get to the heart of the delivery of training and transfer of such training in classroom teaching practise. By using a case study the researcher sampled teachers trained for multi-grade teaching in primary schools.

3.4. Sampling Procedure

Sampling is the process of selecting people with whom to conduct research (Silverman, 2010; Schumacher, 2006). In Babbie’s (2006) understanding the concept of sampling involves taking a portion of the population, making observations of this smaller group and then generalizing the findings to the population. There are two kinds of sampling known as probability sampling and non-probability sampling. As the name suggests, Denscombe (2004:12) states that probability sampling is based on the idea that people or events are chosen as the sample because the researcher has some notion of the probability that these will be a representative cross section of people in the whole population being studied. The qualitative approach uses small, information rich samples selected purposefully to allow the researcher to focus in depth on issues important to the study (Cohen, Manion & Morrison, 2011:110). Since qualitative studies require the use of relatively small numbers of samples, it was difficult for the researcher to choose the sample for the study on the basis of probability sampling hence the researcher chose non-probability sampling.

Non-probability sampling takes place in different forms; such as convenience sampling, snowballing and purposive sampling (Leedy & Ormrod, 2006:145).

Convenience sampling refers to the selection of subjects that can be easily accessible to the researcher (Leedy & Ormrod, 2005:145). With snowballing, the sample emerges through a process of reference from one person to the next (Denzin, 2006). In relation to purposive sampling the researcher deliberately selects specific people with similar characteristics as they are likely to produce the most valuable data (Denscombe, 2004:15). Therefore, purposive sampling seemed to be suitable for this research study.

3.4.1. Purposive Sampling

Purposive sampling is the sample selected on the basis of the purpose of the study (Ryan, Coughlan & Cronin, 2007:742). In a similar thought Maree (2011:79) believes that purposive sampling means that participants are selected because of some defining characteristics possessed by the holders of data needed for the study. Not only is purposive sampling a method that is applied when selecting a population with similar characteristics or particular qualities; but it also seeks information for rich cases for in depth study (Cohen, Manion & Morrison, 2011). Furthermore, it is used to ensure certain types of individuals displaying certain attributes that are included in the study (Berg, 2007:132). Therefore, the selection of the sample that participated in this study was purposive. Cresswell (2009:41) acknowledges that the smaller the sample, the richer the data analysis. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry thus the term purposeful sampling. The researcher looked for common characteristics from the participants who were sampled.

3.4.1. 1. Sampling Research Participants

In qualitative studies individuals are selected to participate in research studies based on their experiences of phenomena of interest (Hammersley, 2011). Although it would be ideal to investigate all the teachers trained in multi-grade teaching in South Africa; Creswell (2009:85) claim that the idea behind qualitative research is to purposefully select participants that will best help the researcher to understand the research questions. When a population is too large the researcher has no option but to draw a sample from the population to be studied (Strauss, 2005). As the purpose of drawing a sample from a population is to obtain information from the population, Strauss (2005) claims it is imperative that the individuals included in the sample constitute a representative cross section of the individuals in the population.

For Denscombe (2004:19) population refers to the entire group of persons who meet the criteria that the researcher is interested in studying. Bryman (2008:19) claims that the defined study population are individuals in the research study who possess specific characteristics. Sample size is critical because it provides the basis for the estimation of sampling error (Maree, 2011:79). A sample size may refer not only to a number of persons, but also to the number of interviews and observations conducted (Denzin, 2006). Although Berg (2007) addresses the issue of the appropriate number of participants, Denscombe (2004:8) recommends research participants of up to 10 people. However, decisions about the sample, both sample size and sampling strategy depend on prior decisions about the appropriate unit of analysis to study (O Donoghue, 2007:28).

The key issue in selecting and making decisions about the appropriate unit of analysis and the purpose of drawing a sample from the population was to obtain information from the population. Teachers who were included in the sample were participants who were trained in multi-grade teaching in multi-grade classrooms. For Babbie (2006:67) inclusion of criteria for the sample denotes characteristics that must be possessed by the element to be included in the sample. To that end two subgroups of primary school teachers were selected for participation. The first group consisted of six teachers teaching in multi-grade classrooms in the Foundation Phase. The second group of teachers comprised six teachers teaching in multi-grade classrooms in the Intermediate Phase. The exclusion criteria delineated teachers not trained in teaching in multi-grade contexts. Since purposive sampling is not only restricted to the selection of the participants but also involves the settings, incidents, events and activities to be included for data collection, the researcher also sampled the research site.

3.4.1.2. Sampling the Research Site

The research site is the physical location in which data collection takes place (Silverman, 2010:43). The ideal research field is one that is easily accessible, where cooperation with respondents can easily be achieved, where the researcher can move freely and where the required information can easily be obtained (Bryman, 2008:82). But, Cohen et al. (2011) claim that the researchers are sometimes tempted to use the field that can be most easily accessible instead of the field that is most relevant for the research endeavour. In addition they find the pilot study of importance when sampling a research site. By performing a pilot study of the actual

field to be studied, the researcher might find that some propositions and research questions are not practical and should be changed before the main study (Ibid). Researchers are not only interested in gaining physical access to particular settings (Sapsford & Jupp, 2006:69); but they are also concerned with observing the behaviour which naturally occurs in those settings. In the light of the above perceptions the researcher sampled primary schools that have teachers trained in multi-grade teaching. A detailed description of the research site as well as field notes on what was observed was recorded as non-verbal data. Having followed sampling procedures most important next was for the researcher to negotiate entry.

3.4.2. Negotiation of Entry

Access to the research site, as well as to research participants was negotiated through adhering to a series of procedures.

3.4.2.1. Access to Research Site

The researcher consulted all the stakeholders involved in order to accomplish the purpose of the study. The researcher negotiated access with a number of gatekeepers. Gatekeepers usually have positions of authority within the group or institution and can grant or withhold permission to conduct research in their particular sphere of authority (Sapsford & Jupp, 2006:64). Gaining permission to enter the field let people on the ground know what the project seeks to accomplish (Mertens & Ginsberg 2009:283). This might possibly involve lengthy discussions and negotiating a process which can be used as useful data (Ibid). To gain access to primary

schools practising multi-grade teaching, the researcher first sought permission from the Department of Education, the district director, school principals, heads of departments and teachers trained in multi-grade teaching. Approval to access schools practising multi-grade teaching and teachers trained in multi-grade teaching was obtained from ECDoE (see Appendix D). The purpose and the nature of the research study and the methods to be employed to collect data were explained in the hope that the gatekeeper might be interested and willing for the research project to take place. Furthermore, the gatekeepers were informed of the potential knowledge to be gained from the research.

Sapsford & Jupp (2006:68) claim that the gatekeepers may also be the subjects of research. They may be concerned to protect their own interests and the interests of the participants from any threat posed by the research (Ibid). One factor that influences the response of gatekeepers to access requests is their preconception of research and researchers (Punch, 2009). This may derive from any experience they may have had or the way the research is presented to them by others or by the media. Mertens & Ginsberg (2009) caution the researcher that sometimes conceptions of research and researchers may be negative and access may be denied. But on other occasions conceptions may be more positive and the researcher may be welcomed and given considerable assistance (Ibid). Therefore the researcher when negotiating access tried to influence the conceptions the gatekeepers have of research or researchers in a positive way. Hence ethical considerations were adhered to. To gain trust from the gatekeeper the researcher acknowledged that the research report was to be made available for public scrutiny.

Not only was permission requested to enter for research site, but access to research participants was also negotiated.

3.4.2.2. Access to research participants

Access to research participants was requested by both the researcher and the supervisor from the Faculty Ethics Research Committee (see Appendix A & B). A protocol checklist from the Faculty Ethics Committee responding to questions on ethical issues was submitted to the Ethics Committee as an adherence to ethical principles and an ethical clearance certificate was granted (see Appendix C) for the researcher to conduct interviews with the participants. Recruiting the right people to participate in the interview can pose a challenge hence the researcher was wary of Liamputtong's (2010:325) warning that "the researchers' topic should match the participants' ability to discuss that topic". Since gaining support and trust of research participants is critical to informed, ethical academic enquiry (Sapsford & Jupp, 2006:64); ethical considerations included negotiating access for conducting interviews using informed consent forms (see Appendix E). Such informed consent forms were given to twelve trainees and three trainers involved in teacher training on multi-grade teaching. Participants were contacted for conducting interviews and making direct observations in training sessions as well as in classrooms. Data was collected from the participants using various instruments.

3.5. Data Collection Methods

Data is the manifestation of the reality, the pure, undisguised, naked truth that underlies all phenomena observed (Atkison & Coffey, 2007:88). In short, data is what the participants say they believe, what they do, feelings expressed and explanations given (Ryan, Coughlan & Cronin, 2007:743). The techniques used to collect such data are referred to by Denscombe (2004) as data collection methods. Creswell (2009) defines data collection as the precise, systematic gathering of information relevant to the research problem using methods such as interviews, participant observation, documents, focus group discussions and case histories. Niewenhuis (2011: 99) perceives data collection as the steps that involve setting boundaries for the study collecting information through observations, interviews, documents and visual materials and establishing the protocol for recording information. Therefore the instruments that were used to gather data from the chosen sample were semi-structured interviews, non-participant observation and document analysis.

3.5.1. Interviews

Cohen, Manion & Morrison (2011) describe interviews as a means of accessing what a person knows and are used to give respondents a chance to narrate their stories. However, Bryman (2008) warns that the narrative should always be understood as a limited and composite picture of the participants' realities and never the whole story. As the most prominent data collection tool in qualitative studies (Punch, 2009:144), an interview is a good way of accessing people's perceptions, meanings, definitions

of situations and constructions of reality (Ibid). Interviews yield direct quotes from people about their experiences, opinions, feelings and knowledge (Liamputtong, 2010). Babbie (2006) acknowledges that interviews allow the researcher to capture and describe complex activities that produce meanings. Thus, the purpose of in-depth interviews was not to test hypotheses or to evaluate theories but to try to understand the experiences of the participants and the meanings they find in being trained in multi-grade teaching.

Silverman's (2010:155) definition of an interview involves a two-person conversation initiated by the interviewer for the purpose of obtaining research relevant data focused on specified objectives. In that way interviews are the most vital sources of case study information and they have rich data (Ibid). Denscombe (2004) further explains that interviewing is a meeting of two persons to exchange information and ideas through questions and responses resulting in a communication and joint construction of meaning about a particular topic. As a two-way conversation, initiated by the interviewer for the specific purpose of obtaining research relevant data, the researcher attempted to turn the conversations into a research tool.

While interviewing is basically about asking questions and receiving answers, Creswell (2009) claims there is much more to it than that especially in qualitative studies. As an interaction between the interviewer and the interviewee, interviews are also referred to as exchanges of views between two or more people on a topic of mutual interest for the production of knowledge (Strauss, 2005). Not only do interviews provide a platform for interacting with people but they also give the researcher an opportunity to get to know people intimately so that he can really understand how they think and feel through their cooperation (Ibid). In these

interviews the researcher and the participants generate a meaningful narrative which is actually authored by the researcher and respondents (Silverman, 2010). From Babbie's (2006) view an interview can take many forms ranging from face to face interaction, telephone conversations to email. The most common type of interviewing is individual, face to face verbal interchange, but it can also take the form of face to face group interviewing, mailed or self-administered questionnaires and telephone surveys (Ibid). The researcher invited the participants for face to face interviews and listened to the verbal accounts of their experiences.

Generally, interviews can be classified into three major categories structured, semi-structured and unstructured. The difference in these three types seems to lie in the way the interviewer formats the questions. Structured interviews involve tight control over the format of the questions and answers like a questionnaire (Denscombe, 2004:166). Unlike questionnaires, a semi-structured interview is flexible with few leading questions and the answers are open-ended (Stake, 2005). According to Denscombe (2004:105) unstructured interviews allow plenty of scope for the interviews to move the discussion to areas that are regarded as significant and provide an opportunity for the participants to give an account of their experiences. In the light of the above discussions, interviews were used as a form of conversation in which the researcher asked questions to the participants who in turn responded and gave the researcher data relevant to answering the research questions. As a qualitative researcher exploring a case study design, semi-structured interviews were conducted.

3.5.1.1. Semi-structured Interviews

According to Schumacher (2006:27), “the semi-structured interview is the face to face interaction which allows the interviewer to ask carefully prepared questions”. Its nature will allow the interviewer to be in control of the process of obtaining information from the interviewee but is also free to follow new leads as they arise (Ibid). In that regard the semi-structured interviews were preferred for this study because they allowed the researcher to plan the topics and issues to be discussed in advance. Denzin (2006) claims that semi-structured interviews are deemed appropriate particularly in order to understand the world from the participant’s point of view. Since semi-structured interviews can be a good way of finding what a situation looks like from other person’s point of view, they were used by the researcher to collect data on multi-grade teaching.

Semi-structured interviews are conducted with a fairly open framework which allows for focussed, conversational two-way communication (Silverman, 2010). Therefore, in-depth interviews were administered by the researcher in a semi-structured, open ended manner using the Interview Schedules (see Appendix F, G, and H) conducted with respondents in different interview situations. Bryman (2008:302) contends that the guidelines for the semi-structured interviews provide the researcher with a set of predetermined questions and guides the researcher in thinking about the content of the interview which needs to be covered. The Interview Guide involves outlining a set of issues that are explored with each respondent before interviewing begins (Thomas, 2012:163). Therefore, the Interview Schedule served as a guide and a checklist during interviews to make sure that all relevant topics were covered.

When developing an Interview Schedule, Berg (2007:65) cautions the researcher to take into consideration sequencing, phrasing, and level of language. The role of language is advocated by Punch (2009:153) as it represents a transparent medium to reality in which the words used transmit information about the world. Careful attention was paid to the appropriateness of the language used in the schedule. Hammersely (2011) suggests that since semi-structured interviews often contain open-ended questions and discussion may diverge from the interview guide; it is generally best to tape record interviews and later transcribe these tapes for analysis. Denscombe (2004:175) claim that the process of tape-recorded interviews is valuable as it provides the researcher with the possibility of exploring matters in depth.

During the interview, the home language of the participants was used while the descriptions provided were taped and later transcribed to serve as data. To make sure that meanings were not lost whilst translating home language to English, I conducted follow-up interviews. To avoid misinterpretations, follow-up interviews were conducted with the same participants who were asked to elaborate on their original meaning. Strauss (2005) indicates that the procedure of having the subject read his original description helps the participants to recall finer details of the situation that was experienced. The research questions were directed at participants' feelings and emotions, attitudes, beliefs and perceptions about the theme in question. To conform to Creswell's (2009) suggestions the list of interview questions were arranged from simple questions to complex questions so that the interviewees could adjust and closely follow the questions which were open and transparent. Sapsford & Jupp (2006:100) argue that the flow of the interview rather than the order

of the questions in a guide must determine when and how a question should be asked so as not to restrict the respondents. To that effect, questions were asked in such a manner as to motivate respondents to answer as completely and honestly as possible.

Babbie (2006) indicates that semi-structured strategies to questions are aimed at ensuring that respondents answer the same questions in the same sequence. As a result, the phrasing of questions was the same for each interviewee. The interviews remained open-ended and receptive to the participants' full stories. On average each interview lasted between an hour and two hours with a sample of 15 participants. For this work the interviews were conducted in different contexts and at different times with 8 teachers, 4 principals, and 3 district officials and in 8 classrooms. While attempting to contain the experiences within the specific situation identified by the participant, the researcher engaged in the first level of bracketing (*epoche*) by resisting any temptation to contribute to the original meanings presented. I resisted the temptation to contribute biases and misinterpretation to the original meanings by creating opportunities for the participants to talk for themselves. The overall attitude I adopted in this work was to put aside my knowledge of scientific theories and research on multi-grade teaching in order to focus on the lived experiences as expressed by the participants. Furthermore, the efficiency with which responses could be compared was maximised. Although interviewing was the main gathering technique, observations were made in the training sessions as well as in classroom situations.

3.5.2. Observations: Non-participant

Observation is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them (Maree, 2011:84). Data from observations consists of detailed descriptions of people's activities, behaviour, actions and the full range of personal interactions and organisational processes that are part of observable human experience (Liamputtong, 2010:4). Similarly Punch (2009:153) is of the opinion that observations involve watching people, events, situations or phenomena and obtaining first-hand information relating to particular aspects of such people, events, situations or phenomena. The writer maintains that the observer may be able to see what the participants cannot see (Ibid). For example the important features of the environment and behaviour may be taken for granted by the participants and it might be difficult for them to describe them. Yet, the eye of the observer may see the familiar as strange and provide the detailed description. Also important patterns and regularities in the environment and behaviour may only be revealed by careful planned observation by a researcher over a period of time (Ibid).

Sapsford & Jupp (2006:58) describe data collection during observations as "the mainstay of qualitative research and a written account of what the researcher hears, sees, experiences and thinks in the course of collecting and reflecting on the data".

There are four types of observation used in qualitative research namely:

- (i) Complete observer; the researcher is a non-participant observer looking at the situation from a distance.

- (ii) Observer as participant; the researcher gets into the situation but focuses mainly on his or her role as an observer in the situation.
- (iii) Participant as observer; this is typically found in action research projects where the researcher becomes part of the research process and works with the participants in the situation to design and develop intervention strategies.
- (iv) Complete participant; the researcher gets completely immersed in the setting to such an extent that those being observed do not know that they are the subjects of the observation (Maree, 2011:85).

As a data gathering technique, observation was used to enable the researcher to gain deeper insight and understanding of the phenomenon being observed. The observations were useful in obtaining primary sources of information and in the verification of data obtained from interviews. Not only did observations give the researcher an opportunity to look at what was taking place in the training of teachers in multi-grade teaching, but also to observe things that might be otherwise unconsciously missed during interviews. Moreover, things that the participants did not freely talk about in interview situations were discovered through observations. By directly observing operations and activities, the researcher developed an understanding of the context within which multi-grade teaching operates. The researcher obtained first-hand information about the training of teachers in multi-grade teaching by being part of the training as an observer and a participant. Since participant observation is a skilled job which requires considerable practice (Punch, 2009:157); the researcher chose observation as a participant as this is a less obstructive form of observation.

Given the different social contexts being investigated, observation as a participant was made with minimal intrusion into the natural settings. This was consistent with Creswell's (2009) view that the non-participant observer can remain detached from the subjects and therefore uninfluenced by their views and ideas. As a result the researcher might be able to see the phenomena under investigation through the eyes of the participants. By contrast, Punch (2009) claims that sometimes subjects are aware that they are being observed. Yin (2009) warns that in such cases the participants may behave differently from how they would have behaved if unobserved. Furthermore the participants may consciously or unconsciously change the way they behave because they are being observed and therefore observational accounts of their behaviour may be inaccurate representations of how they behave "naturally" (Ibid). Moreover, there can be limitations to the role of the observer as he may not be able to collect supporting data by asking subjects questions (Ibid).

Observation as a data collecting technique can to varying degrees be structured or unstructured (Thomas, 2012:165). While structured observations aim to produce accurate quantitative data on particular pre-specified observable behaviours; less structured observations aim to produce detailed, qualitative descriptions of human behaviour that illuminate social meanings (Thomas, 2012:165). In this research study the researcher made use of less structured observations as the behaviour of trainers and trainees in multi-grade teaching and the stream of events and actions were observed as they naturally unfolded. Cohen and Manion (2011:305) maintain that the number of individuals or participants partaking depend on the facts to be observed and the ability of the observer. The researcher observed a group of primary teachers trained during the training sessions and further observed

demonstration lessons in schools and the follow-up on the training and feedback discussions held with the trainees.

Silverman (2010) suggests five stages in organising an initially unstructured observational study; such as writing field notes, looking as well as listening, recording and reflection. In this qualitative research the researcher took field notes on the behaviour and activities of the trainers and the trainees at the research site (O'Donoghue, 2007:189). The participants' behavioural patterns during training, actions and interactions were observed and recorded as data. Schumacher (2006) considers field notes and observations as the mainstay of qualitative research. When used together, they will assist the researcher in the verification of data (Ibid).

Observations can provide information on the environment and behaviour of those who cannot speak for themselves and therefore cannot take part in the interviews (Hammersley, 2011). Therefore, the observations assisted the researcher in capturing non-verbal data. These included recoding information about the research site, classroom layout, interaction between trainers and the trainees, teaching approach, instructional strategies. However, limitations to observation as a research method may be inaccessibility of the environment, event or behaviour and thus observations might be impossible (Sapsford & Jupp, 2006:58). Stake (2005) ascertains that sometimes events and behaviours are just not open to observation. This may be so that the researcher's non-participant observation might be avoided (Ibid).

There are two main practical issues in planning the collection of observational data; approaching observation and recording (Punch, 2009:155). Approaching observation means establishing the focus of observations and selecting the cases for observation

(Ibid). Silverman (2010) argues that the researcher seldom observes the whole of a situation but tends to focus on a specific event or object within the whole thereby cutting him off from the whole. In other words, the researcher decided on what was to be observed, why and how. What was to be observed depended on the topic and the research questions being investigated. Thus, the focus of observations was to obtain a broader view of how teachers were trained for multi-grade teaching and how that training was transferred to learners of different grades in the same classroom taught by the same teacher. Punch (2009:155) states that recording observational data ranges from the use of video and audio-visual to the use of field notes. Data from observations was collected through the use of video as the researcher recorded 10-minute Mental Maths demonstration lessons in schools. Three Mental Maths demonstration lessons were observed in three districts in one school per district. The observations were recorded in the form of field notes supplemented by photographs. However, the authors caution that note taking should not be too conspicuous (Yin, 2009; Punch, 2009; Maree, 2011).

Furthermore audio- visual material was used to capture training observations and classroom observations. Since the observations can never provide us with a direct representation of reality (Maree, 2011), what the observer obtained from observational research were constructed representations of the world. Contradictions between what was observed and what was claimed were explored through dialogical processes such as redirecting points for discussion emerging from the observations to the respondent for comment and further discussion during and after interviews. Although interviews and observations were seen as an economical way of data gathering, document analysis was used to validate the findings of data collected.

3.5.3. Document Analysis

Punch (2009:159) claims that documents provide information which is relevant to the issues and problems under investigation. Although documents are pre-produced text that has not been generated by the researcher (Mertens & Ginsberg, 2009); there is a hidden picture in them that needs to be interpreted by the researcher (Babbie, 2006). Since some documents are not intended for research purposes; the researcher was aware that there are factors that can influence their objectivity. Yet, despite being created for purposes not connected with research, the researcher believes the documents reviewed provided valuable data for background information on multi-grade teaching. To that effect the researcher evaluated documents used for training teachers in multi-grade teaching and analysed data in addition to data collected through observations and interviews. Once a written source has been created, argue Cohen et al. (2011:274) for whatever reason, it becomes a potential historical fact and therefore documentary data.

Documentary sources firstly, have an advantage of being reviewed repeatedly and they have a longer life span of events (Atkins & Coffey, 2007). Secondly, documentary evidence also acts as a method to cross validate information gathered from the interview and observation, given that sometimes what people say may be different from what people do (Hammersely, 2011). Thirdly, documentation allows the researcher to make inferences about the particular topic under investigation (Ibid). But, Strauss (2005) warns that such inference should be treated as clues worthy of further investigation rather than as definitive findings because they could turn out to be false leads. Atkinson & Coffey (2007) are of the opinion that document

analysis can be a useful technique to create an opportunity for triangulation which can be defined as the mixing of data or methods so that diverse viewpoints or standpoints cast light on the topic.

Documents are classified as primary and secondary sources. Primary sources are seen as the original material of the authors 'own experiences and observations while secondary sources consist of material that is derived from someone else as the original source (Sapsford & Jupp, 2006:142). Some researchers base their classification on the nature and structure of the source, whether it is a personal or professional document (Ibid). Yin's (2011:32) definition of a personal document is that "it is the one in which the human and personal characteristics of somebody who is in some sense the author of the document finds expression so that through its means the reader of the document comes to know the author and his views of events with which the document is concerned". In support of this definition Atkinson & Coffey (2007) define a personal document as "any first –person account of the whole or a part of his or her life or an individual's reflection on a specific topic or event".

In Denscombe's view (2004: 322) personal documents are thus a personal account of the author's environment and his subjective perception and interpretation of his own life and the events in the world around him. Personal documents might include personal letters, memos, autobiographies, photographs, diaries, films, video recordings or folk tales. Official documents imply documents that are compiled and maintained on a continuous basis (Ryan et al, 2007: 738). Such documents are more formal and structured than personal documents and might include documents such as minutes of meetings, statistical reports, financial records and process records.

Considering that most documents in the educational context such as minutes of meetings and lesson plans are not produced for any research purposes such documents were nevertheless used in this research study. These kinds of documents ascertain Simons (2012:29) often assume specific knowledge that the researcher is unfamiliar with or certain events which the researcher will not possess.

Denscombe (2004:431) warns researchers to keep in mind that the accessibility of official documents is often a problem owing to legislation on the confidentiality of information and in some cases for security reasons documents are simply not available or not kept. To access documents on multi-grade teaching the researcher adhered to ethical issues. The range of documents used by the researcher included journal entries, training programmes, training manuals and field notes on multi-grade teaching. The purpose of looking into such documents was to analyse and make a comparative analysis of collected data and to provide other specific details to corroborate information from other sources for purpose of validity. Document analysis in this research study therefore involved evaluating the existing training packages used for multi-grade teaching to understand their substantive content and to illuminate deeper meanings of the extent of their effectiveness in addressing teacher training needs in multi-grade teaching. For the purpose of identifying patterns or themes, document analysis was also used to examine the transfer of training in multi-grade teaching utilising training manuals in the classrooms.

3.6. Data Collection Process

The actual data collection process was conducted through piloting the study and field study.

3.6.1. Piloting

A pilot study is a small experiment designed to gather information prior to a larger study in order to improve the quality and efficiency of the main study. Sampson (2007:383) sees a pilot study as a preliminary trial of research which is essential to the development of an extensive training programme. While pilot studies can be used to refine research instrument and interview schedules; they have greater use in data collection in foreshadowing research problems and questions (Ibid). Not only can a pilot study reveal deficiency in the research design but it may also check the validity and reliability of results which can be addressed before time and resources are spent on a large scale study (Ibid). Swampson (2007:387) further argues that a preliminary study is mandatory in order to reach an informed choice regarding the most appropriate form of data collection for the main study. It is against this notion that for the purpose of the research study a pilot study as a pre-study of the fuller study seemed necessary. The researcher conducted a pilot study with three participants using a face to face, audio-taped, semi-structured interviewing technique asking open-ended questions about teacher training in multi-grade teaching. The relevance of the pilot study could be summed up as providing the researcher with ideas, approaches and clues that may not have been foreseen. The research design and research methods applicable for the study were chosen after piloting. In addition

to improving data collection routines, the pilot study added knowledge that led to improved thesis writing.

3.6.2. Field Study

To conduct this study the following methodology was adopted: observations, review of related documents and interviewing were carried out. Pertaining to the objectives of the study field study was conducted in three districts representing the Eastern Cape Province in South Africa. Four schools from each district with multi-grade classrooms were selected. On selecting the schools care was taken with regard to representation as one teacher per school in each district was chosen from either the Foundation Phase or the Intermediate Phase. Three trainers from each district in the province were interviewed and observed during training sessions. Twelve teachers including principals/head of departments were interviewed in line with the research questions. For the purpose of the study the interviewees were also observed in their multi-grade classrooms. Therefore eight teachers and four principals were interviewed and eight classrooms were observed.

The research instruments which were developed for use to collect necessary data were training session observation sheet (see Appendix I); classroom observation sheet (see Appendix J) and interview schedules (see Appendix F, G & H). A training observation form was used to extract information about modes of delivery of training, instructional method, trainer-trainee relationship, utilisation of the training manual and to identify strengths and weaknesses of the training. Literature was reviewed to understand the concept of multi-grade teaching and teacher training on MGT in the South African context. However, there are a few studies on multi-grade teaching in

South Africa therefore international literature was consulted to review the concept of MGT as used in other countries. In-service teacher training packages and training of trainer manuals were also reviewed in line with the objectives of the study.

Classroom observation was used to obtain information related to aspects of classroom organisation, classroom management, timetables, lesson management and display techniques learners participation in learning, instructional strategies and use of resources in the classroom. Observations in this research study were used in various ways. Firstly, training observations were conducted in the preliminary stages of a research project to explore an area which could then be studied more fully utilising other methods. Secondly classroom observations were used towards the end of the research project to supplement or provide a check on data collected in interviews. The researcher employed both ways of observation as a non-participant during data collection phases, the pilot study and the main study. Thirdly, observations were used as a useful check on and supplementary information obtained from other sources. In this research study the information given by the participants about teacher training in multi-grade teaching was compared with the observation of samples of their actual behaviour in transferring their training in classroom-based teaching practices.

An interview schedule was drawn up to get information related to the concept of multi-grade and multi-grade teaching, reasons for its establishment, MGT teacher training, its mode of delivery, instructional strategy, strengths and weakness of the training, training packages, the training curriculum and assessment of training programmes, transfer of teacher training in the classroom its success and difficulties as well as monitoring and evaluation of teacher training on MGT with particular

reference to school support and classroom visits. To conduct interviews Interview schedules were drawn up for trainers and trainees. Each category of interviewees had a different set of qualitative questions which were exploratory and descriptive. Although in some sections questions were similar, trainers' questions were frequently broader in focus and included concepts that were more complex and abstract than trainees' questions. To that effect, the researcher ensured that the research approach that fitted the research questions was a qualitative approach which seeks to answer how teachers in multi-grade settings are capacitated in multi-grade teaching. Before the researcher interviewed the participants they were first observed in their natural settings, their classrooms. Secondly, methods of data collection that allowed the meanings behind the actions of the participants under study were used. Thirdly, different criteria to present and analyse data and the results of the research findings were utilised.

3.7. Data Analysis and Interpretation

Atkinson & Coffey (2007:144) perceive data analysis as a mechanism for reducing and organising data to produce findings that require interpretation by the researcher. Data analysis is the process of envisioning patterns, sense making, giving shape to having been collected into some form of explanation, understanding or interpretation of the people and situations we are investigating (Hammersely, 2011). Qualitative data analysis is described by Flyveberg (2006:302) as "a process of bringing order to the mass of collected data". Niewenhuis (2011:99) claims that qualitative data analysis tends to be an on-going and non-linear process implying that data collection, processing, analysis and reporting are intertwined and not merely a

number of successive steps. Silverman (2010) takes the definition further by stating that qualitative data analysis is the process of looking at data from different angles with a view to identifying keys in the text. Therefore qualitative data analysis was seen as an essential procedure for use in making sense of the data in order to answer the research questions.

Two known types of data analysis are content and thematic analysis. While content analysis is a systematic approach to quantitative data analysis that identifies and summarises message content (Niewenhuis, 2011:101); thematic analysis looks at the merging themes from the data collected (Denzin, 2006). Given that interviews, observations and documents were used as means to collect data analysis, the method of data analysis used in this study was thematic analysis which is the most foundational of qualitative analytic procedures and in some way informs all qualitative analysis.

3.7.1. Thematic Analysis

Sapsford & Jupp (2006:168) maintain that thematic analysis is described as a search for themes that emerge as being important to the description of the phenomena; theme is defined as a pattern in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon. In addition, Leedy & Ormrod (2005:142) claim that thematic analysis is a detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes or biases. These themes or categories are the essential building blocks of analysis (Thomas, 2012:172).

Analysis began when data was first collected and used to guide decisions related to further data collection. The first step constituted valid reading knowledge of the data mass that was accumulated during in-depth interviews, classroom observations, training session observations and documents. Research methodologists warn of dangers of memory loss with the passage of time and advise that full notes be written almost immediately after the observation or interview (Atkinson & Coffey, 2007:3). Therefore, full contents of the interviews were transcribed verbatim in order to protect and reflect the full scope of data. Field notes from interviews and observations were reviewed as soon as possible after visits. After obtaining the data the researcher attempted to identify relationships and patterns through close examination of the collected data.

Sapford & Jupp (2006:253) advise that it is easy when starting qualitative data analysis both to write and code in ways that are nothing more than descriptive summaries of what participants have held to collect data said or done. Coding is the process of reading carefully through the transcribed data, line by line, and dividing it into meaningful analytical units (Maree, 2011:105). Codes are tags, names or labels and coding therefore is the process of putting tags, names and labels against pieces of data (Punch, 2009:176). Following Sapford & Jupp's advice; after studying and comparing the collected data from all the interviews, coding categories were identified. The researcher assigned codes to meaningful segments of texts found. The point of assigning codes was to attach meaning to the pieces of data with the labels serving a number of functions such as indexing data, providing a basis for storage and retrieval of data. In O Donoghue's (2007:442) approach there are two main types of codes: descriptive codes and pattern codes. Early labels may be

descriptive codes requiring little or no inference beyond the piece of data itself (Ibid). Pattern codes pull together material into smaller and more meaningful units and further interpret, interconnect and /or conceptualise data (Ibid). A schedule for coding patterns of data into the categories was subsequently developed.

The next step constituted the identification of links between different data contexts. Different themes that emerged from data collected were compared, confirmed or contradicted. With the themes identified, the researcher then began the process of writing, describing how themes were interrelated. Rewriting continued until the relationships between the themes were captured as accurately as possible and until qualitative analysis as Atkinson & Coffey (2007:432) puts it, transformed data into findings. Qualitative findings were formulated on the following three levels: theoretical conclusions, methodological conclusions and contextual conclusions. Finally, conclusions based on the identified themes were generated and presented in the final chapter of the study. Lastly, recommendations pertaining to the study were formulated as a culmination of all the relevant data utilised in the data collected, analysed and interpreted. To verify data validity and reliability of data collected and analysed, triangulation was employed.

3.8. Triangulation

Triangulation is the ability to mix research methods when collecting data, so that the weaknesses of one method can be compensated by other methods (Hammersley, 2007:289). Triangulation involves locating a true position by referring to two or more other co-ordinates (Denscombe, 2004:133).By implication a researcher wishing to

know the truth could use different methods of data collection to provide an angle on the topic. For many researchers (Simons, 2009; Flyvberg, 2007; Berg, 2007), triangulation is restricted to the use of multiple gathering techniques (usually three) to investigate the same phenomena. They suggest that the important feature of triangulation is not the simple combination of different kinds of data but the attempt to relate them so as to counteract the threats to validity identified in each (Ibid). But, Morrow and Williams (2009:579) insist that the multiple methods approach is the generic form of this approach. Yet, triangulation represents a variety of data, investigators, theories and methods. Berg (2007) also outlines types of triangulation namely:

- **Data triangulation** involves using diverse sources of data to obtain richer descriptions by seeking out instances of a phenomenon in several different settings at different points in time and space. The researcher looked for data consistency in different contexts through the use of different data collection methods. In order to increase validity, data was gathered over an extended period of time and classroom observations were made simultaneously.
- **Investigator triangulation** involves the use of multiple researchers engaging in discussions of their points of differences and similarities so that biases are reduced. Having followed the initial readings and preliminary identification of themes in each of the interviews, the researcher consulted two other researchers as well as the supervisor to discuss the themes that emanated from the data collected.
- **Methodological triangulation** involves mixing qualitative and quantitative methods in the study. One approach follows another to increase confidence in the

interpretation. However, in this qualitative research study, the differences between quantitative and qualitative study were highlighted.

- **Crystallisation**- several investigators, sources and methods are used to compare the findings with one another.

Maree (2011:40) advises researchers to consider multiple and conflicting voices and differing and interacting interpretations to facilitate triangulation and crystallisation. This implies attending to voices that differ from the researcher's voice to enable the researcher to study multiple constructed realities. Through triangulation of the data and sources, careful coding and analysis allow the voices of the respondents to as Simons (2012:247) puts it "come alive" in the interpretation. In the light of the above discussions the researcher triangulated with the purpose of unearthing areas that required more investigation. Therefore, triangulation of data from interviews, observations and documents was compared with the empirical evidence of research on multi-grade teaching as triangulation in Hamersley's view (2007:303) is critical in facilitating interpretive validity and establishing data trustworthiness. It is generally accepted that engaging multiple methods of data collection such as observation, interviews and document analysis will lead to trustworthiness.

3.9. Data Trustworthiness

In qualitative research establishing trustworthiness or "the study's truth value is extremely important." Trust is a developmental process that is established between the researcher and the participants (Hammersley, 2007:307). According to Liamputtong (2010:115) there are four main standards of ensuring trustworthiness:

- Credibility or producing believable findings and interpretations.
- Transferability or writing a sufficiently thick description to enable persons who are interested in transferring this knowledge to their own circumstances to do so.
- Dependability or producing results that can be trusted and
- Confirmability or making sure that the data support the conclusions accurately.

Since both quantitative and qualitative studies try to find the same thing the truth; Hammersley (2007:289) maintains that establishing trustworthiness ensures the quality of the findings. A critical group of strategies used to enhance trustworthiness is triangulation by source, methods and research theories Leedy & Ormrod, (2005:156). Triangulation is the ability to mix research methods when collecting data so that the weakness of one method can be compensated (Flick, 2011:600). A process of triangulation helped to validate data which was obtained in the following ways:

- A series of interviews were conducted with teachers in multi-grade classrooms in Foundation Phase and Intermediate Phase Primary schools and with trainers to validate trainees' data.
- Classroom Observations assisted the researcher to gain further evidence.
- Informal discussions with cluster members of Professional Learning Communities in sampled districts were conducted to corroborate the evidence.

