

**EXPERIENCES OF LEARNERS WITH DISABILITIES IN MULTI-GRADE
CLASSES:**

A CASE OF SELECTED SPECIAL SCHOOLS IN LUSAKA, ZAMBIA

By

Elizabeth Ndawa

**A dissertation submitted to the University of Zambia in fulfillment of the
requirements for the degree of Master of Education in Special Education.**

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Declaration

I, **Elizabeth Ndawa**, do hereby solemnly declare that this dissertation represents my own hard work and dedication and do hereby state that it has not previously been submitted by anyone for a degree at this or any institution, and that all material contained herein has been duly acknowledged. I furthermore declare that the views and opinions contained in this report do not in any way represent those of the University of Zambia.

Signature (Candidate) Date: 2021

Signature (Supervisor) Date: 2021

Certificate of Approval

This dissertation by **Elizabeth Ndawa** is approved as fulfilling the partial requirement for the award of the degree of master of education in Special Education of the University of Zambia.

Name of Examiner	Signature	Date
1. 2021
2.2021
3.2021

Abstract

The purpose of this research was to explore and establish whether the lived experiences of learners with disabilities in selected multi-grade primary classes in Lusaka District had the needed quality for promoting inclusive education.

The study adopted an interpretative phenomenological research design, and involved a total of nine (9) participants who were selected using purposive sampling measures, to be specific homogeneous sampling. Research instruments comprised of semi-structured interview guides, focus group discussion guides and lesson observation schedules. The noted instruments and their administration procedures yielded qualitative data which was analyzed using the Interpretative Phenomenological Analysis (IPA) method. This method of analysis allowed the researcher to categorize the collected data and generate themes from it in line with the objectives of the study.

The study found that a number of approaches such as differentiated instruction, peer teaching, demonstration method and individualized method were incorporated to meet educational needs of learners with disabilities in multi-grade classes in special units in Lusaka district. However the study revealed that their experiences were constrained by teachers' heavy workload, management issues, and poor reading materials with small size text for learners with visual challenges, and lack of sign language knowledge by teachers. Thus the study observed that the lived experiences of learners with disabilities in selected multi-grade primary classes in Lusaka district lacked the needed quality for promoting effective inclusive education. In light of those findings, the study recommended that multi-grade schools be provided with adequate teaching and learning materials; that teachers be in-serviced on how to use constructivist approaches and sign language so as to cater for various needs of learners with disabilities.

Dedication

This dissertation is dedicated to the Almighty Father in heaven for grace and favour; to my husband; Mr. Chilufya, E. Mwape and my son; Chilufya Keren for their endless support throughout this study.

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List of Abbreviations/ Acronyms:

EFA	Education for All
FGD	Focus Group Discussion
MoE	Ministry of Education.
MOGE	Ministry of General Education.
UNZA	University of Zambia
LWD	Learners with disabilities
SEN	Special Educational Needs

CHAPTER 1

INTRODUCTION

1.1 Overview

This chapter presents the introduction to the study. In it, the general context of the study is described. Other subsections of the chapter include: a brief description on multi-grade teaching in some parts of the world, the statement of the problem, the aim of the study, the research objectives and the research questions. Furthermore, the chapter explains the significance of the study, its delimitation and limitations, the theoretical framework, definition of key terms and finally a summary of the chapter.

1.2 Background of the study

Inclusive education refers to education that is non-discriminatory in terms of disability, culture, gender or other aspects of a student or staff that are assigned significance by the society (Ministry of Education-MoE, 1996). The general understanding of inclusive education is that all learners are included within the mainstream classroom and they all receive support in response to their needs (Ministry of Education-MoE, 1996). Unlike integration which is temporal, inclusion is permanent placement of all students in a community with no exceptions and having equal rights to enjoy life as full and valued members of age appropriate mainstream classrooms that meet and interact during social activities at schools such as break times and learners with difficulties are placed in the mainstream classes alongside their peers (Makoelle & Malindi, 2014). Inclusion is a global phenomenon that has replaced the previous understanding of special education in many countries and Zambia being signatory to the United nations Charter of Human rights, is dedicated to accommodating learners with special educational needs in regular classrooms through an inclusive model of education (MoE, 1996).

One of the ways of mainstreaming learners with disabilities, includes multi-grade classrooms (Makoelle & Malindi, 2014). Multi-grade teaching refers to ‘a situation in which one educator has to teach learners with disabilities of two or more grade levels during one time-tabled period usually in the same classroom’ (Pridmore, 2007). Cohen and Miller (quoted in Vincent, 1999), observes that multi-grade teaching is not a new concept, but was applied even before mono-grade teaching. Thomas and Shaw (1992) indicate that multi-grade schools have attracted attention in the developing country

context because they are by definition small, and they can be a cost effective way of bringing education closer to the community. Others such as Muthayan (1999) observe that multi-grade classes are usually established in response to administrative needs such as low enrolment numbers.

According to Little (1995), additional benefits of multi-grade schools in some countries are that they are an effective response to uneven student enrollment. This author give an example of a school with a two and a half grade entry that combines two grade levels to make up class sizes. The other benefit is that it tackles high teacher absenteeism prevalent in some countries, and also where there is no 'cover', grades may be combined to avoid having a class with no teacher present. A single teacher then has to deal with two grade level groups together. However, in developed countries, multi-grade teaching is linked to the multiage perspective. Proponents of mixed age grouping such as Carson (2006) argue that mixed age classes stimulate children's social development and encourage greater classroom cooperation. However, these arguments are seldom raised in the developing country literature, although several commentators take the view that multi-grade organized classes are potentially a cost effective means of providing quality education in difficult to reach areas.

An additional benefit of multi-grade teaching, is that it promotes inclusive opportunities to learners as it has the potential to increase primary school participation rates by bringing the school closer to the community (Beneviste, et al. 2000). Multi-grade schools foster inclusive practices especially under effective instructions. This aspect is noted in a study conducted by Grimes (2019) in Ireland to investigate teacher's perceptions of the benefits of multi-grade settings. Analysis of the findings showed that multi-grade settings facilitate and promote a variety of teaching methodologies and caters for all learning styles. The study identified benefits of multi-grade classes that included peer learning, group work, paired work, individual work and enquiry-based learning. The children in multi-grade settings benefit not only from peer learning as well as enquiry-based learning but also have the opportunity to work with a variety of different age groups and levels. Furthermore, the study also provided evidence that the participants had themselves grown and become accustomed to multi-grade settings and benefited from the experiences it

presented. Therefore, the study showed that effective multi-grade schools have a positive impact on the lived experiences of various learners.

Another study by Tiernan, et al (2017) on pupils with SEN in multi-grade classrooms in Ireland confirmed that multi-grade schools that utilize effective classroom management and organisation; teaching methodologies and differentiation, and planning and collaboration promote inclusive experiences. The study also emphasised that such multi-grade schools base their practices on three broad themes associated with delivering curricula for pupils with SEN, and those were: classroom management and organisation; teaching methodologies and differentiation, and planning and collaboration. Therefore these authors indicated that effective instructional procedures were critical in the teaching of learners with special needs in multi-grade classes. In support, in a study on multi-grade teaching and inclusion in South Africa, Makoelle & Malindi (2014) observed that while multi-grade teaching has presented various challenges to both the teacher and the learner since the advent of inclusive education in South Africa, it was indicated that well-designed teaching and communication would enhance inclusive practices in such set-ups.

It is apparent from Tiernan, et al. (2017) and Grimes (2019) studies that effective inclusion of pupils with SEN in multi-grade classrooms can only be promoted in multi-grade schools under effective classroom management and organisation; teaching methodologies and differentiation, and planning and collaboration. These attributes fit multi-grade schools for effective inclusive practices, and are in alignment with the phenomenon of inclusive teaching and learning as conceptualised by authors such as Ainscow and Booth (2002) cited in Makoelle & Malindi (2014). These authors conceptualise inclusive practices in form of indicators referred to as the Index for Inclusion (dimension C: 78); critical aspects in determining the characteristics of inclusive teaching, which include laying emphasis on deliberate instructions and teaching planned with learners in mind. Other indicators include lessons that encourage the participation of all students; where learners are not only actively involved in their own learning but also communicate effectively and work collaboratively. However, multi-grade teaching also presents a number of challenges.

Mulryan-Kyne (2004) indicates that teaching multi-grade classes is very challenging because of lack of sufficient time in handling such classes. Apart from time, many teachers in multi grade classes especially in Africa, Turkey and Netherlands, experience challenges such as transportation, illiteracy of parents, poor economic backgrounds, excessive effort of the teacher, language problems and in the actual teaching and learning process (Engine, 2018). Other challenges include parents' lack of interest to their children's education, insufficient resources, underqualified teachers, and lack of skilled multi-grade teachers (Du Plessis & Mestry, 2019). Magno (2014) indicated that in the Philippines, some teachers' problems in elementary multi-grade schools, especially in rural areas included lack of training and insufficient resources and findings. Despite these limitations and challenges that teachers and pupils encountered, there are several successful techniques and strategies that these multi-grade teachers used to enhance the learners' abilities and skills which include peer teaching and cooperative learning.

Apart from Mulryan-Kyne (2004), Mulaudzi (2016) qualitative research on the challenges experienced by teachers in primary school multi-grade classes in South Africa revealed a number of interesting aspects on the multi-grade experience. This study revealed that most of the teachers who were teaching in multi-grade classrooms at the time of the study were qualified teachers who met the minimum requirement for appointment as teachers. However, the study revealed that most of the teachers handling the multi-grade classes under study faced various challenges such as curriculum organisation, work overload, classroom management, learner performance and lack of support. The study revealed that there was too much work involved for teachers in multi-grade teaching. Whilst authors such as Magno (2014) had indicated that various challenges that teachers and pupils encountered can be addressed through use of several instructional techniques and strategies, however this study revealed that most teachers were not familiar with teaching methods associated with multi-grade teaching hence relied a lot on use of the teacher-centred methodology and textbook method.

Multi-grade schools are part and parcel of the education provision in Zambia. Mostly from the Zambian context, multi-grade schools are seen as a way of upgrading existing primary schools in remote areas that only previously offered an incomplete, or partial, primary

education. However, there is more to that, that is there are a way of accommodating learners, regardless of their individual differences in regular mainstream school classrooms; an aspect emphasized on in the national policy on education of 1996; educating our future (MoE, 1996). As such, Multi-grade classes are of great value in mainstreaming learners with disabilities in regular schools. However, authors such as Tiernan, et al (2017) indicate that the degree of inclusion in multi-grade schools depends largely on the quality of various experiences that learners are subjected to. Despite that emphasis, the extent to which multi-grade schools in Zambia enhanced learning experiences befitting an inclusive setting, was barely known. In the absence of such information, it was not known whether learners with disabilities quality are provided with quality experiences crucial to their full inclusion. Hence the motivation underlying this study, was to fill in this gap through an exploration of lived experiences of learners with disabilities in selected multi-grade classes in Lusaka district.