3.9.1. Credibility

Validity in qualitative research means the extent to which the data is credible and trustworthy. For Bryman (2008:524) both quantitative and qualitative research needs credibility of the research which depends on the ability and effort of the researcher. Hence, the quality assurance strategies adopted in this research were credibility, soundness and ethical conduct. Credibility relates to the degree that the study achieves truth (Neuman, 2011:86). By credibility, it is meant that a study becomes credible when it presents faithful descriptions when confronted by readers or other researchers (Silverman, 2010:175). In the opinion of Morrow & Williams (2009:577), well designed research should convince the researcher and the reader that it is credible by maintaining a certain standard. Therefore, the researcher tried to present the training of teachers in multi-grade teaching in a way that is faithful to the original through the eyes of the participants. In this way the participants' thoughts, perceptions, beliefs and attitudes on their capacitating on multi-grade teaching were given credibility and respected in their own right as valid.

3.9.2. Transferability

Transferability refers to the extent to which the researcher's findings can be applied in other contexts (Creswell, 2009). Leedy & Ormrod, (2005:156) state that the rich and detailed illustrations of qualitative research allow readers to see if these descriptions fit their own experiences and thus transfer to new situations. Because the purpose of this study is not to generalize the findings to other settings, transferability was of less relevance.

3.9.3. Dependability

Dependability ensures that if a study were to be replicated using the same type of participants in the same context, the findings would be replicated (Morrow & Williams, 2009:579). The researcher took field notes during interviews and during peer briefing. This might leave an audit trail which could establish dependability. Collaborative research which involved participants in the research process was done to validate the data and to check if the data made sense based on their experiences. For Hammersley (2011:89) member checking provides the participants the opportunity to clarify interpretations and to provide additional information. After the interviews the participants were asked to read the transcripts to make sure that the essence of their views had been captured.

3.9.4. Confirmability

Confirmability is the degree to which findings of an inquiry are determined by the subjects and conditions of inquiry and not by the biases, motivations, interests or perspectives of the inquirer (Morrow & Williams, 2009:580). Researcher bias was reduced by clarifying my assumptions, views and theoretical orientations before starting the research through bracketing. Criticisms on qualitative studies concern the reactive effects of the observer's or the interviewer's presence on the situation being studied and selective perception or bias on the side of the researcher. In such instances the issues of reliability and validity were addressed in this study by triangulation. Peer examination was conducted to solicit the opinions of colleagues and co-researchers where the researcher sought the opinion of other researchers in

the field to determine whether they agreed or disagreed that the researcher has made appropriate interpretations and drawn valid conclusions from the data. In spite of data verification, the researcher was faced with a number of ethical issues that arose at different junctures of the research process such as data collection and data analysis.

3.10. Ethical Considerations

Ethics is a set of moral principles that are suggested by an individual or a group, are subsequently widely accepted and offer rules and behavioural expectations about the most correct conduct towards subjects (Liamputtong, 2010:32). As a set of moral principles, ethics aim to prevent research participants from being harmed by the researcher and the research process (Ibid). Putting it simpler, Thomas (2012:68) perceives ethics as the principles of conduct about what is right and wrong. Research Ethics address the question of which ethically relevant issues caused by the intervention of researchers can be expected to impact on the people with or about whom they research (Mertens & Ginsberg, 2009:31). Ethical guidelines serve as the standard and the basis on which each researcher ought to evaluate his own conduct (Punch, 2009:63). Qualitative researchers have set numerous guidelines to maintain the ethical standards of qualitative studies such as the informed consent, right to privacy, anonymity and confidentiality, treatment of participants with dignity and respect and presentation of the truth when reporting findings.

3.10.1. Informed Consent

The informed consent means the knowing consent of individuals to participate as an exercise of their choice, free from any element of deceit, fraud or manipulation (Berg, 2007:47). Neuman (2011) argues that obtaining informed consent implies that all possible or adequate information on the goal of the investigation, the procedures that will be followed, the possible advantages and disadvantages and dangers to which one may be exposed as well as the credibility of the researcher be rendered to potential subjects. As a necessary condition therefore, the informed consent must be ensured in writing (Denscombe, 2004:138). Bryman (2008) emphasises that the consent should be given voluntarily by someone competent to do so. Hammersley (2011:217) believes that research with people who are for special reasons unable to give their consent raises specific ethical problems. In the light of the above perceptions the researcher sought for informed consent to conduct research interviews, non- participant observations and documentary analysis from the participants.

The informed consent form described the nature of the research project and included a description of what participation involved in terms of activities and duration, a guarantee that all responses will remain private, confidential and anonymous and an offer to provide more detailed information about the study upon its completion (see Appendix E). The benefit of the informed consent letters is the elimination of any record of the subjects' names (Denscombe, 2004:138) thus anonymity was ensured. The informed consent letters were dated and signed by both the participants and the researcher. The rationale behind the requirement was to ensure that the participants

were knowingly voluntarily participating in this research study. Secondly the signed letters were a means by which promoters of the research study monitored the voluntary participation of subjects. The researcher heeded Flick's (2011) advice that places emphasis on accurate and complete information so that the subjects will fully comprehend the investigation and consequently be able to make a voluntary thoroughly reasoned decision about their possible participation.

3.10.2. Voluntary Participation

In general the concept of voluntary participation is an important ideal; yet ideals are not always attainable. One argument against voluntary participation concerns the nature of volunteering in general (Berg, 2007:45). Flick (2011:217) argues that whatever the reason when subjects are involved without their consent, the right of self-determination is impaired. This in turn causes a value conflict between the researcher's assignment to broaden knowledge and his responsibility to protect the participants (Neuman, 2011). Furthermore, there are research settings in which it is not possible to inform all people who might become part of the research in advance especially when the researcher wishes to engage in snowballing. Moreover, the participants who eagerly volunteer to partake in the research study might not fit the description of purposefully sampled participants. Sometimes it is impossible or impractical to inform them or such information would cause the subjects to act unnaturally which in turn would influence the results (Hammersely 2007:289). Some subjects may decide to participate for fear of victimisation if they do not participate or the prospect of payment for participation (Flick, 2011). The participants in this research study were neither intimidated nor promised payment and it was

emphasised that their participation was free and voluntary. Not only were the participants allowed to ask questions before the study commenced as well as during the investigation but they were also made aware of their rights to withdraw from participating in the research study at any time should the need arise.

3.10.3. Anonymity and Confidentiality

Berg (2007:48) claims that confidentiality is an active attempt to remove from the research records any element that might indicate the subjects' identities. Babbie (2006:472) distinguishes between anonymity and confidentiality. Anonymity means no-one including the researcher should be able to identify any subject afterwards (Ibid). In a literal sense anonymity means that the subjects remain nameless. Anonymity or the right to self-determination implies that individuals have the right to be unknown as subjects (Hammersley, 2007:301). Yet, in most qualitative research studies, subjects are known to the researcher because interviews are conducted face to face. Thus, anonymity in such cases is virtually non-existent. Thus, it is important to provide subjects with a high degree of confidentiality (Berg, 2007:49).

Liamputtong (2010) views confidentiality as a continuation of privacy "which refers to agreements between persons that limit others' access to private information". Flick (2011:408) believes that confidentiality implies that only the researcher and possibly a few members of his staff should be aware of the identities of the participants and that the latter should have made commitments with regard to confidentiality. To ensure confidentiality, the researcher gave each participant a code number and labelled any written document with that number rather than a person's name. To ensure anonymity the participants were given pseudo-names. Pseudo names were

used in the research study to protect the participants as well as the identities of the research sites.

3.10.4. Right to Privacy

O Donoghue (2007:64) defines privacy as “that which normally is not intended for others to observe or analyse”. The author further explains that “the right of privacy is the individual right to decide when, where, to whom and to what extent his or her attitudes, beliefs and behaviours will be revealed (Ibid). While privacy implies the element of personal privacy, confidentiality indicates the handling of information in a confidential manner. For Flick (2011:67) information given anonymously ensures the privacy of subjects. However, the privacy of the subjects can be affected by using hidden cameras and microphones (Bryman, 2008). Yet, if subjects remain anonymous, and are not exposed to any risks it could be acceptable to use the concealed media (Denscombe, 2004:137).

In this study the participants were ensured that their participation was not because they were known to the researcher nor were they sampled because that was convenient for the researcher. Rather, they were assured of their privacy because the participants were sampled purposively for the study. Therefore, the participants’ right to privacy was respected. The nature and quality of the participants’ response was kept confidential. Under no circumstances were concealed media such as tape recorders and video cameras used without the knowledge and the written consent of the participants.

3.10.5. Protection from Harm

Liamputtong (2010:38) believes conducting research may lead to unintentional danger to the participants. When undertaking research Flyvberg (2006:305) cautions researchers to keep the first aim to “do no harm in mind” at all steps of the research process from the selection of methodology through the data collection process and the dissemination of the research findings. As Liamputtong (2010:40) puts it, “Cause no harm” applies to how the researchers present their findings as researchers have a moral obligation not to present the participants in a way that readers will be able to identify them. Thus, there is a general agreement that people should not suffer as a consequence of their involvement with a piece of research (Denscombe, 2004:136). However, Bryman (2008:533) suggests that “interpretation of what is harm and for whom and the decisions on what procedures should be employed to avoid harm remain culture specific and context related”.

By implication harm and strategies might be different in different contexts. In accordance with the principle of protecting participants from any physical or psychological harm, researchers have a duty to consider in advance the likely consequences of participation and to take measures to safeguard the interests of those who help in investigation (Ibid). Hence the researcher paid special attention to avoid risks and what might cause harm to participants throughout the research process. Firstly, the researcher ensured that the participants were not exposed to any physical harm as a result of this research study. Secondly, the issue of personal safety was considered when arranging times and locations for data collection. Thirdly, care was given to avoid any psychological harm resulting from the research

project. Fourthly, the participants were ensured that they would not suffer any personal harm arising from the disclosure of information collected during the research study. In reporting the research findings and when publishing research findings care was taken not to mention the participants or identities of the research sites.

3.10.6. Honesty With Professional Colleagues

Hammersley (2007:301) claims that the findings of the study must be introduced to the reading public in written form otherwise a highly scientific investigation will mean very little and will not be viewed as research. Morrow & Williams (2009:578) take it further by emphasising that researchers should compile the report as accurately and objectively as possible so that readers can clearly understand what has been written. Therefore it is an ethical obligation of the researcher to ensure that at all times the investigation proceeds correctly and the information be presented as accurately as possible (Punch, 2009:51). The researcher ensured the participants of informing them of the research findings without impairing the principle of confidentiality. The researcher tried to report the findings of this research study as honestly as possible without misrepresenting or misquoting the participants' responses. Under no circumstances did the researcher intentionally fabricate the data to support a particular conclusion and credit was given where it was due.

3.11. Conclusion

This chapter dealt with the research methods, research methodology and the justifications on how the researcher intended to use the research instruments selected for the study. Furthermore the chapter stipulated clearly how data was

collected and processed using various instruments, analysed and interpreted.

CHAPTER 4: DATA PRESENTATION AND DATA ANALYSIS

4.1. Introduction

This chapter presents data collected through training session's observations, semi-structured interviews, documents analysis and classroom observations during training sessions. A profile of sampled research sites and research participants is provided. Categories of responses are highlighted, data analysed and findings tabulated according to responses to research questions. This chapter seeks to find answers to the following research questions:

- What are teachers' professional training and development needs in multi-grade teaching?
- Which aspects of multi-grade teaching are encompassed in the training and development programme for teachers in multi-grade classrooms?
- How is teacher training on multi-grade teaching delivered to teachers in multi-grade classrooms?
- Which multi-grade teaching training dimensions were implemented in classroom-based teaching?
- How can vertical and horizontal knowledge in post-training be integrated?

4.2. Presentation of Data

Data is presented and analysed according to the profiles of the participants as well as the research sites. Categories of responses are presented under training observations, document analysis, classroom observations and semi-structured interviews.

4.2.1. Profiles

Profiles of sampled research sites in the Eastern Cape Cluster C districts are presented and analysed. The schools sampled as research sites are highlighted as well as the sampled research participants. The research sites and research participants were purposefully selected as they showed similar characteristics of practising multi-grade teaching in multi-grade contexts. The research site included the districts and primary schools in the Eastern Cape. The research participants included trainers and trainees of multi-grade teacher training programme

4.2.1.1. Profile of Sampled Districts

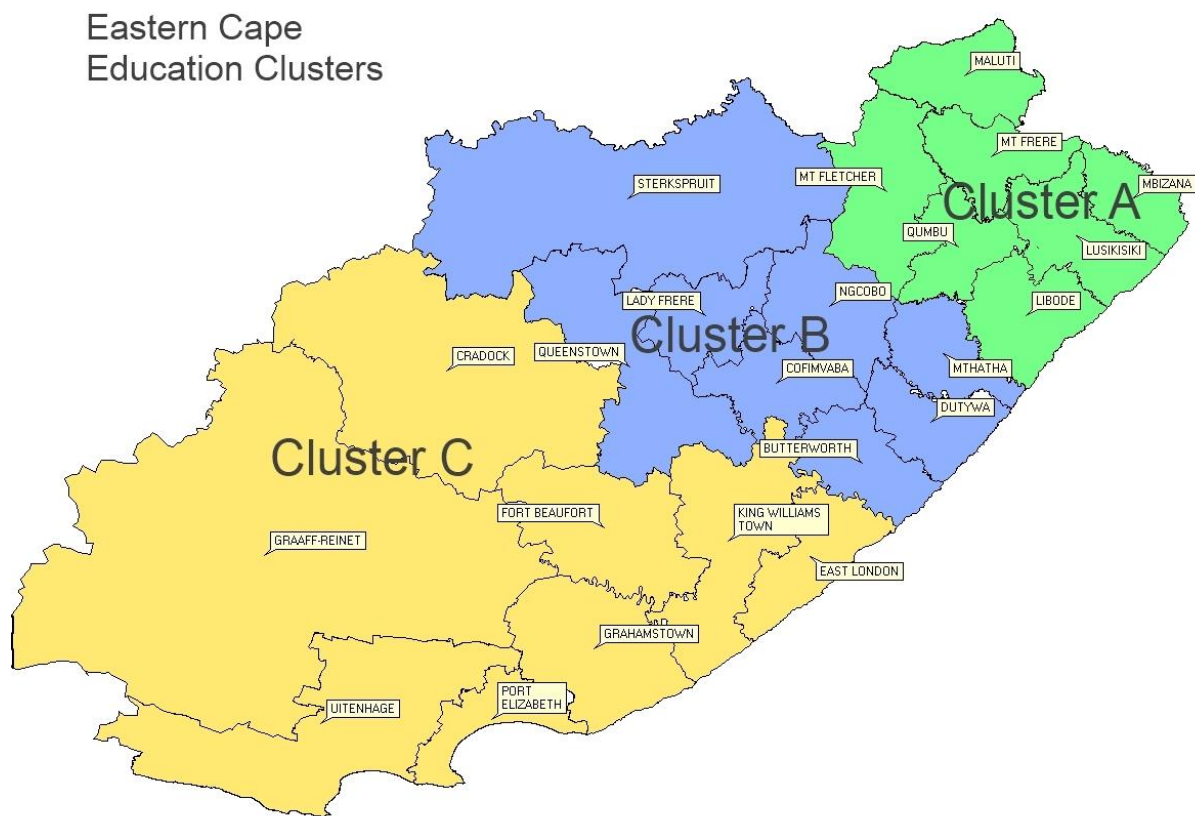


Figure 8: Eastern Cape Education Clusters (ECDoE, 2013).

The map in Figure 8 indicates Eastern Cape Education Clusters. In the Eastern Cape education districts are divided in to clusters. The study sampled four districts in Cluster C namely Butterworth, East London, Fort Beaufort and King Williams Town. Cluster C is comprised of rural and urban areas and most of the schools found in these districts are in sparsely populated areas with low density. Multi-grade is often associated with “small” schools in remote and sparsely populated rural areas.

Although there may be a common understanding of what a rural areas is; a universally accepted definition does not exist. A rural area may be defined firstly as an open area with low settled population densities and a high proportion of unsettled land area used for primary production such as forestry, agriculture, livestock and fishery.

Secondly, the residents of the rural areas are likely to depend largely on primary production activities as their principal if not their only source of living. In this context rural area is defined on the basis of its characteristics. The above explanation is consistent with Gardiner's (2008) view of rural areas in the South African context which he perceives as an environment which is characterised by inaccessibility, poor infrastructure, poverty and hunger, lack of resources, lack of skills and knowledge and lack of basic services such as water and electricity. The evidence that exists of conditions in multi-grade locations suggests that multi-grade schools may be extremely disadvantaged by virtue of their location. Where they do appear reference is usually made to the prevalence of one-teacher schools, two –teacher school or three- teacher schools over multi-teacher schools and multi-grade schools instead of mono-grade schools. Two schools practising multi-grade teaching in each district were chosen as research sites for classroom observations and semi-structured interviews.

4.2.1.2. Profile of the Sampled Schools

Names	Districts	Geographical Location	Phase	Grades combined
S1	Butterworth	Rural	Foundation	1,2 & 3
S2	Butterworth	Rural	Intermediate	4,5 &6
S3	East London	Urban	Foundation	1 &2
S4	East London	Rural	Intermediate	1,2 & 4
S5	Fort Beaufort	Rural	Foundation	1 &3
S6	Fort Beaufort	Rural	Intersen	1-7
S7	King Williams Town	Rural	Foundation	2 &3
S8	King Williams Town	Rural	Intermediate	5&6

Table 8: Profile of the sampled schools

Table 8 show the profile of the sampled schools accessed as research sites. Out of consideration for ethical issues schools names have not been mentioned so schools are classified as S1 to S8. The sampled research sites were in four districts in the Eastern Cape namely; Butterworth, East London, Fort Beaufort and King Williams Town. Data and observations indicated that schools in these districts are geographically located in rural areas. However, one school that practises multi-grade teaching was found in an urban area in East London. The explanation for the existence of multi-grade schools differs in urban and rural areas. In urban areas the curriculum and subject choices encourage multi-grade teaching.

Small numbers of learners do elective subjects which results in very small classes. Schools therefore combine several grades into a single class and employ additional teachers to teach these subjects and classes (EPC, 2011:18). In urban areas large schools that offer primarily mono-grade teaching can have small numbers of multi-grade classes because of curricula subject requirements and combinations of subjects (Ibid). Different phases observed were foundation and intermediate phases

but one school was found to serve both Intermediate and senior phases in the same school. Such school is a one teacher school where all learners of different grade levels are taught by one teacher in the same classroom. Grades combined differed in different schools and in different classrooms.

4.2.1.3. Profile of the Sampled Trainers

Name	Gender	Qualifications	Position at Work	Districts Supported	Multi-grade Training
ToT 1	Female	Honours	SES	Butterworth	CPUT & Molteno Project
ToT 2	Female	PhD	MGT Coordinator	Eastern Cape	CPUT
ToT 3	Female	Honours	SES	King Williams Town	CPUT

Table 9: Profile of the sampled trainers

The table above presents the profiles of the sampled trainers of the MGT training programme of teachers in multi-grade classrooms. Pseudonyms were given to trainers as an adherence to ethical procedures. Trainers sampled to partake in this research study were two females and one male. The table shows that two of the trainers were district based officials who occupy positions at work as Senior Education Specialists (SES). One trainer is a multi-grade coordinator contracted by the department of basic education to train Eastern Cape teachers on multi-grade teaching. Although all participants indicated that they have been trained; it was discovered that they had received their training from the same institutions except for one participant who indicated that she was also trained for multi-grade teaching in a non- governmental organisation Molteno Project. All the participants coordinated programmes on MGT and supported multi-grade schools in their districts and teaching in multi-grade classrooms.

4.2.1.4. Profile of the Sampled Trainees

Name	School	Age	Gender	Marital Status	Position At Work	Qualifications
T1	S8	33	Female	Single	Teacher	J.P.T.D.
T2	S7	48	Female	Married	Teacher	NPDE
T3	S6	53	Female	Married	Teacher	NPDE
T4	S5	44	Female	Married	Teacher	J.P.T.D
T5	S4	51	Female	Married	Teacher	NPDE
T6	S3	39	Female	Single	Teacher	B.Ed. (Hons)
T7	S2	50	Female	Married	Teacher	NPDE
T8	S1	43	Female	Married	Teacher	NPDE
P1	S3	37	Female	Single	Principal	J.P.T.D.
P2	S5	49	Female	Married	Principal	B.Ed. & ACE
P3	S7	57	Female	Married	Principal	NPDE
P4	S8	51	Female	Married	Principal	B.Ed.(Hons)

Table 10: Profile of the sampled trainees

Table 10 above shows the profile of the sampled teacher trainees who participated in this research study. The twelve sampled participants selected purposively are practising multi-grade teaching in their classrooms. To adhere to ethical considerations the research participants were given pseudonyms. There eight teachers are known as T1, T2, T3, T4, T5, T7 and T8. The principals are herein referred to as P1, P2, P3 and P4. The research participants are matched to their sampled schools S1 to S8. It is clear from the analysis of demographic variables that teachers in multi-grade classrooms are a different cohort in a number of ways. Except for gender, the differences of the sampled teacher trainees can be noticeable in terms of age, marital status, positions at work and qualifications. All the participants who participated in this research study were females. Being female was one of the characteristics used in purposive sampling. Furthermore, the most teachers teaching in multi-grade primary schools are female teachers. The age of

participants varies between 33-57 years of age with nine of them married and three of them single. The information on their marital status was seen as paramount to establishing the context of teachers in multi-grade classroom. Interestingly, all the participants are in teaching profession holding different positions at work with four of the participants being principals and the other eight teachers in multi-grade classrooms.

Amongst the twelve trainees three of them obtained Senior Primary Teachers Diploma (J.P.T.D.) and six of them have National Professional Diploma in Education (N.P.D.E). One of the participants has a Bachelor of Education (B.Ed.) degree and specialised in Leadership and Management and received Advanced Certificate in Education (ACE) while the other two participants hold the highest qualifications of them all Bachelor of Education Honours (B.Ed. Hons). Having an Honours degree there are assumptions that school managers are skilled enough to manage schools with multi-grade settings. Yet being a school principal and full time class teacher requires good organisational and management skills to manage multi-grade contexts (Little 2008).

Therefore participants were not of same qualifications as some had postgraduate degrees, others junior degrees and diploma. While qualifications provide only proxy indicators of the quality of a teacher, evidence shown above gives a sense of kind of teachers teaching in multi-grade classrooms. But, DoE Teacher Audit suggests that teachers in multi-grade settings are under qualified (DoE, 2007); yet evidence shows that the participants in multi-grade settings are qualified teachers but not qualified to teach in multi-grade classes as they lack training on that aspect.

Despite their training as qualified teachers participants indicate that they were not trained for multi-grade teaching in their pre-service education. While multi-grade teachers at the participating research sites met the requirements of qualified teachers in line with South African National Framework for Teacher Education and Development, none of them were trained for multi-grade teaching. Yet evidence shows that the participants in multi-grade settings are qualified teachers though not qualified to teach in multi-grade classes as they lack training in that aspect. Despite their training as qualified the sampled participants indicated that they were not trained for multi-grade teaching in their pre-service education. It was during in-service training (INSET) that the sampled teachers indicated that they received some kind of training in multi-grade teaching.

4.3. Categories of Responses

The categories of responses are arranged according to responses to research questions posed to trainees and trainers through semi-structured interviews. Classroom observations were conducted simultaneously with interviews for teachers in multi-grade classrooms. Training observations were conducted concurrently with the trainers' interviews and document analysis of the training manuals. Thus the categories of responses were on training session's observations, document analysis, classroom observations and interviews.

4.3.1. Training Sessions Observations

The aim of the researcher's observation of teacher training sessions with regards to multi-grade teaching was to evaluate how the training needs of teachers in multi-grade classrooms were identified and addressed. On approaching observation the main focus was on evaluating how teachers training needs for multi-grade teaching were addressed. In addition, the planning and designing of training and development programmes as well as the mode of delivery and the instructional strategy of teacher training on multi-grade teaching were assessed. The researcher conducted the observation to get first-hand information of how teachers were trained on MGT. A follow up with classroom observations to assess the transfer of training and the extent of the effectiveness of teacher training programmes on MGT was also done. An Observation schedule (see Appendix I) to record the behavioural patterns of the trainers and the trainees and to capture non-verbal data such as the classroom layout, seating arrangements, interaction between the trainees and their trainers, mode of the delivery of the training and instructional strategies was used.

The researcher attended multi-grade training sessions as a non-participating observer of the training held for the Eastern Cape Primary School Multi-grade Teachers in a six months course organised by the Department of Basic Education conducted by academics from the Centre for Multi-grade Education in CPUT. The Eastern Cape Provincial and District officials assisted in providing training to teachers in multi-grade contexts as one of the district officials was also trained by the same service provider on MGT because of extensive exposure to multi-grade schools. Other officials claimed they did not have the required and intensive training

with regards to MGT but assisted during training with administration and distribution of training materials. Clearly except for contracting with CMGE, DBE seemed not to have any specialised programme in place for professional teacher development pertaining to MGT teacher training.

A two days session was allocated for delivery of training to Eastern Cape Primary School Teachers in a cyclical calendar. More than 100 teacher trainees divided into two groups attended the two days' workshop which was held during school holiday. A provision of two trainers and two assistants for each group was made. Having informal discussions with trainees, some of them indicated that they did not know how they were selected for training. For most of the trainees it was the first training they had undergone although they have been engaged in multi-grade contexts for quite a while.

During the observation of the training sessions a written account of what was seen, heard, thought and experienced was recorded in field notes. The training venue was a spacious air-conditioned hall with tables and chairs arranged for group seating. The training material was distributed evenly to the trainees by the trainers and the district officials. The first training initiated teachers into the basic concept of multi-grade teaching, teaching strategies, classroom organisation, display techniques, classroom management and social components of multi-grade teaching. The second training dealt more with practical training of multi-grade teaching which included timetabling and scheduling, lesson management and curriculum adaptation and differentiation.

Although trainees were grouped and assigned group roles such as scribes, time-keepers and reporters, some trainees were sitting in groups but not working as a

group. Trainees worked on different modules in groups as presentations, demonstration, feedback and discussions took place. The training session was well-planned and well-paced predicting issues but flexible to the needs of the trainees. Audio-visual aids used for training included laptops, data projector, whiteboard used as a screen, speakers, PowerPoint presentation and training manuals. Four video clips were shown with the first video clip depicting learners' needs analysis which Vygotsky terms "Zone of Proximal Development". The second video clip displayed multi-grade classroom as an activity oriented classroom with practical demonstration of Mental Maths Demonstration taught to learners in different grades in the same classroom taught by one teacher.

Despite being a 10-minute practical demonstration Mental Maths was presented using different methodologies and various teaching strategies. The third video clip showed social components of MGT where learners assumed roles as leaders in their communities. The fourth video showed how a Learner-Governing Body (LGB) can be elected and the role of LGB in the school community. In all video clips viewed by the trainees the researcher observed that learners were from disadvantaged communities with poor socio-economic backgrounds. Yet, all learners actively participated in the class activities with such pride. The researcher discovered during training that chalkboard work was not used. Instead electronic learning and computer- assisted activities in multi-grade teaching were shown to be more time effective and less time consuming than chalkboard work.

While presenting the content of the training manuals the trainer was active and had a sense of humour which helped ease the tensions of venturing into the unknown. Although the majority of the trainees displayed keen interest in the training however,

some trainees remained passive. The trainer was motivating, had good knowledge of the topic and was confident. Not only did the trainer deliver training in an activity-based- learning but also the contents of the training manuals were portrayed as useful and relevant for multi-grade environments. The LTSM utilised comprised five key critical dimensions in which multi-grade differ from mono-grade: Classroom Organisation, Lesson Planning, Lesson Management, Teaching Strategies, and Social Components.

During discussions trainees reported on their individual experiences of multi-grading thus on one hand deviating the trainer's attention from delivering the content of the training manual. On the other hand the inputs from the training workshop were noted by the trainer. It was discovered that some of the trainees were not only engaged in multi-grading but also in combining phases. Amongst other challenges cited by trainees were learners' behavioural problems and the different Language of Teaching and Learning in the Foundation and Intermediate Phase. Most time was used in trying to find solutions to teachers' experiences in multi-grade teaching. Despite challenges experienced in multi-grade contexts, the researcher observed that the majority of the trainees showed positive attitudes towards multi-grade teaching. Not only did they commend the trainer on her approach and method of delivery of the training but they showed enthusiasm and promised to transfer MGT training to their classrooms. However, during evaluation of the training, trainees commented that the two days duration of the workshop was not sufficient as more time was used in theoretical deliberations than in practical activities. They recommended that the trainers should visit their schools and assist in rearranging their classrooms from mono-grade settings to accommodate multi-grade classes.

At the end of the session the trainees were urged to write in their journals reflections on their first training. The trainees were given assignments to be put on their portfolios, an action plan by encouraging learners to design a community Map and a Mental Maths Lesson Plan aligned with the Curriculum and Assessment Policy Statement (CAPS). For six weeks the trainees were to organise their classrooms for multi-grade teaching, form clusters of Professional Learning Community with fellow teachers and prepare a Mental Maths lesson plan demonstration on which the panel was to assess the transfer of training to their classrooms. After six weeks the trainees were to be visited by a panel of trainers as a follow up to their first training before their second training was to commence which also would be followed up by another visit. Five district officials appended their signatures to the forms of the trainees as an indication of attendance and participation.

The overall observation of the training sessions revealed that the first training was more theoretical than practical with its focus on seven units of the training manual. Both the trainees and the trainers were positive about implementing training and transferring training in the classroom practice. Trainees indicated that although they were confident in some aspects of MGT such as classroom organisation, classroom management and the use of instructional strategies, they indicated uncertainty in lesson planning, timetabling and assessment. From the observations the researcher redirected some points for discussion for the participants to comment on as fresh points for interviews emanating from the informal discussions during the training session.

4.3.2. Multi-grade Teaching Training Programme

Although only a few research studies have been made in the area of MGT in South Africa; this study reviewed the existing documents to understand the multi-grade concept in a South African context. Similarly, some international documents were consulted to review the concept of MGT as used in other countries. Pre-service and in-service training manuals utilised in multi-grade contexts were also reviewed in line with the objectives of the study. All the documents analysed provided the researcher with the background information of multi-grade teaching as well as the contents of the concept.

To assist schools that practise MGT, it was discovered that DBE (2012) prepared a training manual as a multi-grade intervention strategy to equip teachers with multi-grade teaching strategies. Access to the documents was gained through attending training as a non-participant observer in the training sessions held for Eastern Cape multi-grade teachers. Documents analysed were included to those utilised in training Eastern Cape Teachers in multi-grade environments. Training was aimed at skilling teachers to make the best use of the space in the classroom, to prepare effective instructional materials that provide interesting and challenging activities, to organise learners and manage time effectively and to provide opportunities for monitoring and supporting the learning of all of the groups in their class. The following documents were accessed and analysed by the researcher:

- Short Course in MGT: Improvement of MGT in schools in rural areas (DBE, 2012)
- Multi-grade Teaching Strategies Training Manual (ECDoE, 2012)

- Training Manual for Multi-grade Teaching: Volume One and Volume Two (Ley & Vincent, 1999)
- Multi- grade Teaching Training Manual (CPUT, 2012)

In countries where multi-grade teaching is a deliberate pedagogical choice the needs of multi-grade classrooms have been addressed through the principle of curriculum differentiation in many pre-service training curricula. It has been discovered that MGT is used not only as a teaching strategy but also as an option that addresses the teacher shortage in South Africa. To that effect, the ECDoE (2012) designed its own training modules to cater for Eastern Cape primary teachers in a teaching and learning context. The training package for MGT training which includes a training manual was developed by CPUT. The 40 credits six months short course offered by CMG established at CPUT have been specifically designed for teachers who teach in schools that practise MGT and for officials responsible for providing support to multi-grade teachers. The following table shows the structure and the outline of the short courses.

CONTACT SESSION	Training Manual Rationale
1st Two day Contact Session	1. Multi-grade Teaching Introduction
	2. Learning & Teaching(Mental Maths)
	3. Multi-grade Teaching Strategies
	4. Classroom Organisation
	5. Display Technique
	6. Classroom Management
	7. Social –CM + DLP
School Visits	1. Classroom Organisation
	2. Display Technique
	3. Classroom Management
	4. Social- CM+DLP
	5. Teaching & Learning
	Mental Maths
2nd Two day Contact Session	8. Timetabling & Scheduling
	9. Lesson Management
	10. Curriculum Adaptation + Differentiation
	MG Annual Teaching Plan
	Examples of lesson plans
	Examples of Assessment Tasks
	11. Teaching & Learning
	Reading and Learning: Do and Learn
	12. Articles
Final Assessment	1. Portfolio

Table 11: Short course outline on multi –grade teaching (ECDoE, 2012)

The structure and outline of the short courses are structured into ten modules seven of which are scheduled for coverage in a two days session. The first seven modules are theoretical followed by school visits monitoring transfers of training into a multi-grade classroom context. The next four modules cover more practical aspects such as timetabling, lesson planning, curriculum adaptation and differentiation as well as teaching and learning strategies. The final assessment follows with the Portfolio of Evidence comprising all training assessed before actual certification (see Appendix P).

The contents of the documents for South African Teachers were somewhat similar in terms of the modules for training in international countries. On the contrary, in some international countries for example in Nepal the government has been providing a ten-day in-service teacher training in order to improve the current practices of teachers in multi-grade classrooms (Suzuki, 2009:123). Yet, in SA only two cyclical two day contact sessions of in-service training were utilised to prepare teachers for multi-grade teaching. As a result from the interviews with trainers it was discovered that it is difficult to deliver the contents of the training manuals within the stipulated time. The allocated time of two days contact sessions in the first and second training cycle seem to be insufficient for the delivery of the MGT training curriculum. For effective delivery of MGT trainers claim that practical skills of MGT application in classroom situations need to be demonstrated to trainees. Yet, the training packages of MGT offer more conceptual knowledge and theoretical aspects on MGT than on practical skills. It was discovered that the contents of the training packages cover a few aspects of multi-grading as issues of handling combined phases were not

mentioned nor were they properly addressed during discussions in the training sessions which were observed. Notably, shortages of classrooms and classroom space to accommodate MGT activities are not properly addressed in these training packages. How to align multi-grade teaching with mono-graded CAPS seems not to be adequately addressed in the training manuals.

4.3.3. Classroom Observations

Classroom Observations are categorised into two: the Mental Maths Demonstration Lesson and the actual classroom-based teaching practise after the participants undertook multi-grade teaching training.

4.3.3.1. Mental Maths Demonstration Lesson

District	School	Teacher	Phase	Grades Combined
Butterworth	S2	T7	Intermediate	2,3 & 4
Fort Beaufort	S6	T3	Foundation	1,2 & 3
King William's Town	S8	T1	Intermediate	5 & 6

Table 12: Mental Maths Demonstration

Table 13 above shows the district, schools, teacher, phase and grades combined for Mental Maths Demonstration. As a non-participant observer the researcher also witnessed the presentations of three teachers per cluster in three districts. In three out of four sampled districts three teachers from three schools were observed during Mental Maths 10-minute demonstration. One district was not observed. One Foundation phase and two Intermediate phases combined grades of different levels in one class taught by one teacher. During classroom observation it was found that

trained teachers in the first cycle formed a community of practice where they assisted each other in developing a Lesson Plan for a 10-minute Mental Maths demonstration (see Appendix L). One member from the CoP was selected to present the lesson before the national, provincial and district officials as well as the trainer from CPUT. The researcher observed whole class teacher-directed learning as an instructional method for the delivery of Mental Maths to all grades combined. Self-instructional materials were effectively used by learners in counting. The presenters of the lessons displayed skills and knowledge pertaining to transferring the training for classroom practice. With regards to learners' participation, they were found to be participatory and active throughout the lessons but to some extent individualised. However, the competencies of younger learners in lower grades were found less demonstrated in Mental Maths lesson presentation.

4.3.3.2. Classroom-based Teaching

District	School	Phase	Number of grades combined	Grades Combined
Butterworth	S1	Foundation	2	2 & 3
Butterworth	S2	Intermediate	2	1, 2 & 4
East London	S3	Foundation	2	1 & 3
East London	S	Intermediate	3	2, 3 & 4
Fort Beaufort	S5	Foundation	2	1 & 2
Fort Beaufort	S6	Intersen	7	1-7
King William's Town	S7	Foundation	3	1, 2 & 3
King William's Town	S8	Intermediate	2	5 & 6

Table 13: Classroom -based Multi-grade Teaching Observations

Table 14 above shows the district, schools and phases that were observed in classroom multi-grade teaching practises before and after training. Various grade combinations from different schools and from different classrooms were noted. The main objective for classroom observation was to determine if the trainees transferred the newly acquired skills, knowledge, attitudes and values to the classroom-based teaching. In addition to observing the extent of the effectiveness of the transfer of training to classroom practise factors such as grade combination, classroom organisation, display techniques, instructional methodologies, lesson plans, timetables, demonstration lessons were also noted. Notably, grade combinations differed from school to school as learners in the schools observed were grouped according to grades next to each other grades 1 & 2; grade 1, 2 & 3; grades 2 & 3; grades 4,5 & 6 and grades 5 & 6 or in mixed grades such as grades1, 2 & 4; grades1 & 3; grades 1-7.

Reasons for such grade combinations varied due to different multi-grade contexts. Classroom observations on how grades were combined were verified by interviews with the participants. The inconsistent in grade combination is an indication that multi-grade teachers are not aware of the basis of which grades to combine. Although Mulkeen & Higgins (2009) believe that consecutive grade combination can yield good practise of multi-grade teaching. But, large gaps in terms of abilities if grades are not near each other may create problems in teaching learners in multi-grade settings. Given the grading and phasing of primary schools in South Africa grade phase can be taken into account when combining grade levels. The flexibility inherent in grade combination was reported as assisting in terms of addressing teacher shortage, teacher deployment and small class sizes.

It was reported that the aim of grouping was for the learners to draw from one another as resources, but very little group learning was observed. Learners were organised in pairs using double desks. Those using single tables sat individually and some desks were moved together to form a group of four learners. Of concern was that learners were just sitting in groups but not learning as a group. In that way learners were deprived of opportunities of employing group-work, co-operative learning and peer tutoring. The different seating arrangements and grade combinations create different space and time boundaries for a multi-grade class. Although MGT display techniques were attempted the classrooms were arranged in mono-grade settings.

In relation to the delivery of instruction in multi-grade classes patterns were noted. In the first pattern the teacher placed different grades in different classrooms and move from class to class teaching while the additional class was given work to do. In this fashion the teacher divided the lesson period for two or more grades and taught them separately as if teaching mono-grade classes. The teacher visited the classes frequently during that one lesson period. In the second pattern learners were seated in the same classroom taught by one teacher who divided the time to teach different grades and to teach each grade separately (quasi mono-grade). This meant that the classroom moved from a multi-grade class teaching to a mono-grade class teaching. In the third pattern different grades were combined in one class where the whole class teaching took place but learners were given different tasks on the same topic according to their grades. A fourth pattern revealed that different grades seated in the same classroom were assigned different tasks but the teacher was busy with the main class.

Thus, in the first pattern the teacher assumes multi-grade is non-existent and applies old patterns of teaching through the new instructional arrangement. With pattern 1 multi-grade teaching is not identified implying that the teacher although trained on multi-grade teaching has not assumed multi-grade responsibilities nor is her training transferred to classroom practice. Although patterns 2, 3 & 4 resemble a multi-grade class during observations it was found that while the teacher was busy with a certain grade, some learners were passive and distracted by work done by the other grade in the same classroom. Evidence suggest that learners in schools having one teacher per grade experience different times in their learning processes namely “time on task” and “dead time”. This study shows that teachers before training engaged with learners on different times “time on task” meaning the instructional teaching time when teachers lead instructions. In instances where the teacher is busy with another group or grade learners in the other group will be in non-learning mode also known as “dead time” as shown in table 15 below.

DEAD TIME			
TIME	GRADE	GRADE 5	GRADE 6
08:00- 08:50	Teaching	Dead time	Dead Time
08:50-09:30	Dead Time	Teaching	Dead Time
9:30-10:15	Dead Time	Dead Time	Teaching

Table 14: Timetable indicating teaching and "dead time" in a multi-grade class (ECDoE, 2012).

With regard to instructional technique in pattern 2 a quasi mono-grade type of teaching was applied while in pattern 3 & 4 curriculum differentiation was applied. Although in patterns 2-4 the teachers applied different multi-grade teaching

techniques they failed to control the class not being taught except in pattern 3 & 4; in patterns 1 & 2 learners received less teaching time than in other patterns. Furthermore in pattern 1, learners were also deprived of the teacher's presence in the classroom all the time. Generally, it happens that learners learn better in a teacher present class than in a teacher absent class. The role of the teacher in multi-grade situations is to manage activities for continuous learning of the learners even if he has to be engaged with other grade groups at the same time (Sag, 2009:023).

For all the patterns observed of transferring training to classroom practice, it was found that there were no written teaching plans prepared for all grades. Instead the teachers would use lesson plans prepared for a particular grade to teach to that particular grade. Similarly preparation and use of specific instructional materials meant to support multi-grade teaching was found to be non-existent as teachers made use of the available material and textbooks in their classrooms. In teaching and learning various MGT methodologies and instructional strategies were effectively employed. However, no adequate knowledge or skills in preparing timetables for MGT were shown as timetables for all classrooms observed were for mono-grade classes. Therefore, there was evidence of the transfer of MGT training in some aspects such as teaching and learning, lesson management, classroom management and display techniques except for classroom organisation, timetabling, lesson planning and assessment. Some aspects of the course outline such as DLP and PLC were established with learners' Community Maps displayed in-front of the principals' office and LGB welcoming visitors.

4.3.4. Semi-Structured Interviews

The aim of the semi-interviews was to identify and analyse training and development needs of teachers in multi-grade classrooms. Furthermore, delivery of training and development programmes was assessed through the interviews. Moreover the effectiveness of transfer of such training to classroom based teaching was examined. Semi- structured interviews and classroom observations were conducted before and after training to validate data. Based on the interviews with trainers as well as with trainees trained in multi-grade teaching; the response to interviews were presented in line with research questions and research objectives.

4.3.4.1. Reasons that lead to the establishment of multi-grade

Participants were asked to describe their understanding of the concept of “multi-grade” and the reasons that led to the establishment of their schools as multi-grade schools. Although all the participants agreed that multi-grade was a combination of different grades taught by one teacher in one classroom they indicated different reasons that led to the establishment of multi-grade in their schools. Some participants indicated that they did not voluntarily take decisions to teach in mixed grade classes but were forced by various circumstances. This observation was shared by participants who felt that they were being compromised by lack of school readiness for multi-grade teaching. P1, principal in S8 and P3, a principal in S6 who also teach in multi-grade classes reported that their schools were engaged in multi-grade teaching due to the transfer of teachers to other schools. The Department of Education may transfer a teacher to any posts with the prior approval of the person from a public school to another public school. Bennell (2004) refers to transfer of

teachers to other schools as teacher loss which can be voluntary or involuntary. Voluntary loss includes transfer while involuntary loss includes dismissal. Jimana (2012:176) found that it is not easy to find a replacement when a school has experienced “teacher loss”. One of the strategies employed in times of teacher loss is multi-grade teaching. The statements below articulate the reasons that lead to schools to becoming as multi-grade schools.

- *“The school became a multi-grade school when teachers were transferred to other schools in the neighbourhood which had an increase in leaner enrolment and we were left with no choice but to combine classes that were to be taught by one teacher. To me multi-grade teaching is not a remedy; we need more teachers for smooth running of our school (P1)”.*
- *A certain teacher was dismissed in one of the neighbouring schools. The department official came to ask for one of the staff members to go and assist in that school which was seen as one of the best performing schools in the district. That left us with a gap and we put some lower grades together in one class (P3).”*
- *...because of family responsibilities I had to ask for a transfer to another school that is in the same rural area where my family lives. To my surprise I found out that the school is a multi-grade school but I opted to stay rather than turn my back on my family in times of need (T6)”.*

Data given by participants indicate that teachers are transferred to other schools because of an increase in learner enrolment in other schools, family responsibilities and dismissal. Thus, multi-grade is reported as a necessity and as a response to various conditions such as teacher loss due to resignation and retirement as well as a decrease in the number of educators.

P2 and P4 complained about the teacher shortage which resulted in the combining of grades in the Intermediate Phase. Mulkeen (2010) attests to P4's response that the teacher shortage is the result of a lack of availability of teachers who are unwilling to work in sparsely populated and remote rural areas. Furthermore the participants report Department of Education's failure to appoint new teachers in place of those who left the teaching profession. DBE (2012) argues that it is difficult to hire teachers for each grade level or the number of teachers needed for the education system due to budgetary constraints and lack of resources. In cases of chronic shortage of teachers multi-grade is likely to be a reality that demands the application of an alternative approach to teaching and learning. Reports given were as follows:

- *“Ever since one young teacher resigned and two old teachers took early retirement their posts have not been filled yet. We have been struggling to increase learner enrolment as well as retaining the number of learners we have because of this huge shortage of teachers. Imagine this is a primary school where foundation of leaning begins. If there is no growth in learner numbers sooner or later the school will be closed (P2).”*

- *Because the teaching profession is not attractive anymore with its heavy workloads, ever changing curriculum and less remuneration young teachers are not willing to work in small rural schools. The Department of Education no longer appoints new teachers. Instead we wait for excess teachers that come from other schools. In the meanwhile we reshuffle the work and the classes amongst the available teachers (P4)."*

Redeployment was cited by some participants as the reason for being placed in a multi-grade school. Teacher deployment is teacher distribution to other schools where needs have been established. T7 redeployment was planned redeployment while T8 & T5 voluntarily chose to be redeployed to other schools. Implications thereof are that T7 was assigned to respond to an assessment of needs as planned deployment is arranged by the district to deploy teachers to specific schools (Mulkeen 2010:74). By volunteering to be redeployed T8 & T5 were thus deploying themselves. Therefore redeployment of teachers to multi-grade schools is likely to create the establishment of multi-grade classes. Responses were:

- *"At first I knew nothing about what multi-grade is all about until I was redeployed to another school. I was told by the school principal that I would teach in a multi-grade class. What choice did I have then? I wanted to work but not in a multi-grade class because other teachers are in mono-grade classes I did not anticipate that! That is when my troubles started I was coming from a mono-grade class trained at the college of education for a single grade class now this! I was so frustrated I wanted to leave the profession (T7)".*

- *The most painful experience I had was to be redeployed to a multi-grade school. I was not aware that it is a small school in rural areas. I chose the school from the bulletin I received from the district office (T8)”.*
- *At least when you are redeployed you are still employed but the challenge now is to be taken to a school that teaches learners differently from what you are used to then you start regretting volunteering yourself to be redeployed (T5).”*

From ToT 1’s viewpoint teacher unions assume that multi-grade does not exist or exists but is invisible, or is recognised as problematic but unresolvable and therefore best not to be mentioned. Although amongst the services provided by teacher unions is the support of its members even at a local level in continuing professional development. However, ToT1 claims that teacher unions deny the existence of multi-grade which is apparent in the following comment:

- *“Teacher unions claim multi-grade is non-existent and not realistic. They fight with us and bar their members from attending trainings or workshops we organise. At times in the middle of training they will come and disrupt it claiming that we bless multi-grade schools through these trainings and we are encouraging teacher deployment and eradication of teacher employment (ToT 1).”*

P3 and P1 add on teacher absenteeism as another condition that leads teachers to combine classes of different grade levels. P3 and P1 both acknowledge that teacher absenteeism is high in their respective schools. Workshops during school hours,

sickness, incapacity leave, union activities and lack of accountability are some reasons cited by the participants that result in teacher absenteeism. HSRC (2011) states that all teachers may be required to attend programmes for on-going professional development up to a maximum of 80 hours per annum. While teachers attend workshops during school hours organised by the Department of Education, this is in contrast with DBE (2012) regulations that such CPD programmes are to be conducted outside the formal school day or during vacation. This evidence suggests that failing to report to work with or without valid reasons is disruptive to the smooth running of the school and unfair to fellow teachers who have to take over the duties of the absent teachers and combine classes. In response to teacher absenteeism comments were:

- *“I blame the department of education for running workshops during tuition time. When Foundation phase teachers all go to CAPS workshop for a week, as a manager I cannot close the school the remaining teachers have to take care of learners whose teachers are not in classes (P1)”.*
- *“Teachers at times are not at work due to personal reasons that include sickness, or incapacity leave. Sometimes they are engaged in union activities now you have to account to district office, parents and community about the whereabouts of such teachers. It is so pathetic to see our learners become like lost and scattered sheep who have no shepherd. Other learners prefer to stay at home when their teachers are absent from work (P3)”.*

T5 and T2 view a decrease in learner enrolment and small class sizes as leading to the establishment of multi-grade schools. The decrease in learner enrolment led to a school being a three-teacher school and small class sizes in primary schools; fewer learners and fewer teachers in high schools are also mentioned. Little (2005) is of the opinion that multi-grade exists in schools in areas where the learner and teacher numbers are declining and where there was previously mono-graded teaching. The author also acknowledges that multi-grade schools exist in areas of low population density which are widely scattered and inaccessible with only one or two teachers responsible for all grades (Ibid). This then means that multi-grade prevails not only in lower grades but also in upper grades. T1 and T 2 stated:

- *“I started to teach in multi-grade class in 2005 when the number of learners in the school was declining due to various factors and that is how we ended being a three-teacher school (T1)”.*
- *“Small class sizes are a cause for multi-grade classes especially that the school is in rural area. In the olden days our parents were educated in small, multi-grade schools therefore denying that multi-grade classrooms exist is like denying that Jesus Christ ever existed. We have to accept the situation we find ourselves in its unavoidable reality (T2)”.*

In contrast to small class sizes that constitute multi-grade classes, ToT 3 remarked:

- *“Nowadays you can find a school classified as a multi-grade school even though it has more than 100 learners in one classroom and numerous small schools with an enrolment of fewer than 135 pupils and fewer than five*

teachers who have to teach all subjects offered not only for grade 1,2,&3 or Intermediate phase grades but also for grades 10 to 12. A high school I visited in my district had 100 learners, grade 8, 9 & 10 taught by one teacher combined in one classroom. That was a very disturbing scene, really” (ToT 3).

Another factor raised by T4 indicated that their school practice multi-grade teaching due to complying with school staff establishment which specifies the Learner: Educator Ratio (LER) for different phases and classes in the school.

- *“I think the school staff establishment determines who should stay or leave in the school as it indicates that only 3 teachers in this school are required to teach learners at Learner: Educator ratio of 1:30. Yet, there are more grade than teachers as the school begins at grade 1- 4. In order to meet the requirements of the school staff establishment we have no choice but to combine learners of different grades in one class (T4)”.*

The above statement is acknowledged by T3 who also understands school staff establishment to mean the number of educators and learners required in a school.

- *“Sometimes a school staff establishment requires a certain number of teachers to teach a particular number of learners. In such cases teachers combine classes especially in Foundation Phase where the situation deliberately force multi-grading in lower classes and let other grades stand alone as mono-grade classes (T3)”.*

T3 also raised the point that multi-grade and mono-grade classes co-exist in the same school where grade combination is forced on the lower grades meaning the Foundation Phase which comprises grades R to 3. “Staff establishment” mentioned

allocates grades according to the educator learner ratio. Little (2005) confirms that schools, in which the number of learners admitted to a class exceeds the official norms for class sizes, necessitate the combination of some learners from one class grade with learners from another class grade. Since there is no policy regulating grade combinations in South Africa (Brown, 2010), data indicates that schools combine grades as per assessment needs. It is generally accepted that the lower the learner educator ratio (LER), the more contact an educator might have with a learner during the teaching and learning process. From studying the details given by participants there are varying interpretations of what is encompassed in the term “Multi-grade” and how multi-grade manifest itself in schools. Thus it is evident that multi-grade manifest itself in different schools in different ways. Various factors reported such as transfer of teachers, teacher shortage, redeployment, teacher absenteeism, decrease in learner enrolment, small class size and school staff establishment lead to the prevalence of multi-grade classes in different schools.

4.3.4.2. Respondents’ conception of “Multi-grade Teaching”

Before training all the respondents confessed to having a hazy notion of what multi-grade teaching entails and thus to having underestimated what was required in the practice. Such perception was shared by all participants who found themselves developing a clearer conception of multi-grade teaching in later stages of teacher training. From the interviews, it became evident that the interviewed multi-grade teachers had an inadequate notion of what multi-grade teaching entails. Three trainers interviewed knew the meaning of the concept of multi-grade teaching. The

participants' speculations on what multi-grade teaching included the following statements:

- *"It is not the same teaching method you use in teaching in single grade class, it means there is a method that you can use for a multi-grade class. When I am teaching a single grade class I performed better than in this class I have been given. I think I like mono-grade teaching more than multi-grade teaching (T5)".*
- *"I think multi-grade teaching is not much of a stress when you have received training; it is something you can get used to as an alternative teaching strategy to learners of different grade levels (T7)".*

Data revealed that multi-grade teaching was perceived differently from mono-grade teaching. Some participants viewed multi-grade teaching as an alternative to mono-grade teaching. Others perceive multi-grade teaching as a reality, an instructional approach to teaching and learning that features in multi-grade classrooms. All the participants reported that they were engaged in different grade combinations due to different school contexts. Responses to the question on which grades were combined to form multi-grade classes were as follows:

- *"In my 20 years of teaching experience I never taught grade 2 but because of multi-grade circumstances I have no option but to combine grade1, 2 &3. Imagine grade 1 is an entry point and grade 3 an exit point for Foundation Phase and that is where Annual National Assessment is focusing on and grade 3 need special attention as grade 1. I am so challenged with such a combination (T4)".*

- *“I am not happy that grade 4, 5 & 6 are in one class I am so exhausted these entire grades have special demands on me. Remember in grade four I have to introduce a new language of teaching and learning as well as new learning areas such as Natural Science and Technology, Social Sciences and in addition to the 3 learning areas they were taught in foundation phase (T1)”.*
- *“Being the only one given a multi-grade class in a school that has mono-grade classrooms I thought I would die. How possible is it for a teacher to teach grade 5 & 6 in one class not having any capacity to do that? The school principal forced the combining of lower grades at Foundation Phase because she insists that grade 4 and 7 cannot be combined as they are entry points of intermediate and senior phase respectively. If I refuse this multi-grade class where will I work? I am caught in between employment or unemployment (T6)”.*

T4, T1 and T6 reported that they combined grades 1, 2 & 3 in Foundation Phase; 4,5 & 6 and 5 & 6 in Intermediate Phase. Data given by participants revealed that grades 1, 4 & 7 are not recommended to combine with other grades. Reasons given are that grade 1, 4 & 7 are entry points for Foundation, Intermediate Phase and Senior Phase respectively with huge workloads and new learning areas that teachers have to introduce. Grades 3 & 6 are at the exit point in their respective phases. Grades 1&4 learners needs special attention in the new learning areas and the additional language of teaching and learning; grades 3 & 6 learners are subject to systemic evaluation. One of the key strategies that the Department of Basic Education put into place is to annually measure the progress on learner performances towards the

2014 target of 60% achievement rate through the administration of Annual National Assessment (ANA) by improving the literacy and numeracy of grades 3, 6 and 9 learners in multi-grade schools in South Africa (DBE, 2011:123). Therefore if grades 3 & 6 are combined with other grades, opportunities to achieve the target of achievement rate of systemic evaluation seem minimal. Furthermore, it might be difficult or impossible to achieve Millennium Development Goals (MDG) of Education For all (EFA) by 2015.

By contrast, T3 mentioned that she combines not only grades but also phases as Foundation and Intermediate phases are taught all in one class in a one-teacher school with an enrolment of 35 learners from Grade 1-7. This then implies that in a multi-grade school grades of two or more levels as well as different phases combine to make a multi-grade class. Little (2005) asserts that in cases where there are not enough classrooms to justify opening mono-grade classes; multi-grade classes seem inevitable. While on one hand literature indicates that consecutive grade combination can yield good practice with multi-grade teaching (Brown, 2010); on the other hand Lingam (2012) claims that combining phase levels leads to undue pedagogical distress for the multi-grade teacher. T3 claimed:

- *“It’s so stressful you don’t want to know! I think I am challenged more than anybody else teaching in a multi-grade classroom. I am in a one-teacher school which has one classroom where I teach grade 1-7 with a total number of 35 learners. I am not coping in teaching learners of different phases at all (T3)”.*

Although the participants have been trained for mono-grade teaching, they indicated that they were forced to teach in multi-grade classrooms. Lack of choice regarding

multi-grade teaching is apparent in the above comments. The participants did not participate in the decision-making nor were they given an opportunity to express their views about their placement in a multi-grade classroom. Of concern is the deprivation of opportunities for the participants to express their opinions on teaching mixed grades. By implication multi-grade teachers do not participate in the decisions that lead to their classes being identified for multi-grade teaching.

Some of the challenges experienced in combining grades in one classroom affect the teachers' attitudes towards multi-grade teaching as T3 further claimed she would *"rather teach in a mono-grade class than endure the pain inflicted by multi-grade teaching on her"*. This reflects the kind of attitude that emanates from forcibly being given a class that one was not even trained for. Literature indicates that there are negative attitudes amongst teachers who teach in multi-grade classes especially where single classes and multi-grade classes co-exist in the same school (Kyne, 2007). Since teacher performance is affected by the attitude of the teacher, the negative attitudes of teachers' poses as a threat to effective teaching and learning and the quality of education that learners in multi-grade classrooms receive. Effective teaching and learning is likely not to take place in an environment where teachers are negative towards their teaching. The disadvantage is that teachers with negative attitudes compromise the knowledge and skills which they are required to transmit to learners by doing less work or by simply ignoring some aspects of the curriculum (Brown, 2009:79). Yet, without the support and training of teachers in multi-grade classes, it is likely that they will adversely affect the education of their students.

All the participants felt that multi-grade teaching is inferior to mono-grade teaching and they felt isolated by their counterparts who were teaching in single grade classes. To a certain extent multi-grade teaching was described as less satisfying than a single grade class and given a choice teachers prefer teaching in a single grade classroom. Lingam (2012) affirms that teachers in multi-grade classrooms perceive mono-grade as a desirable norm and multi-grade as a second-class necessity. To that effect teachers in multi-grade classes envy their counterparts in mono-grade classes. Participants reported that grade combination, phase combination, mono-grade and multi-grade classes co-exist in multi-grade schools.

Multi-grade teachers who participated in this research study reported that they did not receive any professional initial training in multi-grade teaching. The initial training that all the participants received prepared them for mono-grade classes. But literature on multi-grade teaching stresses the need for teachers in multi-grade settings to be trained in order to handle multi-grade teaching requirements (Lingam 2012). Yet, none of them had been prepared through training for multi-grade contexts. As a result the participants did not have the know-how of undertaking teaching and learning in a multi-grade class. They all identified the specific needs to undertake specific training in multi-grade in order to handle learners of different grade levels taught in one class.

4.3.4.3. Identification of Training and Development Needs of MGT Teachers

It has been noted that multi-grade teachers are a different cohort who needs support and encouragement to best handle teaching different grade levels effectively. Key competencies required of a multi-grade teacher in a multi-grade class include

knowledge and skills in curriculum adaptation, pedagogy and classroom management (DBE, 2012). The participants were asked whether they knew how to meet the performance standards of multi-grade tasks in a multi-grade classroom. The answer from all the participants was “No”; therefore performance problems in a multi-grade classroom were revealed and professional training and development needs were thus identified. A training need exists when teachers lack the knowledge or skills to perform assigned tasks satisfactorily. When asked how their training needs were identified some responses were:

- *“There is a huge gap from what I was trained for at the college of education and what I am expected to do in a multi-grade class. I did not know where to begin what to do and how to do it. It is disheartening to wake up in the morning, go to work and go back home without achieving any purpose for yourself or the learners. It is so painful not to be able to say this is what those poor learners achieved and this is how I was able to assist them in their achievement (P3)”.*

The statement above clearly shows the gap in knowledge and experience that teachers in multi-grade classes have and that may impede their personal and professional development. Teachers face demands in multi-grade classrooms to meet the diverse needs of learners. But without training and development teachers in multi-grade classrooms may not perform well. As teacher professional development needs depend to a large extent on teachers’ perception of the gap of where they are and where they want to be, self-reflection may be the most appropriate means of determining professional learning needs hence the following comment:

- *We were drafting a school development plan compiling it by identifying our areas of need for growth and development. I became obvious that we are struggling to deal with mixed abilities groups. The district officials encourage us to write personal growth plans which later constitute school development plans and our demands are sent to the district office for development and support in our professional and classroom based needs (P4)”.*

All the trainers identified also the training needs of multi-grade teachers when visiting schools in their districts in the following reports:

- *“I was employed as a Subject Education Specialist on curriculum section dealing with electronic learning. The question I was now having as I was handing over the computers was how these teachers can be able to make use of e-learning when they are confronted with challenges of teaching multi-grade classroom. The teachers were sitting with challenges they did not know how to handle such as planning for these grades, teaching these learners, managing and controlling multi-grade classrooms. That forced me to look for help to support teachers in multi-grade classrooms (ToT2)”.*
- *“There were schools where we thought since management was doing fine we thought the same for teachers in the classrooms. Surprisingly on visiting classrooms we found a different scenario where teachers in multi-grade classrooms were experiencing psychological problem due to pedagogical distress. To combat such challenges we had to place these teachers under Wellness programmes and seek for help in terms of assisting teachers in coping with handling learners with mixed abilities (ToT 3)”.*

- *“When I visited multi-grade schools I noticed that teachers in multi-grade classrooms were not coping well with lessons planning and delivery of lessons. One of the challenges I observed that I thought teachers need training on was that there was dead time for learners whom the teacher was not busy with whilst concentrating on a particular grade. I saw chaotic classrooms where the learners who were not attended to were disruptive or making noise. You would find some learners sleeping, not knowing what to do, others playing inside the classroom at the time the teacher was busy with a particular grade (ToT1)”.*

Data revealed that teachers’ professional training and developmental needs were identified in various ways by different participants. One identification was a huge gap between what teachers in multi-grade classroom were trained for and the expectations and performance in the classroom by multi-grade teachers. The other identification was made through areas of needs written in personal growth plans which constituted school development plans and later school improvement plans. Another identification discovered through classroom visits was the pedagogical distress that teachers in multi-grade classrooms experience in planning, teaching, managing and controlling multi-grade learners’ diverse needs. To confirm interview responses from trainers the participants when asked in which areas of multi-grade teaching they need training and development; they indicated that they needed training and development with regard to the multi-grade teaching curriculum, pedagogy and classroom management.

4.3.4.3.1. Curriculum Adaptation Needs

Literature on multi-grade education suggests that the national curricula require adaptation to be effectively implemented in multi-grade settings (Pridmore, 2007). However, all the participants echoed that there is no formal and official curriculum for multi-grade schools. Instead they all claimed that they are left in those multi-grade classrooms to fend for themselves. These teachers are expected to cope in these difficult circumstances with no training for a multi-grade situation. Although participants acknowledged that CAPS is not designed for a multi-grade class yet they used CAPS to teach learners in the multi-grade contexts. Teachers pay more attention to the highest grade meaning that the lower grades are relatively neglected. The reasoning behind is that teachers can focus on the lower grades later as they are likely to remain in the same class taught by the same teacher in the following years. Data revealed that teachers in multi-grade schools were not only responsible for instructing different grade levels but they also have to cover all the prescribed learning areas. However, despite challenges experienced in using such a mono-graded curriculum, attempts were made to integrate certain subjects such as numeracy and literacy. However such integration of subjects seemed ineffective in content subjects areas such as natural sciences and social sciences. T8 and P1 remarked:

- *“The curriculum I was trained on is mono-graded; although I use CAPS document to extract some activities, some concepts are not meant for all learners that are to be taught at the same time. Of course there are subjects such as numeracy and literacy where you can do oral and practical work with*

all the learners but when it comes to content learning areas such as Social Sciences and Natural Sciences challenges begin. For me multi-grade needs its own separate curriculum with its own activities and resources (T8)”.

- *“There is no way that I can cover the content of the learning programmes of the three grades I am teaching in one year. My concern is in grade 3, grades 1&2 work on their own most of the time. All I do is to integrate some learning areas, leave some work because for the next coming years these learners will still be in this class. I can then check what I have or not have done and begin with those lessons. It’s tough but I try the best that I can. At least they do something daily no matter how little (P1)”.*

The above comments suggest that teachers in multi-grade classrooms use a mono-grade curriculum to teach a multi-grade class. Yet, teachers in multi-grade settings need to develop knowledge, skills attitudes and values that relate specifically to their particular teaching environment. Curriculum differentiation in lesson plans may cause the teacher to change the content or replace one task with a task of a different kind to accommodate all different learners in the same curriculum (Pridmore, 2007). All the participants admitted that teaching a different curriculum for different grade levels to learners in one class was their greatest challenge. Owing to the lack of expertise on multi-grade teaching and no support; the participants claimed they use the same curriculum meant for mono-grade classes to teach learners of different grades in their classrooms. Teachers need to be able to identify themes and topics within the curriculum that can be developed to teach more than one grade. All

participants expressed frustration at teaching the curriculum in-depth due to curriculum workload and to cover subjects across all grades. T2 complained:

- *“I am not sure of what I am doing; all I know is that the syllabus that is supposed to be covered by different grades that I teach is not covered. At the end of the year I discover that there is so much work that I have not accomplished with my learners due to time constraints and the nature of the multi-grade class that requires special skills and time management (T2).”*

It is evident that multi-grade curriculum adaptation needs are not met hence training in multi-grade teaching might improve their skills and knowledge to adapt the curriculum to suit a multi-grade class. Of concern is that frustration can lead teachers to be fed up with their work and that can affect learners' learning and effective teaching. LTSM is part and parcel of the curriculum. Literature in multi-grade teaching requires that the learning materials be of relevance of good quality and specifically developed for multi-grade teaching (Berry, 2007). However, all the participants indicated that they did not have relevant instructional material for multi-grade teaching. Instructional materials tend to be written for the mono-grade classroom. Consequently they are produced as grade level textbooks and are designed to be delivered by the teacher to the learners. All participants claimed that they use the same learning material as is used in single grade classes. Yet Lingam (2012) claims that multi-grade teaching requires more self-instructional and self-study learning material to be made available to assist and support learning and teaching in such classrooms. P2 and P4 stated:

- *“When we do requisition for the school, teachers choose stationery and LTSM from the catalogue supplied by Department of Education. The*

catalogue does not differentiate between multi-grade and mono-grade classroom materials. We make use of any available resource to teach in multi-grade classes (P2)".

- *"I expect the department to design different teaching and learning material for our multi-grade classes that clearly shows integration of subjects, differentiation of tasks and how to adapt to the common curriculum (P4)".*

All participants agreed that they requisition books, school stationery and LTSM choosing from those supplied by the Department but none of those requested are specifically selected for a multi-grade class. In the absence of LTSM that supports multi-grade teaching this then implies that teachers in multi-grade classrooms use whatever is at their disposal as a resource. The existing LTSM consists mainly of textbooks aimed at supporting mono-grade, teacher –centred teaching and learning. For multi-grade teaching a need to be able to design and develop resource materials that can be used independently by different grade groups is shown.

The result of untrained teachers in multi-grade teaching as well as lack of appropriate LTSM shows that learners spend much time relearning the material they already know. But in Little's (2008) view the best way to assist and support teachers in multi-grade classrooms is through training them in a curriculum that suits multi-grade teaching and developing LTSM that supports multi-grade settings. Hence, the calls for in service training includes in particular, the requirement to provide multi-grade teachers with focused support to interpret the CAPS curriculum.

4.3.4.3.2. Pedagogical Needs

With regards to planning in multi-grade class teachers have to plan for more than one grade unlike in mono-grade classes. Lesson plans are blueprints for how the teacher intends to handle a lesson. A key concern is that despite the importance of lesson plans all participants claimed they are ill-equipped for lesson planning for a multi-grade classroom. Their lesson plans follow mono-graded orientation in line with Department of Education requirements. All the participants indicated that they were not equipped to plan lessons specifically for each grade; for them that was *“time consuming, tedious and a heavy burden”*. All participants reported on the excessive amount of preparation that is needed for planning for a multi-grade class and the paper work demanded from them. P 4 and P1 indicated that it was impossible for them to plan for grades 4, 5 & 6 in addition to their administrative work. They justified their claim that they used their experiences and expertise to manage lessons in their multi-grade classroom.

- *“You can imagine the heavy workload on my shoulders. Remember I am a school principal as well as a fulltime class teacher. I do not have time for myself or my family as I have planning to do for my class and administration work to do at home over the weekends or holidays (P4)”*.
- *“There is too much paperwork required from us on top of the heavy workload of preparing for different grades. It is really unfair (P1).”*

The above statements demonstrate the challenges faced by teachers who are also administrators and managers in their schools and who have to divide their time between teaching, administration and management in addition to coping with multi-grade classroom challenges. The principals have not been trained and they find it difficult to manage multi-grade classes. Yet, there are assumptions that school managers are skilled enough to manage schools with multi-grade settings. However, being a school principal and full time class teacher requires good organisational and management skills to manage multi-grade contexts (Lingam, 2012). In the same vein as the principals, T5, T4 and T1 also articulated the following in relation to lesson planning for a multi-grade class:

- *“I don’t even bother planning for different grades I teach those learners the same way I am used to (T5).”*
- *“I still use my old file where I keep all the lesson plans I prepared for my mono-grade class. Rather than being charged for not having any preparations I make use of what is in front of me. The topics, themes and lessons are not so different from mono-grade but what I can’t do is to plan all at once for all the grades. We are working under pressure in these classrooms. I still prepare for my own grade, for the other grade if it comes to a push I will borrow lesson plans from a mono-grade class and make copies for myself (T4).”*
- *Does lesson planning in multi-grade mean now I have to have 3 files for the lessons of the three grades I am teaching? That is virtually impossible. We have not been trained on how to plan for many grades at the same time even*

if we are to be trained to do that I doubt I will be able to manage. There are so many structures and school activities that I am involved in I spend very little time in the classroom (T1)”.

All the participants felt that a multi-grade class is an excess of work which needs remuneration. This was evident in comments such as “*we plan for extra grades and teach extra classes so we need extra money (T8)*”. P5 also complained:

- “*There is so much extra work for a multi-grade teacher, more extra load for a school manager and we were supposed to be paid more than our colleagues in mono-grade schools (P5)”.*

It is apparent from the above comments that lesson planning for different grade levels seems quite a challenge for teachers in multi-grade classrooms. In a multi-grade class teachers have increased curricula responsibilities because they have to plan curricula for different grade levels and develop strategies for its provision (Pridmore, 2007). Thus, a strong sense of “*Working under pressure*” was revealed by participants and remuneration for extra planning, extra work and extra classes is recommended.

Instructional strategies are seen as a key factor to improving the quality of teaching and learning in the multi-grade classroom. All the participants indicated that they were ill equipped to deal with teaching and learning in a multi-grade class. However, in relation to employing teaching and learning strategies T6 indicated that she felt what she had achieved in the past in the mono-grade class tended to be disconnected from the present multi-grade experience. This then implies that lessons learnt from pre-service education seem not to apply to the present multi-grade

scenarios. Therefore T6 felt that she was on unfamiliar terrain facing unfamiliar problems and that causes the confidence in her abilities to be low. Emphasis was given by T7 who felt she needs to improve her knowledge and skills in order to teach effectively in a multi-grade class. T7 admitted:

- *“I think I need help. I cannot handle this thing anymore its nerve wrecking (T7).”*

There is an immediate training need evident in the above claim that teachers have no theoretical background on how to teach in multi-grade classrooms. Thus, lack of teaching strategies to be applied in a multi-grade class is reported. In the absence of training all participants reported the common approach they use was to teach single grades alternatively where they replicated mono-grade methods by trying to teach each group in sequence. In this method, the greatest difficulty was in assigning different tasks to one group while the teacher is working with the other group. All participants felt they were not coping well with classroom teaching routines of multi-grade teaching and thus needed to improve their skills and knowledge of multi-grade teaching strategies as T2 claimed, *“That’s exactly what I need training for, I can’t plan for all the grades (T2)”*. The statement indicates that there is a lack of continuous support and training for teachers in multi-grade classroom.

On assessing learners in multi-grade classrooms time constraints to mark learners’ work and lack of recording skills of such work was mentioned. All the participants were found not to be confident in their teaching abilities when learners in multi-grade classes are engaged in assessment especially summative assessment which requires marking, recording and reporting of learners’ work. They claim that assessment is time-consuming, tedious and burdensome. T6 noted:

- *“At the end of the year during ANA exams for grade 3 I came to the realisation that learners did not learn what they were supposed to learn. They struggled in responding to many questions in the examination papers and that reflected on my own teaching (T6)”.*

Inability to teach in a multi-grade class is reported as affecting learners' performance, attainment and achievement. Lack of specific training and support has a bearing on teaching practices hence provision of teacher training was identified as of vital importance for teachers in multi-grade contexts. It is believed that unprepared teachers are less able to adapt their instruction to promote learning and are less likely to see it as their job to do so. Having been placed in multi-grade contexts, teachers face huge pedagogical challenges which need intervention in the form of training and development for multi-grade teaching. In cases of multi-grade teaching, effectiveness of teaching and learning not only depend on lesson planning and teaching strategies, but also on assessing learners of different grade levels in one classroom. It is for the above reasons that all the participants felt a need to be trained specifically for multi-grade teaching pedagogy.

4.3.4.3.3. Classroom Organisation Needs

In a multi-grade classroom where multiple activities are to take place, classroom organisation becomes a critical factor. There is a particular way that classrooms are organised for effective teaching and learners in a multi-grade class. MGT classroom organisation can be linked to Vygotsky's theory of learner-centredness, social interaction and co-operative learning. All the participants indicated that classroom space and discipline of learners in such classes poses as a challenge. The

classroom setting seemed to frustrate the participants as they felt unsure whether to organise learners into groups or ages or grades. T8, T3 and T4 claimed they were challenged by the large space these learners occupied.