1.3 Statement of the problem

Inclusive education, is a practice of accommodating learners with special educational needs in regular classrooms. According to Makoelle & Malindi (2014), one of the ways of realising inclusive education is through multi-grade schools. Others such as Tiernan, et al (2017), however indicate that the degree of inclusion in multi-grade schools depends largely on the quality of various experiences that learners are subjected to. Despite that emphasis, there was hardly any study on the lived experiences of learners with disabilities in multi-grade classes in Zambia.

Thus, from the background given in the preceding sections, the problem that was identified for investigation in this study was that of not knowing whether the lived experiences of learners with disabilities in selected multi-grade primary classes in Lusaka district had the needed quality for promoting inclusion. The study was, therefore, designed first and foremost to explore learning activities in multi-grade classes of learners with disabilities in multi-grade classes; explore teaching methods in multi-grade classes of learners with disabilities; describe communication in multi-grade classes of learners with disabilities in multi-grade classes; and lastly explore collaboration in multi-grade classes of learners with disabilities in multi-grade classes.

1.4 Purpose of the study

The purpose of the study was to explore the lived experiences of learners with disabilities in multi-grade classes in Lusaka district.

1.5 Research objectives

This study was guided by the following objectives:

- i. Explore learning activities in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.
- ii. Explore teaching methods in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.
- iii. Describe communication in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.
- iv. Explore collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.

1.6 Research Questions

This study was guided by the following research questions:

- i. What learning activities are in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district?
- ii. How are the teaching methods in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district?
- iii. How is communication in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district?
- iv. How is the collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district?

1.7 Significance of the Study

There is need to investigate the lived experiences of learners with disabilities in multi-grade schools because the quality of inclusion of learners with disabilities in these settings depend on the quality of the learning experiences they are subjected to (Tiernan, et al, 2017). Thus, this study focused on exploring the lived experiences of learners with disabilities in multi-grade primary classes in Lusaka district so as to determine whether

they had the needed quality for promoting conducive inclusion for learners with disabilities, and if not, suggest specific required measures to address such discrepancies. The significance of this research, therefore, is the identification of various strategies critical in promoting inclusive experiences for learners with disabilities in multi-grade classes such as instructional approaches, collaboration and how they would be used as base to come up with relevant in-service programmes. In that accord, this study may act as a resource material for teachers in inclusive schools in Zambian primary schools.

1.8 Delimitation to the Study

According to Creswell (1994), delimitation is used to address how the study was narrowed in scope. The study aimed at exploring the lived experiences of learners with disabilities in multi-grade primary classes in Lusaka District. Hence the study was only focused on lived experiences of learners with disabilities in multi-grade classes in Lusaka district. As a result, the findings from this study should not be generalized to other districts. Furthermore, the literature used only related to the variables under review in this study. The study site was also purposely selected with the view that it had the needed population capable of providing necessary relevant data to the study.

1.9 Limitations of the Study

Msabila and Nalaila (2013) postulate that, limitation of the study includes potential challenges anticipated or faced by the researcher. Likewise, there were a number of challenges experienced in undertaking this study. One challenge was that this study utilized qualitative measures, hence would have been more complete if it had included quantitative measures as well. However, the use of various instruments and approaches added a more complete picture on the quality of learning experiences learners with disabilities were subjected to.

In addition, the study ethical considerations included need for participants to check for consistencies in the responses they had provided, however some of the participants were not able to check by their selves due to reading challenges. Therefore, the researcher read for them and obtained their consent. Finally, there are a number of literary works on the inclusion of learners with disabilities in multi-grade schools, however, the researcher

could not access all works on the subject under study, therefore only studies that were within the researcher's knowledge and access were used to define the gap.

1.10 Theoretical Framework

Creswell (2008: 515) refers theoretical framework as a theoretical lens which pertains to “a guiding perspective or ideology that provides a structure for advocating groups or individual and writing a report”. This study was related to the theory of Procrustean bed (Taleb, 2016). In Greek Mythology, Procrustes was a man who provided a bed for travelers. However, his guest should adjust himself or forced to adapt to be fit in his bed. The word “Procrustes” means “he who stretches.” He did something extraordinary way and challenged to match his guest to his bed. Multi-grade teaching can be compared to the Greek mythology of the Procrustean bed. The study used the symbolism of Procrustean bed to represent multi-grade teaching that accommodates different guests, the learners on the other hand, Procrustes refers to the multi-grade teachers who try their best to fit all the learners in a one-size bed, the classroom.

The Greek mythology of the Procrustean bed has various dimensions for conceptualizing education provision for learners with disabilities in an inclusive set-ups. Multi-grade schools have a range of learners with various individual differences, therefore teachers in these set-ups need to adapt instruction so as to accommodate learners. They need to make some adjustments even if these meant stifling conditions of their lives. Similar to the symbolic Procrustean bed where different travelers and guests take repose, teachers should endeavor to cater for learners in multi-grade schools regardless of abilities, skills, and needs. Multi-grade teachers should try to find solutions or answers to suit learners' needs through differentiated instruction, methodology and materials. As multi-grade teachers, they should do everything possible to impart learning despite inadequate facilities, learning materials, and even lack of teachers to cope with and achieve quality education as mandated by inclusive policy.

1.11 Operational definitions of Key terms

In this section is defined the key concepts for the purpose of common understanding

- *Learners with disabilities*: refers to learners with different abilities and needs that demand for special instruction.
- *Lived Experience*: A ‘conscious event that is lived through or undergone, as opposed to one that is imagined or thought about’ (Vandenbos, 2006: 354). Creswell (2008: 639) states that ‘experiences are a person’s subjective encounters as an individual.’
- *Mono-grade teaching*: The teaching of one grade learners by a single teacher at any one time. Each grade comprises one or more classes of learners, depending on the number of learners (Little, 2004).
- *Multi-grade teaching*: refers to the teaching of learners of different ages, grades and abilities in the same group (Brown (2008). In the context of this study, it refers to the teaching of learners with disabilities of different ages, grade levels and abilities in one classroom at the same time, with one teacher responsible for all grade levels.
- *Special Unit*: A class catering for pupils who have special education needs due to learning difficulties, physical disabilities or behavioral problems.
- *Special Teacher*: someone who is professionally trained to teach, guide and assist learners with disabilities to develop holistically on their way towards responsible adulthood.

1.12 Chapter Summary

This chapter presented the background information for this study. It showed the problem area. The statement of the problem, purpose of the study, specific research objectives and research questions, significance of the study, delimitations, limitation to the study, theoretical framework and definition of key terms. The next chapter reviews literature relevant to the study, in attempt to explore the lived experiences of learners with disabilities learning in multi-grade classes.

CHAPTER TWO: LITERATURE REVIEW

2.1 Overview

Literature review according to Davis, Smith and Underhill (1989:6) is a review of existing literature that identifies what researchers have found to be important and provides a basis for the researcher to work from. Kasonde-Ng'andu (2013: 27) further states that, 'literature review assists in developing the researcher's knowledge and identifies the boundaries of previous research, therefore, focusing and justifying the research problem.' A literature review is therefore, an account of what has been published on a topic by accredited scholars and researchers. Therefore in this chapter, literature related to the topic under study is presented. This is done under the sub-headings which are; the concept of multi-grade, multi-grade instructional approaches and a thematic review of studies related to the topic under study, including the research gap and the chapter summary.

2.2 Concept of Multi-Grade Teaching

Multi means 'plenty', 'many', or more than one. The word 'grade', refers to a level. Multi-grade, therefore, means many grades. Little, Pridmore, Bajracharya and Vithanaphathivana (2007:4) state that 'multi-grade classes are classes where learners of more than one grade are taught together by a single teacher in the same classroom.'

There are a number of terms synonymous to multi-grades. Nawab and Baig (2001) observe that a number of terms such as multi-grade, mixed year, combination class, vertical grouping, family grouping, composite class, split class, double-graded class and unitary schools are used across the world to describe the multi-grade situation. These terms refer to how the multi-grade situation is described in different parts of the world. However, the preferred term that was used in this study is multi-grade. However, Muthayan (1999:41) had earlier indicated that, 'even though the terms multi-grade and multi-age teaching often are used interchangeably, they refer to different situations.'

The origins of multi-grade teaching is as earlier than mono-grade teaching. Cohen and Miller (quoted by Vincent, 1999), observe that multi-grade teaching is not a new concept, but was applied even before mono-grade teaching. Multi-grade education dates back to the one-room schools that were the norm until they were phased out in the early 1900s.

Miller (1991) added that in 1918, there were 196 037 one-room schools, representing 70.8 percent of all public schools in United States of America. The reason for their formation of multi-grades vary. Muthayan (1999) observes that multi-grade classes are established in response to administrative needs such as low enrolment numbers, while multi-age classes is when the grades and teaching curriculum are integrated. These factors show that multi-grade teaching does not originate by choice but because of fewer numbers of learners and shortage of teachers. Others such as Little (2007) identify factors such as absence of teacher training, lack of resources and cultural and linguistic diversity as factors influencing multi-grade teaching. Teachers, resources, culture and language influence the use of multi-grade teaching. However, the importance of multi-grade classes in this study was on how they promoted inclusivity for learners with disabilities.

2.3 Multi-grade teaching and inclusive education

Multi-grade classes promote inclusivity for learners with disabilities, however under the conditions of quality education provision. The American Association for the Advancement of Science-AAAS (1990) states the following important aspects with regard to learning: learning is not necessarily the outcome of teaching, what learners learn is influenced by their existing ideas, progression in learning is usually from the concrete to the abstract, people learn to do well only what they practice doing, and effective learning by learners requires feedback and expectations affect performance. Schools should pick the most important concepts and skills to emphasize in order to concentrate on quality of learning rather than quantity of information presented. This principle can help to minimize the curriculum congestion while learners learn important concepts and skills. This principle can help teachers in multi-grade teaching to adapt the curriculum by concentrating on important concepts across the grades.

The AAAS (1990) further states that individuals construct their own meaning. This means that effective learning requires more than making multiple connections of new ideas to old ones and sometimes requires that people radically restructure thinking. Similarly, learners come to school with their own ideas not all of which are correct, and it is the teacher's responsibility to dismiss wrong ideas or misconceptions. Learner's self-confidence grows when they experience success in learning. Teachers must provide

learners with challenging but attainable learning tasks. Teachers must not signal lack of confidence in the ability of learners to understand certain subjects because learners might lose confidence and consequently perform poorly. This aspect was very important critical in this study as it provided an insight on the ideal teaching and learning in multi-grade classes.