- *“I think multi-grade teaching works best in smaller classes between 18 and 20 as there is a greater range in learners’ abilities, interests and educational backgrounds. Placing these learners of different grades in different places in the same classroom makes me feel that they do not really belong together (T8).”*
- *“When I started teaching I organised multi-grade classroom in the same way I was taught for mono-grade class and I placed one grade group on the other side and another grade on the other side. I would first teach grade 2 thereafter grade 3. But that did not work well as I spent all the year struggling to cover the work I was expected to cover for all grades (T3).”*
- *“Groups are convenient for assigning work to learners but with a multi-grade class you may not have even numbers per grade now you have to place the learners according to their ages”(T4).*

Managing learners with diverse needs in a multi-grade class was reported as challenging. Managing a multi-grade classroom seems difficult because there is more than one grade level in one classroom. The incapacity of district officials to support teachers in multi-grade classes was reported. The weakness in multi-grade teaching can be minimised through training that teachers can receive in multi-grade

teaching. Out of twelve participants four of them expressed their feelings of isolation and lack of emotional support from district officials. The statements below reported:

- *“At first there was no guidance from the school principal and the district office on how to manage a multi-grade class. I desperately needed help but I was told by the subject advisors there is nothing that will be done rather I use my own teaching experiences to handle such a difficult class (T6)”.*
- *“If the district officials want us to apply our own experiences in multi-grade situation that might be well with the experienced teachers; now what about a novice teachers placed in a multi-grade class where would she gain an experience to handle a multi-grade class?(P2).”*

One of the key critical dimensions for effective multi-grade teaching is classroom management which embrace time management. The difficulty of teaching more programmes in the time that is available to single grades was reported as a concern by teachers in multi-grade teaching. Timetabling practice was reported as following inflexible time for class periods in multi-grade classes. This then means that two or more grades had to share the time provided in the timetable designed for mono-grade class. Participants raised concern that time allocated for each subject per grade to cover the syllabus was insufficient for a multi-grade class. T3 and T1's concerns were:

- *“Why is time allocation for teaching in a multi-grade class the same as in a mono-grade class? (T3)”.*

- *“I feel that the amount of time I have to work with different grades is limited and I feel pressured by completion of the syllabus and also taking care of the below average learners (T1).”*

Given that participants had to share the available time among grades for which they are responsible implies that multi-grade classes have reduced time for teaching and learning. In turn the reduced contact time for multi-grade learners implies that they are deprived of equal learning opportunities equal to their counterparts in mono-grade classes. Evidence given by participants showed that learners in other grades in multi-grade classrooms experience “dead time” where the teacher teaches switching grades. In other words when the teacher is busy with grade 1; grades 2 and 3 learners are either sleeping, playing or placed in another class to avoid chaos and disruptions whilst the teacher is busy with the a particular grade. The multi-grade teacher has to be skilled in managing instruction to reduce the amount of “dead time” during which learners are not productively engaged in any tasks. This then suggests that some learners might not receive quality learning if they are left unoccupied for some time. Two of the comments from T2 , T7 and T4 were as follows:

- *“When I am busy teaching grade 1; grade 2 and 3 learners are sleeping, playing or placed in other class to avoid chaos and disruptions. But learning environment is not so conducive the class becomes too noisy (T2).”*
- *“I teach the multi-grade class one grade at a time and the other grade plays outside then when it’s their turn I work with them. It’s so chaotic it’s like an exchange programme (T7).”*

- *“Teaching in a multi-grade class is like punishment it becomes too noisy and difficult to control as learners disturb either the teacher or other learners (T4)”.*

ToT2 had this to say;

- *“One of the challenges I observed that I thought teachers need training on was that there was dead time on the timetables for learners whom the teacher was not busy with whilst concentrating on a particular grade (ToT2)”.*

Participants were further concerned with the lack of time available for working with individual learners and to reflect on teaching. It was reported that learners have to work on their own for an extended period of time and do not have sufficient interaction with the teacher. In turn participants find it difficult to monitor work given to learners for feedback and discussion. Therefore providing learner support for low achieving learners seems to be compromised in a multi-grade class. Furthermore, the weaker learners might lose out because of the lack of individual attention that could not be provided for them.

Learner-discipline was amongst challenges mentioned in handling a multi-grade class. DBE (2012) acknowledges the little amount of time available for learning that is poorly managed. The EFA Report (2010) found that only 40% of class time was used on actual teaching. Between 50%-64% of teacher's time is spent on controlling discipline. Therefore, too little time is allowed for learners to learn. All participants indicated that they had to confront more issues of learner discipline. T8 & T5 talked about the difficulty of controlling disruptive learner behaviour in a multi-grade class. Reports were:

- *“Instead of actual teaching I find myself running around the class trying to calm down noisy learners who disrupt other learners whilst I am busy teaching another class. It’s quite disturbing and very stressful not knowing how to deal with such behaviours. Most of teaching time is spent unnecessarily on disciplining learners (T8)”.*
- *“I saw chaotic classrooms where the learners who were not attended to were disruptive or making noise. You would find some learners sleeping, not knowing what to do; others playing inside the classroom at the time the teacher was busy with a particular grade (ToT2)”.*
- *“Learner behaviour is in its worst form in multi-grade classroom as you will see so much bullying, unacceptable behaviours and lack of interest to name a few (ToT3)”.*

The above narrative is an indication that teachers in multi-grade settings lack the expertise and skills to control learners of different ages and different grade levels at their disposal. T3 acknowledged that when left to work independently learners cause much chaos in the classroom. Learners in the upper grade tend to be more disruptive than learners in lower grade classes (Brown, 2010) which is often exaggerated in a multi-grade class where old and young learners are combined. Learners who lack interest are less likely to work independently in a multi-grade class without supervision. The above concerns draw attention to the way the teachers in multi-grade classrooms are coping with classroom organisation, classroom management and classroom control. Thus, all the participants indicated

professional training and development was needed in each of identified aspects of multi-grade teaching that encompass curriculum adaptation needs, pedagogy and classroom management.

4.3.4.4. Training and Development Programme for MGT

Training and development is a critical aspect of professional learning. For successful training intervention trainees have to be willing to learn before they accept the training. Training has to be geared towards the needs of the training cohort. The participants in this research study were probed on what motivated them to require training for multi-grade teaching. T2 identified the specific need to acquire training in multi-grade teaching in order to be skilled in handling learners of different grades combined in one classroom. In contrast, T3, T8 and T5 claimed that they were forced to attend the training by the school principal. Their stories were as follows:

- *“It’s a different motivation because as an adult learner there are new things that come up in the teaching profession. My goal is to be a better teacher who is able to say at the end of the day I am proud of my achievements. I am able to teach learners with different levels of maturity in the same class. Being trained will provide me with skills I don’t have (T2)”.*
- *“For me going to that training is less of a priority than to maintain my salaried job. It’s a break and a relief from that chaotic classroom. But being trained on something you don’t know may make you feel knowledgeable than your colleagues (T3)”.*

- *I attended the training because I was told to do so by my principal. What I expect from the training is nothing different from the previous trainings organised by education department. I always go back to my class more confused and less interested in the profession. I am just holding on until my retirement (T8)".*
- *"At this age I don't think I need to be attending any training but because I was told do so I had to go to that training against my will. I am sick and tired of these endless trainings on top of the heavy workload I have in this class (T5)".*

Although responses for attending training in multi-grade teaching varied from motivation to learn to being told to attend, improving the career had been the most crucial motivator. The acknowledgement by the participants of the reasons for pursuing training in multi-grade teaching relates to one of the underlying principles of andragogy as developed by Knowles (1984). In his writings Knowles acknowledged that adults seek out learning as a way to better their real life tasks and problems. The feeling that professional learning is irrelevant is particularly common amongst older teachers who may feel that they have already acquired adequate training while at work. Furthermore, teachers work 60 hours per week and may feel they do not have time for CPD programmes. With regard to the reasons given by the participants for attending multi-grade teaching training; the success of the training might depend to a large extent on the application of what they were trained for in their classrooms. Half of the respondents reported that they would use their training to improve their skills, and knowledge of multi-grade teaching. However, teachers who do not find opportunities to apply the skills learned may not be motivated to continue to learn.

4.3.4.4.1. The Focus of the Training Package

The trainers and the trainees participating in this study all agreed that Continuing Professional Development programmes are prepared for teachers already employed by the Department of Education. A trainer is a catalyst that assists trainees to assimilate knowledge, acquire skills and reflect on values and attitudes. The focus of the training package is reported in the statement below as a six month short course training intervention.

- *“It is an intense six months short course training consisting of two contact sessions followed by classroom visits and final assessment of Portfolio of Evidence. The aim is to capacitate teachers in multi-grade contexts with multi-grade teaching strategies. Academics from CPUT and district officials trained in multi-grade education have been contracted by DBE to run the programme for small rural school teachers in the province (ToT 1).”*

Participants were engaged in a sequence of activities with trainers putting emphasis on how training would be applied in the job and how it was going to be assessed and monitored. The explanation of the participant is consistent with Grado-Severson's (2007) belief that training should therefore give trainees a strong purpose, a clear objective and a definite reason for learning something. Notably the short course training intervention programme was conducted by trainers through an accredited service provider CUPT contacted by the Department of Basic Education. Integrated Strategic Framework for Teacher Education and Development has as one of its strategies improving the quality of teacher education short course intervention CPD programmes. Training and development programmes on MGT are thus evidence of

capacitating teachers in multi-grade settings. Once the training needs were established all trainees reported that they were informed how training would benefit them and how it fitted into national quality framework the possible 40 credits that could be acquired toward National Qualification. P4 acknowledged:

- *“We were told that we will get a 40 credit course certificate from CPUT after training if we meet the set standards. Also we were motivated to further our studies on multi-grade education maybe through self- study (P4)”.*

Data reveals that the trainers were employed by the Department of Education in other sections other than for multi-grade. Yet they were assigned to address the needs of the teachers in multi-grade contexts. Trainers claim that before they were engaged in trainings they did not have an adequate knowledge base and exposure to MGT for the delivery of training. But one participant indicated that she was already trained for multi-grade teaching by a non-governmental organisation through the Molteno Project to support teaches in multi-grade schools. They had to undergo training through short courses, online training and various levels of MGT training through CPUT. CPUT is known as the only higher education institution in South Africa that offers multi-grade education. With regards to the identification and selection of trainers for multi-grade teaching responses were:

- *“I was surprised to find that there was no person employed solely for multi-grade schools in the province. As a result DoE is using the same people employed in other sections to deal with something they were not employed nor trained for. Even when your hands are full you will be sent to solve problems in multi-grade schools, attend meetings, or run workshops for multi-grade teachers. Yet the expectations are that what is delivered in the national*

office should also be delivered also at the district level. Out of compassion for teachers in multi-grade contexts I have to undergo training though CPUT as to be knowledgeable and skilled on the matter. I am at Masters level now on multi-grade education (ToT 1)”.

- *“When I was employed in this department I was already trained on multi-grade teaching by the NGO I came from through Molteno Project. We were trained to assist and support schools in poor, remote and far-away schools in deep rural and farm schools and that is how I was identified as a trainer of MGT. But I also joined the officials who were trained by CPUT to add on the knowledge and skills I have. So what I taught to teachers was gained through trainings, workshops, meetings and discussions on multi-grade teaching (ToT 3)”.*
- *“Everybody has been silent about multi-grade and I have to knock at all doors trying to find answers to the cries of teachers in multi-grade classrooms. Trainings are a response to those cries and CPUT was contracted by department to train EC teachers on multi-grade teaching. If it were not for those efforts we would not have the huge number of teachers we are now training in the province (ToT2)”.*

On the identification and selection of trainees T1 remarked:

- *“The way multi-grade training started it was not introduced to me formally. I was visiting the district office and an official asked if my school was practising multi-grading.....later on I was called to attend a multi-grade programme (T1).”*

All participants indicated that the training sessions were held during school holidays or on weekends. This is in line with DBE (2012) regulation that state that workshop should be organised outside the formal school day. They may be held during vacation or on weekends. T 6 noted:

- *“What I liked about that training is that it did not interfere with tuition time and contact times with learners were thus not affected as it was conducted during the holiday (T6).”*

While on one hand training during the day might cause extra work in preparing for other teachers to teach in the absence of those who have attended training. On the other hand continuing professional training in the afternoon can be exhausting because the teachers by then are tired. This implies that trainings are not meant to disturb tuition time nor school programmes but are to be organised outside the formal school day.

4.3.4.4.2. The Training Curriculum on MGT

In relation to the training curriculum all the participants acknowledged that the content of the training manual comprised five key dimensions: classroom organisation, classroom management, multi-grade teaching strategies, lesson planning and management and social components. Some aspects of the training content noted in the training manuals are in line with CAPS document which is mono-graded. All the trainers indicated that teachers were trained not in the new curriculum for MGT is not a new curriculum but were equipped with coping skills to manage and plan for their classrooms. The coping skills involve planning,

management and curriculum adaptation for multi-grade classrooms a perspective that ToT1 and ToT3 emphasised:

- *“To me training is not about the manual or aspects encompassed in the training programme but multi-grade teaching talks more to individual experiences and ways to combat such challenges. I allowed teachers to bring in their classroom experiences and school environment to the training as to seek a consensus about the challenges they experience (ToT 1)”.*
- *“CAPS is a policy but multi-grade is not. Multi-grade is just an approach to teaching and learning of learners of different levels in the same classroom. Therefore teachers are given coping skills to deal with diversity in their classrooms (ToT 3)”.*

Teachers were supposed to be trained in all learning areas such as numeracy, literacy and life skills for the Foundation Phase. However, participants reported that they were trained in Mental Maths more than other learning areas. Mental Maths is insightful calculation with mental rather than written presentations of numbers which makes use of memorised facts, properties of numbers operations and the way they are interrelated. In primary schools language, numeracy and life skills given their values are fundamental to learning and therefore affect learners’ performance and cognitive development (DBE, 2012). Emphasis on Maths more than other learning areas is in line with SA target towards achieving EFA and MDG goals. The government’s commitment to improve learners’ performance and teacher quality is realised in the introduction of Action Plan to 2014: Towards the realisation of Schooling 2025 (DBE, 2012:17). One of the key strategies that the Department of

Basic Education put into place is to annually measure the progress of learner performance towards 2014 target of 60% achievement rate such as improving the literacy and numeracy of grades 3, 6 and 9 learners in multi-grade schools (DBE, 2011:123). Therefore teachers trained for multi-grade teaching face significant demands including the need to increase learner achievement and response to diverse learning needs. T8 claimed:

- *“Mental Maths was more emphasised than Life Skills and Literacy yet these learning areas are weighted differently and language has more weight than Mathematics (T8)”.*

4.3.4.5. Delivery of MGT Training

Face to face interaction was the common method of delivery of teacher training on MGT. All participants perceived face to face meetings as an effective means of delivery of the training as it provided information first-hand. ToT 2 admitted:

- *“I cascade the information I received through trainings to trainees. Face to face interaction, feedback and discussions are best modes for me of interacting with the trainees (ToT 2)”.*

T8's comments were as follows:

- *“The trainer set the tone for the training with her smiles and jokes. Because of the positive attitude I was confident that she knew what she was talking about (T8).”*

The trainees' perception of their role in the early stages of training session was that of listeners. The trainees were receptive because they were unsure of exactly what

to ask. As T7 said *“I have limited knowledge on multi-grade teaching so I listened to the trainer most of the time (T7)”*, the trainer did the most talking. Yet, passive participation is not expected of a multi-grade teacher. Rather he is expected to be an active partaker. But T6 has this to say:

- *“I experienced feelings of uneasiness as the trainer expected me to be more responsive yet I lacked confidence as I had limited knowledge and skills on multi-grade teaching (T6)”*.

Defining roles and responsibilities of trainers was a clear sub-theme for many participants. Descriptors of the roles and effectiveness of the trainers used words such as “effective”, “educated”, “supportive”, “mentoring” and “knowledgeable. The positive responses from three respondents to the roles played by supervisors in supervising their research projects were:

- *“She is an effective trainer rather than imposing something on us she let teachers participate in the training through various methods. She has been very generous in terms of advice (T3)”*.
- *“At least, you are not thrown in the jungle the trainers allows us to be hands on, they know what they are talking about. They are frank....I like their professionalism, their politeness. They give you an educated advice. They help you to help yourself (T6)”*.
- *“I have no problem with the trainer I feel I understood her. She acts as a bridge between knowledge and teachers as she is an expert in her chosen*

field. She is like a mentor but she says it is my work so I should be the decision maker in my classroom (T2)".

On a negative note, other participants reported that there was a lack of realistic expectations from the trainers. Their feelings were captured in the interviews which indicated that the trainers were seen as *"idealistic and had unrealistic expectations"* (T1, T6, T3).

4.3.4.5.1. Mode of Delivery of MGT Training

A combination of learning methods and techniques to accomplish a facilitated training intervention was used. Information was disseminated through the use of e-learning, Powerpoint presentations, multi-media resources and computer assisted activities. ToT2 justified the use of e- learning:

- *"Too much chalkboard work kills contact time in multi-grade contexts hence e-learning is integrated with multi-grade teaching for effective and efficient teaching and learning. I train teachers using PowerPoint presentation and enhance training by showing some video clips and other training aids. (ToT2)"*

Although chalkboard is common in training rooms for recording information and points of discussion, the participants indicated that it was not used at all during training. Rather a professional synchronised presentation through PowerPoint presentation was used. Video clips were used to bring the real world to their audience and to provide a platform for discussion and feedback. Yet participants reported their concern that computer facilities are inadequately supplied by the Department of Education and there is a lack of computer training and support

particularly for the Internet. Two of the participants, P4 and T2 expressed their concerns:

- *“No chalkboard work was written during training instead the trainer used worksheets for trainers to respond and present. But if that is they expect from us they are in for a big surprise we do not have such resources in our schools. The department needs to train us on computer literacy first but for now chalk and talk is still the order of the day (P4).”*
- *“I feel a little bit vulnerable, that probably due to being less knowledgeable about the topic. I think in this part I am still manipulated. But if you are weak willed during the sessions you can be discouraged. But now I am at a point where it has been fairly obvious what to do next but it is a challenge to make decisions on my own. You see... I am not skilled enough handling technology (T 2)”*

Except for two participants, all other trainees indicated that they were challenged in terms of the use of technology and online resources and applying them in multi-grade teaching. Furthermore, lack of availability and lack of their ability to use information and communication technology equipment was perceived by trainees a possible barrier to the transfer of teacher training on MGT in the classroom. By implication chalk and talk the traditional methods of teaching and learning were applied in multi-grade classrooms. Thus resistance to change and fear of complexities were revealed amongst trainees.

Multi-grade teaching is a hands-on approach and activity-based which requires trainees to be actively engaged in the training (Berry, 2006). Trainee teachers

indicated that they were motivated and eager to learn as the trainer conducted training in an open interactive way. In order to establish good communication and rapport with the trainers, trainers need to establish a certain level of relationship. Trainers were perceived as friendly and approachable and of good assistance. Although descriptors of trainers were observed in words such as “ *guide*”, “*supporter*”, “*mentor*”, “*friend*”; yet, some participants expressed their negative feelings about the lack of guidelines stipulating expectations from them as trainees. Since the trainers were seen as guides and advisors, this then suggests that to some extent they had to accommodate the expectations and requirements of the trainees. T3, T5 and T8 acknowledged:

- *“She delivers training with such passion to an extent that our mind-set about multi-grade teaching has now shifted. She is capable of guiding you to point that you thought you will not able to reach. Hopefully we transfer training with such passion that was shown to us during training (T3).”*
- *Like a coach the trainer was able to demonstrate what I was supposed to be doing in the classroom. She made application of multi-grade teaching in the classroom easier and I began to think positively about my class (T5).”*
- *At times I was absent minded as I did not understand what we were supposed to do as a group I felt demotivated. I think she noticed that and asked me to point to areas which I need clarity on. She gave me some advice and helped me come into terms with the difficulties I was experienced (T8).*

The roles that have been identified by the participants were that of a “coach”, “instructor” and counsellor”. While the instructor guides the learning process, the coach demonstrates the task to the trainees as well as providing counselling when giving feedback and clarifying difficulties. As an instructor, coach and counsellor it can be said therefore that the training was trainer-led. Yet all the participants reported being engaged in trainee-led methods of learning words mentioned such as “group-work”, “discussions” and “demonstrations”.

With regards to strengths and weakness to assess effectiveness of the training the feedback from some participants was positive and reflected the high spirit and high note on which the training ended. Training had a positive impact upon the motivation and attitude of teacher trainees who developed an interest in their professional development. ToT1 and ToT3 attested:

- *“I managed to make a breakthrough to teachers in my district as their attitude towards multi-grade teaching has now changed from negative to positive. At the end of the training they are able to say we now have a clear direction (ToT 1)”.*
- *“Because of the coping skills that the teachers received during training some trainees were able to say we will manage to transfer what was learnt in the classrooms (ToT 3)”.*

The above comments indicate attitudinal changes of multi-grade teachers about multi-grade teaching. The group-work, discussion and presentation sessions and use of ITC received the highest praise from all the participants. Training was recommended that it allowed teachers from different multi-grade schools to work together and presented them with opportunities to form clusters with neighbouring

schools in order for teachers in multi-grade classrooms to support each other. T8, T4 and T2 reported on the strengths of the training on multi-grade teaching as follows:

- *“Now I know exactly what I will do in my classroom. I will start by clearing all unwanted stuff and arrange my classroom properly (T8).”*
- *“I can’t wait to go back to my classroom and implement all that I heard, saw and observed from the training (T4).”*
- *“The workshop was good we are looking forward to the next training (T2).”*

Thus several comments on assessment of the training programme saw it as satisfactory. Although there were positive comments about the assessment of the training programme T7, T5 and T3 had this to say:

- *“Why train us only even those in mono-grade classes should receive training in case they are redeployed to our schools? “Where were our principals and subject advisors I think we are supposed to be trained at the same time considering that the training took place during school holidays when everybody is free? The training is meant for teachers already in multi-grade classrooms then what if a teacher from a mono-grade class is redeployed to our school it will mean we will be sitting with a problem of untrained teachers for multi-grade teaching. I think the training should accommodate all teachers from rural and townships schools whether engaged in mono-grade or multi-grade classrooms (T7).”*

- *“Time for training was limited I could not assimilate all that intense training in just a few days. Instead of two days intensive training it must at least be 5 days. Definitely I will forget some of the concepts learned, it was too hectic (T5).”*
- *“I have been attending so many trainings since I have been employed as a teacher. How is this one different from others because what they say is not always applicable at times in our classrooms? I am not sure whether the components of the training manual are in line with CAPS but I see familiarity on some training aspects. Very few aspects are new to me but some look slightly different from what I am used to like the seating arrangements, combination of certain subjects and drawing up a single timetable (T3).”*

Data reveals that it was strongly recommended that similar training workshops should be conducted for district officials, school principals and all teachers whether in mono-grade class or multi-grade class. Time and duration of the training sessions were mentioned as less than adequate. The content of the training manual were seen as familiar to CAPS with a slight difference in some aspects such as classroom organisation, timetabling and lesson planning.

4.3.4.6. Transfer of Training in the Classroom-based Teaching

Although their views fluctuated the participants indicated that they were making progress at the implementing training inputs in their classrooms they were in. Yet, feelings were not always positively correlated with progress however. Thus, the multi-grade teaching itself was seen as problematic. Three of the participants

reported that it was easy for them to implement in the classroom what they had learnt in training on MGT but five were unsure of the implementation strategies as their mind-set had not yet shifted from mono-grade teaching. Remarks were:

- *Before, I thought multi-grade teaching is to accommodate different grades in one class but teaching them alternatively. Now I have been trained I realise that multi-grade teaching is something else, something different from a mono-grade class teaching (T5)".*

The above statement reveals that training has a positive impact upon teachers' conception of multi-grade teaching. Although the participants expressed their understanding of the phenomenon; it is uncertain whether relevant teaching strategies acquired through training were effectively implemented in their classroom teaching. Two of the participants echoed:

- *"I saw myself running around in circles. Its' a maze...going over and over the training inputs but end up not achieving the purpose as the classroom setting is different from the training venue setting where you discuss and deal with fellow teachers. In the classroom situation learners are a different cohort at times it is not easy to translate what you learnt in the training intervention (T5).*
- *"It was easy to implement some other things we were trained on but most of the time I used my own teaching experience to deliver some of the lessons as there are no specific guidelines or specific support materials for this multi-grade (T7)".*

Although T7 complained of no specific materials given to assist and support in multi-grade class evidence given by participants indicated that no LTSM was offered in multi-grade trainings but use of new technology was encouraged for effective and efficient delivery of the lesson that will cover work for all grades at the same time. For Tsolakidis et al. (2005) learner pacing is easily picked up through the use of technology and multimedia resources. At times it depends on the teacher who received training whether to apply it in her immediate environment or not since a teacher is a leader in his own classroom. Knowles (1984)'s andragogy ascertains that what the teacher chooses to do depends on his motivation and will and the relevancy of the tasks in his immediate environment.

4.3.4.6.1. Success in the Transfer of MGT Training in Classroom-based Teaching

All participants acknowledge that lesson management was what is interesting in multi-grade classrooms. Data reveals that lessons are effectively managed with the use of learning centres. A learning centre is an area arranged with instructional tasks and resources for learners to work independently. All the participants found multi-grade teaching strategies were not different from those employed in a mono-grade class. Eight of the participants acknowledged a change in teaching strategies employed in their multi-grade classroom from a traditional approach to an open type of teaching which emphasises thematic approach. Responses were:

- *“One advantage is that learners in grade 4 can grasp and understanding learning concepts and activities meant for grade 5 & 6 in advance but a disadvantage could be that to them some tasks will be repetition and at times learners can easily get bored (T6)”.*

- *“.....for instance if you are busy with grade 3, grade 2 will be working on their own in the learning centres that you have prepared for a class that you are not teaching(T3).”*
- *“I learnt that multi-grade teaching is about management- yourself, learners and the working environment (T2).”*

T 5 observed:

- *“One of the most valuable teaching strategies I identified in multi-grade teaching is integration. Firstly it makes me use instructional time more effectively. Instead of planning for various grades I develop one lesson plan that will be talking to different grades. My focus is now on themes where I can make connections with other learning areas not individual subjects (T5).”*

Integration is identified as the best approach for a multi-grade class where the teacher makes connections and integrates themes within the same subject and across different subjects. The only differences then are differentiated tasks where progression shows in tasks or activities given to learners in different grade levels seated in the same class. By implication, multi-grade teaching changes teachers' style of teaching and it gives learners independency and autonomy. But instead of promoting peer- tutoring, cooperative learning and self-directed learning in learners, four of the participants abandoned their efforts and returned to the old familiar strategies of lesson delivery. Vithanapathirana (2006) is of the opinion that teachers

have difficulty in overcoming the anxiety they experienced when attempting to adapt to new ways of teaching in a multi-grade class.

T2 pointed out that she sees less advantage in multi-grade teaching but more challenges. The only advantage she enjoyed was *“to be amongst her colleagues for planning, discussion and feedback (T2)”* where she found consolation from teachers who shared the same sentiment with her with regard to multi-grade teaching. Lesson Plans used for demonstrations were prepared for officials who were making a follow-up on the first training cycle provided for teachers. T4 admitted:

- *“I managed to demonstrate Mental Maths successfully before the national office, service providers and district officials not because of solely of the training I received on multi-grade teaching but also because of the knowledge and skills I obtained from another university where I obtained ACE specialising in Mathematics. What I presented was not different from CPAS documented Maths (T4).”*

Therefore positive experiences towards implementation of teacher training in classroom practices included lesson management, curriculum integration, teaching strategies and social components of multi-grade teaching. Although some trainees experienced success in the transfer of teacher training on multi-grade teaching in their classroom practise, some trainees highlighted difficulties in the transfer of training.

4.3.4.6.2. Difficulties on Transfer of MGT Training in Classroom-based Teaching

When asked how their classroom are organised a few participants were reported to have managed to organise their classroom for multi-grade setting. T4 & T 8 confirmed:

- *“Officials would visit me and find my class resembling a multi-grade class (T4)”.*
- *“...my classroom is better arranged than before although I have limited space to put my old stuff (T8)”.*

Six of the twelve participants mentioned that they were still practising the old way of organising learners in rows and in pairs depending on the make of the desks. They reported that the multi-grade environment was *“difficult, complex and burdensome”*. Out of twelve, four participants reported experiencing barriers because of the type of furniture they have. Different perspectives were found in the following statements:

- *“The way our classes were built and clustered with old books, old cupboards, big tables limit classroom space and therefore makes it difficult for me to arrange the classroom in multi-grade style (T2).”*
- *“There are so many things that need to be organised in this class like space, lesson plans, resources and learners themselves. Perhaps a course in classroom management would give me some ideas on how to prepare for teaching and learning. At the moment I don't know what I am doing or where to start or how to do it (T6)”.*

All the participants mentioned classroom control as a barrier to the transfer of teacher training in multi-grade teaching in classroom practice. T3 claimed:

- *When I am teaching, I still find it difficult for me to keep control of the other level which is supposed to be sitting quietly waiting for its turn (T3)".*

Class size was also mentioned as the barrier to practising multi-grade teaching in the classroom practice. T1 remarked:

- *"I think class size affected the success of the transfer of multi-grade teaching training in my classroom practise as I had a class of more than 35 learners which is fraught with challenges as the school is a one teacher school combining grade 1-7(T1)."*

Firstly the teacher indicated that she was challenged in terms of employing LOLT for different phases, introducing new learning areas in different phases. Secondly, discipline was seen as the major challenge because there is unacceptable behaviour such as bullying of younger learners by older learners. Thirdly, different levels of maturity for learners of different grades in one class were experienced as difficult to manage. Thus learner diversity and differences in interests, abilities and maturity levels were issues that a multi-grade teacher is confronted with.

Participants claimed that they faced a number of challenges in transferring teacher training on MGT in their classroom. One of the difficulties experienced in transfer of teacher training in classroom practice was in grade combination as "*learners in grades 1,3 & 6 and 4 & 7*" were classified as more weighted than learners in other grades as the grades are either in entry or exit point in a phase. The weight of the learners needs to be considered also in terms of managing multi-grade classes as

learners in some grades have more weight than others (DBE, 2011). Cases in grades 1& 2 combination presented were *“less time for individualised learning as learners who attend school for the first time struggle in terms of learning and writing formal tasks (T3)”*. Such learners needed individual attention and support which the teacher in a multi-grade class lacks. T7 noted:

- *“The challenge is when you leave them to work independently the aspect of self-directed learning becomes absolutely non-functional in younger learners who still need hand holding and who function well in the presence of the teacher (T7)”*.

Curriculum adaptation was revealed as difficult to implement even after training. *“Administration and organisation of resource material”* was experienced by all principals partaking in this study as daunting. T6 reported:

- *“Lack of skills for materials development, isolation by colleagues who plan for their mono-grade classes and neglect by the school management team as allocation of sources caters only for mono-grade classes makes it difficult to implement some of the aspects of the training in the classroom situation (T6).”*

T5 and T3 complained:

- *“The last training I attended we were not clear about how to prepare a lesson for different grades and teach those lessons at the same time. Drawing a composite time table in contexts where mono-grade and multi-grade co-exist proved difficult not only to us as trainees but even the trainer was not so convincing in her presentation (T5)”*.

- *“The weakest aspect of the training was in planning for all different grades at the same time (T3)”.*

Another difficulty experienced by participants in transferring teacher training on multi-grade teaching to classroom practise was linked to lesson planning. Although the participants were shown how to prepare a lesson plan for different grade levels they still found it difficult to implement such a planning to the classroom. P3 commented:

- *“Remember we were trained as teachers, deliverers of lessons not administrators. These people are supposed to give us prepared lessons to teach in multi-grade classes not give us so many tasks to perform that’s unrealistic and unfair (P3)”.*

It is evident from the statement above that teachers in multi-grade settings prefer to be given lesson plans to teach rather than prepare lessons for themselves due to the complexities of a multi-grade class. Having done it practically during the training however, the context for practical implementation was different from the theoretical understanding. Not only were they challenged with translation of CAPS documents but they were unsure how to prepare lessons for different grades. Rather they chose to prepare different lesson plans for each grade and to present it as such. Yet multi-grade practice requires one lesson plan to be administered at the same time to different grade levels putting more emphasis on grade progression.

All the participants indicated that they felt a great challenge in managing time for teaching in a multi-grade class. Participants reported that they struggled to draw time-tables for their multi-grade classes and those who are able to do so found it difficult to adhere to it. Also principals claimed they found it difficult to make a

composite timetable for both mono-grade and multi-grade classes operating in the same schools. Yet, literature indicates that the multi-grade teacher is expected to teach several grades specific curricula at the same time as is available to single grade teachers who teach one set of curriculum to one grade level (Lingam, 2007). Participants mentioned that they tended to give fewer tasks than planned. Various reasons given were:

- *“Giving work to learners, homework then assessing their work is virtually impossible considering my absence in class due to various meetings I have to attend (P 2).”*
- *“I cannot mark all learners’ work of different grades due to time constraints. At times I take some of their workbooks home for marking because of the strenuous job I am doing in that multi-grade class I end up not marking any of the books (P3).”*

Assessing learners of different grade, marking their scripts, recording and reporting was found by all participants to be challenging and time consuming. Evidence suggests that teachers in multi-grade classes experience isolation as participants reported lack of support from colleagues in single grade contexts and managements. Thus, challenges reported in transfer of teacher training in classroom-based teaching involved grade combinations and class size, lesson planning and classroom management skills. Therefore what was learnt by teachers in multi-grade settings through training was not likely not to find itself in their classroom nor was it likely to translate into their classroom-based teaching practice.

4.3.4.7. Monitoring and Evaluation of MGT Training

The most crucial component of monitoring and evaluation of the training and development programme that is clearly articulated is the quality of professional support. Participants were asked about the frequency with which they saw their MGT district officials for school and classroom visits particularly after teacher training on MGT. Except for one district, participants from three districts all acknowledged having had visits from district officials after training to monitor implementation and transfer of training to the classroom practice. Confirmation of school and classroom visit by all trainers was as follows:

- *“In the province there are gaps, loopholes in terms of support, monitoring and evaluation as we as trainers also need to be monitored and evaluated. They will say they are supportive but you do not feel nor see their support as they are less interfering and invisible. To me DBE support for multi-grade teaching stops at national office in the districts multi-grade is treated as a non-existent phenomenon (ToT 2)”.*
- *“When I visit schools I need to see training implemented as well as their shortcomings. I visit schools and classrooms two weeks after the training to monitor transfer of the training in classroom based teaching. I support teachers in the sense that I assist at times in organising the classrooms, lesson delivery and also allow them to demonstrate to me what they are able or not able to do. I also suggest changes in the timetable where learning*

areas such as Creative Arts, Music, Life Orientation, Mental Maths, and Language can be done concurrently for all grades (ToT 3)”.

- *“After training I visit clusters to see their preparedness in terms of transferring what they were trained for into classroom teaching. Teachers in a particular area are encouraged to cluster to form Professional learning Community where teachers in multi-grade contexts assist and support each other (ToT 1)”.*

Besides, feelings of isolation in multi-grade classroom and less socialising with fellow workers all participants indicated that they were actively engaged in Professional Learning Community. A professional learning community is a community of practice where teachers learn together, share ideas, discussions and reflections on their practise and find ways to counteract on the challenges experienced. Teachers support each other as a Professional Learning Community but at times they need guidance from the officials as they seemed unsure whether they were on the right track in their classroom practice. All the participants revealed that they needed to interact with others as to discuss and share experiences relating to their multi-grade teaching challenges. To them the collegial support not only reduced isolation but also meant that mature aged teaches developed support networks for themselves. The influence of peer support was mentioned by two participants implying therefore that the support and encouragement received from colleagues and trainers was crucial to the transfer of teacher training in their classroom situation. In light of the benefits of a community of practice the participants as a cohort may well benefit from the positive influences and support that peers provide.

Although T4 felt alienated and marginalised as a multi-grade teacher she found consolation in cluster of teachers from neighbouring schools. She echoed:

- *“It was not only me who prepared the lesson on Mental Maths which I demonstrated but was assisted by cluster members (T4)”.*

Although trainers attested to providing professional support after training, participants from one district claimed they rarely had visitors from the department after training. Descriptors of the MGT coordinators who did not visit schools or classrooms for support were reported in words such as *“less interfering”* and *“less visible”*. With respect to contact with MGT district coordinators, teachers found fortnightly sessions useful for keeping them motivated and for monitoring their progress. By implication, officials were appreciated when their presence assisted teachers in monitoring their progress in MGT training. In instances where the district officials were unavailable monitoring and evaluation of teacher training in MGT was compromised. Thus, trainees tended to have low self-esteem and low academic competence because of the unavailability of the trainers for supervision and monitoring. In the absence of communication with district and school support multi-grade teachers felt lonely, alienated and insecure. With regards to classroom visits to monitor the implementation of what trainees learnt during training one trainer had this to say:

- *“Although we visit and support teachers after training in their schools and classrooms at times I find such support a waste of time when they are discouraged by their immediate senior officials (ToT 2)”.*

Despite experiencing less support from department officials and work colleagues; positive responses to the question of how the impact of training was evaluated, T1 and P1 reported:

- *“Our Portfolios of Evidence are evaluated by service provider and we even demonstrate lessons in our districts for teachers in our cluster and for neighbouring schools. Some teachers saw me on that video I was proud of myself and I ended up seeing an opportunities presented by multi-grade teaching as I facilitate multi-grade meetings in my area as a lead teacher (T1)”.*
- *“There was no training I received after the first training nor have I attended any refresher or recurrent workshop that’s the problem with the Department they do not follow up fully on their trainings (P1)”.*

Data revealed that there is a need for recurrent training to monitor and evaluate the impact of MGT training and development on various levels such as individual, school and organisation levels to determine the effectiveness of the training intervention and the value it adds to different levels.

4.4. Findings

Having presented and analysed the views of the participants and their responses to research questions and objectives of the study, findings presented were extracted from thematic analysis of this research report. The findings of this research report was categorised into findings from the training session observations, training documents analysis, classroom observations and semi-structured interviews.

4.4.1. Findings from Training Sessions Observations

During the training session observations and informal discussions with the participants, the study found and recorded observations of the focus of the training package, the training programme, and the delivery of the training.

4.4.1.1. The Focus of the Training Package

Pre- service was found to be non-existent in South African teacher training institutions except for one Higher education institution which offers both pre-service and in-service training up to doctorate level. Teachers in multi-grade classes were initially trained for mono-grade class none of them underwent training for multi-grade teaching in pre-service training. Current pre-service teacher training focuses on training primary teachers to teach in phases either Foundation Phase (grades R-3) or Intermediate Phase (grades 4-7). In- service training is currently provided by service provider in certification training of six months. The training package was divided into two sections to be covered in two days contact sessions followed up with school visits and portfolio assessment. The MGT course organised by DoE conducted by CPUT trainers and DoE trainers was offered as a government initiative to teachers teaching in multi-grade contexts as a six months course. Trainings were conducted during holidays or on weekends without disturbing tuition time.