Additionally, the Rural Education Newsletter (2010) indicates that teachers in multi-grade classrooms actively work towards establishing a compelling culture of teaching and learning through well-organized classrooms that include workstations or corners, charts, pictures, books and evidence of learners' work. Classrooms are organized innovatively in order to allow for effective teaching and learning. An inviting library corner serves as a workstation that meaningfully occupies learners while the teacher is focused on another group or grade of learners. Workstations help to ensure that learners are occupied while the teacher is busy teaching one of the other grades. The information above have shown the significance of a compelling culture of teaching and learning through well-organized classrooms that include work stations, charts, pictures, books and evidence of learners work. It was not known whether or not this can be the case in multi-grade classes of learners with disabilities in Zambia.

There are a number studies that have also provided insight on what should be the ideals inclusive instructions for multi-grade schools. Makoelle & Malindi (2014) study on Multi-Grade Teaching and Inclusion: Selected Cases in the Free State Province of South Africa. Makoelle & Malindi (2014) observe that multi-grade teaching presents opportunities for inclusion of learners in education in South Africa. However they note that the policy on inclusive education in South Africa is silent on how it could be enhanced in a multi-grade class. Therefore they attempted to analyse and deconstruct the tensions, contradictions and anomalies within the practice of inclusion as a pedagogic discourse in a multi-grade teaching system. The findings of their study indicated that, while the knowledge and skills teachers need to enhance inclusion within a multi-graded system were limited, well-designed teaching practices in a multi-grade class may enhance an inclusive pedagogy and promote inclusive learning. However, this study did not establish whether learning

experiences in those multi-schools had the needed quality for a conducive inclusive setting for learners with disabilities; one that this study was interested in exploring.

Makoelle & Malindi (2014) also observe that inclusion focuses on overcoming barriers in the system that prevent it from meeting the full range of learning needs. The focus is on the adaptation of and support system available in the classroom. However, these authors note that despite all the principles enshrined in the policy, there is challenge of translating them into practice and giving them the form and structure of an inclusive pedagogy. Therefore, in order for inclusive practices to be embraced in Multi-Grade Teaching, there is need for inclusive pedagogy. Inclusive pedagogy, was defined in Corbett (2001) as an approach intended to promote the culture of accommodating all by making use of diverse teaching strategies in the classroom.

The important subject of inclusive pedagogy was also emphasised on in Tiernan, Casserly & Maguire (2017) study in Ireland. This research focused on access to the curriculum among pupils with special educational needs (SEN) in mainstream classes at primary school in tandem with policy and legislative developments. The purpose of the study was to investigate how mainstream teachers meet the needs of pupils with SEN in multi-grade classrooms. The aim of the research was to identify good practice and challenges with regard to the inclusion of pupils with SEN in mainstream, multi-grade classrooms in primary schools, as well as identifying how teachers overcome these challenges. These authors however noted a gap in policy implementation as current research does not address issues specifically relating to the effective inclusion of pupils with SEN in multi-grade classrooms. These authors thus observed that it was timely to bridge the gap in knowledge with regard to the inclusion of pupils with SEN in multi-grade classrooms; an aspect that this study was interested in exploring from a Zambian perspective.

It is acknowledged in the literature that there are various challenges encountered in multi-grade classrooms. For instance, Rowe and Hill (1998) cited in Tiernan et al (2017) observe that multi-grade teachers more than mono-grades a heavier workload and greater difficulties in addressing the needs of a diverse class. They report that teachers find it difficult to find time to work with individuals, including pupils with lower levels of achievement; to keep all grade levels on task; to manage the curriculum overload, lack of

resources and insufficient time, with most teachers feeling they did not have adequate time to spend with each grade level in each subject area. Others such as Lapuz (2015) also cites further challenges such as managing focused peer teaching, group work and self-directed learning, and developing less reliance on direct supervision by teachers. In support, Triwiyanto (2017) study in Indonesia research aimed to identify the background, purpose, implementation stages, and the aspects of educational management of multi-grade teaching, found that the implementation of multi-grade teaching was thwarted by lack of relevant regulations and teacher workload.

In addition, Tiernan, et al. (2017) research in Ireland on how mainstream teachers meet the needs of pupils with SEN in multi-grade classrooms identified examples of good practice, challenges and potential solutions to overcoming these challenges. These authors observed that while many of the examples of good practice and challenges presented in their study were not specific to the multi-grade setting, hence were also evident in single-stream classroom settings, there are three broad themes associated with delivering curricula for pupils with SEN. Those practices included classroom management and organisation; teaching methodologies and differentiation, and planning and collaboration. Hence the importance of these themes was that the management aspect critical for a conducive multi-grade class were presented, critical aspects in this study.

Furthermore, Tiernan, at al (2017) observed the importance of differentiation and instructional groupings for all pupils including those with SEN. In their study in Ireland, they observed that utilisation of different forms of instructional grouping are clearly evident in multi-grade settings with the use of group and individual teacher-pupil sessions as the most prevalent. These authors supported such strategies by observing that instructional groupings are important as it is recognised that it is not possible for teachers to do all the direct teaching in multi-grade classes. Therefore, they indicated that it is necessary to teach strategies that allow pupils work independently of the teacher. Despite that, they also indicated specific implications of collaboration, co-teaching and individualised planning when supporting pupils in multi-grade settings.

The importance of this study was that it acknowledge the role of quality instruction in multi-grade settings. However, it was not clear whether such experiences were undertaken

in multi-grade schools in Zambia, and if so whether they had the essential quality for promoting a conducive inclusive setting for learners with disabilities, hence the purpose of this research.

2.4 Learning activities in multi-grade classes of learners with disabilities.

The previous entry, focused on the connection of multi-grade classes and the issue of inclusivity for learners with disabilities; an aspect that was identified as critical in every country. The Rural Education Newsletter (2010:4) also adds and clarifies on this important aspect by indicating that ‘teachers in multi-grade classrooms actively work towards establishing a compelling culture of teaching and learning through well-organized classrooms that include workstations or corners, charts, pictures, books and evidence of learners’ work.’ It observes that in such settings, classrooms are organized innovatively in order to allow for effective teaching and learning with provisions such as an inviting library corner that serves as a workstation and meaningfully occupies learners while the teacher is focused on another group or grade of learners. This information, is of significance as it brings to view the compelling culture of teaching and learning through conducive and deliberately organized classrooms to facilitate learning. However, it was not known multi-grade classes of learners with disabilities in Zambia had such provisions to effect effective inclusion of such learners.

A conducive classroom is also supported by a number of authors. For instance, Vincent (1999) states that in a multi-grade classroom where multiple activities are likely to occur at the same time classroom organization is a critical factor in developing smooth, predictable routines. Classrooms can be organized in the form of activity centers where activities takes place. Activity centers are also learning centers, where self-instruction learning activities take place and a subject area resource center, where learners’ resources relating to a specific subject are located. In support, Wallace et al. (2001) observes that multi-grade classrooms must have activity centers where materials linked to a particular topic or themes are displayed; which according to Jordan (2006) must be at the corners of the classrooms where they will not be in the way of other activities. In this accord, these authors indicated the critical role classroom organization plays an important role in multi-

grade classroom management. However, the value of class organization would be seen from their impact on the lived experiences of learners in such settings.

There are a number of challenges characterising multi-grade teaching. For instance in a study by Mulaudzi (2016) on the challenges experienced by teachers of six schools with multi-grade classes in Primary Schools in South Africa sought to examine the challenges experienced by teachers of multi-grade classes. The study indicated that those who were teaching in multi-grade classrooms were qualified teachers who meet the minimum requirement for appointment as teachers. However, it revealed that teachers of multi-grade classes faced various challenges such as curriculum organisation, work overload, classroom management, learner performance and lack of support are challenges due to too much work characteristic of multi-grade teaching. The study found that classroom management is a challenge for multi-grade teachers. The tasks were also completed without the teachers. In most cases, the learners do not even complete the task assigned to them. The study also noted a lack of discipline in these classes. However, there are a number of strategies noted in available literature that can be used by teachers to alleviate such challenges.

One of the studies that provided insight on some useful multi-grade strategies, included Mnyandu (2020) qualitative interpretive case study approach of four multi-grade teachers in a multi-grade classroom in South Africa. The aim of the study was to illustrate the curriculum strategies used by teachers in the multi-grade classroom in rural settings. The study found use of strategies such as multi-age classroom arrangements; learner-centred approaches and peer instruction in multi-grade classrooms. The study acknowledges that multi-grade teachers' experienced challenges in multi-teaching of different grades in one classroom under one teacher's instruction, however, it recommended need to provide necessary resources for multi-grade classrooms in order to improve learner performance. The study also noted need for the Department of education to develop strategies crucial for teaching multi-grade classes through practical workshops.

In addition, Jita (2020) paper on the Rural Child and the Ambivalence of Education in Zimbabwe focus on various trajectories faced by multigrade classes and proposed a desirable approach to accommodating a variety of deprived learning and teaching realities

argues that teachers in schools with such classes are overwhelmed with work and often “short-circuit” their teaching to achieve academic results. In light of this, they suggest that schools with multigrade classes need to be prioritised regarding computerisation and other programmes aimed at making teaching and learning pleasurable, instead of laborious. The study also argued for the immediate utilisation of local and available resources to enhance teaching and learning, while such schools wait for computerisation to become a reality. The study confirms this conclusion, by arguing that the establishment of multi-grade schools placed new skills demands on some teachers, and, unfortunately, the teachers were not prepared for the new demands that came with the multi-grade class.

The strategies identified in Mnyandu (2020) Jita (2020) studies, were reminiscent of an earlier study by Bandy (1980) on the characteristics and needs of country school teachers in British Columbia, Canada, one that had found that the most important factor to successful multi-grade instruction was the teacher’s ability to plan and organize. Student performance was mediated by the level of teacher expertise without adequate training and experience on the part of the teacher, student performance was likely to suffer. A very important finding to the current study as it shows the important factor to successful multi-grade instruction. Results were favorable for the rural school: students performed nearly the same as their urban counterparts. Five positive environmental characteristics emerged from the observational data:

School routine: These were structured so that children began the day, completed work book assignments, met in small groups, went to the library, told stories, etc., with a minimum amount of noise and disruption. In part, this was due to rescheduling tree where each student’s assignment was posted and to the highly predictable nature of class routines. For example, spelling test were given all at once with unique words for each grade give in turn.