4.4.1.2. The Training Programme on MGT

The study reveals that the teacher training and development programme was conducted in two phases. Firstly, training was oriented through a two days contact

sessions. The second phase was six weeks comprised school visits and professional support in classrooms. Thirdly, there was another two day contact session dealing with the more practical aspects of multi-grade teaching and lastly final assessment of the programme. Time allocated for the on-the-job training was considered by participants insufficient for training in a complex phenomenon for two days per session in a cycle of two sessions. It was also discovered during training observations and interviews conducted with trainers that there is a lack of specialised trained manpower in MGT in the province therefore the DBE contracted academics from CPUT to conduct training for Eastern Cape teachers. It was also discovered that there was a lack of specialised trained manpower in MGT in the province. Since there is no officially defined procedure for the selection of trainers for training of trainers officials employed in other sectors were engaged in the training and monitoring of teachers in multi-grade classrooms. Although responses from trainees for attending training in multi-grade teaching varied from motivation to learn, to being told to attend, improving the career had been the most crucial motivator.

4.4.1.3. Delivery of MGT Training

Face to face interaction was perceived as an effective means of delivery of the training as it provided information first-hand. Trainers indicated that cascade model was the common method of delivery of teacher training in MGT.

4.4.1.3.1. Mode of Delivery

Teacher training on multi-grade teaching was based on the cascade model where trainers transmitted knowledge to trainees who in turn transferred that training input

provided by service provider into their classroom practise. A cascade model was also used to transmit knowledge from the trainer to the trainees who then clustered to form Professional Learning Communities and demonstrated their expertise to teachers who were not yet trained on MGT. Mode of delivery of the training course included use of the participatory training approach, learner-centred approach, audio-visuals, media print and field notes. E-learning and computer-assisted activities were seen as more effective in lesson delivery in an MGT classroom than chalkboard work as the latter can kill contact time. Despite the use of new technology, trainees were found to be less participating in the training session. Trainees struggled with the use of PowerPoint presentation as they displayed limited skills in technology. Elements of fear complexities and resistance to change were evident during training observed. In this sense training was perceived by trainees as stressful. Journal writing was encouraged to keep records and evaluation of the training sessions on multi-grade teaching.

4.4.1.3.2. Instructional Method

Trainers were perceived as friendly and approachable and of good assistance. Although descriptors of trainers were observed in words such as “*guide*”, “*supporter*”, “*mentor*”, “*friend*”; yet, some participants expressed their negative feelings on lack of guidelines stipulating expectations from them as trainees. The roles of trainers identified by the participants were those of “coach”, “instructor” and counsellor”. This research study found that trainees tended to be older teachers who brought multi-grade teaching experiences into training sessions. While on one hand, mature students perceived their negative experiences of training sessions as barriers in

terms of transferring teacher training in MGT in their classroom practise; those who had positive experiences saw changes, growth and development in themselves personally and professionally. There were claims that trainees were highly motivated by trainers who were friendly and eager to share their knowledge and experiences with them.

Instructional strategies used by the trainer emphasised group-work, activity-based learning, practical Mental Maths demonstrations and multimedia viewing, assignments, discussions and feedback. It was found that trainees were active and participated during the delivery of training. Training on one hand was provided in trainee participatory style but at times delivery was trainer- centred as the trainer had the knowledge base of what multi-grade teaching is all about. On the other hand delivery of training was trainee- centred in instance where trainees were actively engaged in group discussions, presentations and feedback. Delivery of multi-grade teaching training was seen as based on theoretical knowledge and adequate emphasis was not given to other learning areas except on Mental Maths. There was little opportunity for guided trail and experimentation with the new approaches in the training sessions.

4.4.2. Findings from Training Document Analysis

ECDDoE designed its own teacher training manual on MGT but trainings for in-service teachers. These were provided by department officials trained on MGT and CPUT academics. Training which includes training material for the trainees and a training handbook for the trainers was developed by the provincial department ECDDoE in cooperation with CPUT. The training package made use of the following training

programme: Multi-grade Teaching Strategies Training Manual (ECDoE, 2012). The content of the training manual was divided into four sections. The training sessions addressed teachers curriculum adaptation needs, pedagogical needs, instructional needs and classroom management needs for effective operation of MGT methodologies. Five key areas which were generally the focus of training manuals for multi-grade teachers encompassed classroom organisation and management, instructional strategies, planning for curriculum, instructional materials and social components. The content of the training manuals reviewed covered the definition of MGT, factors contributing to the establishment of MGT, challenges of teachers in multi-grade and prevalence of MGT in South Africa. The training curriculum of MGT was found to offer more conceptual knowledge and theoretical aspects on MGT than practical skills.

4.4.3. Findings from Classroom Observation

In a multi-grade classroom where multiple activities are to take place, classroom organisation was observed as a critical factor. Class size, classroom space and discipline of learners in multi-grade classes posed a challenge and thus limited pedagogical practises. The study revealed that grade combination is a combination of different grades taught by one teacher in one classroom. MGT appears as a practise that combines grades next to each other for delivery of instruction. Yet, during classroom observations data reveals that combining of grades differed from school to school and classroom to classroom as some schools were classified as lower primary schools, senior primary combined schools or public schools starting

from either grades R-3, grades 1-4, grades 5-7 or grades 1-7. Since there is no policy regulating grade combination in South Africa (Brown, 2010) grades were combined in consecutive or non- consecutive grades. Five consecutive grade combinations 1, 2 & 3; 1 & 2; 2 & 3; 5 & 6 and three non- consecutive grade combinations 1, 2 & 4; 1 & 3; 2 & 4; 1-7 were established. The study finds that multi-grade is forced by school principals in the Foundation Phase as grade 4 and grade 7 were seen as entry points to Intermediate Phase and Senior Phase consecutively. The study discovered that schools were not only combining grades but also combining phases such as Foundation Phase (grades1-3) and Intermediate Phase (grades 4-6).

The study revealed that the mono-grade approach dominated the ways in which learning materials are designed and how the classrooms were organised. Some participants in multi-grade classrooms felt that they did not have the technical support and equipment that their counterparts in mono-grade classrooms had. Instructional materials tended to be written for the mono-grade classrooms. Consequently the LTSM is produced as grade-level textbooks and is designed to be delivered by the teachers to the learners. For multi-grade teaching a need to be trained for developing and producing self-study materials for learners was shown. The result of untrained teachers in multi-grade teaching as well as lack of appropriate LTSM is that learners spend much time relearning the material they already know. This then implies that MGT takes place in school contexts that were structurally mono-graded. All participants felt that before training they were ill equipped to handle classrooms with more than one grade level in the same class. Participants indicated a need to be skilled in managing instruction to reduce the

amount of dead time during which learners are not productively engaged in tasks. In the absence of training, the most common teaching approach employed by teachers in their multi-grade classrooms was “quasi- mono-grade” where teachers replicate mono-grade methods by trying to teach each group in sequence. In this method the greatest difficulty is in assigning appropriate tasks for one group while the teacher is working with the other. Keeping learners occupied and monitoring them at all times presented a challenge for multi-grade teachers.

Almost all the participants observed in their classrooms used traditional method of teaching based on explanation, textbook and discussions. Relatively few teacher trainees employed multi-grade teaching strategies for effective teaching and learning. However, in some classes observed teachers were able to effectively engage all learners in meaningful tasks. In such cases, it was found that learners depended on each other in terms of assisting in interpreting instructions for tasks assigned therefore learner independence was observed. Challenges with Language Of Learning and Teaching(LoLT) was experienced as difficult when combining Foundation Phase and Intermediate Phase and had a huge negative effect on teaching and learning. Time for providing learner support for low achieving learners was compromised in a multi-grade class. In turn the weaker learners lose out because of the lack of individual attention that could not be provided for them.

4.4.4. Findings from Semi-Structured Interviews

4.4.4.1. MGT Concept

The study found that all participants after training knew the meaning of the concept “multi-grade”. Data revealed that multi-grade was received as an unavoidable situation as teachers were forced into it through various circumstances. Most participants felt initially threatened at having to make up their minds about adopting multi-grade. The existence of multi-grade teaching has been defined in a variety of ways by different respondents. There was no single explanation that led to the establishment of multi-grade classrooms. Instead the participants indicated that they were engaged in multi-grade teaching because of the following reasons:

- Transfer to another school
- Teacher shortage
- Teacher redeployment
- Teacher absenteeism
- Decline in learner enrolment
- Class size
- School staff establishment

One-teacher schools, three-teacher schools, few classrooms, few learners, few teachers, combining of grades, combining of phases, teaching all learning areas in one classroom, are some of the descriptions given of MGT. However, there were instances where a school with more than 100 learners in one class was classified as a multi-grade school. Multi-grade schools are not found only in primary schools but the study reveals that multi-grade classes occur also in high schools. Multi-grade

Teaching was seen as teaching learners of different grades in one classroom but lack of knowledge about multi-grade teaching was reported. On one hand participants viewed multi-grade teaching as an instructional approach to teaching and learning that can be applied in small classrooms. On the other hand participants perceived multi-grade teaching as an alternative to mono-grade teaching. Participants felt that multi-grade teaching is inferior to mono-grade teaching and they felt isolated by their counterparts who were teaching in single grade classes. Grades combination, phase combination, mono-grade and multi-grade classes which co-exist in multi-grade schools were some of the descriptions of multi-grade teaching.

4.4.4.2. Teacher Training Needs on MGT

While multi-grade teachers at the participating research sites met the requirements of qualified teachers in line with South African National Framework for Teacher Education and Development, none of them were trained for multi-grade teaching. Multi-grade teachers who participated in this research study indicated that they did not receive any professional initial training in multi-grade teaching. The huge gap between what participants were trained for and the expectations of their performance in a multi-grade class was mentioned. The study found that in general attitudes towards MGT were negative. Negative feelings had been particularly strong towards multi-grade teaching before the teachers attended training for multi-grade teaching when the road was rocky and there were many unanswered questions. The study finds that there are principals in multi-grade classrooms who also teach full time. Furthermore the principals are not only responsible for daily administration of the school but are also engaged in the planning, organisation and management of their

multi- grade classrooms. The study discovered the deficiencies in the multi-grade classrooms experienced by teachers who lacked support from the management and colleagues and felt isolated thus not benefitting from being part of a professional development.

A drastic change occurred in the understanding of what multi-grade teaching is all about when the participants undertook training. Training and development needs of the participants were identified and analysed through the personal growth plan, school development plan and school improvement plan. Performance problems in a multi-grade classroom were revealed and training and development needs were thus identified by trainers and teacher trainees. The participants indicated that they needed training and development with regards to what the multi-grade teaching concept is all about, its curriculum, pedagogy and classroom management needs.

4.4.4.2.1. Curriculum Needs

Teachers indicated a need to be trained and taught how to plan across grade level objectives on how to amend the curriculum to make it more suitable for multi-grade setting. All the participants acknowledged that CAPS is not designed for a multi-grade class yet they used CAPS to teach learners in the multi-grade contexts. Because CAPS design is grade-based it meant that teachers prepared work according to different grade levels occupying a single classroom. All participants claimed that they used the same curriculum designed for mono-grade classes and the same learning material used in single grade classes. A need for the training and development of teachers on how to adapt the curriculum, curriculum differentiation and curriculum integration in multi-grade settings was established.

4.4.4.2.2. Pedagogical Needs

With regards to planning for multi-grade teaching the study found that teachers were not equipped to plan lessons specifically for each grade. For the participants planning lessons for different grade levels was “time consuming, tedious and a heavy burden”. Lesson planning was seen as a heavy workload not only for teachers but also for school principals who were also fulltime multi-grade class teachers who had to plan for their classrooms as well as for the administrative work. Feelings of being multi-tasked, burdened with heavy workload and minimal support from management and district officials were mentioned. In their initial training they received they were prepared for a mono-grade class and not a multi-grade setting. On assessing learners in multi-grade classrooms time constraints to mark learners’ work and lack of recording skills of such work were mentioned. Participants were found not to be confident in their teaching abilities when learners in multi-grade classes are engaged in assessment especially summative assessment which requires the marking, recording and reporting of learners’ work. They claimed that assessment was time consuming, tedious as well as burdensome. All the participants felt that a multi-grade class is an excess of work which needs to be remunerated.

4.4.4.2.3. Classroom Management

Managing a multi-grade classroom was found difficult because there is more than one grade level in the classrooms. Lack of skills in placing learners of varying ages and abilities in the same classroom to create a successful and conducive learning environment was highlighted. Another challenge experienced by participants was

reduced teaching time given that participants had to share the available time among grades for which they were responsible. The difficulty of teaching more programmes in the time that is available to single grades is a frequent concern for teachers in multi-grade teaching. All the participants cite lack of time to reflect on teaching. They were further concerned with lack of time available for working with individual learners. It was reported that learners have to work on their own for an extended period of time and do not have sufficient interaction with the teacher. In turn teachers find it difficult to monitor work given to learners for feedback and discussion. Learner-discipline was amongst challenges mentioned in handling a multi-grade class. Issues of learner discipline and behavioural problems that emanate because of the vast range levels of maturity were found in classes especially where grades and phases were combined.

4.4.4.3. Transfer of MGT Teacher Training in the Classrooms

Transfer of training inputs to classroom based teaching entails the implementation strategy, success and difficulties experienced by teachers in multi-grade classrooms.

4.4.4.3.1. Implementation Strategy

Training is said to be effective to the extent the trainees transfer the knowledge and skills learnt in the training to their classroom teaching. To identify the extent of the transfer of MGT training to the classroom, MGT classes were observed and teachers in multi-grade classes were also interviewed. The study found that few teacher trainees were able to apply their training to the real life context of their classrooms. However, they were not supported in their efforts. Furthermore, only a small portion

of the training inputs provided to teachers was used in the multi-grade classrooms as trained teachers indicated that they were not using knowledge and skills learnt through training in their classroom practise. The study found little evidence that suggested that coping skills and multi-grade techniques learnt on the training are easier to implement in multi-grade classes. Moreover, there is evidence to suggest that although teacher training in multi-grade teaching can transform teachers teaching practises, application in classroom-based teaching is far from ideal. Trainers also agreed that teachers were experiencing difficulties in teaching in multi-grade classrooms

4.4.4.3.2. Success in Transfer of MGT Teacher Training in the Classrooms

In classroom practise, there was evidence of the transfer of MGT training in some aspects such as curriculum integration, lesson management, teaching and learning strategies and social components of multi-grade teaching. Of the twelve participants observed and interviewed half of them claimed that they did change their classroom practise after teacher training on MGT. Although their views fluctuated the trainees indicated that they were making progress in their classroom practice. Yet, feelings and attitudes towards multi-grade teaching were not always positively correlated with progress. Positive attitudes on teacher training on MGT were expressed by other trainees although some trainees indicated that they were sceptical about change in their classrooms.

The current study found that Mental Maths lesson plans were prepared and executed in accordance with what teachers were trained for. However all other learning areas were planned in a mono-grade way using CAPS document.

Integration was identified as the best approach for a multi-grade class where the teacher makes connections and integrates themes both within the same subject and across different subjects. The only difference then was differentiated tasks where progression shows in tasks or activities given to learners if different grade levels are seated in the same class. With regards to teaching strategies teacher trainees reported that “chalk and talk” was still the most common strategy used. The study found that multi-grade teaching techniques were not different from mono-grade class teaching. Demonstration Lessons on Mental Maths were found to be well presented, and well executed by cluster leaders with the use of concrete materials. During classroom observations the study found that chalkboard work was not used throughout lesson presentation.

Professional growth was evident through the establishment of the Professional Learning Community where demonstrated Mental Maths Lesson Plans were prepared by all cluster members. Cognitive effects of multi-grade teaching on learners were noted. During classroom observations younger learners were found to be assisted by older learners in their learning process. Non-cognitive effects of multi-grade teaching on learners included social values inculcated through the establishment of the Learner Governing Body where learners organised themselves and took part in all activities of their classrooms and school.

4.4.4.3.3. Difficulty in Transfer of MGT Teacher Training in the Classrooms

A negative attitude to MGT was seen as a major cause of ineffective delivery of instruction in classroom teaching. Not knowing how to handle and teach effectively in a multi-grade classroom was highlighted as the reason for such negative attitudes

towards multi-grade teaching. Difficulties indicated in the transfer of teacher training in classroom teaching were classroom organisation, curriculum adaptation, lesson planning, assessment timetables and classroom control. The study found that multi-grade teachers who faced the biggest challenges worked in schools that are inflexible about changing the mono-grade school arrangements. Classroom organisation that includes seating arrangements was found not applicable in overcrowded classes with shared desks even though trainees were taught classroom layout during the training. The study revealed that teachers were still practising the traditional way of organising learners. Challenges with Language Of Learning and Teaching (LoLT) are experienced as difficult when combining Foundation Phase and Intermediate Phase and have a huge negative effect on teaching and learning.

One of the major challenges on MGT is related to the curriculum which has fixed teaching hours for different subjects in line with subject teaching modality. There was a lack of sensitivity in the curriculum and in teacher training to what teachers from multi-grade contexts already knew. This research study found that there was no formal curriculum adaptation for multi-grade schools. Instead multi-grade teachers employed their personal experiences and expertise when undertaking curriculum differentiation in dealing with learners at their disposal. Although teachers reported no curriculum adaptation, their teaching practises during classroom observation indicated that a differentiated and quasi mono-grade strategy was utilised. Lack of support from management, lack of instructional and self-learning material and unconducive school environment were highlighted as the major obstacles to effective transfer of training. Trainees complained of not having the budget or time to collect

material and resources to be used for effective teaching and learning in a multi-grade class.

Since lesson planning requirements are grade specific for both mono-grade and multi-grade classes; participants had to face a huge challenge in preparing lesson for different grades at the same time. Lesson preparation for multi-grade teaching was found to be time consuming as well as resulting in ineffective instruction. Teacher trainees reported that more emphasis was given to Mental Maths lesson planning than to other learning areas. As a result not all teachers were able to produce lesson plans for lessons taught except for Mental Maths. Teachers did not employ some of the teaching strategies such as peer tutoring and SDL that could allow them to draw on learners on higher grades as resources for teaching those learners in lower grades.

Constructing a time table for a multi-grade class was seen as a major battle by teachers trained in MGT. Although trainees were taught about the preparation of time table for multi-grade teaching, they did not adhere to the timetable. Another barrier was the reduced time given so that teachers in multi-grade classes had to share the available time among the grades for which they were responsible. This might affect the coverage of the curriculum for each grade and thus learners might receive less quality education. Teachers are concerned that they do not have sufficient time to spend teaching different learning areas with different grade levels in their class. Trying to teach two or more programmes in the same amount of time given to single grade teachers presented a considerable challenge to multi-grade teachers. Teacher trainees felt that lack of time means the topics might not be dealt with in sufficient depth. Thus they felt that they were gaps in content coverage of

some subjects such as natural science and social science as more time is given to mathematics. Assessing learners of different grades, marking their scripts, recording and reporting is found by all participants to be challenging and time- consuming.

Although the participants were trained in the aspect of classroom management, the participants reported that managing a multi-grade classroom is difficult because there are more grades than one. They claimed they felt they were not sufficiently skilled in managing instruction to reduce the amount of “dead time” during which the learners are not productively engaged in any tasks. Advice given during training sessions on how to deal with disruptive learners whose behaviour is uncontrollable in class was found ineffective in real life classroom contexts. Keeping all learners engaged on different tasks throughout the school day was found challenging. Noise level was found to be a problem in instances where the teacher was busy with a particular grade group when others were working independently on an activity. Noise was a distraction. The study reveals that there is a lack of connection between theory of MGT and real classroom practice. Horizontally, opportunities for learning and knowledge creation in connection with training were found to be scarce. The lack of horizontal interactions was not only due to efficiency demands but also to autonomy and physical distance. Vertical interactions on the other hand seem to play an important role as opportunities for learning at work. The vertical interactions emerged partly as a result of organisation of work and more frequently during task performances in training workshops. In the light of differences in horizontal and vertical places for interaction and hence for learning and knowledge creation the CoP emerge in practise.

4.4.4.4. Monitoring and Evaluation of MGT Teacher Training

Monitoring and Evaluation of the training session by practical demonstrations and school visits by the panel to assess the transfer of multi-grade teaching training in the classrooms was scheduled to take place after six weeks of training. In spite of the positive findings on monitoring and evaluation of teacher training on MGT, the study found that monitoring of the training was too formal and administrative which was not much use for classroom teaching. District officials visited schools after training and met trainees not as individuals but in clusters yet different trainees experience different challenges in the classrooms.

4.4.4.4.1. Professional School Support

Multi-grade teachers feel isolated both professionally and socially as multi-grade schools have few teachers and are often located in remote, isolated communities. Thus teachers in these schools have little contact with their colleagues in other areas. The study reveals isolation of teachers in multi-grade class causes them to “feel neglected by colleagues, management and the Department of Education”. Participants reported that they needed to interact with others as to discuss and share experiences relating to their multi-grade teaching challenges. To them the collegial support not only reduced isolation but also meant that mature aged teachers developed support networks for themselves.

Data indicates that teachers were visited by district officials in the classrooms when professional learning needs were identified. In addition training needs identification and analysis were established through personal growth plans, school development

plans and school improvement plans. Participants acknowledge the district official and the trainers' classroom visits for Mental Maths demonstration. Professional support was given to professional learning communities who came to support colleagues during presentations and demonstrations.

4.4.4.4.2. Peer networks

The influence of peer support was mentioned by two participants implying that the support and encouragement received from colleagues and trainers is crucial to the transfer of teacher training in their classroom situation. In light of the benefits of a "community of practise, the participants as a cohort may well benefit from the positive influences and support that peers provide. Follow-up visits to review training, feedback on successes and challenges of previous training and discussions on the success and barriers to the transfer of training were reported as focal point of discussion at the cluster meetings. Members of the clustering groups were known as the Professional Learning Community where teachers worked together, planned together and shared ideas relating to multi-grade teaching. PLC also monitored each other in terms of preparation. Evaluation of training and development and its impact was done through a Portfolio of Evidence as well as journal writing which was prepared for final assessment of teacher training in multi-grade teaching.

4.5. Conclusion

This chapter dealt with the presentation of raw data and its analysis as well as the research findings. Themes that emanated from the data correlated with the title of the research study, key research questions, conceptual framework and the reviewed

literature.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1. Introduction

This chapter presents discussion of findings on the training and development of primary school teachers in multi-grade teaching. Firstly aspects that are critically discussed include the conceptualisation and contextualisation of multi-grade. Professional learning needs of teachers are analysed and the training programme in multi-grade teaching is examined. Delivery of training and the extent of the effectiveness of the transfer of the teacher training in multi-grade teaching in the classroom are evaluated. Lastly monitoring and evaluation of the training and development programme and its impact on classroom-based teaching is assessed.

5.2. Multi-grade Concept

Data revealed that approximately 30% of schools in South Africa are multi-grade schools making multi-grade teaching inevitable. The evidence that exists of conditions in multi-grade locations suggests that multi-grade schools may be extremely disadvantaged by virtue of their location. Where they do appear reference is usually made to the prevalence of one-teacher schools, two –teacher school or three- teacher schools over multi-teacher schools and multi-grade schools instead of mono-grade schools. Most of the schools practising multi-grade teaching are primary schools with grades limited to Grade 7 and below.

Multi-grade in the South African context arises out of necessity or forced circumstances instead of pedagogical choice. Various factors that lead to the establishment of multi-grade schools are geographical, cultural and socio-economic factors that include teacher transfer, teacher shortage, teacher loss, teacher deployment, teacher absenteeism, decline in learner enrolment, small class sizes and school staff establishment. In South African primary schools multi-grade situation emerges in areas where there are very few learners to justify the opening of mono-grade classes. However, the global concept of multi-grade teaching views multi-grade schools as a strategy to address teacher shortage, teacher absenteeism and class sizes. By contrast, the study reveals that multi-grade teaching does not necessarily address the situation created by various geographical, socio-economic or cultural factors. Rather it is seen as an alternative to mono-grade teaching as well as the instructional approach to teaching and learning.

In multi-grade schools learners of different grades are combined in one class taught by one teacher. Multi-grade teaching on one hand is seen as an alternative to mono-grade teaching. On the other hand multi-grade teaching is viewed as a pedagogical approach in which one teacher handles a class of learners that are at various grade levels usually at primary level. Since there is no policy regulating grade combination; the study established that grades can be combined consecutively or non-consecutively. Grades combined for the delivery of MGT instruction were 1 & 2; 1, 2 & 3; 2 & 3; 4, 5 & 6; 5 & 6 or 1&3; 1, 2 & 4; 1-7. The inconsistency in grade combinations is an indication that multi-grade teachers are not aware of the basis on which grades can combine. Although Mulkeen & Higgins (2009) believe that consecutive grade combinations can yield good practice in multi-grade teaching. But,

large gaps in terms of abilities if grades are not near each other may create problems in teaching learners in multi-grade settings. Given the grading and phasing of primary schools in South Africa grade phasing can be taken into account when combining grade levels. The flexibility inherent in grade combinations was reported to assist in terms of addressing teacher shortage, teacher deployment and small class sizes.

The classroom where there are fewer teachers than grades has an implication of multi-grade teaching. The study reveals that in the South Africa the learner: educator ratio (L:ER) is used as an indicator of the size of a school since small schools tend to have lower L:E ratio. In the South African context the term small school refer to a school in which the average class group size is less than 30. The L: E ratio refers to the number of learners per teacher at the level of the school not the class. Since teachers perform a range of duties outside the class, the L: E ratio is usually a higher figure than the average class size in a school. The study reveals that multi-grade classrooms work best in classes of 18 to 25 learners. DBE (2012) supports the notion that multi-grade classes can only work with a balanced class of 25 and are more successful in a class of 18. They become increasingly difficult with a class of more than 25. Data has indicated however, that an increase in class size might not necessarily lead to a decrease in the level of academic achievement of learners. In addition, a decrease in class size might also not guarantee an improvement in the social learning environment. What seems to make a difference is what the teacher does with teaching and learning opportunities offered to class sizes. In such situations teachers are to provide effective teaching and learning and engage all learners in the process of learning even if the class is small.

5.3. Dichotomy of Multi-grade Teaching and Mono-grade Teaching

Multi-grade Teaching is seen as an instructional approach to teaching and learning in which one teacher handles a class of learners that are at various grade levels. Data acknowledges that multi-grade situation emerges in areas where there are very few students to justify the opening of mono-grade classrooms with one grade per classroom. The composition of learners in a multi-grade class varies in terms of age, grade level and abilities. Of course in a mono-grade class there are also learner variations in terms of age, motivation and expectations. A teacher in a mono-grade class may find it relatively easy to address as one a class of learners of similar or different ages, different levels of experiences and set of expectations. This might possible pose a challenge to a multi-grade teacher who caters for the learning requirements of learners that are at various levels of affective and cognitive.

In a multi-grade class there are fewer learners compared to a mono-grade classroom. This emanates from the fact that multi-grade schools are found in areas where population density is low. By contrast evidence was given that multi-grade schools are found to exist not only in rural areas but also in urban areas. Multi-grade classes in Little's opinion (2008) rarely have more than 20-30 pupils in the class however, the study reveals that there can be more than 30 learners combined in one class and taught by one teacher. An example of a multi-grade teacher who has 35 learners of grades 1 to 7 combined in one class was given. A mono-grade teacher usually has a class size that could be considered as large with as many as 40 learners in one class. A large class may present the mono-grade teacher with challenges that are associated with classroom organisation, learner discipline and

responding to the individual needs of learners. While the fewer number of learners in a multi-grade classroom can be an advantage in terms of classroom management, it offers a different set of challenges. Learners of different ages, abilities and educational backgrounds are grouped in one classroom taught by one teacher at the same time. Not only is the multi-grade teacher confronted with difference in grades, age, levels and motivations but he is also confronted with curriculum content, assessment mechanisms and learner classroom behaviours.

Despite lower numbers of learners in a multi-grade class, the study show difficulties experienced by multi-grade teachers in terms of classroom organisation, classroom control and dividing the time available amongst all grades. Although there are challenges in multi-grade classrooms there are also visible advantages in adopting multi-grade teaching approach. One such advantage is the fact that multi-grade teaching teaches learner independence, self- directed learning (SDL) and peer tutoring. SDL is consistent with one of the principles of Knowles (1984) andragogy whereby SDL enables learners to assume responsibility for their own learning. By self- directed learning learners learn more from being externally controlled by teachers, how to be in control of their own learning experiences. By implication self-directed learning is an attempt at self-control in cognitive, behavioural and motivational aspects of learning.

Collaborative learning and peer tutoring are informed social learning theories of learning Vygostky (1978) who views cognitive development as a linguistic process whereby learners learn through problem solving experiences shared with someone else. A parallel between Vygostky ZPD and scaffolding can be drawn. Scaffolding can be described as a process by which learners are encouraged to carry a certain

part of the tasks within their ability and then be supported by other to complete the rest of the task. Therefore it can be said that multi-grade classes often offer increased potential for scaffolding because learners of different ages, abilities and grades learn together.

Although a mono-grade teacher may need pedagogical skills to respond to learners' preferred learning styles, a mono-grade teacher's challenges are not as big as those of a multi-grade teacher. Such skills are not developed in a multi-grade teacher through mainstreaming multi-grade teaching in the teacher training institutions where the focus is on training teachers in mono-grade teaching or through in-service training provided to mono-grade teachers that teach in multi-grade classrooms. Most training programmes do not take into consideration classroom organisation while preparing teachers and equipping the trainee teachers on how to cope with multi-grade situation. With regards to classroom management and with special reference to time management multi-grade teaching practise is different from mono-grade teaching. In a mono-grade classroom the timetable is organised in a linear manner and the curriculum is organised according to fixed sequences and taught in small segment. Learners progress through the material together. However, the timetable for a multi-grade teacher can be arranged according to common subjects or by staggering subjects to accommodate curriculum adaptation and curriculum differentiation. The distinction between mono-grade and multi-grade is that in non-graded classroom there is less likely to be pressure on the teacher to cover a grade –related curriculum for each grade. It is this coverage that makes traditional models of teaching difficult for the multi-grade teacher and forces her to search for models that allow her to consider different levels of achievements at one time. In a multi-

grade class teachers have to have appropriate organisational and management skills to address learners' individual needs.

The claim that multi-grade classes are a disadvantage to learners because such classes are harder to teach, is based upon the view that for teaching to be effective learners must be grouped in and taught in single-age grades. Where within a multi-grade class learners are rigidly divided into single age classes for example 10-11; 11-12; 12-13; with each grade taught as if it were one class, the claim that multi-grade classes are harder to teach seems to be valid. Also the age imbalances which occur in a multi-grade class where one or more age groups may be underrepresented can be a challenge. For instance if in a Foundation class (grades 1, 2 &3) there are few seven year olds, their ability to work and compete with learners of the same age might be reduced and thus their intellectual and social development might suffer. Hence in a multi-grade class the teacher has to manage a lesson in such a way that all grades have an equal opportunity to learn. Table 16 below tabulates and affirms the differences between multi-grade classes and mono-grade classes that have been discussed above.

Multi-grade Classes	Mono-grade Classes
Number of children Fewer children with different ages, in different grades with different abilities.	Number of children Normal class size of 30-60 learners of about the same age but with different abilities.
Location Small, remote rural communities.	Location In both rural and urban areas with a large number of school-going children.
Age Level Age difference sometimes can be more than 5 years.	Age level Usually more uniform but can be 2-3 years difference.
Ability Teachers need to consider the varied abilities and also different needs of learners in different grades.	Ability Teachers need to consider the different abilities of learners within one grade.
Teaching Strategies Wide and varied but geared to meet individual learners with particular abilities and needs.	Teaching Strategies More opportunities for whole class teaching but individual needs to be addressed.

Table 15: Differences between multi-grade classes and mono-grade classes (Commonwealth Secretariat, 2005).

5.4. Teacher Training and Development on Multi-grade Teaching

Teacher training can be defined as the steps taken to qualify a teacher for the present job while development can be defined as equipping the teacher for work at a higher level. The purpose of training according to Earley and Bubb (2005) is to ensure that work is done according to the required standards of quality, quantity, cost and time. This in turn should lead to higher productivity, increased effectiveness of operations and a conducive learning environment. In addition training develops the skills and knowledge of teachers to meet the current and future needs of learners. But a professional training need exists when teachers lack the knowledge and the skill to perform assigned tasks in multi-grade classrooms. Once the professional training and development needs are established data reveals that teachers need to know how training and development will benefit their career path and also how the training will fit into the National Qualifications Framework.

As Knowles (1984) put it, when teachers sense that their unique abilities are noticed and appreciated, they become motivated and this impacts positively on the workplace. However, teachers might not learn well if they do not see a reason for learning. Thus training should give teachers a strong purpose, a clear objective, and a definite reason for learning something which is consistent with one of Knowles's principle- a motivation for learning. In order to get the intended benefits of training data show that to engage trainees in the training content they need to be motivated intrinsically and extrinsically. Intrinsic motivation refers to the willingness of the individual to undertake a task while extrinsic motivation refers to the rewards offered through the success of the tasks. The six months MGT CPD programme is reported

as having 40 possible credits that can be acquired towards national qualification. This is in line with the 2011-2025 goals of ISPF for TED that proposed short course intervention programmes to capacitate teachers in multi-grade classrooms.

5.4.1. Identification of Teacher Training and Development Needs

Data shows the key curriculum competencies that teachers need to apply in multi-grade classroom as follows:

- Practical competency: learning to apply skills practically.
- Foundational competency: ability to apply knowledge in real life situation rather than just doing things with an empty mind of why things are done that way.
- Reflexive competency: ability to adapt to a new situation by applying both practical competency and foundation competency which makes it possible to achieve the required goals (DBE, 2012).

However the study revealed that the required performance of teachers in multi-grade classrooms was found to be contrary to the actual performances and expectations of multi-grade teachers in classroom based teaching therefore professional training and development needs on multi-grade teaching were identified through personal growth plans, school development plans and school improvement plans. The study identified key aspects of teacher training needs that impact directly on teaching and learning processes in multi-grade classrooms such as:

- Curriculum needs (common or differentiated)
- Pedagogical needs (common tasks or differentiated tasks)

- Classroom Organisation needs (teacher-directed instruction or learner-centred approach)

Developing the above skills was reported as non-existent in initial teacher training education where it is likely that most teacher trainees had had no or little school experience of multi-grade classrooms. Ideally teachers should have the opportunity to experience a multi-grade classroom in their practice during school experience. Since the professional teacher is the key resource person in the multi-grade context the view that any teacher trained in single grade class could automatically be expected to perform in multi-grade pedagogy is discounted. Kyne (2007:503) believes that the professional skills and knowledge that are necessary to teaching effectively in a single grade class are also relevant and necessary to teach in a multi-grade class. But many of these skills need to be emphasised in the context of training of teachers for multi-grade teaching. By implication Kyne (2007:503) suggests that multi-grade teaching does not necessarily need its own curriculum and its own pedagogies might be irrelevant considering the different contexts in which multi-grade teaching operates in different primary schools and classrooms. Given multi-grade complexities during training teachers were equipped with coping skills to be able to handle learners of different grades being taught at the same time. Yet stories of the transfer of training to classroom based teaching were mentioned and evaluated in terms of its success and difficulties experienced.

5.5. Training and Development Programmes on MGT

Internationally, Continuing Professional Development (CPD) is seen as a continuum throughout the career of the teachers. In this view teachers do not emerge from pre-service training with a full range of skills but develop and refresh their skills throughout their careers. Therefore provision for CPD opportunities plays an important role in improving teacher qualities and teaching. Data reveals that MGT Training is taken at a local level including design, reproduction of and distribution of self-study materials to support individual, peers and small group learning.

5.5.1. The Focus of the Training Package

Teachers in the education system who teach in multi-grade classes reported that they did not receive training in multi-grade education as part of their formal qualifications. DBE (2012) acknowledges such claims hence the 2011-2025 Integrated Strategic Planning Framework for Teacher Education and Development in South Africa have been developed to address the needs of teachers in multi-grade classrooms. In terms of this framework the training and professional development of multi-grade teachers has been made a priority. However, capacity building of teachers in all primary schools in multi-grade teaching has not yet been finalised. Data showed a relatively low number of teachers who have been trained for multi-grade teaching in the county considering the number of educators in multi-grade schools. Currently in South Africa there are two approaches in primary teacher training in MGT: Pre-service and in-service training provided by CPUT an accredited Training Provider. Pre-service and In-service is provided by CPUT. CPUT is known

as the only institution in South Africa that offers MGT courses both as self-study and face to face to address training needs for multi-grade teachers. The South African government has been providing in-service teacher training in MGT since 2010. The CPD intervention programme of teachers on MGT is to be provided in two modalities; one for certification training and the other for recurrent training. However, recurrent training has not been mentioned by participants in this research study. Instead data reveals that the provision of the CPTD opportunities has been divided into 3 main categories:

- short course training (delivery of training)
- support systems(Monitoring and Evaluation of Training in terms of implementation through school support and classroom visits)
- peer networks(Professional Learning Communities)

The Department of Basic Education provided short courses for primary teachers in multi-grade classrooms at a local centre, supported schools and visited classrooms.

5.5.2. The Training Curriculum Of MGT

Until recently, multi-grade teaching in South Africa has been identified as a curriculum issue. To that effect, the Report of the Tasks Team for the Review of The Implementation of NCS states, that “Separate, special documents ... for multi-grade classes will be developed, aligned to CAPS documents” (DoE, 2009:27). However, during data collection for this study it was revealed that specifically designed MGT teaching and learning material has not yet been developed. Despite this statement and numerous revisions of the curriculum; the South African national curriculum has

remained oriented towards a mono-grade class. By implication, curriculum revisions meant also the reviewing of assessment policies. Yet, the assessment policies seem to have adopted similar features to a mono-grade assessment. Thus the kind of assessment conducive to multi-grade teaching has not yet been recognised. The training curriculum for teacher training on multi-grade teaching was thus based on the CAPS official document. The study found that multi-grade teaching curriculum is neither a new curriculum nor a policy but the coping skills to handle different grade levels taught at the same time which was found difficult to translate into different multi-grade classroom contexts. The five key critical dimensions in which multi-grade practices differ from mono-grade practices classroom organisation, planning, assessment, grouping learners for instruction, learner independence and dependence were identified. However, the nature of the content itself was considered theoretical rather than practical in some aspects of the training manual.

5.6. Delivery of Training in MGT

A delivery system is the name given to a separate and unshared means of providing skills and associated knowledge to an individual learner or group of learners. Rather than a combination of systems, one primary vehicle is employed to supply the training. The cascade model a mechanism for delivering training messages from trainers at the central level to trainers at the local level through several local levels is largely used for in-service training. The provision of the short course training was mainly through cascade training which was developed and delivered centrally and locally through a network of trainers. Seemingly much of the teacher preparation is centrally designed and planned in a top down manner yet teachers have some

demand-driven concerns emerging in their multi-grade classes with needs identified by teachers. In a cascade model of training the training needs were determined centrally, and the material designed centrally. The trainers were expected to deliver the training in their districts. In this way participants were deprived opportunities of having a strong voice in the identification of their training needs in multi-grade teaching

Little (2005) raises the question “Do teacher educators who deliver training on multi-grade teaching themselves have experience of such teaching?” There seem to be no satisfactory answer to this question as DBE, (2012) acknowledges that it still seeks experts on the matter. Arguably, the key quality of teacher training is the quality of teacher trainers. However, the study identifies a lack of transparency in the criteria for the selection of the trainers and trainees. Consider figure 9 below which show the essential qualities of a good trainer as proposed by Earley & Bubb (2005). Data on the selection of the trainers in this study gives a somewhat consistent picture compared with the qualities shown in the figure below. Trainees reported the great pleasure they got from their relationship with the trainers with words such as “approachable and friendly”; “supportive”, “skilful” and “knowledgeable”. In spite of positive trainer-trainee relationships established; stories of trainees which mirrored negative trainer behaviours such as “distant” and “uncaring” were also noted. Therefore the selection of trainers in this study was not only based on the positions of power and authority but also on the essential qualities needed from a trainer.

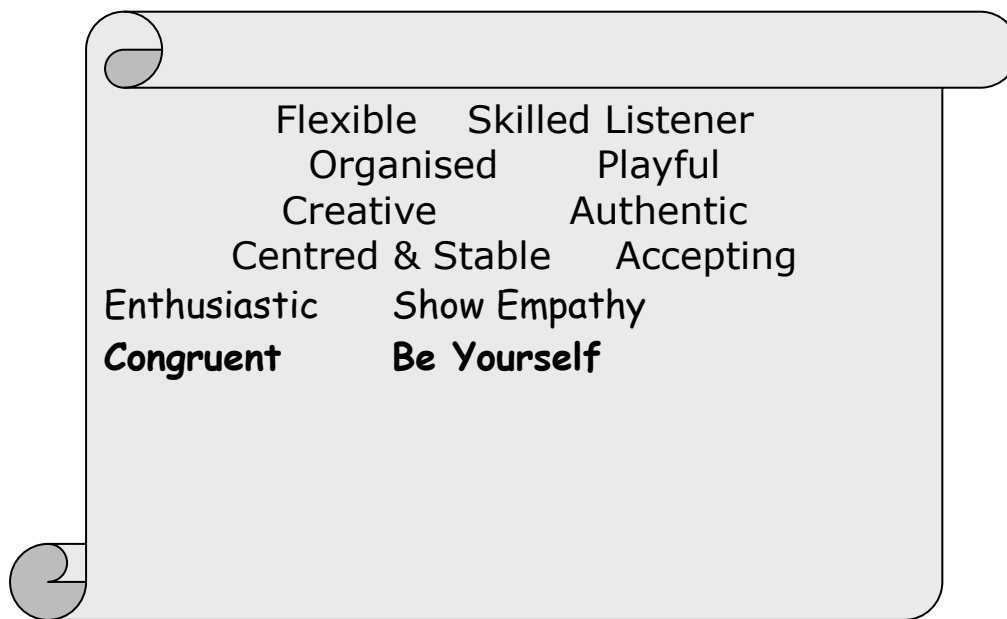


Figure 9: Essential qualities of trainers (Lewin, 2007),

There is evidence that the selection of the trainers was also linked to specific qualifications on multi-grade teaching. However, their training and experience of training primary school teachers may be limited as the trainers themselves reported that they had not taught in primary schools before. Thus, the impact of trainers might go beyond the knowledge they impart as it has been widely observed that teachers often teach in the manner in which they were taught. Teacher trainees are in an ideal position to provide models of appropriate teaching methods by demonstrating good practice in their own teaching. However, trainers are likely not to always have the necessary skills and experience to provide the best guidance to teacher trainees. While the trainer plays many roles in training teachers; three roles which were commonly identified among trainers were those of instructor; coach and counsellor. On one hand barriers to the delivery of training low capacity of teachers to understand the intention of the trainings seem to create problems. While on the other hand it seemed likely that the quality of training depended heavily on the knowledge

and skills of the trainers instead of the inputs of the trainees. Thus for the majority of the trainees multi-grade teaching itself was seen as problematic.

5.6.1. Mode of Delivery

The study indicates that teachers trained on multi-grade teaching were trained through a cascade model. A cascade model or one to one training on the job sometimes referred to as coaching involves a process of working alongside individual learners to improve the skill in a defined area of application. The cascade or "multiplier" approach transmits the knowledge or information from the top to the lower stratified groups of teachers. This consequently entails "training-the trainer" to ensure that the message "flows down" from experts and specialists, eventually to the teachers. Putting it simpler in cascading the information there is the distance between the central and the local level. When transmitted to the next level, the chances are high that the crucial information may be watered down or misinterpreted. Additionally there is evidence that trainers often lack experience of primary school teaching and this widens the gap between levels. For instance some of the trainees at the lowest level claimed they had not internalised the messages from the training.

Consequently, they could not perform well in some aspects of the training content in their classroom practice. For that reason cascade model becomes inflexible to respond to the needs of teachers at grass root level. This is consistent with Suzuki's (2006) view that a top down approach is likely not to encourage participation and commitment. Instead it might promote submission and conformity. Additionally this is in line with what Kennedy (2005) calls "adult pull-out programmes", which are less

likely to result in improvement in teaching. By implication the cascade model fails to be means of transferring ideas or changing behaviours because as a top down approach it has little impact at the classroom based teaching level. Although the cascade approach is popular for reaching many participants in a short time however, a one size fits all delivery system which demands that trainees learn the same thing at the same time is inevitably questionable. As a response to the obstacles and difficulties experienced in multi-grade teaching, data acknowledges the use of different forms of technology that supports the learning and accessibility of teacher training on multi-grade teaching. The instructional strategy used to conduct training and development of teachers on MGT was through the use of a series of ICT activities. For Chalmers & Keown (2006:181) a learning strategy or instructional strategy is a combination of learning methods and techniques designed to accomplish a facilitated learning intervention. Examples of instructional strategies that were used on teacher training programmes for MGT were one-on-one training, multimedia training, electronic learning and independent learning. Data showed that relevant attempts in delivery of training have followed technological trends in the field of computer-supported learning while the content of training delivered via the different technologies varied greatly from audio visuals to multimedia and electronic learning. The print based media used included training manuals, practical work and demonstration lesson plans. Based on the multi-grade needs of professional teacher development, inclusion of the use of ICT aimed mainly at helping teachers to develop their professional skills for both teaching and learning and administrative purposes. Despite the use of ICT there is evidence that the use of such materials was irrelevant to some trainees. Lack of computer skills and limited access to computers was identified.

5.6.2. Instructional Method

An instructional or learning method is the basic approach to instruction. Learning may be defined as changes in behaviour that take place as a result of being engaged in an educational experience. Learning is a process by which SKVAS are acquired, understood and applied and extended. Thus learning can be partly cognitive and partly affective. The instructions adopted for training and development of teachers on MGT were trainer-centred methods which included instructions, coaching and counselling. One of the prominent roles of the trainer is instructional since she guides the learning process. As a coach the trainer demonstrates MGT skills and tasks to teachers who in turn practise carrying out that skill and receives feedback on her performance. In cases where teachers need clarities on difficulties experienced in presenting or demonstrating the skill gained the trainer serves as counsellor. There is evidence that trainers set up training in a way that trainees were able to see evidence of progress and achieve some degree of success in their classroom based practice since trainer-centred methods involve reception learning where trainees learn from the trainer. However on one hand the major advantage of trainer-centred methods is to ensure task mastery in the shortest possible time. While on the other hand the major disadvantage is that content-based and trainer-centered approach promotes labelling and self-fulfilling that set out to limit trainees' potentials and critical thinking skills. The result is that trainees might be faced with a learning event which covers items they have mastered and omits items they need to learn.

During training observations the basic approach noted for instruction and trainee-centred methods included discussions, demonstrations, group-work and presentations which are consistent with Vygotsky's learning theory of constructivism. Trainee-centred methods allow experiential learning to occur as trainees learn from their own experiences. The advantage of trainee-centred methods is that knowledge and skills learnt in this way are more likely to be recalled and better transferred in the work place. The main disadvantages are that trainee-centred methods are time consuming as participation does not of itself ensure learning is taking place. In response to social learning theories and constructivists approach interpretation of learning, an alternative approach to teacher training has been proposed. Alternatively professional development programmes should be learner-centred, knowledge-centred, assessment-centred and community-centred. A new perspective of professional development should be based on constructivism. The following comparison between the traditional model of training and alternative model of training is suggested in figure 10 below:

	Traditional Training Model	Outcomes-based Learning Model
Trainees/Learners	Passive learners	Active Learners
Trainer/ Facilitator	Trainer-centred Textbook bound	Trainee-centred Use of multiple resources
Curriculum Framework	Syllabus rigid and non-negotiable Emphasis on content based learning	Learning programmes seen as guides Emphasis on outcomes based learning and connected to real life situation
Time Frames and Learner pacing	Content placed in rigid time frames	Flexible times allow learners/ trainees to work in the own pace.
Assessment	Graded Exam-driven Exclusionary	Continuous assessment Based on performance and integration of knowledge Focus on competence or capability

Figure 10: Traditional training model and outcomes-based learning model (DBE, 2012).

Underlying the change has been a shift from a behavioural model of learning to cognitive and constructive models and from a traditional model of training to an

outcomes-based learning model. Simply stated behavioural models propose that the trainer control learning through a climate where knowledge is transmitted to trainees who are passive learners. Yet constructivists model embrace the trainee-centered approaches and the emphasis is on outcomes-based learning and its application to real life situations. The constructivist model emphasises teacher trainees becoming facilitators of learning with trainees generating and actively processing knowledge, creating links with previous knowledge to construct their own networks of understanding. Descriptions provided of a variety of facilitation methodologies in terms of their essential approach and purpose, and selected methodologies attest to Lewin's (2007) model of training. Lewin's (2007) model puts emphasis on "providers and their inputs" and further argues that training can make a change when the training is rationally justified by good dissemination methods. In simpler terms when training is well diffused through good communication media, the training can reach classroom practice. Yet cascade model of training and instructional methods selected seemed inappropriate for some trainees. By contrast Fullan's (2007) model puts emphasis on the "recipients" as he insists that change occurs when teachers attempt to use a new element introduced through training. In the light of the above perceptions training intervention can be justified in terms of applicability to the identified professional learning needs. Putting it simpler training is thus said to be effective to the extent the trainees transfer knowledge and skills learnt in the training to their classroom teaching. Yet different stories were mirrored in relation to the transfer of training inputs in the classroom-based teaching practise.

5.7. Transfer of Training to Classroom-based Teaching

With regard to the transfer of teacher training in classroom based teaching key competencies for multi-grade teaching such as practical, foundational and reflective competencies were less applied by trained teachers in classroom practise. Trained teachers were found to have forgotten to put into practise the theoretical aspects of the training programmes showing therefore lack of practical competency. Some teachers lacked motivation to implement what they were trained for due to different experiences in different multi-grade contexts and they needed coaching and support for it. Others wanted to implement what was gained from training but there were contextual barriers that prevented the implementation and transfer of training to their classrooms thus practical help is needed. Others taught multi-grade classes using the old patterns of a mono-grade class thus for them the concept of multi-grade teaching was not made clearer hence it was difficult to apply a different approach to teaching and learning for learners in a multi-grade classes and thus there was a lack of foundational competencies. Other trained teachers resisted change hence the transfer was experienced as difficult. A fear of technology was one barrier that affected teachers coping skills in managing and organising learning for their multi-grade classes.

In as much as with proper training teachers are expected to become more effective, however teacher training seems to be divorced from the everyday challenges experienced by multi-grade teachers in different classroom contexts. Evidence given by some trainees indicated inefficiency in the transfer of training in the classroom practice when other trainees claim they did not change their practice after training.

The reasons thereof could be what Knowles (1984) perceives in adult learners as self-concept -where adults fight against others imposing their wills on them. Relating to Knowles (1984) andragogy adult learners need to know the relevancy of learning and its immediate application to their real life situation. The gap identified in the transfer of training in classroom based teaching undermines the credibility of teacher training on multi-grade teaching and has created a need for recurrent training that might address problems of classroom practices.

5.7.1. Implementation Strategy

Teacher trainees were expected to transfer training on MGT to their classroom practise. The study reveals that there is some change in the quality of teaching and learning in multi-grade classes but teaching and practises are far from ideal. In some way there is evidence that there has been a change in knowledge, skills or attitudes as a result of the intervention. On the contrary some teacher trainees demonstrated that what was learnt in the training sessions could not be effectively implemented in classroom based teaching. Seemingly these teachers in multi-grade classrooms are not maximising the opportunities provided by multi-grade teaching. Most importantly is to note that even if teachers learn something in a training situation, there is no guarantee that they will be able to apply it to their job if as Knowles (1984) puts it such training has no immediate relevance in their real life context.

5.7.2. Success in Transfer of Training to Classroom-based Teaching

Success in the transfer of training and development in classroom based teaching included teaching strategies, lesson management, curriculum integration, classroom management and social components.

5.7.2.1. Lesson Management

Managing the lesson means the pace and the flow of each session is maintained at a level appropriate for the group grade. Evidence suggests that the participating teachers in the study managed their lessons during classroom observations with the alternative use of teacher directed learning and learner-directed learning. In teacher-directed learning learners are taught new concepts or introduced to new themes and are thereby in direct contact with the teacher whilst the other grade group is busy with other tasks. Learner directed learning entails learners independent learning where instructions, resources, peer tutoring, cooperative group-work and self-directed learning takes place.

Lesson Timetable		Estimated Time
Group A	Group B	
MENTAL MATHS	MENTAL MATHS	10 minutes
Instruction and teacher-directed learning	Learner-directed learning (peer tutoring & self-directed learning)	20 minutes
Learner-directed Learning	Instruction and teacher-directed learning	20 minutes
Reflection	Reflection	10 minutes

Table 16: Teaching plan for a multi-grade class (ECDoE, 2012).

The ability of learners to work on meaningful tasks while the teacher is busy or engaged with other groups is central to the implementation of multi-grade teaching. However, the ability of learners to work individually, in pairs and with peers is greatly influenced by the availability of the learning materials. Ideally teachers may be able to produce some teaching materials themselves as in the case of Escuela Nueva. However, overreliance on teacher-produced material is likely to impose additional work on teachers and to prove difficult for poorly trained teachers.

5.7.2.2. Curriculum Integration

An integrated curriculum can be defined as a fully-fused approach in which a single theme, topic or problem is approached from many different disciplines. Integration in multi-grade involves not only the integration of pupils from different grade levels and competencies but it also involves integration of the curriculum either within subjects

or across the subjects. Some subject areas can be easily integrated but the problem may remain a large one since some subjects are not best taught in a whole class situation. Inevitably, integration in the curriculum only becomes a reality when teachers implement it with learners in a classroom situation. Yet, teachers in this context may face a considerable hurdle in managing such integration given the need to know much more of the content of primary education across two or more grades and in every subject area. Although there were success stories of curriculum integration in multi-grade teaching however, for some teachers making connections as required by South Africa's new curriculum (CAPS) with real life world seem to be difficult to implement. The teachers simply use the whole class teaching method instead of integrating knowledge, concepts, themes or learning areas with real life context.

5.7.2.3. Curriculum Differentiation

The study revealed that mono-grade teaching is given a higher status than multi-grade teaching. Such a view has created an hierarchy of knowledge which leads to a need for differentiation of curricula. Not only does this view lead to differentiation of subjects nor does it lead to differentiation of programmes for learners of different abilities, but it also perpetuates inequalities in education. The application of a single grade teaching curriculum (CAPS) in the multi-grade teaching situation was perceived as creating problems for multi-grade teachers. The conceptual and skill requirements of the prescribed curriculum are too great for the teacher to cope with given the problems and concern which have to be addressed in multi-grade teaching situations. During training teachers mentioned that they were encouraged to draw up

teaching plans for effective lesson management and curriculum differentiation. A schedule or a teaching plan is an overall plan that is prepared by the teacher to identify how the lesson will be presented, which group the teacher will be teaching and what the other groups will be doing while the teacher is busy. The teaching plan helps the multi-grade teacher to better manage the classes in the available time (ECDoE, 2012). Although for some teachers it was easy to differentiate tasks for different grade levels daily compilation of teaching plans for each and every task, learning area and separate grades was seen as impractical. Hence there were calls for the Department of Education to give teachers in multi-grade classroom prepared work schedules.

5.7.2.4. Teaching Strategies

After training teacher trainees were equipped with a variety of instructional strategies befitting a multi-grade classroom. A much bigger range of methods includes teaching the same topic to all grades in one classroom at the same time, arranging small group activities and arranging self- learning support activities. Managing a lesson in a multi-grade class requires the teacher to reduce the talk and chalk and increase the use of a range of teaching strategies. Therefore, teaching strategies are crucial for effective teaching and learning and employing various strategies to accommodate different learning styles. These strategies which include peer tutoring, self-directed learning, co-operative group-work, projects, debates, presentations and demonstrations are seen in a multi-grade class as key to improving the quality of teaching and learning (Kyne, 2007). Yet, the researcher observed that teaching

strategies employed by teachers in the classroom practices were not different from those used in mono-grade classrooms.

To a large extent, teachers have adopted multi-grade teacher training through the patterns of the past. Thus the study confirms the dominance of a quasi-mono-grade teaching strategy used in multi-grade classroom. Yet, Little (2006) and Pridmore (2007) recommended various teaching strategies that work best in multi-grade settings. Seemingly for most teachers the holds of traditional teaching practices seem to be stronger than imagined even when trained for multi-grade teaching strategies. Successes mentioned in the transfer of training in classrooms were the cognitive effects multi-grade teaching has on learners such as learner dependency and peers assisting each other. One of the advantages of a multi-grade class is the ability to provide support for less-able learners through peer tutoring or cross grade tutoring. Peer tutoring is an approach that partners a more able learner with learners who has a particular learning difficulty and is from within the same grade group. Cross-grade tutoring pairs a learner from a higher grade with one from a lower grade. During classroom observations peer tutoring was observed in cases where the teacher was busy with a particular grade group in teacher-directed learning. Peer teaching can be frequently effective because learners use their own language patterns during their interactions therefore working in groups for learners in multi-grade settings scaffolds into co-operative learning to peer tutoring and ultimately into self-directed learning. Although learners are engaged in independent and interdependent learning and are guided minimally by the teacher this study show that learners may not completely be dependent on themselves for learning. Some

learners may need hold-handing especially learners in lower grades in the foundation phase.

In cross-grade tutoring data reported that teachers are also using older learners to help cascade knowledge and information down to the younger learners. In this sense teachers themselves are learners alongside their learners as they themselves grapple with multi-grade concepts. Learners are thus seen not only as objects but also as subjects as they also bring to the learning experiences self-reliance and competence that are seen as assets in multi-grade contexts. This is in relation to the constructivist theory of learning that largely attributes children progress in developing conceptual understanding in to their own independent learning and discovery. Thus, Vygotsky notion of ZPD that takes the view that knowledge and development are mediated by their social interaction is taken into account in multi-grade classes.

5.7.2.5. Social Components of MGT

The social components established as one of the benefits of multi-grade teaching are the professional learning communities on the part of the teachers and the learner governing body on the part of the learners.

5.7.2.5.1. Professional Learning Communities (PLC)

Multi-grade schools are often located in remote and difficult to reach sparsely populated areas. As a result they may be far from district offices and educational centres and thus may receive little pedagogical support. For these reasons it seems essential for a multi-grade school to involve community members in school life to support learners and learning. Considering that teachers in multi-grade schools are

in isolated communities and hard to reach areas where deployment of teachers trained on multi-grade teaching and supervision thereof might be more difficult formation of Professional Learning Community seemed inevitable. Data reveals that teachers trained on multi-grade teaching formed Professional Learning Communities to assist and help each other in implementing and transferring training on MGT in their classrooms. For Wenger (2007) teachers learn best when they work in a community characterised by action and dialogue which he refers to as “Communities of Practise”. More often than not teachers working as a team start behaving like a community that shares the same values and new developments.

There is evidence of Mental Maths demonstration lessons prepared and presented with the assistance of PLC formed with the neighbouring schools. In Kolwies’s (1984) opinion adults bring numerous life and work experiences, needs, personalities and learning styles to teaching and learning environments which also shape their perspectives on learning, education and professional development. The constructivist learning theory suggests that learning is a constructive process in which teachers acquire new knowledge, skills and approaches and then interpret their meaning and significance in order to apply them to real life situation (Vygotsky, 1978). However, in Lee’s (2005) view new developments and effective change take time to be explored and to occur therefore sufficient time is needed. Thus, short training courses while being worthwhile in other ways are likely not to allow enough time for all the elements of constructivist approach to emanate in PLC.

5.5.7.2.2. Learner Governing Body (LGB)

Learner Participation is a curriculum strategy to promote the emotional, social and moral development of learner through real experience with their schools and communities. Learners organise their student government democratically and set up committees to plan and implement activities and projects with guidance from the teacher. The social interaction of the younger and older group of learners in the multi-grade learning environment brings into view Vygostky's perspective of learning and development. This perspective contends that a learner interaction with older peers in the ZPD promote cognitive learning. Thus cognitive growth and social interactions equip learners in multi-grade contexts to participate in the society and make positive contributions to it. The study reveals that participating schools in this study have established democratic learner participation through the Learner Governing Body (LGB). With LGB learners learn to negotiate, resolve conflicts, express opinions, set goals and make decisions. PLC and LGB are one of the success stories given by teachers trained for multi-grade teaching and social concepts effectively put into practise in multi-grade schools.

5.8. Difficulties in Transfer of Training and Development

Data reveals difficulties faced by teachers trained on multi-grade teaching with regards to implementing training inputs in their classrooms. Such difficulties were noted in teachers' negative attitudes towards MGT, classroom organisation, curriculum adaptation, classroom management, lesson planning and assessment.

5.8.1. Teachers' Attitudes towards Multi-grade Teaching

Teacher trainees attitude towards multi-grade can determine the extent to which multi-grade teaching is implemented in classroom based teaching. Teachers' negative attitude to transfer of training of multi-grade teaching is often associated with more work and greater stress. In part this perception may be justified as teaching in the multi-grade classroom is perceived as demanding and requires more time for planning and adapting instructions and in managing the class. But the perceived difficulty is greater when teachers have limited personal experience of multi-grade teaching even though they were trained for a shorter period than anticipated. Furthermore, teachers in multi-grade schools associate multi-grade teaching in remote places with the associated risks of social and professional isolation and poor working conditions. While the perception of the teachers may be negative amongst some teachers there are attitudinal changes that were mentioned after training. The study reveals that although the exposure to training in multi-grade training is able to influence teachers to feel positive, teachers do not like to teach in multi-grade classes they prefer mono-grade classes.

5.8.2. Classroom Organisation

Classrooms are social spaces in which particular forms of social organisation emerge. These are determined in part by ways in which learners are grouped for teaching and learning. Classroom organisation can be linked to theories of learning with particular reference to Vygostky's learner-centred learning which puts emphasis on how learners discover knowledge for themselves as groups, pairs and individuals.

By implication, the grounding of MGT in learner-centredness means that learners actively participate in their learning process through social interaction. Although there is no single way to arrange a multi-grade classroom there are some guidelines that apply to multi-grade setting. The Commonwealth Secretariat (2005) uses three basic “organisational frames” to describe how learners are organised for teaching and learning in primary schools: whole class, group and individual. Whole class teaching has been criticised because it assumes that every learner has the same learning needs and will respond to the same method. Hence the teacher training course placed emphasis on the use of group work instead of the traditional teaching approach. However in a multi-grade class there is a place for whole class teaching where the teacher introduces the lesson, for discussion, for giving instructions and for story-telling.

While groups may be differentiated by age, grade, gender, ability, learner interest or friendship the Commonwealth Secretariat (2005) suggests that confusion on how to organise learners in a multi-grade class was reported due to classroom barriers such as the type of the furniture available. A difference also lies in the way the teacher teach young and old learners and the effective use of teaching strategies to control noise and movement rather than disciplinary measures. But the flexible use of group arrangements depends upon the ease with which they can be reorganised by the learners. Therefore, how the classroom and learners are organised seems crucial for effective multi-grade teaching.

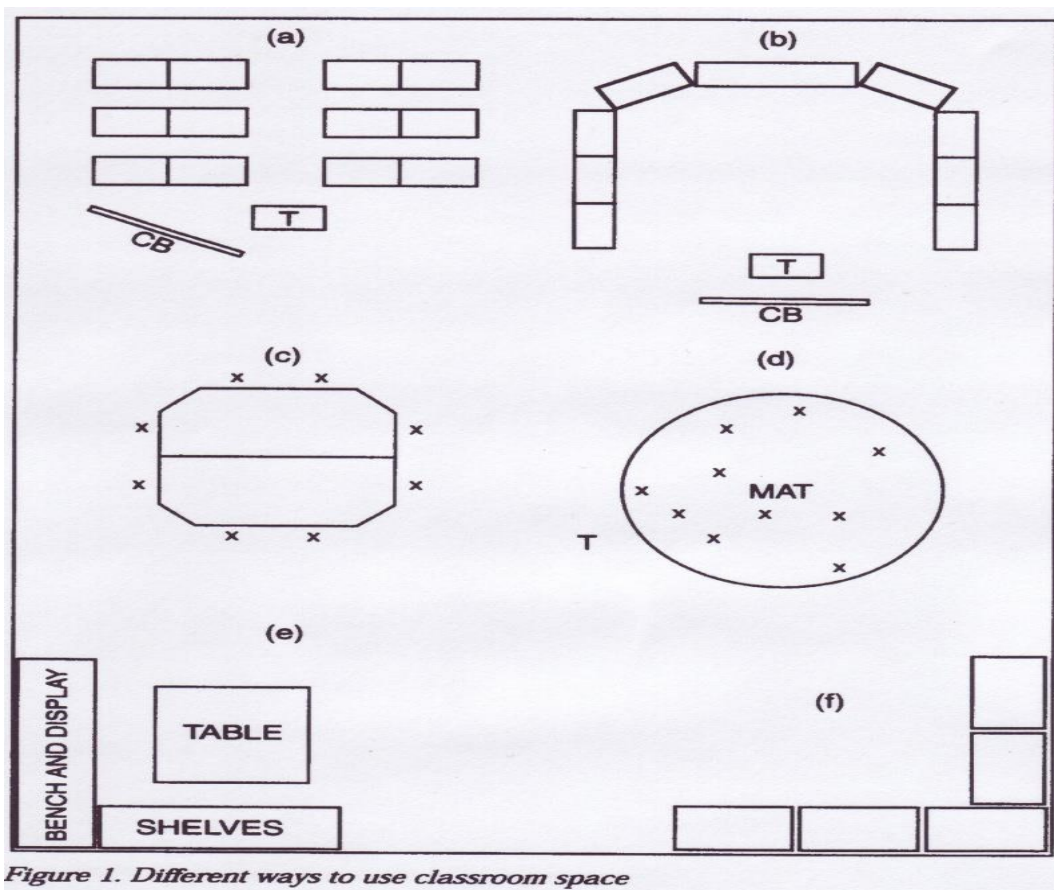


Figure 11: An example of classroom organisation of a multi-grade class (Commonwealth, 2005).

Figure 11 above indicates physical arrangement suggested for group working in a multi-grade classroom that comprises of learning centres for direct teaching, the horse shoe, unsupported co-operative working, the mat, the resource activities and independent study.

(a) Direct Teaching

The teacher instructs, explains and questions and the learners responds to his questions.

(b) The Horse shoe

This can be used for direct teaching or for teacher-led discussion. The arrangement encourages the children to address and question each other as well

(c) Unsupported Cooperative Working

The children share a task and cooperate in fulfilling it. The arrangement invites face to face interaction and conversation. It is useful in topic and project work and can be used for shared practise sessions.

(d) The Mat

This is especially useful with younger children for story-telling, singing, reading and news exchange and for briefing them on their next activity

(e) Resource Activities

This is an area in which equipment such as books, charts and materials can be kept for specific curriculum areas e.g. maths, science and arts and culture;

(f) Independent Study

An area of this kind enables learners to work privately without distractions. Space in a corridor or on a shaded veranda also makes a good situation for an independent study area.

During classroom observations it was discovered that learning centres in a multi-grade class play an important role in co-operative work, peer tutoring, and self-directed learning. A learning centre is a term used to describe a self-instruction learning activity that has been placed in a clearly defined area of the classroom. Learning centres are organised areas or corners within a classroom that provide materials for a variety of tasks at different levels for learners to accomplish. The advantage of the learning corners is that they will liberate the teacher from the chalkboard work and to engage learners in activities with individual learners or

groups. The disadvantage of the learning centres is that they require a lot of preparation from the teacher and perhaps adjustments in terms of times available for the lesson. Despite being shown during training how to organise and layout multi-grade classroom as in Figure 11 above, the study reveals that teachers were still using old practises that resemble the old ways of organising learners such as putting learners in single desks, in rows or in pairs. By implication teachers were challenged in rearranging their mono-grade teaching class settings to suit multi-grade teaching. Furthermore, groups observed were using these as seating arrangements rather than for co-operative learning. Moreover some teachers cited as barriers to classroom organisation as the lack of space and type of furniture occupying their classroom. This then points to the dominance of single approach teaching which embraces neither constructivism nor SDL. Yet, for Kyne (2007) organising learners in a multi-grade classroom promotes whole class teaching, combining grades, subject staggering and pair work.

5.8.3. Classroom Management

Classroom management refers to the way teachers organise many different factors that produce an orderly and positive learning environment such as physical resources, teaching strategies, and rapport with learners and with each other. With the best teacher-learner relationship the classroom activities can be well managed by establishing a positive learning environment and managing learner behaviour. But the study identified that the physical and instructional environments of the classrooms used for multi-grade are not large enough to run multi-grade settings. Instruction in such crowded classrooms has been found a difficult practise. Various

reasons for poor classroom control of learners and poor management of multi-grade classrooms were given. Firstly, teachers seem to be under stress because of learners of different ages and different levels of maturity in one class. Secondly, teachers are faced in their classrooms with issues relating to learners' behaviours which sometimes disrupt lessons. In instances where teachers lack knowledge or the skill in coping with such behaviours; the teachers tend to ignore the learners concerned or pass them on to the next grade without addressing the problem. Even the schools principals seem not to be able to have solutions to issues related to learners' disruptive behaviours in multi-grade classrooms. As a result teachers not knowing how to respond to these challenges which creates barriers to learning prefer to let the learners' problems become their own because there is little or no intervention from the Department of Education relating to controlling behavioural problems that emanate in multi-grade classrooms.

5.8.4. Curriculum Adaptation

The study indicates that teachers do not have time to cover the curriculum when they have more than one grade in one classroom. Since teachers do not have time to cover CAPS when they have to teach more than one grade in one classroom, the adaptation of the CAPS curriculum to fit the needs of the multi-grade schools was seen as difficult to implement. For curriculum adaptation strategies Pridmore (2007) provided four key propositions of multi-year curriculum span; differentiated curricula; quasi-mono-grade and learner and materials centred strategy.

- **Multi-year curriculum span** that specifies that instead of teaching all the subject content in one grade level, units of curriculum content are spread

across two or more grades and all learners engage in common topics and activities.

- **Differentiated curricula** requires that learners in each grade group engage in learning tasks appropriate to their grade level i.e. the same general topics themes are covered with all learners in each grade group.
- **Quasi- mono-grade** share some features with a single grade because in this case the teacher teaches grade groups in turns as if they were single graded.
- **Learner and Materials –centred strategy** requires that the curriculum be translated into self-study learning guides. Learners work through these study guides at their own pace and complete structured assessment tasks accordingly.

On applying the above models in classroom practise teachers find it difficult to translate the theoretical aspects of the training into real life classroom contexts. Although each of the four curriculum adaptation strategies supports the idea of learners working in a group, it was found that teachers were keener on applying quasi mono-grade strategy rather than attempting other curriculum adaptation strategies. Although Pridmore (2007) recommends various approaches to curriculum organisations in which multi-grade classes can be re-organised how to manage access to the appropriate content for different ages and different levels can be one of the predominant concerns that might worry teachers. A question to be asked is whether to prepare different content for different levels. How to manage appropriate feedback during teaching and learning process for different ages and different levels of pupils might be a concern amongst teachers. How to manage appropriate activities and which Learner Teacher Support Material (LTSM) to use for different

ages and different levels of pupils can be another predominant concern that might worry teachers.

The study found that there are none LTSM available that are specifically designed for mixed classes while the existing LTSM are not necessarily designed for small groups or individuals to use in a multi-grade class. Nor are they likely to be designed for older learners to collaborate with younger learners or for groups that have to be left on their own for significant periods. The reality is that multi-grade schools are poorly resourced not only in terms of the fabric of the school itself but in terms of textbooks and other educational materials. In the absence of learning material that supports multi-grade teaching teachers in multi-grade classrooms make use of the existing textbooks aimed at supporting mono-grade and teacher centred teaching. This poses serious constraints for the teacher who needs to engage learners in individualised or group tasks that require self-study or self-instructional material suitable for a multi-grade class. In turn lack of relevant LTSM might perpetuate negative attitudes in teachers towards multi-grade teaching. Taole (2014) confirms that negative perceptions tend to lead to passive behaviours and the application of easy solutions in multi-grade classrooms. Thus lack of adequate resources is found to be a barrier to transformation of acquired knowledge and skills to classroom teaching practise.

5.8.5. Timetabling and Scheduling

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 (ECDoE, 2012). Although the timetable assist teachers in

managing time and instructional resources and curriculum it can be restrictive and can lead to compartmentalisation of subjects. Yet a multi-grade class time table should be flexible to allow different tasks to be performed by different grade levels at the same time. Before training there was an assumption that if the teacher divides her time between the two grades equally the time for learning is halved. The assumption that learners in a multi-grade classroom in the estimates of learning time provided are presented with opportunities to learn may be invalid. Hence during training teachers were encouraged to draw up time tables that will actively engage all learners in teaching and learning activities at all times.

Time	Grade	Grade 5	Grade 6
09:00-09:30	Mathematics	Science	Language
09:30-10:00	Mathematics	Arts & Crafts	Reading
10:00- 10:30	Language	Arts & Craft	Science

Table 17: Subject staggering approach timetable(ECDoE, 2012)

Period	Grade	Grade 5	Grade 6	Grade	Grade 5	Grade 6
1	Maths	Maths	Maths	Phys. Ed.	Phys. Ed.	Phys. Ed.
2	Reading	Reading	Reading	Social Science	Social Science	Social Science
3	Science	Science	Science	Reading	Reading	Reading
	B	R	E	A	K	
	Music	Music	Music	Language	Language	Language

Table 18: Common subject approach timetable(ECDoE, 2012)

Three approaches to timetabling and curriculum organisation identified are common timetable, subject staggering and subject grouping. The first two approaches subject staggering (as shown in table 18) and common subject approach (as shown in table 19) apply more in primary schools while subject grouping is done preferably in high schools. In subject staggering grades are combined in groups to work on different subject areas. For instance if the teacher is working on mathematics in grade 4, science in grade 5 and language in grade 6 in subject staggering subjects requiring high teacher learner contact are matched with those requiring little contact. Subjects are presented to all grade groups together at the same time. For instance music, art, religious education and social studies lend themselves well to this type of timetabling. In the subject stagger approach all grades have to be involved therefore preplanning is vital. The use of group leaders will make the subject staggering approach a success as leaders could help with the distribution of materials and explaining of instructions of the tasks. Furthermore, learners are presented with opportunities to assist each other as they are in different levels.

Common Subject Approach refers to a programme whereby the multi-grade teacher teaches the same subject to all grades but learners will be given different tasks. In this approach the teacher still staggers to introduce new concepts or topics to different grades. Like the subject staggering approach this type of timetable gives the teacher an opportunity to work with one group while other groups do some other activities. Despite being shown how to draw up time tables 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. The difficulty of teaching two or more programmes in the time that is available to single grade teachers for teaching of one

programme is also a frequent concern of multi-grade teachers. Since a teacher has to divide his teaching time for both grades total objectives of the lessons of both grades 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. Thus the assumption that learners in a multi-grade classroom in the estimates of learning time are presented with opportunities to learn may be invalid. With a regular mono-grade timetable a multi-grade classroom needs a realistic timetable with flexible time.

5.8.6. Lesson Planning

A multi-grade classroom is labour intensive and requires teachers to write multiple lesson plans, tasks and tests. The study found that teachers are ill prepared for planning for large numbers of pupils of different ages and different levels of learning that they confront in multi-grade classes. Principals of the multi-grade schools also teach full time as well as being responsible for planning for their classrooms in addition to administration and curriculum management at the schools they are managing. Unnecessary repetition for children and insufficient time for reflecting on teaching is one of the concerns of the teachers. The other concerns are irregularities in terms of assessment, poor recording and the burdensome nature of reporting for learners of diverse intellectual abilities. In Lingam's (2012) view multi-grade teaching has its limitation in that it can be handled by an experienced, trained and competent teacher because of the diversity of the learners in their achievement level.