Group learning: Each grade met with the teacher twice a day, when non-grouped students needed help, they sought out an older student first and then waited at the teacher’s station aides from the community might have been helpful, but the teacher felt that confidentiality was a problem

Interdependence: This area was found to be the most striking quality in the school. Younger children often approached older children for help. Mixing of ages and grades was seen both in the classroom and at recess

Independence: Observed work habits of children indicated a high degree of self-discipline. They had specific assignments and time lines to meet. They passed out corrected workbooks without teacher prompting.

Community involvement: Community members frequently visited the school. Mothers cooked a hot lunch once a month and planned holiday parties. A clear demarcation between the school and the community was not apparent students were always hospitable and friendly toward new people entering the classroom. For example, kindergartners were welcomed into the classroom; older students were warm and helpful, frequently explaining what was being worked on.

Thomas and Shaw (1992) observe that in most developing world, results are mixed. Togolese and Burkinabe multi-grade students performed substantially better than single-grade students. However, most researchers credit the success of multi-grade students to the effects of peer tutoring, independent work, and the variety in pedagogical approaches.

Findings from referred to studies were insightful in that it has suggested the needed skills in developing a successful multi-grade teaching which are: classroom organization, classroom management and discipline, instructional organization and curriculum, instructional delivery and grouping, self-directed learning and peer tutoring. They clearly defined environmental characteristics of an ideal multi-grade class and its relation to inclusiveness. Therefore a base was provided for ascertaining whether multi-grade classes with learners with disabilities in Zambia were conducive enough to facilitate their learning and full conclusion.

2.5 Teaching methods in multi-grade classes of learners with disabilities

One of the critical questions when teaching in a multi-grade class is whether it is inclusive. Attending to that question is important in conceptualising the phenomenon of inclusive teaching and learning. In reference to this question, Ainscow and Booth (2002) cited in Makoelle & Malindi (2014) conceptualise the indicators characteristic of inclusive

teaching, which include emphasis on teaching which is planned with learners in mind, lessons that encourage the participation of all students. While others such as Brown (2010) contend that multi-grade classes are more difficult to teach than single grade classes, Wallace et al. (2001) observes that a variety of teaching strategies in multi-grade classes that include teacher-centered instruction, group-work, peer tutoring, self-directed learning, the activity center approach and the guided discovery approach can offset those challenges. However, they also advise that it is best that the teacher choose those approaches that are most appropriate to the circumstances.

Makoelle & Malindi (2014) observe that in Multi-Grade Teaching, there is need for inclusive pedagogy. Corbett (2001) defines inclusive pedagogy as an approach intended to promote the culture of accommodating all by making use of diverse teaching strategies in the classroom. Makoelle & Malindi (2014) observes that inclusive pedagogy is associated with a connective pedagogy; that is, first connecting learners with their own learning and then connecting their learning to the curriculum (Corbett 2001). Nilholm and Alm (2010) postulate that inclusive pedagogy is a process whereby learners constantly engage with the learning material, drawing on their experiences. The material is presented as close to reality as possible and the learners are not passive recipients of knowledge but allowed to attach subjective meaning to it.

In multi-grade teaching, the teacher will at times use a combination of approaches. The teacher-centered approach is where the teacher is central to all activities. Direct teaching or lecturing is an example of the teacher-centered approach. Grouping strategies tend to be very useful for managing learners who vary in their ability range (Wallace et al., 2001). Jordan (2006) also identifies peer instruction, cooperative, group work and individualized learning programs as important instructional strategies in multi-graded classrooms. Co-operative learning, which according to Fraser et al. (1994:49) 'is an approach to learning where each member of the group is dependent on the other members in order to accomplish a specific task.' Others such as Lichakane (2005) observe that the cooperative approach encourages learners to help each other, share ideas and contribute for the good of the group. Jacobs, Gawe and Vakalisa (2007) also indicate the constructivist nature of

participatory methods as the focus in this approach is on learners playing a central role in teaching and learning activities and participating fully in classroom activities.

In support, Lichakane (2005) indicates that cooperative learning is the teaching strategy that helps learners to learn effectively in multi-grade classrooms. Fyfe (2001:10) observes that teaching strategies that can be used in multi-grade classrooms are: continuous progress, flexible grouping within a classroom, and classrooms that provide for learners in a smaller or wide range of instructional strategies. Fyfe (2001) indicates that group work plays an important role in multi-grade classes. Others such as Wallace et al (2001) also indicate the importance of learning centers and self-directed learning multi-grade classes. These observations various authors indicate that there are several methods crucial in multi-grade teaching. In assent, Behammer and Hascher (2015) study on teaching methods in multi-grade classes in Canada observe that teaching methods were widely different in multi-grade classes and were related to the teacher's personality, teaching subjects and situations. Hence, it is not possible to identify the most common method. The study observed that teaching methods in multi-grade classes largely depend on teacher's capability, subject, lesson's objectives and class position.

The reviewed studies emphasized various instructional approaches and strategies that included peer tutoring, independent work, and the variety in pedagogical approaches found in multi-grade classrooms. However, not all teachers use those methods. For instance in a qualitative research on the challenges experienced by teachers of six schools with multi-grade classes in primary schools in South Africa study, Mulaudzi (2016) revealed that most teachers were not familiar with teaching methods associated with multi-grade teaching such as peer tutoring, cooperative group work and differentiated whole class teaching. The study revealed that most teachers in those classes used the teacher and textbook method. In response to such discrepancies, the study recorded measures that can be taken to ensure that there is effective teaching and learning in multi-grade classes. Those measures included strengthening continued professional teacher development (CPTD) in teaching in multi-grade context, the Department of Education to ensure that the number of grades in multi-grade classes should not exceed two as teachers are unable to work with two or more grades at the same time.

The reviewed literature was insightful to this study as it brought out not instructional strategies and approaches that multi-grade teachers should consider in the organization of their classes, an aspect that is inextricable linked to inclusive education. However it was not known whether such approaches were applied in selected multi-grade primary classes in Lusaka district, hence the justification for his study.

2.6 Communication in multi- grade classes of learners with disabilities

Communication is the act or process of using words, sounds, signs, or behaviors to express or exchange information or express your thoughts, feelings, etc., to someone else (Brady et al., 2016). Communication provides the vehicle by which we gain knowledge about our world, share thoughts, establish and maintain relationships with others, and exert control over our lives. Communication is a fundamental right for everyone, including children, youth, and adults with severe disabilities (Light & McNaughton, 2014). The National Joint Committee for the Communication Needs of Persons with Severe Disabilities (NJC) states that individuals with severe disabilities have the right to make requests, express personal preferences, refuse/reject choices, seek attention, be spoken to with respect and dignity, and have access to alternative communication (Brady et al., 2016).

Learners with severe disabilities demonstrate restricted communication abilities compared to age-matched peers. Nonetheless, learners with severe disabilities can be expected to use idiosyncratic communicative forms such as: body movements, squeals and cries, expressions, behaviors including aberrant. Conventional communicative forms such as: gestures, vocal speech-like approximations, gaze, words, non-speech symbols to communicate for a variety of communicative purposes for example: requesting, protesting, greeting, and commenting (McLean, et al. 1991). However, others understand multiple symbol forms and even simple grammar, or may only possess general environmental awareness and others are hearing impaired and use sign language (McLean, et al. 1991). .

Liberante (2012) also observed that students and teacher relation have unlimited effects on learning, and it is very necessary for teachers to understand their students; a critical aspect in creating a friendly and cooperative environment which is an essential part of

inclusive learning. Therefore the Bill of Rights is of particular application in promoting functional communication in learners with special needs and their successful pursuits across a myriad of areas, including education, self-advocacy, employment, community integration, and leisure in multi-grade classes. Richmond (1990) asserts that good and effective communication can help well trained teachers to develop good relation with students. In support, a study on Multi-Grade Teaching and Inclusion in South Africa, Makoelle & Malindi (2014) noted that the aspect of communication was crucial in addressing various challenges experienced in most inclusive settings.

Communication is critical in a multi-grade setting as it facilitates for learners helping and sharing of ideas and contributing to the good of the group. Authors such as Lichakane (2005) indicate that learners will perform better and more in a caring environment in which they feel free to explore ideas, ask questions, discuss their ideas and mistakes. Seeing that communication was important in a ideal classroom, this study was interested in ascertaining whether it had the needed quality for promoting learner independence and interactivity of learners with disabilities in multi-grade classrooms of in Zambia.

2.7 Collaboration in multi-grade classes of learners with disabilities

Apart from communication, Lichakane (2005) indicates that learners will perform better and more in a caring environment in which they feel free to explore ideas, ask questions, discuss their ideas and mistakes. This ideal situation cannot be realized without collaboration, which refers to learning involves students working together and solving a specific problem, completing a task and solving a certain problem. Supovitz (2002) observes that collaboration allows for varied sharing of perspectives by learners and shared responsibility for their learning and well-being.

Collaboration can also refer to experts, collective expertise that provides collaborators with a more comprehensive understanding of each student's needs, which can be used more effectively plan and implement instruction and services. Collaborative activities should be focused on designing each student's instructional program to meet clearly specified outcomes and collecting data and monitoring progress toward these outcomes. This calls for various teams, co-teachers, teachers-families, teachers-paraprofessionals (Burns, Vanderwood, & Ruby, 2005). However, Tiernan et al (2017) note that supporting

pupils with SEN in multi-grade classrooms is complex due to the multifaceted nature of demands made on teachers in such settings. Simply put, Tiernan, et al. (2017) was referring to collaboration as a critical aspect in inclusive multi-grades classes.

Collaboration with general education teachers, professionals, and support staff is necessary to support students' learning toward measurable outcomes and to facilitate student's social and emotional well-being across all school environments and instructional settings for example co-taught (Burns, et al. 2005). Turnbull, et al (2015) state that Family-professional partnerships have been defined as a relationship in which families (not just parents) and professionals agree to build on each other's expertise and resources, as appropriate, for the purpose of making and implementing decisions that will directly benefit students and indirectly benefit other family members and professionals.

There are various ways in which Special education teachers collaborate, and most is by typically organizing, scheduling, and leading a variety of meetings, including annual IEP meetings as well progress monitoring. IEP meetings involve both parents and professionals for example, general education teachers, special education teachers, reading specialists, curriculum specialists, principals, and other administrators, outside consultants, as well as students with disabilities (Burns, et al. 2005). IDEA requires that parents be given opportunities for full participation in the development of the IEP. In addition, other such as Turnbull, Stowe & Huerta (2007) indicated that collaborating with families to promote participation in educational decision making, was as one of the key principles of IDEA. Equally, when teachers work together to diagnose what they need to do, plan and teach interventions, and evaluate their effectiveness has shown a strong effect size of 0.93 on student achievement (Hattie, 2008). Therefore using effective partnership strategies has been identified as necessary element of building collaborative relationship.

Apart from stakeholder collaboration, learner collaborative learning is a very important aspect in supporting pupils with SEN in multi-grade classrooms. Hattie (2008) suggests that collaboration which focuses on instructional practices is necessary to make learning in smaller schools beneficial for all pupils. The use of co-teaching to support pupils with SEN in mainstream classes is reported in Naparan & Alinsung (2021) study on classroom strategies of the ten multi-grade teachers in the Philippines that revealed a specific

collaborative strategy coined as a ‘High five reading strategy’ in teaching reading to multi-grade students. The study also found that teachers also promoted collaboration by connecting their lessons to the real life situations of learners through modeling.

Adewumi & Mosito (2019) conducted a qualitative case study at primary school level in South Africa. The study sought to explore pockets of good practice found in the experiences of teachers in implementing inclusion of learners with special education needs (SEN). The findings revealed that teachers accommodated learners with SEN despite the fact that some of them do not have training in SEN. The study also established that teachers experienced varied challenges in implementing the inclusion of learners with SEN. These challenges included lack of parental participation, heavy workload, inadequate training for teachers, multi-grade challenges, and lack of resources. Although challenges were encountered, this study indicated a number of good practices by teachers in implementing inclusion of learners with SEN such as giving remedial work, the use of teaching aids, giving individual work, and informing parents of children’s challenges.

The review studies in this entry revealed how teachers should accommodate learners in a multi-grade by use of collaborative measures. The studies indicated that learners performed better and more in a caring environment in which they feel free to explore ideas, ask questions, discuss their ideas and mistakes. Thus the studies had brought to view the importance of communication. Seeing that such attribute were critical in a multi-grade setting, among other objectives, this study explored collaboration in multi-grade classes in reference to learners with disabilities at primary school level.

2.8 Research Gap

The quality of inclusion of learners with disabilities in inclusive settings depend on the quality of the experiences learners are subjected to. Despite that emphasis, it was not clear whether experiences of learners with disabilities in multi-grade primary classes in Lusaka district had the needed quality for promoting effective inclusion for learners with disabilities. Therefore, this study explored the lived experiences of learners with disabilities in multi-grade primary classes in Lusaka district. In this direction, this study used a number of literary works on inclusive practices in multi-grade classes, however, the uniqueness of this study, was that it was resultant of the lived experiences of learners

in multi-grade classes. Thus, the significance of this research, therefore, is the identification of classroom experiences critical in promoting inclusion of learners with disabilities in multi-grade classes. This study could not have come at any better time as it was conducted at the time when the Zambian Ministry of General education was making efforts to equip learners with disabilities with various skills following a paradigm shift towards outcomes based education. Therefore, in response to such a challenge, this study determined whether schools provided quality learning experiences to foster full inclusion of learners with disabilities in modern society. Therefore, the findings of this research may act as resource material on inclusive practices for multi-grade classes and professional development programmes in Zambian primary schools.

2.9 Chapter Summary

The chapter presented literature related to this study in line with the themes derived from research objectives. It has informed and shaped the study as it has allowed the researcher to interact with different existing literatures pertaining the experiences of learners with disabilities in multi-grade classes. However, it appears no clear documentation of information has been done on the experiences of learners with disabilities in multi-grade classes in Zambia.

CHAPTER THREE: METHODOLOGY

3.1 Overview

This chapter discusses the research design and methodology which was used to explore experiences of learners in multi-grade classes in selected special units in Lusaka district. Research methods are ways in which the researcher collects and analyses data. They are systematic and purposeful. In a broader context, the term methodology refers to a design whereby the researcher selects data collection and analysis procedures to investigate a specific research problem (McMillan & Schumacher, 2001). The chapter also outlined study sites, target population, sample size, sampling techniques, research instruments, data quality assurance, data collection procedure, data analysis, ethical considerations as well as trustworthiness and credibility.

3.2 Methodological Approach

The study adopted a social constructivism worldview advanced by Mannheim and works of men such as Berger and Luekmann's (1967) social construction of reality; Lincoln and Guba (1985)'s naturalistic inquiry. The assumption in this worldview is that individuals seek understanding of the world in which they live and work as they develop subjective meanings of their experiences towards certain phenomena. These meanings are varied and multiple thereby leading the researcher to investigate the complex views as opposed to few ideas. The researcher operating on this world view constructs the truth based so much on participants' views of the situation being studied (Crotty, 1998). This provides a concrete platform for participants to construct the meaning of a situation through experiences in a general and more open-ended method of questioning. In so doing, the researcher made the questions general and open-ended so as to carefully listen to participants' lived experiences by using interviews. It is from this viewpoint that the lived experiences of learners with disabilities learning in multi-grade classes in Lusaka district was appreciated in this study.

This study was qualitative under the rubric of phenomenological studies. Phenomenology is done to describe and interpret specific experiences from perspective of people who have had them. Phenomenologist's aim at manifesting the complexity of the meaning of

experiences (Razavieh, 2013). The study population consisted of learners with disabilities in multi-grade classes. The primary motivation of the researcher to select the above-mentioned elements is that these elements are often the results of what happens within the multi-grade classes. In this study, criterion-sampling technique was used. Using this technique involves the selection of items fulfilling important criteria. This strategy is useful especially for studying educational programs (Gall, Borg, & Gall, 1996; quoted by Nasr et al., 2000).

3.3 Research Design

Kombo and Tromp (2006) define a research design as glue like structure that holds all the elements in a research project together. Orodho (2003) defines it as the scheme, outline or plan that is used to generate answers to the research problem. This study utilized the Hermeneutics phenomenological research design. To be specific, interpretive phenomenological research design with the intention of conducting a “direct exploration, analysis, and interpretation of a particular phenomenon emphasizing the richness, breath, and depth investigation as interpreted by participants in detail (Creswell, 2009). Heidegger (1962) refers to interpretive phenomenology research design as one which seeks to uncover the subjective understanding, which individual human agents ascribe to their social situation. Furthermore, Heidegger maintains that reality is only found in the minds of the social actor hence interpretive phenomenology or hermeneutic. Therefore using the interpretive phenomenological research design, nine (9) learners with disabilities learning in multi-grade classes were selected to provide the information in this study.

3.4 Study sites

The study was conducted in Lusaka district at three special units this is because Lusaka district has the type of schools that the researcher targeted, which include low, medium and high density schools.

3.5 Study Population

Population is defined as a group of individuals, objects from which samples are taken for measurement (Kasonde-Ng'andu, 2013). The population for this study consist of learners with disabilities in multi-grade classes in selected special schools in Lusaka district. With interpretive phenomenological research design therefore, to participate in the study, nine (9) learners with disabilities learning in multi-grade classes, were selected to provide the

best information. Accordingly, after several text implementations and precise to evaluate the validity of the questions, the viewpoints of special learners learning in multi-grade classes were used.

3.6 Study Sample

Kothari (2011) indicates that sample size refers to the number of participants selected from the population. This sample should have the characteristics, know-how and be accessible to help in the study under investigation. However, Sandeloski (1995) points out that in determining the sample size in qualitative research, there is no specific formula. It is ultimately a matter of judgment and experience on the part of the researcher, and researchers need to evaluate the quality of the information collected in light of the uses to which it will be applied. Therefore, the researcher used her own personal judgment to determine the sample size in this study. They were chosen using purposive sampling. According to McMillan and Schumacher (2001), purposive sampling involves selecting information to increase the utility of information obtained from a small sampling. In this study, a total number of 9 (5 girls and 4 boys) learners with disabilities were selected and recruited for the study from three (3) special units in Lusaka district Zambia.

3.7 Sampling Techniques

The study employed purposive sampling that involved purposely handpicking individuals from the population based on the researcher's knowledge and judgment (Msabila and Nalaila, 2013). However, to be specific, the study used homogenous sampling among other types of purposive sampling because the study sample involved potential learners with disabilities in multi-grade classes. Orodho and Kombo (2002) state that the power of purposive sampling lies in selecting information rich in cases for in-depth analysis related to the central issues being studied. Black (1999) observes that purposive sampling ensures that those people who are unsuitable for the sampling study are already eliminated, so only the most suitable candidates remain. This means that the results of purposive sampling are usually expected to be more accurate than those achieved with an alternative form of sampling (Orodho and Kombo, 2002).

3.8 Research Instruments

The study used semi-structured interview guides, focus group discussion guides and non-participant observation to collect data.

3.8.1 Semi-Structured Interviews

Interviews are questions asked orally (Kombo and Tromp, 2006). One to one interview was used to collect data from learners with disabilities on the basis that qualitative inquiry usually produces in-depth data. It was from the thick description that the researcher was able to understand learner's experiences in learning a multi-grade class. Kombo and Tromp (2006) state that semi-structured interviews are based on the use of an interview guide which is a list of questions or topics to be covered by the interview. Semi-structured interviews are flexible because they consist of both open and closed-ended questions. They are important because they gather in-depth information which gives the researcher a complete and detailed understanding from open ended questions. Therefore, using semi-structured interviews enabled the study to get first-hand information from learners with disabilities.

3.8.2 Focus Group Discussion

Focus Group Discussion (FGD) method is designed to obtain information on participants' experiences, beliefs and perceptions on a defined area of interest (Kombo and Tromp, 2006). Focus group discussion was used in this study to collect data from learners with disabilities. The rationale for choosing the FGD for learners was to help them feel comfortable to express their opinions in the presence of their peers who are in this regard helped to create a natural environment for them. Due to this, the researcher decided to categorize them into focused groups as the only way to elicit information as they would socialize and interact amongst themselves in a simplistic manner. According to Black (1999), a focus group discussion is a group discussion of 5-12 persons guided by a facilitator during which members talk freely and spontaneously about a certain topic. The purpose of focus group discussion is to obtain in-depth information on concepts and ideas of the group due to its open-ended ness that enables it to collect subjective views from participant

3.8.3 Non-Participant Observation

The researcher also employed the non-participant observation method in order to witness and capture the teaching and learning activities as they took place in the natural setting. This was done through lesson observations in the multi-grade special units when learners are being taught. This allowed the researcher to have access to the lived experiences learners with disabilities about teaching-learning process in multi-grade classes.

3.9 Data Quality Assurance

To assess the reliability of the questions, i.e., the assessment of whether the information obtained through gathering qualitative data is accurate or not, an investigation by the participants was used as a conventional method (Cresswell & Clark, 2007). To do this, the researcher gave a summary of the findings to the participants in the study, and asked them to study them and ensure whether the data accurately reflected their experiences or not. In addition, a few faculty members familiar with qualitative research were consulted on the results of the analysis and classification of the interviews.