5.9. Monitoring and Evaluation of MGT Training

Monitoring and Evaluation is concerned with decisions about the training process as well as on its success and effectiveness. Evidence given seems to suggest that district support for multi-grade teachers is not multi-grade specific because district officials themselves lack training and do not fully comprehend the challenges presented by multi-grade classes. However, departmental officials were appreciated when their presence assisted teachers in monitoring their progress on MGT training. In instances where the district officials were unavailable for monitoring and evaluation of teacher training on MGT, MGT was compromised. In the absence of communication with district and school support multi-grade teachers felt lonely, alienated and insecure. Thus, trainees tended to have low self-esteem and low academic competence because of the unavailability of the trainers for supervision and monitoring. In this sense monitoring and supervisory practises to ensure the effective transfer of teacher training seem to have been a ritual rather than a true reflection of support.

Evaluation of the training programme is concerned about the decisions regarding the training and the learning process at learning level, reaction level and organisational level (Early & Bubb, 2005). While a learning level objectively measures what the participants actually learned. A reaction level measures the feelings of satisfaction level of the participants about the training program, the trainers and the training content. At organisational level evaluation of training and its impact measures what participants actually do after training. This is usually evaluated by performance indicators usually several weeks or months after training. Evidence given suggests that preparation, planning and evaluation of the MGT programme was found

consistent with Earley & Bubb's (2005) training and development cycle. When evaluating the learning activity the training identifies the strengths and the weaknesses of the learners' performance in achieving the intended outcomes, the effectiveness of different phases of the learning activity and the trainer's role in the training programme. The trainees are evaluated in terms of mastering new knowledge; new competencies acquired, skills trained in and values. This study shows that assessment of teachers' performance in the short course training intervention was done through assessing the Portfolio of Evidence (PoE).

The portfolio of evidence is a structured collection of evidence that demonstrates trainees' competence and tells a story of trainee's efforts, progress and achievements in transferring MGT training and development. It entails compilation of all aspects of training received, meetings held, action planned and the community map, election of LGB and evidence of all tasks performed in a multi-grade class. While assessment according to DBE, (2012) is a process in which evidence is gathered and evaluated against agreed criteria in order to make a judgement of competence for developmental purposes. However the evidence might not always indicate applied competence although the trainer can make a judgement of competence. Applied competence according to (DBE, 2012) is a combination of practical competence, foundational competence and reflexive competence.

5.9.1. Professional School Support

With respect to contact with MGT trainers the study reveals that teachers were monitored and visited after six weeks of training. Teachers found school support and classroom visits useful for keeping them motivated and for monitoring the transfer of training in their classrooms. Trainees need a lot of support from their trainers as they

learn new content during the initial stages, during implementation and until the teacher can manage on their own in their classroom practice. Examples of such support could include what Vygotsky terms “scaffolding” as well as cognitive modelling, reflections and recurrent training. While the principal is recognised as the key influence on school quality and school effectiveness; data reveals there is relatively little monitoring of their performances at school level. Too often however, principals tend to look up rather than down focussing on their efforts to deal with administrative work instead of managing teachers’ pedagogical practises. The study shows that participating principals in this study who are also teaching in multi-grade classes have been trained on multi-grade teaching for their classroom based teaching but not for supporting multi-grade teachers. Given the relatively low frequency of external support for schools, principals tend to have relative autonomy.

Teachers implement training as long as there is a follow up and support. They lack motivation and commitment to carry on the innovative practice without external support. In the absence of support and recurrent training the sustainability of the MGT concept can be threatened. As some aspects of MGT training were found to be inadequate in preparing teachers for their different MGT contexts; this inadequacy was reflected in the delivery of instruction in classroom based teaching. Support and encouragement received from colleagues, trainers, and district officials seem crucial for the effective delivery and transfer of teacher training in their classroom-based multi-grade teaching situation. Once trained multi-grade teachers are in effect managing a learning environment of which they have had little personal experience. They are likely to require further support and professional guidance and recurrent training. Recurrent training might increase the degree to which the teachers alter

their core practises in multi-grade classrooms. In spite of efforts to train teachers in multi-grade teaching current provision remains fragmented and uncoordinated and therefore makes a little impact on changing teaching practice. Both conceptual and content knowledge and pedagogic knowledge are necessary for effective teaching and learning as well as teachers' willingness to teach and ability to reflect on practice. These attributes need to be integrated so that teachers can apply conceptual knowledge in practice.

5.9.2. Peer Networks

Teaching is generally an isolated profession where teachers operate mainly alone with a very limited professional community. MGT by virtue of its location in remote schools is even more isolated leaving teachers reliant on their own experience and skills to deliver their training to classroom practice. Teachers in multi-grade classes find themselves isolated from their colleagues in mono-grade classes. Lack of support for teachers trained on multi-grade teaching affect their attitude towards multi-grade teaching. However, the influence of peer support was mentioned implying therefore that they support and learn from each other in Professional Learning Communities. In light of the benefits of a "community of practise" Wenger (2007) believes the participants as a cohort may well benefit from the positive influences and support that peers provide. But at times teachers in multi-grade settings need guidance from the officials as they seem unsure whether they are on the right track in the transfer of training in their classrooms.

5.11. Conclusion

The key main findings are discussed in this chapter in accordance to presented data and the reviewed literature. The next chapter deals with the summary of main findings, implications for practice, suggestion for improvement of training in multi-grade teaching and recommendations for further research.

CHAPTER 6: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. Introduction

The purpose of this study is to obtain a detailed description of teacher training and development in multi-grade teaching in selected primary schools. Based on the data presented and analysed, the main findings in this chapter deal with the summary of findings, conclusions, suggestions and recommendations for further research.

6.2. Summary of Findings

The summary of findings highlights key sub-conclusions of this research study such as multi-grade teaching concept, identification of training and development needs, multi-grade teaching programme, delivery of training, transfer of training in the classrooms and monitoring and evaluation of training and development in multi-grade teaching.

6.2.1. MGT Concept

Among the primary schools of the sampled districts the study found that the schools have more grades than the number of teachers available. The inadequate teacher supply leads inevitably to a greater possibility for the establishment of multi-grade schools. Reasons leading to establishment of multi-grade schools are through forced

circumstances. Transfers of teachers to other schools, teacher loss, teacher absenteeism, teacher redeployment, school staff establishment, teacher shortage, decline in learner enrolment and small class sizes are reasons cited that lead to the existence of multi-grade schools in the province. Yet deployment and transfer of teachers without MGT training to schools with multi-grade classrooms might create problems in effectively managing such classes. Since multi-grade schools are associated with small rural schools, data reveals that in urban areas also multi-grade classes exist. Multi-grade teaching is the combination of different grade levels in one classroom taught by one teacher. Multi-grade teaching is an alternative to mono-grade teaching. However, teachers prefer to teach in mono-grade class rather than in multi-grade class. Trainers and trainees perceived multi-grade teaching as an instructional approach to teaching learners of different grade levels combined in one class. Features of a multi-grade class include consecutive and non- consecutive grade combinations. The majority of grade combinations were next to each other whereas other grades were not closer to each other. In some instances multi-grade classes co-exist with mono-grade classes in a mono-grade school. Not only are different grade levels combined but also different phases are combined to form a multi-grade class. Generally teachers' attitudes towards multi-grade teaching are negative.

6.2.2. Identification of Training and Development Needs on MGT

Teachers lacked preparation to handle MGT situation and thus were not provided with the necessary skills to teach MGT in their pre-service education. Key competencies required of a multi-grade teacher to handle teaching and learning

effectively include curriculum adaptation, pedagogy and classroom management skills. However, teachers in multi-grade classrooms are either not trained in multi-grade teaching or were trained in mono-grade teaching. Since trainees did not have necessary knowledge base and skills to handle learners of different grade levels MGT professional training needs were established. Teacher training needs on multi-grade teaching that were identified included curriculum adaptation needs, pedagogical needs and classroom management needs.

With regard to curriculum CAPS is mono-graded and not aligned for multi-grade classes thus curriculum adaptation, curriculum differentiation and curriculum integration would suit multi-grade classes better than a single grade aligned curriculum. Furthermore, LTSM was found not suitable for multi-grade classes thus materials development of LTSM that supports multi-grade teaching was suggested. In relation to pedagogy teachers are challenged in lesson planning for different grade levels at the same time. Planning lessons for separate grades in one class was experienced as difficult, extra work, time consuming and tedious. Principals who also teach fulltime in multi-grade classes complained of having to plan for their classes as well as administration work and curriculum management.

Before training teachers used traditional methods of teaching that embrace chalk and talk, and teacher-led instructions instead of peer tutoring, cooperative group-work and self-directed learning. Assessing learning was experienced as a huge burdensome tasks requiring extra time for marking, recording and reporting for each grade. As a result teachers in multi-grade classes request remuneration for the extra classes, extra planning, and extra tasks of handling learners of different ages, grade and abilities. With regard to classroom organisation, classroom layout was virtually

impossible in the classroom spaces occupied by learners in multi-grade classrooms. Furthermore the time available to teach all grades combined in one class is insufficient. Class size is experienced as the barrier in implementing pedagogical skills and knowledge. Learner discipline was the highlight of classroom control and classroom management with learners of different levels of maturity.

6.2.3. Training Programme on MGT

Teachers' professional training and developmental needs on MGT were addressed through in-service training. The Focus of the Training Package offered to multi-grade teachers was at a local level where cascade model was used to disseminate information to teachers who in turn had to transfer training to their classroom practise. There were no explicit written procedures and criteria used for selection of trainees and some trainers were office based officials. Surprisingly the province had no multi-grade specialists as indicated in DBE (2012) however CPUT academics were engaged in the training of teachers. The training package focussed on teachers already employed by Department of Basic Education. A six months short course was packaged for teachers in multi-grade classrooms. The modality of the training revealed was in one form- certification as recurrent training was not mentioned.

Scheduling of the training programme was appropriate as the training workshop was run during school holidays without disturbing tuition time. A central venue was selected for training sessions. The training package for multi-grade teaching training which included training manuals for trainers and trainees was developed locally at the provincial level. The content of the training manual is structured for two training

sessions with a coverage content of 5 key dimensions. The training programme equipped teachers in the following aspects:

- Classroom organisation
- Lesson management
- Teaching Strategies
- Lesson Planning
- Social Components.

Time allocated for training was 2 days per session in two cycles over a period of six months. The first two days' training was more theoretical than the second two days which dealt more with practical aspects of a multi-grade classroom.

6.2.4. Delivery of MGT Training and Development

Training was delivered through a cascade model also known as one shot, multiplier and one way process and face to face interaction. A cascade model was used to transmit knowledge from central level to local level, from the trainers to the trainees who in turn transfer the information, knowledge and skills gained to their classroom practises. Trainers had not taught in multi-grade classrooms before nor had they had teaching experience in a multi-grade primary school. In one session method of delivery of the content was a lecture or a one way traffic method of communication from the trainer to the trainees. However, roles identified of trainers were that of instructor, coach or counsellor. On the other session delivery of training was trainee-led in that it encouraged an interactive participatory approach. While cascade model is linked with the traditional model of training because of its nature, an alternative

model of training which embraces a constructivist's principles of trainee-centredness, knowledge-centred, assessment-centred and community-centred tended to be suggested. Instructional methodologies were trainer-led with the use of ICT and trainee-led methods with the use of group work, discussions and demonstrations.

Strengths of teacher training and development were found to be skills related to teaching strategies, lesson management, curriculum integration and social components of MGT. Trainees were generally positive about their training programme though some expressed concerns about some important areas they thought they needed some improvement such as the quality of teacher training programme at the in-service stage. They suggest that teacher training on MGT should begin at the pre-service stage. Weaknesses of the training were the time scheduled for training, lack of practical demonstration and the implementation of micro-teaching. The training was found inadequate in terms of practical activities on lesson planning, timetabling, curriculum adaptation and assessment. However, trainers indicated that multi-grade teaching is not a new curriculum but that teachers received training in coping skills in order to handle multi-grade classes effectively. Lack of experts in MGT practises, the poor knowledge base of some trainee, the low ability of the teachers to grasp the content of the training were identified as the major barriers to the effective delivery of the training programme on MGT. With regards to the poor knowledge base of some trainers on MGT; they indicated that training they received lacked sufficient practical exercises. The training was found ineffective in the areas such as demonstration lessons by the trainer. Since practical work was not frequently demonstrated in the training, the training was found theoretical.

6.2.5. Transfer of MGT Training to the Classroom-based Teaching

With regards to the transfer of teacher training in classroom based teaching, only a small percentage of the training inputs provided to teachers was being used in the multi-grade classrooms. Teachers trained in MGT preferred to teach multi-grade classes in a mono-graded approach. Success stories on the transfer of training to classroom based teaching practise included lesson management, instructional strategies, curriculum integration and social components. Strengths indicated of teacher training were on teaching strategies which were found to be similar to mono-grade instructional strategies. Lesson Management through Mental Maths demonstration was a success as well as curriculum integration a special feature that also appears in the mono-graded curriculum. Cognitive effects of learning together in one class taught by one teacher were co-operative learning, peer tutoring and self-directed learning. Social components that instil social values and have non-cognitive effects on teachers and learners were through the Professional Learning Community and Learner Governing Body.

The majority of participants expressed the view that teachers negative attitude towards MGT was the major cause of ineffective delivery of instruction in multi-grade classrooms. Difficulties in the transfer of training into classrooms include classroom organisation, lesson planning, timetabling, curriculum adaptation, lack of availability of relevant LTSM and assessment. Overcrowded classrooms, lack of LTSM assisting multi-grade contexts, inflexible school environment and teachers' unsupportive attitudes were some of the causes quoted for ineffective transfer of training inputs in the classroom. Multi-grade techniques such as classroom layout, display techniques,

and use of learning centres were found to be absent even though these skills were taught during training. Trainees indicated that due to other workloads such as classroom teaching, administrative issues, doing a challenging job, managing extra classes and additional labour with regard to planning, and knowledge and skills learnt in their training could not be effectively transferred to classroom practise. Application and transfer of training was virtually impossible for classrooms practise as multi-grade contexts differed.

There are positive aspects of teacher training in that some teachers changed their multi-grade teaching after training. This then indicates that the mechanisms of training did change teaching and learning practise. On the other hand, some teachers did not change their practise on multi-grade teaching. One reason given by teacher trainees was that they did not want to change their practise because of the negative perceptions held towards the concept itself. Another reason was that they were not clear about what to do differently in their classrooms. Yet another reason was they could not change their practice because they did not want to introduce the new training mechanisms into their classroom practise as it did not adapt to their real-world classroom situations. This then indicates that multi-grade teaching was experienced differently in different schools from classroom to classroom. Horizontally, opportunities for learning and knowledge creation in connection with training were found to be scarce. The lack of horizontal interactions was not only due to efficiency demands but also to autonomy and physical distance. Vertical interactions on the other hand seem to play an important role as opportunities for learning at work. The vertical interactions emerged partly as a result of organisation of work and more frequently during task performances in training workshops. In the

light of differences in horizontal and vertical places for interaction and hence for learning and knowledge creation the CoP emerge in practise.

6.2.6. Monitoring and Evaluation of MGT Training and Development

With regards to the monitoring and evaluation of training school support and classroom visit, peer networks formed part of supervision. At the central level personnel from DBE were assigned to monitor delivery of training and its transfer to classroom situations but lack of professional support from experts working in the MGT field and local district officials was mentioned as critical. Trainers and district officials visited the schools, classrooms and clusters of PLC. Assessment of training was done through marking of the Portfolios of Evidence by CPUT academics.

6.3. Conclusions (Implications for Practise)

Implications for practise were drawn in line with the objectives of the study and key sources to which the study might be significant.

- **Multi-grade Concept**

Data reveals that multi-grade schools are an unavoidable reality in primary schools both in rural and urban areas. There are strong factors that suggest that multi-grade teaching will remain a permanent feature of education in South African primary schools. Teachers are frequently critical of teacher training courses claiming that they did not prepare them for multi-grade classes. Officials assume that teachers as well as school principals are trained and skilled to handle multi-grade classes. But the reality is that untrained teachers have to deal with multi-grade classes without

any capacity to do so. Teachers feel disempowered when they have not been adequately prepared to teach learners of varying ages and abilities in different grade levels.

Variations have been observed in the operation of MGT in primary schools in areas such as grade combinations, mono-grade and multi-grade schools which co- exist in the same settings. In order to bring uniformity to the concept and the operation of MGT there has to be a policy to develop specifications on how to run multi-grade classes with minimum requirements. Multi-grade classes need to be effectively organised for some lessons the teacher might prefer to use grade grouping, at other times prefer to combine two grades or alternatively to use ability groups across the grades to work with peers, in pairs or on their own. However, finding the appropriate and effective way to group learners has been one of the major challenges faced by multi-grade teachers. Confusion was evident on whether to group learners by age, by grade or by abilities. Discipline in learners of different levels of maturity combined in one class was experienced as challenging without specific rules or training on how to deal with such behaviours.

- **Identification of professional learning needs**

The study concludes that teachers in multi-grade classrooms struggle to teach in the gap between their own multi-grade reality and the dominance of mono-grade norm. Even when trained in multi-grade they organise their classroom in their own ways. As a result practises of multi-grade teaching differed widely from classrooms to classrooms and from schools to school. The study acknowledges that the training and development needs of multi-grade teachers have not been thoroughly addressed. The irony exists then for those for whom the international goals are set

up for it is the teachers that eventually suffer the most for the efforts to reach EFA goals by 2015.

The reason for the continued disfavour of multi-grade teaching has to be attributed to the dominance of the present paradigm as schools are encapsulated in the single grade approach. The curriculum consists of learning competencies that are specifically designed for mono-grade classes and multi-grade teachers find it difficult to make the content meaningful to learners. Therefore the teacher needs to acquire the necessary skills, knowledge and attitude and continually improve their expertise in teaching learners of different grade levels. As the existing curriculum is more subjects-based and grade-oriented it has little flexibility to accommodate learners with a variety of learning abilities and motivations.

Such a curriculum is found to be difficult for the multi-grade teacher to use because it tends to be written for each grade level separately. Teachers are encouraged to be able to identify themes and topics within the curriculum that can be developed to teach more than one grade. To integrate, adapt or differentiate the curriculum to suit multi-grade learner needs seems not only to be time consuming, burdensome and a heavy workload on multi-grade teachers but also it might result in ineffective instruction. There are calls for in-service training to improve subject content and pedagogic content knowledge related to specific curriculum areas. This includes the requirement to provide multi-grade teachers with focused support to interpret the CAPS curriculum.

Primary school textbooks are based on learning outcomes basically designed for subject teaching with different weightage for delivery of the contents. An issue of concern of data presented and analysed is whether the multi-grade teacher could

manage and teach all the contents of different learning areas in the time allocated for single grade teaching. Scheduling of the timetable for a multi-grade class ought to be increased and given flexible time considering the complexities of handling different grade levels simultaneously.

- **The Training Programme in Multi-grade Teaching**

Trainings are planned at provincial level in accordance with national arrangements without taking into account the effect they might have in the classroom-based multi-grade teaching. Therefore, the needs of teachers and learners have been overlooked by education policy makers under the predominance of mono-grade teaching. The study identified obstacles that would endure even if training were to improve and that include the absence of teacher- trainer “experts” or “specialists” in the practice of multi-grade teaching. Perhaps the best approach is to train teachers in multi-grade teaching during their initial teacher education rather than addressing it using the professional development programme. Pre-service training might prepare prospective and novice teachers who may be posted to schools for practising multi-grade teaching in their initial appointments. Novice teachers might be transferred or redeployed to schools with multi-grade classes. Skilled and experienced teachers might encounter in their schools a decline in learner enrolment and staff establishment might require a certain number of teachers as per learner: educator ratio which can cause more grades than teachers. With regards to issue around where resourcing of teacher training is best placed whether in initial training or in continuing professional teacher development the study emphasises that teachers need training and support in both stages .

A clearly defined teacher training policy that requires the teacher training systems to address existing MGT situation in schools is needed. The training intervention programme should be outcomes based and include instructions and demonstrations of task that are appropriate to multi-grade teaching in classroom based situation. The six months short course training intervention programme although it is consistent with ISFP for TED plans; given the complexities of a multi-grade class was found to be insufficient. Additionally time allocated for the on-the-job training was considered insufficient for training teachers in such a complex phenomenon. Human memory is fallible teachers may not remember, how to evaluate and apply new knowledge or skills after a single exposure to training. To that effect an extension period for short courses and recurrent training is required for effective delivery of CPD programmes.

Five key dimensions to be employed in multi-grade contexts were highlighted in the training manuals. However, the content coverage of the manuals was seen as insufficient with regards to addressing teacher training needs on multi-grade teaching. Although the training manual components of multi-grade schooling has implications for teacher training and curriculum design the relevancy of some aspects encompassed in the training programmes in addressing different teachers training needs on multi-grade teaching was questioned. Adequate emphasis is not given to micro-teaching and the practice in actual classroom teaching lack. The training package has therefore to adapt micro- teaching and actual classroom teaching modality. Furthermore, more time to explain, discuss and demonstrate the contents of the training manuals need to be allocated for teacher training in multi-grade teaching. Although certain aspects of multi-grade teaching encompassed in the training manuals were simplified, barriers to transferring some of the aspects to

classroom practice were experienced. Therefore the training curriculum developers have to incorporate experiences of teachers in multi-grade classrooms as well as their training inputs.

- **Delivery of training**

One single cascade model of training was provided to train primary school teachers in multi-grade teaching. However, considering the diversity of multi-grade teaching at school and classroom level, the one shot model is likely not to address problems in the current practise which is widely different from classroom to classroom. Thus, this kind of traditional model of CPTD might not fit the diversity of practice of multi-grade teaching without unsupported circumstances. The delivery of the training was provided by academics and district officials without considering teacher training needs in different multi-grade contexts. Yet, they themselves might not have taught in multi-grade classes and are thus unfamiliar with multi-grade teaching. In this sense they are likely not to understand the deeper context of multi-grade teaching. Even though the training instructional method made use of group-work, discussions and practical work, the delivery of the training should be based on the alternative models of training which emphasise outcomes-based learning, learner-centredness, assessment-centredness and community-centredness. However, the use of alternative approaches to training depends on the quality of teachers which in turn depends on the quality of professional training and development.

In spite of video clips shown some aspects written in teacher training programmes on multi-grade teaching were not demonstrated in the training sessions. The training was found ineffective in areas such as demonstration of the lesson by trainers, implementation of micro-teaching and the preparation of instructional material. The

training manuals were found to be standard and uniform yet multi-grade teaching is experienced differently in different contexts. The study concludes that trainee teachers might not adopt teacher training components when the training does not take into account the real world context where teachers work.

- **Transfer of training**

The study concludes that a massive gap currently exists between teacher trainings in MGT and the transfer of such training at school and classroom levels. Training might fail to achieve its purpose in cases where the implementation strategy and transfer of training to the classrooms tends to overlook “recipients” in favour of “providers”. By implication even if the training is rationally justified by some trainees it was not supported by other trainees due to diversities of prevalence of MGT. Yet the training inputs were not effective in changing some of the behaviour, knowledge, skills and attitudes of multi-grade teachers. Resistance to change and fear of complexities was evident. Most importantly the study reflects teachers’ views to demonstrate the transformation into teaching having their training needs addressed through training. Implementation strategies on how to transfer what was in the training manuals was experienced as difficult as such strategies were not clearly articulated in the training programme.

The study concludes that some trainee teachers did change their practise in multi-grade teaching after training. Therefore the adaptation of the training components by trainees can be closely related to their real teaching and learning contexts. The way of their adaptation to the training components indicate that the mechanisms of training can make a change when it precisely responds to the professional learning needs and the context of the recipient. But, the diversity of classroom practise affects

the impact of in-service training in classroom-based teaching. Firstly training seems not to take into account the real classroom context where teachers work. The study suggest that some teachers seem not to be clear on what they ought to do differently in their own teaching and learning contexts and thus might not see a need for change in classroom practise. Even when the professional learning gaps have been identified and addressed through training, the training might not have been presented in such a way that

Some multi-grade teachers described a shift in their practice away from the traditional talk and chalk approach, and from whole class instruction to modernised ways of teaching such as e- learning, use of multimedia resources and print based media. This then suggests that a transmissive approach such as traditional talk and chalk may not be suitable teaching option to be adopted by teachers in multi-grade teaching contexts. However, due to lack of professional preparation and limited resources for teaching and learning the study concludes that other teachers in multi-grade classrooms generally carried teaching and learning using transmissive approaches and chalk and talk method rather than ICT. Although use of ICT might be useful in MGT classrooms, its availability and accessibility in rural areas where there is poor infrastructure and lack of resources such as electricity has been identified as a barrier to effective transfer to classroom practice. Multi-grade teachers experience significant difficulties in accessing and receiving support, resources and CPD opportunities close to where they live and work. For the majority of teachers who work in rural areas the difficulty is more pronounced. In order to cope effectively with multi-grade teaching in such circumstances the use of a more flexible approach to teaching and learning is desirable.

Teachers in multi-grade classrooms utilise the same teaching strategies as in mono-grade classrooms to enhance learning. The predominant pedagogical approach was quasi mono-grade teaching where each grade group was taught separately, while tasks were assigned to the other group. Teachers without personal experience of multi-grade teaching and with specific training seem likely to rely on quasi mono-grade as the main teaching approach. The benefits of multi-grade teaching when employing the pedagogical approach as with peer tutoring, co-operative learning and self- directed learning were shown. Teachers are challenged in that such cognitive effects are likely not to be applicable for other grade levels. Assessment of learners of different grade levels which is largely mono-graded needs revision as it was regarded as extra work which requires extra remuneration. PLC cluster members articulated difficulties in translating what is on the training manuals to their classrooms as its focus was for a particular multi-grade class. Even with adequate training, the preparation and teaching of multi-grade places a lot of demand on teachers' planning and instructional time. Handling such a wide range of students' abilities especially in instances of large numbers is very challenging. In view of this problem consideration could be given in terms of financial rewards. But attempts have to be made to make MGT a pedagogical choice which seems to be lacking in our context. To make multi-grade teaching a pedagogic choice appropriate pedagogical training and materials are needed for its successful implementation.

The quality of teacher training in multi-grade is accepted as the major factor to the negative experiences of multi-grade teachers in relation to the transfer of such training to classroom practise. The quality of classroom based teaching is cited as the most important fact pertaining to the success of the transfer of teacher training

on MGT lending weight to the argument that multi-grade can help South Africa reach the EFA goals for basic education. One of the positive findings of teacher training in MGT was that the mechanism of training functioned in terms of changing teaching and classroom practice, even the teacher trainees who did transfer training in their classroom and thus did not change their classroom practise. The study concludes that teachers might not have seen the need for a change as the innovation might not fit their real world working contexts. As multi-grade teaching occurs beyond a single classroom, it might be difficult for teachers' trainees to change their classroom alone. Although there were success stories with regard to the transfer of training inputs in the classroom based teaching, there were also difficulties of inexperience in such transfers.

- **The Evaluation of Training**

Through the case studies of trainees who were interviewed and observed in the classroom the study demonstrated the positive impact of exposure to teacher training on MGT teaching practice and subsequent classroom support visits. Even though the district officials are responsible for the supervision of school programmes due to lack of exposure and knowledge base on MGT supervisory practices in primary schools has become only a ritual. Furthermore, application of MGT in the classroom has been monitored very little. In relation to evaluation of the training and development programme and its impact teachers prepared portfolio of evidence. However, submission of the portfolio of evidence for evaluation may not show progress and change in classroom practise. Thus, recurrent training is needed to place emphasis and follow up on training in order to achieve the set targets of EFA

and MDG through the local development plans such as ISFP for TED and ANA for improving learner performance and attainment.

While evaluation of the portfolio of evidence indicates that training preparations were done comprehensively interactions and training were found ineffective in some parts. The ultimate mastering of knowledge, skills and values was likely not to be effectively applied in real life situations and in that sense the outcome of the training seem fairly well achieved. Thus, the training interventions need to be evaluated to check if it gave teacher trainees enough skills, knowledge, attitudes and values to do the job according to the required standards. Any knowledge shortfall preventing the teacher from implementing training inputs in classroom-based teaching implies that teachers are either resistant to change or the training might not have achieved its intended outcomes. Therefore recurrent training needs a review of the training, strengths and weaknesses of planning, preparation, implementation and feedback components of the training.

Upgrading and re-skilling as well as refreshers courses as reminders of teacher training on multi-grade teaching were revealed as essential not only for teachers in multi-grade classrooms but also for their counterparts in single grade environments. Refresher course as reminder course of skills already gained through MGT training and development should be taken into account to assess and evaluate the progress of implementing CPTD programmes in classroom based teaching. Teachers in multi-grade classrooms need to feel that they are supported in managing challenges that multi-grades acquire. Monitoring and supervision could be developed as a feedback mechanism to ensure the transfer of MGT training in the multi-grade classrooms. Regular professional teacher support in the form of recurrent training and refresher

courses and follow-up workshops has not been provided as expected by the teachers. A policy is thus needed that specifies the necessity of providing such support to the teachers teaching in multi-grade settings on a regular basis through governmental and non-governmental organisations. The way forward suggested by trainers is the inclusive approach to policy implementation of multi-grade principles not only in providing clear and constant feedback to stakeholders but also in making inroads into partnership working with the Provincial Education Department.

6.4. Suggestions for the Improvement of MGT Training

Suggestions made for the improvement of multi-grade training is categorised according to Department of Basic Education and Higher Education Training, Department of Basic Education, Provincial Department of Education and teachers.

6.4.1. Department of Basic Education and Higher Education & Training

MGT has been considered by the majority of teachers as an unwanted reality which is practised as a strategy to meet the problems of various factors pertaining to their establishment. It is therefore recommended that MGT should be treated not as a forced circumstance but rather as an option, a necessity as well as a pedagogical choice. Multi-grade teaching seem to be a permanent feature in some schools which cannot be merged or closed because they are the only available schools in such areas. MGT is considered as an option practised through forced circumstances as learners have no choice but to attend in schools accessible to them in order to

receive basic school education. However, it is strongly recommended that MGT be considered and treated as a pedagogical choice rather than as a necessity.

If training is provided only for teachers in multi-grade contexts; it may quickly be associated with probability of a posting to a difficult location and become stigmatised. Therefore policy makers could consider training all teachers in the skill to teach classes with varied abilities and grade levels as these skills are both relevant in both multi-grade and mono-grade classes. Inclusion of these skills in the pre-service education will ensure that all teachers have the same basic multi-grade teaching skills allowing flexibility in teacher deployment. While the professional competence of teacher depends to a large extent on the quality of preparation and the training and development of teachers, this has to be aligned with and relevant with the work and responsibilities teacher meets inside the classrooms. Ensuring that teachers are adequately equipped to deal with multi-grade teaching with a full range of skills and knowledge is likely to require both multi-grade teaching training during initial teacher training and some in-service support after induction to the teaching profession.

Curriculum planners can assist by designing curricula that are sufficiently flexible to allow for local adaptation. As the existing curriculum is more subject based and grade oriented a provision should be made for curricular adjustment in order to allow teachers to organise and adjust instruction in multi-grade classrooms. The concerns currently being expressed about curriculum adaptation reflect on the deep-seated cultures of curriculum design. It is one thing to demonstrate that a national curriculum can be reorganised to meet multi-grade needs but it is another to persuade DBE and curriculum developers to allow considerable flexibility in the delivery of instruction. Curriculum adaptation for multi-grade teaching requires

curriculum developers and teachers to acknowledge the differences and learner diversity in both multi-grade and mono-grade class to respond to this diversity through differentiation of inputs and outcomes. Accepting the principles of diversity requires a change in the pedagogy theoretical base that informs mono-grade organisation of the curriculum and acknowledges that the capacity to learn is open and not narrowly governed by notions of developmental stages. Therefore teaching plans and lesson plans should be planned, prepared and provided by DBE to be given to teachers in multi-grade classrooms.

At central level education planners must include multi-grade systems into projected teacher requirements, teacher allocation and the provision of teaching and learning materials. Education planners should make provision for learning materials suitable for use in multi-grade classrooms including recurrent teacher training, refresher courses and a budget for the use of technology. Teacher training should put emphasis on preparation and use of instructional material. LTSM should be rearranged to suit the multi-grade context as they are currently based on learning outcomes designed for subject teaching in a mono-grade class.

6.4.2. Department of Basic Education

Basic teacher training should address MGT component adequately so that MGT training is given to all primary school teachers whether practising it or not. The study suggest that specific criteria should be developed to differentiate between multi-grade and non-multi-grade schools to help policy makers develop appropriate strategies suitable to support multi-grade schools. Therefore, DBE & HET should work together to revise teacher training programmes offered in teacher training

institutions to accommodate MGT as an alternative approach to teaching and learning in initial teacher education courses and in in-service training education. Such training programmes should prepare prospective teachers for different contexts and types of school such as mono-grade or multi-grade in rural or in urban areas. Prospective teachers should be required to compulsorily undertake practice teaching also in multi-grade schools as part of their pre-service training to ensure exposure in such contexts. There must be an angle to approach multi-grade teaching hence the call for teacher education institutions to be re-opened for teachers to get proper training in MGT and supported the same way as mono-grade training. Alternatively teachers need to be sent for in-service training in teacher training institutions for continuing professional development over a period of three years instead of receiving training over six months.

To make training and development on multi-grade teaching demand-driven and need-based; coverage, intensity and duration should be addressed in recurrent training by making it more flexible in its contents and instructional strategy. It is therefore important to make the curriculum more flexible enough to allow the teachers to organise and adjust instructions around multi-level abilities of learners in multi-grade classes. But the best way to assist and support teachers in multi-grade classrooms is through training them in a curriculum that suits multi-grade teaching and to develop LTSM that support multi-grade settings. Thus teachers need to be able to design and develop resource materials that can be used independently by different grade groups. Furthermore teachers should be directed towards helpful resources to ensure that a transfer of learning takes place and provide opportunities for enough practises to make teacher trainees competent in terms of the outcomes.

6.4.3. Provincial Department of Education

Multi-grade teaching is its own kind and needs specific curricula training. The content of the training packages should be selected and arranged so that they meet the needs of teachers in multi-grade situations. The first phase of training should be related to conceptualisation and contextualisation of MGT in SA context. This then implies that multi-grade teachers need to be aware of what the concept of multi-grade teaching is all about, the extent of its use internationally and the evidence of its effects on learner performance and achievements. Secondly, teachers have to be aware of the range of options that can be used to deal with more than one grade in one classroom and the skills, knowledge and competencies applicable to multi-grade classrooms. Thirdly, where learning materials are to be used to support multi-grade teaching, the teacher need to be skilled to evaluate, develop and use such learning material. By implication, training when planned has to create changed behaviour in classroom-based teaching.

Training of teachers for multi-grade teaching requires more attention than it is currently given. Such attention would be deliberated through the adoption of policy framework on multi-grade education as well as teacher preparation through pre-service training on MGT. Training workshops that emphasise practical activities such as demonstration lesson, micro-teaching, and use of self-study materials are recommended. As MGT training proved to be inadequate due to the poor knowledge base of some trainers which in turn resulted in poor delivery of training and a little transfer of MGT techniques into the classroom, the training package should be provided with essential and adequate exposure and training in MGT.

Multi-grade teaching because of its uniqueness needs skilled and experienced trainers who will be able to develop and assist teachers who are transferred, redeployed or made substitute teachers in multi-grade schools in order to cope with the new job. At the local level district officials must understand the requirements as they plan teacher deployment and resource allocations. District officials need to work with the organisation of classes and teacher utilisation teaching methods in order to monitor the implementation of MGT. Also principals or teachers who are in line for promotion or who have just been promoted will need training in order to cope with the higher level of responsibility and management of multi-grade schools. Therefore personnel should be employed as trainers and experts in the field of multi-grade teaching to assist teachers at national, provincial and district level.

Policy development with regards to identifying and addressing teacher training needs and the delivery of MGT should be observed. Policy development should take into account different context of multi-grade schools. As grade combination and class size were found to be inconsistent and differing from school to school it is therefore recommended that the Department of Basic Education should develop an MGT policy with specifications for use in multi- grade classes. The study suggests a policy that combines other different grades except grades 1, 4 and 7 as these grades are the entry points of phases foundation, intermediate and senior is suggested. Furthermore these grades have additional language of teaching and learning, and additional learning areas to learn. Grades 2 & 3 and grades 5 & 6 can be combined as the content of the previous grades can be revised and repeated throughout the years spent in a multi-grade classroom.

There is an urgent need for the development of a comprehensive trainees manual containing in depth knowledge, skills and values in the aspects experienced as difficult to implement in multi-grade classroom based teaching such as classroom organisation, classroom management especially time management, lesson preparation and self-learning materials development. Training should be structured in such a way that teachers will not only be prepared for level differentiation but also for grade differentiation.

A cascade approach has been the order of MGT teacher training however teachers need to be trained to be research –oriented and to keep up with the new trend, the use of ICT developed in MGT. Multi-grade teaching should adopt micro-teaching and actual classroom practise modality. Teachers need theoretical and practical reference points that will allow them to match their teaching to their environment and the needs of the learners they are working with. The development of specialised in-service training programme for teachers in multi-grade schools is suggested. This should include training on the methodological approaches applying to multi-grade environments and the familiarisation of teachers with the use of ICT as an assisting tool for multi-grade teaching.

Monitoring, evaluation and supervision of MGT should be ensured through their involvement in the local community. A strong monitoring, evaluation and feedback mechanism should be established in their district and school level to facilitate the effective use of multi-grade techniques. Provision should be made of specific MGT training and support to take into accounts various aspects of MGT competencies. District officials' support of schools practising multi-grade teaching need to be trained and introduced to the best teaching practice in multi-grade schools and classrooms

as professional growth of teachers and district officials would help improve teaching and learning activities in multi-grade contexts. Follow-up workshops should then be organised on regular basis for feedback and support to the teachers and to address problems of individual schools. To increase the duration of teacher training in MGT refresher training courses should be arranged and properly managed with adequate provision of interaction of Professional Learning Communities and district officials.