3.10 Data Collection Procedure

Data collection is the gathering of specific information aimed at proving and refuting some facts on how a researcher collects data and with what instruments (Kasonde-Ng'andu, 2013). Therefore, in trying to follow the data collection procedure, an introductory letter was obtained from the Directorate of Research and Graduate Studies of the University of Zambia. It was presented to the District Education Board Secretary (DEBS) in order for the researcher to be permitted to carry out the research in three (3) special units in Lusaka district. The first step was to make an appointment with the school administrators of the three selected special units in Lusaka district.

In the field, before collecting data from the participants, the aim of study was thoroughly explained to them and assurance was given that data which was collected were purely for academic purposes. During data collection, a voice recorder was used to record the conversations to capture opinions and views of the participants in order to help the researcher with data analysis. When this was done, the researcher then categorized the statements and summarized them in narrative form. Key statements was quoted and

thereafter a report was written on each of the nine (9) individual learners which were interviewed from the three special units in Lusaka district.

3.11 Data Analysis

Kasonde-Ng'andu (2013) defines data analysis as a manipulation of the collected data for the purpose of drawing conclusions that reflect on the interest, ideas and theories that initiated the study so as to uncover the underpinning structures and extracting cardinal variables thereby testing any underlying assumptions. However, the appropriate methods of data analysis are determined by the data type, variables of interest and the number of cases. Therefore, the data which was collected from the field through semi-structured interviews and focus group discussion on learner's lived experiences about teaching-learning process in multi-grade classes was qualitatively analyzed using the Interpretative Phenomenological Analysis (IPA) method. This method of analysis allowed the researcher to categorize the collected data and generate themes from it in line with the objectives of the study. Smith and Eatough (2006) argue that the IPA method is a suitable approach to analyzing qualitative data when one is trying to find out what experience's individuals have towards a particular situation they are facing, and how they make sense of their personal and social world. The method is especially useful when one is concerned with the complexity, process and novelty of a phenomenon; in this regard computer studies in the education system. Therefore, the analysis of raw data enabled the researcher transform it into meaningful information.

3.12 Ethical Considerations

Ethical issues was upheld in the study. First and foremost, a clearance letter was obtained from the Directorate of Postgraduate Studies and the researcher obtained consent from the University of Zambia relevant authorities, District Education Board Secretary (DEBS), Participants were assured that data which was collected would be kept confidential and only be used for research purposes. In addition, the researcher assured the participants that names and personal details would not revealed or published and that the data which was collected were kept confidential and only be used for academic research purposes. Names of participants was represented by certain codes; this ensured anonymity.

Furthermore, the researcher utilized other efforts to uphold ethics that included ensuring that participation by learners was voluntary. This was done by explaining to them the procedure, relevance and purpose of the study. All the mentioned activities was done in order to ensure that the rights of the participants are respected and their dignity as human beings are safeguarded. Further, Cohen et' al (2000) explain that ethical issues are matters which are highly sensitive to the rights of others.

3.13 Trustworthiness and credibility

In qualitative research, terms like credibility and trustworthiness are used. This is to ensure quality of the study is attained. According to Holloway and Wheeler (2002) credibility can be explained as the confidence that can be placed in the truth of the findings. While trustworthiness is defined as the degree of confidence in data, interpretation and methods used to ensure quality of the study (Pilot and Beck, 2014). To ensure credibility and trustworthiness of the study, data triangulation, member checking and peer debriefing were used. This study utilized a number of instruments so as to enhance triangulation. Under data triangulation, research instruments such as interview guide and focus group guide was sent for comments from the study supervisor. On member checking, participants was availed with collected data for their comments. Peer debriefing is another strategy that was used by the researcher. The findings of this study was made available to fellow postgraduate students for their comments. The comments derived from peer debriefing and member checking provided the confidence in the findings of this study.

3.14 Chapter Summary

This chapter discussed the methodology employed in this study. Under methodology, the following items were captured: research design, target population, sample size and sampling techniques, research instruments, data quality assurance, data collection procedure, data analysis. The chapter also explained the justification of the research design and methods used in this research. In addition, it also stressed on ethics, trustworthiness and credibility their central place in research and the extent they were realized when undertaking this study. The next chapter provides a presentation of the research findings as gleaned focus group schedules and the lesson observation schedule.

CHAPTER FOUR: PRESENTATION OF FINDINGS

4.1 Overview

This chapter is devoted to the presentation of the results as gleaned from the interviews, focus group discussions and the lesson observation schedule. The principle research statement that guided the study was to explore the lived experiences of learners with disabilities in multi-grade classes in Lusaka district. In this presentation, a number of themes emerged, however, data analysis was narrowed only to the four main objectives guiding this study. Despite that emphasis, the preceding part of this section, is dedicated to respondent demographics.

4.2 Demographic information of respondents

The demographic information in this section, refers to the number of participants in the study from three (3) special units in Lusaka district.

Table 1 summarized the number of responses from the sampled respondents from three (3) special units in Lusaka district.

Table-1: Age distribution, gender, grade level and school of participants

Participants	Gender	Age	Grade level	School
L1	Girl	16	III	1
L2	Boy	12	II	1
L3	Girl	15	III	1
L4	Boy	18	III	2
L5	Girl	12	III	2
L6	Girl	14	II	2
L7	Boy	13	II	3
L8	Boy	09	I	3
L9	Girl	17	III	3

(Source: Field work 2021)

N=09

Table 1 shows that a total number of 9 (5 girls and 4 boys) learners with disabilities were selected and recruited for the study from three (3) special units in Lusaka district. The

participants interviewed were of the ages between 9 years and 18 years old. The interviewed participants were given the code names. participant one i.e. Learner number one from school one will be referred to as L1s1. Participant two, being learner number two from school one will be referred to as L2s1. Learner number three from school one will be referred to as L3s1. Learner number four from school two will be referred to as L4s2. Learner number five from school two will be referred to as L5s2. Learner number six from school two will be referred to as L6s2. Learner number seven from school three will be referred to as L7s3. Learner number eight from school three will be referred to as L8s3 and Learner number nine from school three will be referred to as L9s3. All participants were from Lusaka urban district.

4.3 Learning activities in multi-grade classes of learners with disabilities

Objective one of this study was intended to explore learning activities used in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district. The findings showed various themes that emerged under this objective.

One great theme that emerged from the findings with regard to learning activities used in multi-grade classes of learners with disabilities in multi-grade classes. However, they indicated that not much was done in class due to lack of specialized materials for example: the hearing impaired children in all these observed schools they had no teaching and learning materials and other learning and teaching materials to use and poor lighting system in class and lack of adequate time in multi-grade classes.

Along this line, learner (L1s1) lamented:

I find it difficult to read on a white paper when teacher ask me to read to my group because I have a problem with my eyes I always ask for help (L1s1, 10.09.21)

In support, Learner (L4s2) also shared:

I can't see well on the board especially when there are clouds or if it's raining outside, the class becomes dark and I can't do anything I just sleep (L4s2, 14.09.21)

The study also revealed that all learners interviewed (L1 – L9) had similar experiences on the use of ordinary books.

Another theme that emerged from the findings was inadequate specialized materials and lighting system to suit the learner's needs contributed to limited learning activities in multi-grade class of learners with disabilities.

L3s1 lamented:

I do not see the small letters in the books teacher gives us during reading time
I find myself skipping words and time is not enough for me to finish my work
(L3s1, 10.09.21)

In support, L7s3 also shared:

For me I cannot read and find answers from the ordinary books when we
are doing group work because the words are too small for me to read, I
always ask friends read for me (L7s3, 07.10.21)

Another vital theme that emerged was the issue of entertainment for learners. One of the learners commented on the use of toys as one of the learning materials.

One of the learners (L9s3) lamented:

I am tired of playing with the same toys, every time play with the toys,
get the toys. I need something else mwe! When asked, what something
else do you want? (L9s3, 07.10.21)

Another Learner (L8s3) lamented:

We need a television and a radio so that we can be having dancing competition
in class (L8s3, 07.10.21)

L6s2 also narrated:

We used to watch TV and we learnt a lot of things from the cartoon
but now it has stopped working and teacher does not want to repair it.

When asked, what she learnt from the cartoon, learner (L6s2) shared:

I learnt songs and how to play games and it was nice now it's boring
(L6s2, 14.09.21)

One learner also commented about the absence of sporting activities in the unit L9s3 narrated:

We do not go for sports, teacher said there are no balls for the unit. I asked, what about those balls in the sports room, teacher was just silent
(L9s3, 07.10.21)

The respondents indicated that the school lacked the needed materials as reflected in their responses. Therefore, inadequate specialized materials and lighting system to suit the learner's needs contributed to limited learning activities in multi-grade class of learners with disabilities.

In support, findings from the lesson observation revealed that in most learning activities, most learners with visual challenges were not reading however reading was done by some learners while others listened. It was noted that most schools did not have adequate teaching and learning materials and other learning and teaching materials to use and poor lighting system in class and lack of adequate time in multi-grade classes.

The table below shows the summary of the research findings of the study in accordance with the four specific objectives on the basis of the major themes emerged in chapter four.

Table 2: Showing emerging themes

Key words	Near themes	Emerging themes
<ul style="list-style-type: none"> • Lack of support. • Lack of teaching and learning material 	<ul style="list-style-type: none"> • Lack of effective learning in inclusive setting. 	<ul style="list-style-type: none"> • Experiences of learners with visual challenges

<ul style="list-style-type: none"> • Lack of specialised materials • Visual challenges • Diverse learners needs. 	<ul style="list-style-type: none"> • In adequate provision of materials • The role of entertainment 	<ul style="list-style-type: none"> • Lack of conducive learning materials • Providing for leisure activities
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Clearly, from the above verbatim, near themes analysis were generated from common or key words. The following themes emerged under the proposed recommendations that could make teaching and learning successful in an inclusive multi-grade setting: providing learning materials, specialised materials, and teachers' continued professional development.

4.4 Teaching methods in multi-grade classes of learners with disabilities

The second objective explored teaching methods in multi-grade classes of learners with disabilities. The findings showed various themes that emerged under this objective.

Participants were asked how they were taught in their various classroom. The study findings indicated that differentiated instruction, peer teaching, demonstration method and individualized method were incorporated in the classrooms.

Differentiated instruction

Differentiated instruction is one of the teaching methods that came out during the interview of the learners. This practice was mentioned by learner (L1s1) who observed:

In my class teacher gives work according to our abilities. Madam attends to everyone everyday but the problem is with time. Most of the time we do not finish our activities and teacher does not even mark our books (L1s1, 10. 09.21)

This practice was also mentioned by Ls24 and L9s3; L8 shared.