6.4.3. Teachers

If school based in-service training is provided on school premises and is planned by the staff of that school for the teachers' own professional development; the process of the needs analysis would be much easier. When teachers are involved in the planning and evaluation of their instruction they become motivated to teach subjects that have immediate relevance to their job or personal life. Therefore providing an opportunity to gain experience, including mistakes, provides the basis for learning activities. Training would be closely matched to those needs and the barriers of implementation might be removed. Thus teachers acting as professional learning communities could identify and address their own unique problems in a relevant and professional manner.

In cases where multi-grade approaches are most likely to take root a supportive environment where decision making at all levels understands both the rationale and the requirements of multi-grade teaching are desirable. At school level principals need to make appropriate classroom allocations, subject associations, and grade combinations and support materials. Without proper training, management of classrooms and effective delivery of MGT instruction becomes difficult in the

classroom situation. The existing teacher training program seems not to give adequate emphasis to MGT therefore; more intensive training should be given to teachers with a rather broad coverage of MGT components.

Implementing multi-grade teaching is a challenging task but teachers who are working in multi-grade settings should be provided with support and encouragement on implementing training inputs. Since there is greater accountability for multi-grade pedagogy by teachers who are accountable to learners, parents and the community at large, the teachers' attitudinal change and parental involvement are also necessary conditions for the improvement of the classroom situation. Teacher training incentives to increase teacher retention and professional support are all efforts that can be made to change the perception of MGT among teachers. Therefore, additional incentives should be provided to multi-grade teachers for managing extra classes other than mono-grade class.

6.5. Conclusion

This research study has its focus on the training and development of primary school teachers in multi-grade teaching with a view to the implications of the continuing professional development thereof. The discussion of findings responded to the research questions and the objectives of the study. Conclusions are presented in addition to findings which emanated from thematically constructed data analysis and literature study followed with suggestions for the improvement of MGT training.

CHAPTER 7: LESSONS LEARNT, SUMMARY OF CONTRIBUTIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

7.1. Introduction

This chapter highlights the lessons learnt from the study, a summary of contribution to knowledge as well as recommendations for further research.

7.2. Lessons Learnt

Lessons learnt were that trainees' attitude towards multi-grade teaching were generally negative. However, after training there were some positive elements shown towards multi-grade teaching having realised that there were some strategies to be used in handling multi-grade classes. With regards to strengths of the training on MGT teacher trainees indicated that they were impressed by the way the training was well-organised and well-facilitated. The group-work sessions and use of ITC received the highest praise from all the participants. During the observation of training session the study found that the trainers were very active while presenting the content of the training package. There were claims that trainees were highly motivated by trainers who were friendly and eager to share their knowledge and experiences with them. Trainees found the delivery of training effective with respect to the skills useful for MGT such as instructional strategies, lesson management and

curriculum integration. Trainer and trainees both agreed that the training have been effective in areas that promoted social values in teachers.

Regarding weaknesses of the training low capacity of trainees to grasp the concept of multi-grade teaching was noted. Trainees claimed that the duration of the training which was two days session per cycle was not sufficient. Furthermore the 10-minute time allocated for Mental Maths demonstration lessons was not sufficient. Moreover more time was used by the trainers in theoretical deliberations than in the practical work. In this regard the trainer during interview indicated that they were not trained adequately to deliver the training effectively by using the participatory training approach. Five key dimensions to be employed in multi-grade contexts were highlighted in the training manuals however; the content coverage of the manuals was seen as insufficient with regards to addressing teacher training needs on multi-grade teaching. Although the content of the training was delivered to all trainees in the same way the context of the establishment of multi-grade teaching in schools which vary was not considered. The training manuals were found to be standard and uniform yet multi-grade teaching is experienced differently in different contexts. While the training manual components of multi-grade schooling has implications for teacher training and curriculum design; relevancy of some aspects encompassed in the training programmes in addressing different teachers training needs on multi-grade teaching was questioned.

7.3. Summary Of Contributions

Teacher training is a key factor in the quality of education but there are concerns that teacher training is likely not to always result in a better quality of education. Therefore quality of in-service teacher training on multi-grade teaching seems to be limited. The training is meaningless unless teachers' needs and circumstances are considered as prior fact. Training might fail to achieve its purpose if the implementation tends to overlook its recipients (teachers) in favour of providers and their inputs (training curriculum). Even if there is an ideal good training it is likely not to be meaningful to teachers unless they adopt and adapt its components into their classroom practise. My contribution to knowledge is vertical and horizontal integration defined as integration of basic knowledge and skills in the educational context. Needs-driven learning can be used as a vehicle to drive the integration process and to design the training programme in order to implement the integration process. Through self-reflection, training needs analysis, teachers in multi-grade contexts can acquire the ability to interact with colleagues and solve problems which confront them in their classrooms –based practise.

7.4. Recommendations for Further Research

The Department of Basic Education has to play a role in sustaining the implementation and the impact of multi-grade course strategies. Therefore there is a need to investigate the nature of the programmes on offer in teacher education institutions and higher education and training institutions and the accessibility of teachers to teacher training in multi-grade class teaching. A systematic audit of the

scale of this practice in the country would expand the knowledge base with possible solutions to providing continuous professional development for teachers in multi-grade classrooms. Thus further research to understand the state of multi-grade teaching and its magnitude in the nine different provinces in South Africa and how it is practised in schools is recommended. Comparative analysis of multi-grade teaching need to be studied in relation to other variables such as cognitive and non-cognitive effects on learner performance that have been shown to have an impact in multi-grade teaching. The processes involved in preparing for training and development of teachers in multi-grade teaching and their epistemologies when contrasted with epistemologies that teachers bring to the multi-grade classroom contexts call for further research. The whole nature of support given to multi-grade teachers needs to be further researched including the role of provincial and district officials and the dynamics of professional learning communities.

7.5. CONCLUSION

The researcher attempted to dig deep into the training and development of teachers in multi-grade teaching. The study intended to look at how the vertical and horizontal knowledge of the training inputs can be integrated in classroom practise. The lens with which to view the integration of content knowledge and practical skills was through andragogy and constructivist theory of learning. Both theories illuminated on how adults take responsibility for their own learning and make informed decisions. Through the intepretivist, qualitative case study approach the researcher tried to gain a deeper insight of the phenomena under study. Although teachers in multi-grade classrooms were trained in multi-grade teaching but they preferred to teach in mono-

graded classes. As a result only a small percentage of training inputs provided was transferred to classroom-based teaching. Yet multi-grade teaching is a pedagogic approach that offers the opportunities to improve teaching and learning in different multi-grade contexts. Thus in order to facilitate the vertical and horizontal integration, the content knowledge of the curriculum and multi-grade teaching training programme should be integrated.

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APPENDICES

Appendix A: Request for Permission to Conduct Interviews

38 Jennings Road

Amalinda

5247

09 September 2013

The Registrar

University of Fort Hare

East London Campus

Dear FERDC

Re: Request for permission to conduct interviews

I am a PhD (Education) student at the University of Fort Hare in East London campus. I kindly request permission to conduct interviews with participants who will participate in my research project. The working title is: **“Training of Teachers on Multi-grade Teaching in Selected Primary Schools: Implications for Continuing Professional Teacher Development”** under the supervision of Dr Ntombozuko Duku. The research proposal has been presented and accepted by the Higher Degrees Committee on the 28th of September 2012. Ethical Issues will be considered as the data will be gathered for academic purposes only. The Research Project is not intended to bring any disrepute to the participants nor the institution or the Department of Basic Education.

Thanking you in anticipation

Your student

N.H.Ganqa (20050933)

Appendix B: Letter from the Supervisor to the Ethics Committee

09th September 2013

The Dean of Research

Research and Development Centre

Dear Prof

Re: Request for Ethical Clearance.

One of my PhD postgraduate students, Ms Ncumisa Ganqa, student number 200508933 is planning to conduct research. Her proposed working title is: "Training of Teacher on Multi-grade Teaching in Selected Primary Schools: Implications for Continuing Professional Teacher Development". The research proposal was accepted by the Higher Degrees Committee on the 28rd of September 2012. Methodologically she plans to adhere to strict ethical principles. I hereby request permission on her behalf.

Kindly receive attached Ethical Clearance Forms, CV & Approved Research Proposal.

Regards

Ntombozuko Duku (PhD)

Research Promoter



University of Fort Hare
Together in Excellence

ETHICAL CLEARANCE CERTIFICATE

Certificate Reference Number: MOY06 1SGAN01

Project title: **Training of teachers in multi-grade teaching in the selected South African primary schools: implications for Continuing Professional Teacher Development.**

Nature of Project: PhD

Principal Researcher: Ncumisa Ganqa

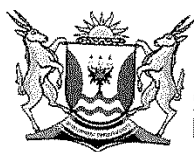
Supervisor: Prof G

Moyo Co-supervisor:

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.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document



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EASTERN CAPE
EDUCATION

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Email: babalwa.pamla@edu.ecprov.gov.za

11 March 2014

Miss Ncumisa Hazel Ganqa

38 Jennings Road

Morningside

Amalinda

5247

Dear Miss Ganqa

**PERMISSION TO UNDERTAKE A DOCTORAL THESIS: TRAINING OF MULTI-GRADE
TEACHERS IN MULTI-GRADE TEACHING IN THE SELECTED SOUTH AFRICAN PRIMARY
SCHOOLS – IMPLICATIONS FOR EFFECTIVENESS OF CONTINUING PROFESSIONAL
TEACHER DEVELOPMENT**

1. Thank you for your application to conduct research.
2. Your application to conduct the above mentioned research in eight (8) Primary Schools under the jurisdiction of East London, Butterworth, King William's Town and Fort Beaufort Districts of the Eastern Cape Department of Education (ECDoE) is hereby approved on condition that:
 - 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 present a copy of the written approval letter of the Eastern Cape Department of Education (ECDoE) to the Chief Directors and Directors before any research is undertaken at any institutions within that particular district;
 - d. you will make all the arrangements concerning your research;

building blocks for growth

Page 1 of 2



Ikamva eliqagambileyo!

Appendix E: Consent Form for participants



University of Fort Hare
Together in Excellence

Ethics Research Confidentiality and Consent Form

Please note:

This form is to be completed by the researcher(s) as well as by the interviewee before the commencement of the research. Copies of the signed form must be filed and kept on record (To be adapted for individual circumstances/needs)

Our University of Fort Hare / Department is asking people from your community / sample / group to answer some questions, which we hope will benefit your community and possibly other communities in the future. The University of Fort Hare / Department/ organization is conducting research regarding training of teachers in multi-grade teaching. We are interested in finding out more about how teachers transfer the training into their classroom situations. We are carrying out this research to help multi-grade teachers in multi-grade contexts.

Please understand that you are not being forced to take part in this study and the choice whether to participate or not is yours alone. However, we would really appreciate it if you do share your thoughts with us. If you choose not take part in answering these questions, you will not be affected in any way. If you agree to participate, you may stop me at any time and tell me that you don't want to go on with the interview. If you do this there will also be no penalties and you will NOT be prejudiced in ANY way. Confidentiality will be observed professionally.

I will not be recording your name anywhere on the questionnaire and no one will be able to link you to the answers you give. Only the researchers will have access to the unlinked information. The information will remain confidential and there will be no "come-backs" from the answers you give. The interview will last around 60 minutes. I will be asking you questions and ask that you are as open and honest as possible in answering these questions. Some questions may be of a personal and/or sensitive nature.

I will be asking some questions that you may not have thought about before, and which also involve thinking about the past or the future. We know that you cannot be absolutely certain about the answers to these questions but we ask that you try to think about these questions. When it comes to answering questions there are no right and wrong answers. When we ask questions about the future we are not interested in what you think the best thing would be to do, but what you think would actually happen. If possible, our organisation would like to come back to this area once we have completed our study to inform you and your community of what the results are and discuss our findings and proposals around the research and what this means for people in this area.

CONSENT

I hereby agree to participate in research regarding training of teachers in multi-grade teaching. 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 which 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.

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 stud

.....

Signature of participant

.....

Date

Appendix F: Interview Schedule for MGT District Trainers

Age.....

Gender.....

Nationality.....

Position at work.....

Qualifications.....

Experience on MGT.....

1. Identification as a Trainer- How were you identified as a trainer for MGT?
2. Preparation of Trainers- How were you prepared for training MGT teachers?
3. Scheduling of Training- What time, location and size of trainees is allocated for the training and why?
4. Learning Outcomes- What do you want to achieve through the training, what must be the trainee be able to do after training?
5. Training Delivery Strategy-How do you deliver the training, is it a one on one training; video training; E-learning, classroom learning etc.?
6. Learning (Instructional) Method-Which basic approach to instruction do you employ (Trainer centred methods lecture, demonstration, conference etc. Or Learner –centred methods e.g. group work, role play coaching, assignment)
7. Training Aids-Which training aids are used to enhance learning and why have you chosen those training aids)
8. Content of the Training Manuals- What is contained in the training manuals?

9. Use of Training Manuals- how do you use the training manuals?
10. Relevancy of Other Training Material- What other resources are needed to ensure effectiveness of the training?
11. Strengths and Weakness of the Training -What are the key successful elements and challenges of the training?
12. Feedback from Participants- What kind of feedback do you get from participants?
13. Evaluation of the Training Programme- How do you know if the training was successful?
14. Trainers' Perspective in delivery of Training- What do you think can be done better to strengthen delivery of training to trainees?
15. Transfer of Training in the Classrooms- (In your opinion do you think the trainees are able to practise MGT Approach and transfer the training in their classrooms?)
16. Success in Transfer of Training in MGT Classroom situation- (How does the training intervention give the teachers sufficient knowledge and skills to practise MGT approach to the required standards?)
17. Barriers for the Transfer of Training in MGT Classroom situation -(What gaps have you identify that may retard transfer of training in the classroom?)
18. Is there any other training needed to fill the gaps and which type of training will you recommend?
19. What other suggestions do you have with regards to MGT training?
20. Is there any additional information that might be useful?

Appendix G: Interview Schedule for Principal/H.O.D.

SECTION A: BIOGRAPHICAL INFORMATION

1. PERSONAL DETAILS

Age.....

Gender:.....

Race:

Nationality:.....

Home Language:.....

2. EDUCATIONAL BACKGROUND

Qualifications:.....

Highest Professional Qualifications:.....

3. WORK EXPERIENCE

Occupation:.....

Position Held:.....

Years of Teaching Experience:.....

Grade taught:.....

Subjects taught:.....

4. MULTI-GRADE TEACHING EXPERIENCE

Years of Teaching Experience in Multi-grade Teaching:.....

Multi-grade Training/ Courses Attended:.....

Duration of the Training:.....

Mode of Training:.....

SECTION B:

1. How are classes conducted in the absence of teachers?
2. What is the extent of multi-grade teaching in your school?
3. Which grades or classes are combined taught by one teacher at the same time?
4. What strategies are used to make such combination of grades?
5. How were teachers prepared for multi-grade teaching?
6. How many teachers were trained in multi-grade teaching in your school?
7. How is training provided for teachers in multi-grade classrooms?
8. Of what value is the training programme to teachers in multi-grade classrooms?
9. What kind of achievements do teachers experience in using MGT as an approach to teaching and learning?
10. What kind of problems do teachers in your schools face in conducting MGT?
11. How do you assist teachers to counter-act challenges they face in multi-grade classrooms?
12. What is your relationship like with the district based officials with regards to MGT?
13. How has the district office assisted in preparing the teachers for teaching in multi-grade classrooms?
14. What mechanisms are in place to support, supervise and evaluate the training courses teachers in multi-grade classrooms attended?
15. What suggestions do you have for effective MGT with regards to training?

THANK YOU

Appendix H: Interview Schedule for Teacher Trainees

SECTION A: BIOGRAPHICAL INFORMATION

1. PERSONAL DETAILS

Age.....

Gender:.....

Race:

Nationality:.....

Home Language:.....

2. EDUCATIONAL BACKGROUND

Qualifications:.....

Highest Professional Qualifications:.....

3. WORK EXPERIENCE

Occupation:.....

Position Held:.....

Years of Teaching Experience:.....

Grade taught:.....

Subjects taught:.....

4. MULTI-GRADE TEACHING EXPERIENCE

Years of Teaching Experience in Multi-grade Teaching:.....

Multi-grade Training/ Courses Attended:.....

Duration of the Training:.....

Mode of Training:.....

SECTION B: TRAINING OF MULTI-GRADE TEACHERS IN MULTI-GRADE TEACHING.

1. Can you describe in your own understanding what “multi-grade or multi-grade teaching” is all about?
2. How did your school become a “multi-grade school”?
3. How were you involved in multi-grade teaching?
4. What were your training needs in multi-grade teaching identified?
5. How were your training needs in multi-grade teaching addressed?
6. When and where were you trained in MGT?
7. For how long were the training sessions held?
8. How was training delivered to teachers in multi-grade classrooms?
9. What instructional method was used to deliver training to teachers in multi-grade settings?
10. Which programmes were used in training teachers in multi-grade teaching?
11. Are those programmes in line with the mono-graded curriculum? Please specify.
12. What aspects are encompassed in the training programmes prepared for teachers in multi-grade classrooms?
13. What are the strong and the weak aspects of training in multi-grade teaching?
14. Which aspects on multi-grade teaching that teachers should focused on?
15. Were you given teacher support material in the training sessions? If yes, how have you utilised such material?
16. Which materials are used to disseminate information on multi-grade teaching?

17. What were the strengths and weaknesses of the training in multi-grade teaching?
18. How effective is the training for teachers in multi-grade classrooms?
19. After training were you able to implement what you were trained for in your combined classes?
20. What were the highlights of successful transfer of training in your classroom based teaching?
21. What difficulties did you encounter in transferring what you were trained for in your classroom?
22. What lessons can be learnt to further capacitate teachers in multi-grade teaching?
23. How what you were trained for was monitored, evaluated and supported?
24. What suggestions do you have for improving MGT Training?

SECTION C: ADDITIONAL INFORMATION

Can you kindly add on any information that might you have thought of or any clarity on questions that were asked?

THANK YOU.

Appendix I: Training Sessions Observation Schedule

Date.....

Venue.....

Time.....

Training Programme.....

Trainer.....

- Seating Arrangements
- Physical Environment
- Trainer Preparation
- Availability of MGT Training Manuals
- Utilisation of MGT Training Manuals
- Content of MGT Training Manuals
- Delivery Strategy of the Training
- Instructional Method
- Training Aids
- Response of the Trainees
- Strong and Weak Points of the Training
- Evaluation of the Training Programme

Appendix J: Classroom Observation

1. Number of learners
2. Grades Combined
3. Classroom Organisation
 - Organisational strategies
 - Physical arrangement of a multi-grade classroom
4. Classroom Layout
 - Seating arrangements
 - Learners books and bags
 - Teacher's Resources
5. Classroom Display
 - Walls
6. Timetabling and Scheduling
 - Weighting
7. Lesson Management
 - Teaching Strategies
 - Mode of Delivery
 - Rapport with learners
8. Classroom Management
 - Discipline strategies
9. Time Management
10. Resources
 - Organisation
 - Relevance
 - Quality

Appendix K: Sample of Response from District Trainer

Multi-grade in South Africa has been forced because of circumstances such as small population. Our province is largely rural and scattered so multi-grade schools were established so that every child in those environments can access education without moving to township or cities. Some schools are farm-owned, community-owned others are government owned but most of them are situated in worst locations that are far. In such schools there is no choice but to combine learners of different grade levels into one classroom and one teacher instructs them. Some teachers are unwilling to go and work in rural areas and that causes those schools to have a small number of teachers. Well, I think multi-grade teaching is an approach to teaching and learning that can be applied in these small classrooms.

The reasons I ended up being a multi-grade coordinator was because I was working in IT as a specialist in e-learning. I wanted also to support curriculum section in rural areas and poor schools. The question I was having now was that as I was handing over computers I was confronted with teachers in multi-grade environments and there were cries that nobody is supporting them. The teachers were sitting with a situation where they did not know how to handle different learners with different ages in different grade in one class. Moreover the syllabus required that each grade level have its own lesson plan to cover a year syllabus. I saw chaotic classrooms where the learners who were not attended to were disruptive or making noise. You would find some learners sleeping not knowing what to do, others playing inside the classroom because the teacher at the time was busy with a certain class she chose to focus on. That forced me to look for help as I wanted to support the schools confronted with multi-grading in worst situations in our province. Everybody has been silent on multi-grade and trainings taking place are a response to those cries hence CPUT designed 6 months short courses in for in-service training of teachers in multi-grade contexts and those interested to know more about multi-grading. If it were not for those efforts we wouldn't be having the 300 teachers we are now training in the province. As we train teachers for e-learning we are able to say now how that multi-grade teacher cans makes use of the laptop, computer or printer for her multi-grade class. The interest I have developed on multi-grade teaching has led me to even

further my studies as I am now at Master level looking at the impact of e-learning in mgt.

There is a manual that have been compiled by ECDoE to train teachers on multi-grade teaching. As a province we cannot use CPUT material for training as we are not authorised to do so, the department developed its own training manual guided by research, trainings, and visits to other countries, journals and books on multi-grade, teachers' experiences on multi-grade teaching. In workshops we like feedbacks and discussions as such information enriches us and equips us to strengthen certain areas of multi-grade teaching. Training package is divided into sections one is for the first cycle of training, followed by school and class visits, second training and the final training for assessment. Trainings are conducted by trainers trained on multi-grade teaching and other district officials assist in material distribution, responding to questions or other trainees' needs in relation to training.

When I deliver training to teachers I use face to face interaction with teachers. With the help of Powerpoint presentation, video clips, computer-assisted activities and group activities the trainings become a success. Teachers are assigned rotational group roles so that every trainee's voice can be heard. Multi-grade pushes teachers away from relying on textbooks but more on hands-on, learner-based- activities. Textbooks and workbooks are there as a support material for a child to continue what was started by the teachers, multi-grading is a hands on approach, it is activity based. Multi-grade does not cater much for chalkboard work as the latter kill contact time hence e-learning is integrated in multi-grade learning for efficient and effective teaching and learning.

As I am the trainer my training is not merely on grades combined but it talks more to their individual experiences of multi-grade situations and ways to combat such challenges. We also bring in the training our experiences and teachers' experiences on multi-grade teaching and seek for solutions as they arise in different contexts. At times I have to stop the training and listen to their grievances as they are experiencing different things in their different multi-grade contexts. We discuss and share ideas on how such challenges can be overcome. Also those who have been practising multi-grading for quite a while share their own experiences and we take

them such good practises into account. I managed to make a breakthrough to teachers because now teachers' attitudes towards multi-grade have changed from being negative to being positive. At the end of the workshop they are able to say we did not know what we were doing in our classrooms now after this training we have a clear direction. We were not doing it not because we didn't want to but because nobody gave us a clue. They say they can even see changes in them as they have not only learnt to manage a classroom with learners of different grades but also can manage their own lives. But teachers still struggle in designing timetables for a multi-grade class or having designed it find it difficult to adhere to it. So to distribute time evenly for all grades is one of the challenges.

I visit teachers two weeks after training. I want to see their implementation as well as their shortcomings. In such instances I show them how classroom is organised, lesson managed and I give them a chance to show me what they can do. Another strategy I have used is to deliver the lesson to the learners but I will let the teacher also demonstrate so that I can see where I can support. I also suggest changes maybe in timetables whereby for instance Creative Arts, Music, Physical Education, Mental Maths, Life Skills all can be done in grade 4, 5 & 6 at the same time. If some activities need space learners can disperse from the assembly to the sport field whereby they can do activities as different grades concurrently. I see multi-grade practised by some teachers in some schools for that reason I think I have made a breakthrough in my district in most multi-grade schools. There were schools in my district where we thought all was well because the management was doing fine but when we visited classrooms we saw teachers in multi-grade settings having psychological problems. Not knowing how to handle multi-grading as no-one was supportive or cared to assist report from teachers of mental breakdown, stress and depression were reported and we organised Wellness Programmes for them.

After training I visit the trained teachers to see their preparedness in implementing what they were trained for put into practise in their classrooms. Where necessary I assist even to arrange the classrooms and make suggestions. I call the clusters of teachers in that particular area and we discuss the successes and challenges on transferring what was learnt in the training in their classrooms. Some of the challenges that often emerge up is lack of support and recognition by school

principals who claim were not trained for multi-grade teaching and therefore they cannot support teachers in those classrooms. As I will be going around schools so will be CPUT making a follow up on the training, looking into various aspects such as formation of Professional Learning communities, Democratic Learner Participation and demonstration of Mental Maths and Portfolio of evidence, community Map. The national office as funders of the training will also visit the trainees at their workplaces also evaluating training as well as supporting schools with their multi-grade teaching requirements. In the province we have one multi-grade coordinator running around to all the districts who doesn't have a chance to be hands on so there are gaps, there are loopholes in terms of monitoring and evaluations because as MGT district coordinators we need also to be monitored and supported. For instance we attended a workshop organised by sponsors of e-learning material and because I heard that teachers trained in MGT in my districts were recipients of IT material I went there solo with no superiors accompanying me. They will say they are supportive but you don't see or feel their support. To me DBE support for multi-grade stops at national office.

If we are having people who are heading curriculum, assessment in these sections on mono-grade we also need to have such personnel as well as policy for multi-grade. But DoE is using the same people employed in different sections to deal with something they don't have a clue about. Yet, those people have their own portfolio just like me they were employed for a particular job description. Nobody is employed for Multi-grade Teaching in EC even when your hands are full, you are just sent to solve, attend meetings or run workshops for multi-grade. Yet the expectations are that what is delivered by the national office should also delivered be at district level.

Appendix L: Sample of Interviews from Principal

I understand multi-grade as combining different grades in the Foundation Phase that is grade 1,2, & 3 and these grades have one teacher. If Foundation Phase has 20 learners DoE cannot employ a teacher for each and every grade which have a total of more 20 learners. Small class sizes are a cause for a multi-grade class especially in rural and farm schools. But these days you will find a school classified as a multi-grade yet it has more than are 100 learners in the foundation phase. A huge one that we came across as trainers was a school starting from grade 1-7 with only one teacher. You will find such teachers in deep rural areas. In that case the school cannot be known as a multi-grade but because of staff establishment which requires that there must be a certain number of teachers in that particular school multi-grading is unavoidable. But in reality multi-grade works better for small number of learners in a classroom or small schools. This multi-grade happens most in Foundation Phase where at times principals deliberately decide to multi-grade classes in the Foundation Phase and let other graders be taught according to differentiated grades.

When I was employed in this department I was already trained in multi-grade through Molteno Project as I come from a Non-Governmental Organisation. To me multi-grade was not a new thing as we used to visit schools with multi-grade classrooms and we knew how to assist such schools. My senior asked me to assist in training and supporting teachers in multi-grade classes. Since we received training for mono-grade classes at the training colleges teachers in multi-grade classes faced huge challenges. One of the challenges was that there was dead time for some learners whom the teacher ignored when busy with other grade. Also they were not coping with lessons as well as with the behaviours of learners in the same classroom. As a result a class that the teacher was not busy with will be placed outside if there were not enough rooms or in any unused classroom and the teacher will move from class to class teaching. So we trained them not in a new curriculum but gave them coping skills to manage and plan for their classroom. We identified that theme teaching was the best approach to cope with lesson planning as well as lesson management. A teacher will be taught to look at single common topics across all grades and make

connections choosing themes that will fit all grades. But the only difference is when you give them tasks lesson plans are supposed to show progression being slightly different for each grade level.

Training was done for teachers in some of these classrooms. Teachers are trained in all learning areas of Foundation Phase I trained them in Numeracy another trainer did Life Skills and the other took them through Literacy. It was quite interesting to observe how trainees were shown how to introduce English as a First Additional Language in grade 3 while grade 1& 2 were busy with their home language tasks. In this way incidental reading takes place.

I have visited schools with teachers trained on multi-grade teaching many times. Because of the coping skills that the teachers received they were able to transfer what they were trained for in their classroom. Out of 10 teachers I trained then 3 teachers made me proud they loved and lived multi-grade teaching. Their classroom were arranged to suit multi-grade teaching with learning centres, reading corners display and wall hangings so neatly placed. Even their time tables were drawn to accommodate and distribute time evenly for all grades and cover work for all grades. The other trained teachers were also doing it but not in the same manner as at times it depends to the will and motivation of the teacher to apply what she was trained on in her classroom. A teacher is a leader in her own classroom what she chooses to do in her class depends on her you cannot force things. Those who practised multi-grading enjoyed it and they pointed to so many advantages like independence of certain grades while the teacher is busy with a particular grade. I remember in one school a learner was coping so well he did work assigned for other grades without being told to do so. He was so curious and motivated to learn it's a pity that the DoE does not allow above average learners to skip grades anymore. Instead of putting learners in different classes and a teacher moving from one class to another which is what they were doing then, they saw that multi-grade assisted them to be in the presence of the learners at all times. There was no dead time for other learners as before for other grades will be doing nothing when the teacher focus on a certain group. Multi-grade do away with dead time as learners need to be actively engaged at all times whether teacher assisted, peer assisted or through self-study.

Barriers to transfer of training included classroom organisation because of the size of the furniture, classroom space. At times teachers complained about lack of space in their classroom in terms of arranging their classes' multi-grade way. Clustered classroom with huge table, chalkboards, cabinets and cupboards meant there was little space meant for certain learning or reading corners. That is a huge challenge for many teachers depending of course on the class size. Some classes are mud built, not accommodating 40 learners like in mono-grade classes they limit space for learners' activities and classroom layout. The other difficulty I have observed is lesson planning teachers see that as an extra work as they have to plan for each grade yet they were trained for a single grade. They neglect the formal preparation and use their own experiences and expertise in teaching all grades at the same time. Timetable is another thing teachers are lazy to be creative for; multi-grade classes encourage innovation and creativity not only to learners but also to teachers. Drawing up a multi-grade timetable is still a challenge even though they were trained on how to compile it. Also principals with multi-graded classes find it difficult to make a composite timetable that include what is done in multi-grade and mono-grade classes. Because they have such a negative attitude towards multi-grade teachers in those classes are forced to do what all other teachers in other classroom do a mono-graded timetable used for a multi-grade class. Also planning for different activities for each grade level is another challenge for these teachers. We still have to devise a plan to assist such schools as they experiences challenges in LOLT and behaviours in older learners who bully younger ones.

We do visit schools practising multi-grade teaching after training and we also take national office to these schools as they are the funders of such projects. At times teachers complain about lack of support from district officials and principals who do not want to budget for these classes. Because a multi-grade class is activity based and needs modelling and demonstrations most of the time learners needs to be hands on in using concrete material. There is no special LTSM for a multi-grade class but the new technology used effectively in a multi-grade class can speed up learning and pick up the paces for both the teacher and the learners. Although we support especially teachers who were trainees and follow up on their challenges to find suitable solution at times it is a waste of time when they get discouraged by their

immediate seniors. What is learnt on training does not translate into what is practised due to lack of support and encouragement from the people I just mentioned; It is worse that we as trainers were at one stage in loggerheads with the teacher unions who claim that if we continue training teacher in multi-grade it means we are blessing multi-grade we are encouraging teacher unemployment and teacher deployment. They have such negative attitude they even bar us from visiting some other the schools with their members in some districts. So it's up to the teacher to take advantage of training that she freely receive and apply it.

Multi-grade is here to stay shame to those who have negative towards it. For instance the DoE is talking of merging or rationalising schools but there are schools in areas where they are the only available primary schools. For instance a school that I know is next to a high school and it is the only school that offers gradeR-7. In those cases they cannot be merged with any other school or be closed but to be utilised. In such cases, multi-grade approach to teaching and learning becomes the only option. I suggest that the syllabus for a multi-grade class be different or re-arrange to suit small schools. It is really unfair that teachers are expectant to produce same result with mono-grade teachers as multi-grade has more workload and require more attention. The weight of the learners need to be considered also in terms of managing multi-grade classes as Learners in different grades have more weight than others. For instance a grade one learner has more weight than a grade 4 learners he requires special attention. A mind shift by senior officials might encourage teachers in multi-grade classroom to put into practise more what was gained through trainings. Funding or budgeting for LTSM meant to enhance teaching and learning in multi-grade classes should be made available to teachers.

Appendix M: Sample of Interview from Teacher Trainee

I started multi-grade teaching in 2005 when the number of learners were declining due to various social factors such as few classrooms, few learners and few teachers and we ended up having a three teacher- school. Mind you I never taught multi-grade I have been trained for a mono-grade class I taught grade 1 and 3 only. In my 20 years' experience I never taught grade 2 but because of the circumstances I have mentioned I was forced to combine grade 2&3. Imagine Grade 3 as an exit point at foundation phase that is where ANA is focusing on and that class just as grade R needs special attention I was so challenged with such combination. Because of infrastructure, financial constraints and budgetary matters in terms of employing new teachers, we were forced in our schools to make use of the available human resource. That is how we came about with multi-grading in our schools

The way multi- grade training started it was not introduced to me formally. I just visited the district office and an official asked if the school I am in is practising multi-grading. After a while I was contacted by the district official telling me about the multi-grade orientation programme that was going to be held for schools engaged in multi-grading. A one day session was held and we were orientated on the programme by representatives from CPUT. Out of 20 teachers, three were from my district some of the DoE officials accompanied us. We were told that we will be trained for a short course on MGT to address some of the challenges we faced in our schools. Also we were encouraged to further studies on MGT on our own since the programme was funded by DoE. After the orientation MGT programme was piloted in one of the schools by then we were 20 teachers where the pilot was tested.

What I liked about that training is that it did not affect tuition time, contact time with learners as it was conducted during school holidays. Basically the sponsor gave us computers, laptops and books for use in a multi-grade class. We were trained on how to conduct Mental Maths to all grades at the same time I was even selected to demonstrate that Mental Maths. So multi-grade is not such a stress but it's the approach you can use to save time and energy instead of going from one class to another teaching the same thing in different grades in different classes as in a mono-

grade class What I observed is that the same approach used by the trainer in teaching Mental Maths is the same used by the subject advisor when were trained for mono-grade teachers workshop in using CAPS document for Maths. So the bottom line is what you teach a learner is what the learner benefits from. The last workshop I attended we were not clear about how to prepare lessons for different grades and teach those lessons at the same time. Drawing up a composite timetable for all grades proved difficult not only to us as trainees even the person who conducted the training was not convincing enough in his presentation. Remember we were trained at the college as teachers, deliverers of the lesson not the administrators, these people are supposed to prepare lessons for us and allow us to teach only. Another thing with multi-grade training we were trained in Mental Maths, but what about life skills and literacy. 80% of the time they were training us on practical Maths it was only on the last 2 days of the training that they mentioned something about Literacy but not in the same way as Maths. So I said to myself one needs to use her own experience to deal with multi- grade issues that crop up in the classroom. But if we are to apply our own experiences what about the novice teacher who was not trained in multi-grade teaching but only for a mono-grade class.

What is interesting in a multi-grade class is classroom organisation and lesson management. For instance if you are busy with grade 3; grade 2 will be busy working on their own in the learning centres that you have prepared for the class that you are not busy with. Of course grade 2 benefits from grade 3 lessons but to keep up with administration and planning equipment was quite daunting experience. In a lesson my introduction accommodates all grade what differs are the tasks and written activities for different grades that is so hard to prepare. Officials would visit me and find my classroom resembling a multi-grade class. Not only did I love multi-grade teaching but I presented it to other teachers who were not trained yet in a satisfactory manner. I miss the opportunity of transferring what I was trained for in multi-grade as I had to leave the school and redeployed to mono-grade school because of family crises. Honestly I am bored nothing is challenging me anymore, I was looking forward to implementing multi-grade approach not only in my classroom, in my school, neighbouring school as well as the community.

There was no other training I had in multi-grade teaching except CPUT training. Since 2010 I have not attended any other refresher course on MGT nor was I invited to any meeting or workshop after being trained. I cannot just announce myself to teachers that I have been trained in multi-grade teaching I need DoE to acknowledge me and makes use of my skills and capabilities. That's the problem with DoE they do not follow up on teachers training. When last were we trained, we were together with some officials when we started the orientation, piloting and training for this multi-grade and when were evaluated by the trainers. It ended there for no one honoured or embraced multi-grade teachers already trained. Even our certificates are not with us what they are withholding them for we do not know. I asked for my own certificate and I was told that it will be handed in a ceremony, till today we are still waiting for that ceremony as well as our certificates.

We were evaluated by CPUT and DBE multi-grade specialist was also there to monitor the assessment as well as our readiness to implement the training in our classrooms. Yes District official did visit my school to assess my preparedness in demonstrating the lesson for the trainers as well as the funders. It was not only me who prepared the lesson but combined with other schools practising multi-grade in the area we planned together a lesson to be presented to CPUT. Some teaches saw me on that video I was so proud of myself I ended up liking multi-grade saw an opportunity presented to me to facilitate or train other teachers also.

I suggest that DoE and its officials must go back to the drawing board to draw a policy for multi-grade. CAPS policy document is for mono-grade classes we need a document and a policy that is standard that will guide all teachers in multi-grade classes so that we perform on same level. There must be an angle to approach multi-grade teaching maybe teacher training institutions can embrace that better than DoE. I think training colleges need to be reopened for teachers to get proper training and multi-grade to be catered for the same way as mono-grade. Alternatively a teacher centre need to be opened where teachers like those who were sent to Lovedale College of education for retraining and up skilling will be given continuing professional development. If possible DoE must employ the people it invested in why did they train us yet they let our skills rust and how will the teachers develop and grow when such skills are not utilised? If DoE wants to close multi-grade schools that

no solution, it is naive just as the teacher union which claims that multi-grade schools are non-existent and that is like denying that Jesus Christ ever existed.