L4s2 shared:

For me I am happy to be in this class because teacher gives us work that we can manage (L4s2.07.10.21)

However, L9s3 lamented:

In this class they like giving work for babies..*ine nifuna vokosa* (L9s3.07.10.21)

Peer teaching

Another instructional approach used in multi-grade teaching, was peer teaching. Peer teaching means one student helping another. The helping can be informal teaching, when one answers a question or quickly shows a student the next step when she/he is stuck. This practice was mentioned by L3s1, L6s2 and L7s3

L6s2 narrated:

In my class, my teacher like asking questions and telling us to go write answers on the board and explain to the group... but I have a problem with this because other pupils does not participate because they cannot talk and hear I feel bad for them but I really want to help them (L6s2, 14.09.21)

L3s1 lamented:

my friend teach me how to make words using syllables when teacher goes to teach another group, she shows me how to make syllables but time does not allow us to finish our work and teacher does not come back to our group even if we are stuck because there is too much work for her and less time (L3s1, 10.09.21)

It had been indicated that peer teaching was an important instructional approach used in multi-grade teaching. However, use of peer teaching as an instructional approach in multi-grade teaching, had a number of challenges. In line with this aspect, L7s3 shared:

For me I don't like fellow learners teaching us because they make a lot of noise in class (L7s3, 07.10.21)

Demonstration method

Apart from peer teaching, another instructional approach that was used in multi-grade teaching, was the demonstration method. According to L4s2:

Our teacher uses big pictures and sometimes real objects during lessons and I understand easily because I see what she is teaching about and sometimes she tells us to do what she was doing but not everyone is involved because time is not enough for one teacher to teach all the classes at one time (L4s2, 14.09.21)

This teaching method was given the utmost importance however, there was a challenge in adapting the approach in all subjects for learners with physical disabilities. Learner L3s1 shared the following:

During Physical fitness (P.E) madam shows us how to perform some activities and then ask big boys and girls to follow what she was doing then she tells every one of us to do the same except those who cannot walk properly they are also given different activities to do but because of time not everyone participates especially those learners who cannot walk properly (L3s1, 10.09.21)

Individualized learning

Another instructional approach that was used in multi-grade teaching, was individualized learning. This approach refers to learning experiences in which the pace of learning is adjusted to meet the needs of individual students and it goes with adaptive learning. Citing this theme,

L3s1 described:

My teacher spends some time with learners, teaching how to do certain activities (L3s1, 10.09.21)

However, L1s1 indicated limitations in use of this approach in the following words:

My teacher likes spending more time with.....(name of pupil) teaching her to do different things like holding a pencil while others are just making noise and running up and down (L1s1, 10.09.21)

In support, findings from lesson observations revealed use of a number of instructional approaches such as individualized learning refers to learning experiences in which the pace of learning is adjusted to meet the needs of individual students. The study findings indicated that differentiated instruction, peer teaching, demonstration method were incorporated in the classrooms. This finding was a positive practice as the differentiated instruction is the teaching practice of tailoring instruction to meet individual student needs. The study however found that though teachers used a number of approaches, they could not cater for all learners needs due to workloads and challenge with time. In physical education, not all learners were given different activities to do especially those learners who cannot walk properly due to lack of knowledge on how to adapt various activities for such learners.

The table below shows the summary of the research findings of the study in accordance with the four specific objectives on the basis of the major themes emerged in chapter four.

Table 3: Showing emerging themes

Key words	Near themes	Emerging themes
<ul style="list-style-type: none"> • differentiated instruction • peer teaching, • demonstration method • Lack of time • Work overload 	<ul style="list-style-type: none"> • Lack of teacher competency in inclusive teaching. • Time management is challenging • Teacher to adjust according to learner needs 	<ul style="list-style-type: none"> • Use of a range of approaches • Need to cater for various learners • Improving adaptive skills • Improving on caring for all learners

Clearly, from the above verbatim, near themes analysis were generated from common or key words. The following themes emerged under teaching strategies: need to cater for various learners, improving on adaptive skills, caring for all learners and class management.

4.5 Communication in multi-grade classes of learners with disabilities

The third objective was intended to explore forms of communication in multi-grade classes of learners with disabilities in Lusaka district. The findings showed various themes that emerged under this objective. Citing this theme,

The first theme that emerged from the findings in multi-grade classes of learners with disabilities in multi-grade classes was a lack of effective communication.

One of the learners (L4s2) narrated:

In my class there pupils who does not talk and do not hear, I do not talk to them because I do not know how to sign (L4s2, 14.09.21)

Another learner (L9s3) also lamented:

For me I like using signs and pointing at things when am talking to my friend because she does not talk and hear anything unless you touch her. Other pupils in my class do not talk to her because she does not answer them (L9s3, 07.10.21)

Another theme that emerged from the findings was lack of participation on the part of learners with hearing disabilities and lack of teachers' knowledge on how to use sign language when teaching in multi-grade class of learners with disabilities.

Another participant L3s1 also lamented:

I have not seen teacher using signs when she is teaching us. Deaf learners just copy things from the board when they see others copying (L3s1, 10.09.21)

Another theme that emerged from the findings was lack of teachers' intervention so as to promote communication for learners with hearing disabilities.

According to learner (L1s1):

I feel bad to see (name of deaf pupil) not participating in class she always keeps quiet and smiles throughout out our discussion and teacher doesn't do anything she just looks at us (L1s1, 10.09.21)

It was evident from the findings that communication was a problem in multi-grade classes of learners with disabilities. In support, findings from the lesson observations also indicated that communication was a problem in multi-grade classes of learners with disabilities as most teachers were not using signs when teaching. The participation of learners with hearing challenges was limited to mere copying of work from the books and the board.

The table below shows the summary of the research findings of the study in accordance with the four specific objectives on the basis of the major themes emerged in chapter four.

Table 4: Showing emerging themes

Key words	Near themes	Emerging themes
<ul style="list-style-type: none"> • Low interaction in class • Poor communication • Collaborati on learning • Low staffing levels 	<ul style="list-style-type: none"> • Lack of communication skills • Strengthening of professional teacher development • Teachers can learn new things. 	<ul style="list-style-type: none"> • Lack of effective communication. • Lack of intervention measures communication strategies. • Learning sign language

Clearly, from the above verbatim, near themes analysis were generated from common or key words. The following themes emerged under the proposed recommendations that could make teaching and learning in multi-grade effective: Lack of intervention measures communication strategies and low interaction between teachers and learners

4.6 Collaborative learning in multi-grade of learners with disabilities

The fourth objective of this study was intended to explore the collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.

One of the themes that emerged under this objective was collaborative learning that involves students working together and solving a specific problem, completing a task and solving a certain problem. Citing this theme,

One of the learners (L9s3) described:

In my class (name of a girl) like asking me for answers but teacher said we should not give answers but teaching them how to find answers on their own and that's what I do (L9s3, 07.10.21)

Learner 6 also shared:

We like working together even teaching our friends how to do things on their own some of them they did not know even how to write well in their books but now they can write. Our teacher said we should not write for them but to show them how to do it (L6s2, 14.09.21)

One of the learners shared how they collaborate during break time.

According to L4s2:

In my class I share food with my friends and pray for the food before eating at break time , after eating we also clean the classroom together(L4s2, 14.09.21)

Another theme that emerged from the findings was the extension of collaboration by learners.

L1s1 narrated:

After break time we learn ADL (Activities for Daily Living) we divide ourselves in different activities. Big ones can sweep the classroom and little ones can pack the toys in the boxes. Teacher involves everyone in class even those who are lazy are forced to do something they can manage (L1s1, 14.09.21)

Another great theme that emerged from the findings with regard to collaboration experiences of learners with disabilities in multi-grade classes was heavy workload. Participants argued that they did not have enough teachers to minimise teachers' workload. Their teachers were usually tired.

L3s1 also shared:

Level 3 learners are the ones who always do the difficult work in my class and level 1 are just asked to pick the toys and pick papers, they should be sweeping also (L3s1, 14.09.21)

Learner 3 also narrated:

In my class teacher usually asks one of us to lead the group discussion on a given topic and she goes to teach another class, the teacher looks tired sometimes so am asking the government to give us more teachers to help us (L3, 14.09.21)

In support, findings from lesson observations indicated that most learners worked together even teaching their friends how to do things on their own in their classroom. The findings also indicated that teachers and learners collaborated when giving praise to deserving learners by patting them on the back and clapping for them. This was an encouraging practice. However, it was also observed that the extent of collaboration was not maximized due to lack of effective communication in especially for learners with hearing disabilities.

The table below shows the summary of the research findings of the study in accordance with the four specific objectives on the basis of the major themes emerged in chapter four.

Table 5: Showing emerging themes

Key words	Near themes	Emerging themes
<ul style="list-style-type: none"> • Collaborative learning • Independence and interdependence • Extension of collaboration 	<ul style="list-style-type: none"> • Lack of collaboration between teachers and learners. • Heavy workload. 	<ul style="list-style-type: none"> • Collaborative learning • Extension of Collaboration • Need to minimise teachers' workload

Clearly, from the above verbatim, near themes analysis were generated from common or key words. The following themes emerged under the aspect of collaboration in a multi-grade class: collaborative learning, extension of collaborative learning and need to minimise teachers' workload.

4.7 Chapter summary

This chapter made an appraisal of various learning activities are in multi-grade classes of learners with disabilities in multi-grade classes; the teaching methods in multi-grade classes of learners with disabilities in multi-grade classes; how communication was in multi-grade classes of learners with disabilities in multi-grade classes; and how collaboration was done in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district. The next chapter discusses research results.

CHAPTER FIVE: DISCUSSION OF THE FINDINGS

5.1 Overview

This chapter presents a discussion of findings. It analyses in detail the experiences of learners with disabilities in multi-grade classes in Lusaka district from the questionnaires, lesson observations and lesson plans. The chapter not only explores the learning activities in multi-grade classes of learners with disabilities, but also teaching methods in multi-grade classes of learners with disabilities, communication in multi-grade classes of learners with disabilities and collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.

5.2 Discussion on learning activities in multi-grade classes of learners with disabilities

Objective one of this study was intended to explore learning activities used in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district. The findings showed various themes that emerged under this objective.

Lack of specialized materials

Learning activities are things learners and facilitators do within learners events, that are intended to bring about desired outcomes. The study found that very few learning activities were done in class due to lack of specialized materials for example: the hearing impaired children in all these observed schools they had no teaching and learning materials and other learning and teaching materials to use and poor lighting system in class and lack of adequate time in multi-grade classes. The thus observed constrained learning experience due to inadequate specialized materials and lighting system to suit the learner's needs contributed to limited learning activities.

The study also reported that most learning activities were individual and group work was also used. There were participatory activities though most were not much is done in class due to lack of specialized materials for hearing impaired learners. Learners with visual challenges were not reading however reading was done by some learners while others listened. It was noted that most schools did not have adequate teaching and learning materials and other learning and teaching materials to use. The findings indicated that

learners with visual impairments found it difficult to read on a white paper when teacher ask me to read to the group because of visual challenges.

Limiting experiences for learners with visual challenges

The study also revealed that all learners regardless of visual ability used ordinary books. The study reported found that learners were unable to see the small letters in the books that were provided during reading time and usually found skipping words and time was not enough for them to finish their work. It was revealed that the quality of books and letter size were not accommodative for learners with visual challenges as most could not read and find answers from the ordinary books when doing group work because the words were too small for to read. Therefore, inadequate specialized materials and lighting system to suit the learner's needs contributed to limited learning activities in multi-grade class of learners with disabilities. This finding, was in line with Mnyandu (2020) case study in South Africa that found a range of challenges that teachers experienced in multi-teaching which included a lack of teaching materials and resources. Therefore the study recommended need for teachers to be provided with the necessary resources for multi-grade classrooms in order to improve learner performance.

Limited recreational experiences

The study also reported that learners also needed recreational and entertainment devices such as such as toys, a television and a radio so that they could be having dancing competition in class. The study also observed the role of sporting in learning about the absence of sporting activities in the unit. The study observed need for provision for the needed materials to boost the learning and lived experiences of learners with disabilities in multi-grade schools, and as such called for provision of such materials by the Ministry of education and so as to boost learning experiences of learners with disabilities. This is in line with Makoelle & Malindi (2014) study on Multi-Grade Teaching and Inclusion in South Africa that observed need that inclusion focuses on overcoming barriers in the system that prevent it from meeting the full range of learning needs.

5.3 Discussion on teaching methods in multi-grade classes of learners with disabilities

The aim of the second objective was to explore teaching methods in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district. There were several findings in response to this objective.

Use of a range of approaches

One of the findings in this study, was that teachers used a range of instructional approaches that included differentiated instruction, peer teaching, demonstration method and individualized method were incorporated in the classrooms. This finding was a positive practice as the differentiated instruction is the teaching practice of tailoring instruction to meet individual student needs. This teaching method was also noted in lesson observations. It was found that teachers used multiple strategies such as questions and telling stories, demonstration and explaining to the group. The demonstration method was also used in during Physical fitness (P.E). The teachers demonstrated how to perform some activities and then ask big boys and girls to follow.

The study also found that class teacher gave work according to learner abilities; used participatory approaches and peer teaching. Learners helped other learners to make words using syllables when the teacher was attending to another group. This was a positive practice as the use of Individualized learning refers to learning experiences goes with adaptive learning and is supported in Naparan & Alinsung (2021) study in multi-grade schools in the Philippines that found that differentiated Instruction suits the multi-grade settings as they contextualise learning by connecting lessons to the real life situations of the students through direct explanation and modeling from the teacher.

Need for teacher to distribute time evenly

The study however found that instructional strategies in multi-grade classes of learners with disabilities in Lusaka district were under-utilized as time was not well distributed as it was spent with some categories of learners and that some learners did not like differentiated approaches as they needed the attention of the teacher despite insufficient time to do so. Another instructional approach that was used in multi-grade teaching, was individualized learning. This approach refers to learning experiences in which the pace of

learning is adjusted to meet the needs of individual students and it goes with adaptive learning. The findings also indicated that though teachers used a number of approaches, they could not cater for all learners needs due to workloads and challenge with time. The study found that teachers were even unable to finish teaching all the groups and individual learners, findings akin to those in Mulaudzi (2016) qualitative research in South Africa that revealed that there was too much work involved for teachers in multi-grade teaching to use peer tutoring, cooperative group work and differentiated whole class teaching. In the face of that, this study observed need for time management for teachers handling multi-grade primary classes in Lusaka district so as to maximize the constructivist approaches they were using.

Adapt instructions and activities to various needs

The study revealed use of a number of instructional approaches such as individualized learning, however found that some teachers liked to spend more time with learners, that the teaching was not equally distributed, an aspect that was misunderstood by some learners. It was found in activities such as physical education, not all learners were given different activities to do especially those learners with physical disabilities. The study therefore observed need for teachers in multi-grade classes to promote inclusivity for learners with disabilities under the conditions of quality education provision, and that can be realized by adapting the experiences to learners' abilities and needs; an aspect of inclusive pedagogy. The subject of inclusive pedagogy was also emphasised on in Tiernan, et al (2017) study in Ireland that indicated a gap on that aspect specifically relating to the effective inclusion of pupils with SEN in multi-grade classrooms. These authors thus observed that it was timely to bridge the gap in knowledge with regard to the inclusion of pupils with SEN in multi-grade classrooms.

5.4 Discussion on communication in multi-grade classes of learners with disabilities

The sole purpose of the third objective was to establish whether forms of communication in such settings had the relevant quality critical in promoting a conducive inclusive setting for learners with disabilities.

Lack of effective communication.

It was observed in the study that most pupils could not express to other learners themselves clearly thus they could not easily communicate with them. This discrepancy was accentuated by most teachers and learners' lack of knowledge on how to use sign language. In addition, due to lack of communication, there were limitations in exploiting behavioral strategies such as reassurance and giving praise to most learners with hearing impairments in multi-grade classes. It thus constrained teacher-learner relationship. Similarly, Richmond (1990) asserts that good and effective communication can help well trained teachers to develop good relation with students. The study further argued for in-servicing of teachers on using various forms of communication and interaction skills in a multi-grade setting so as to accommodate individual differences and address various resultant challenges.

Lack of intervention measures.

The study found that learners with hearing disabilities had a number of challenges that called for intervention. Mostly, learners with hearing challenges were not participating in class. They usually kept quiet and just looked on throughout the discussion while teachers barely made any intervention. This finding was also in line with those from the observations that indicated that teachers were not using sign language when teaching, and consequently learners with hearing challenges just kept on copying from the board when they saw others copying without teachers effort to remedy the situation which was the thing expected in such situations. Therefore the study indicated need for teachers to effect communication so as to remedy the situation. This is in line with Makoelle & Malindi (2014) who observe in their study on Multi-Grade Teaching and Inclusion in South Africa that effective communication was crucial in addressing various challenges experienced in most inclusive settings and therefore teachers needed to be ready to effect it.

Need for teachers to learn sign language

Findings from observations indicated that teachers were not using sign language when teaching consequently learners with hearing challenges kept on copying from the board when they saw others copying. The study argued that teachers needed to be in-serviced on how to communicate in a multi-grade setting. They needed to learn new communication

skills including sign language so as to fit in the needs of learners with communication challenges in a multi-grade setting, a suggestion in line with Jita (2020) study in Zimbabwe that argued that the establishment of multi-grade schools placed new skills demands on some teachers. This suggestion was also in tandem with the theory of Procrustean bed (Taleb, 2016) that lays emphasis on accommodating different individuals by the host so as to cater for their needs.

5.5 Discussion on Collaborative learning in multi-grade classes of learners with disabilities

Objective four was intended to explore the collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.

Collaborative learning

This study found that that most learners in multi-grade classes in selected schools in Lusaka district worked together in completing a task and solving a certain problem. The study found that learners liked working together even teaching their friends how to do things on their own as some learners were unable to read and write well on their own. Through lesson observations, the study observed that learners usually lead group discussions on given topics. This finding was in line with those in Lichakane (2005) who indicated that learners will perform better and more in a caring environment in which they feel free to explore ideas, ask questions, discuss their ideas and mistakes. Similarly, Supovitz (2002) observed that collaboration allows for varied sharing of perspectives by learners and shared responsibility for their learning and well-being.

Extension of Collaborative learning

It was found in this study that collaboration was extended by learners to break times that they shared food with my friends and pray for the food before eating at break time, after eating, they also cleaned the classroom together. The study also found that learners taught themselves and each other ADL (Activities for Daily Living) by dividing themselves in different activities. The older learners swept the classroom while younger ones packed the toys in the boxes. This finding was also in line with Naparan et al (2021) study in that examined strategies of multi-grade teachers and by so doing found that collaborative learning in teaching multi-grade classes was effective because learners from different

disciplines work together as each individual brings new ideas, and others gain a different perspective from each other team members.

Need to minimise teachers' workload

The study found that teachers in multi-grade classes needed to cater for various learners through the use of collaborative learning. That could be done by adjusting to their needs so that they also likewise adjust to the needs of the learners. However, it also found that teachers in multi-grade classes usually involved learners in group discussion on a number of topic and went around to teach other classes. The teacher usually looked tired sometimes. Therefore the study observed need for the ministry of education to provide multi-grade schools with more teachers so as to minimize their workload. The study suggestion was in line to Tiernan, et al (2017) observation that supporting pupils with SEN in multi-grade classrooms was complex as it was its multifaceted nature places demands made on teachers in such settings. Simply put, multi-grade classes in Lusaka district who catered for learners with disabilities needed professional development along such lines so as to be adept at responding to a range of demands characteristic of inclusive settings as mandated by inclusive policy. Hence the study was in line with the theory of Procrustean bed (Taleb, 2016) which provide the lens for this study.

5.6 Chapter Summary

This chapter has discussed findings of the study which all revealed critical challenges in undertaking instructional processes in multi-grade classes in Lusaka district due to a lack of materials and adequate time to cater for learner needs. The chapter argued that the establishment of multi-grade schools placed new skills demands on some teachers, and, unfortunately, the teachers were not prepared for the new demands as in the theory of the Procrustean bed premised on the argument that teachers should try to find solutions or answers to suit learners' needs through differentiated instruction, methodology and materials.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Overview

This chapter presents conclusions and recommendations. It analyses in detail the lived experiences of learners with disabilities in multi-grade classes in Lusaka district from the interviews, focus group discussions and lesson observations. The chapter not only explores the learning activities in multi-grade classes of learners with disabilities, but also teaching methods in multi-grade classes of learners with disabilities, communication in multi-grade classes of learners with disabilities and collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district.

Conclusion

Objective one of this study was intended to explore learning activities used in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district. The study found that learning is not optimally undertaken in class due to lack of specialized materials for the hearing impaired children, conducive books for visually challenged learners, poor lighting system in class, lack of adequate time in multi-grade, and a lack of specialized learning materials such as toys; which all contributed to limited learning experiences for learners with disabilities in multi-grade classes.

The second objective explored teaching methods in multi-grade classes of learners with disabilities. The study indicated that whilst differentiated instruction, peer teaching, demonstration method and individualized method were incorporated in the classrooms, however they were limited in meeting individual student needs as most learners could not participate due to lack of time and communication challenges. Therefore the study observed need for acquisition of skills by teachers along such lines so as to cater for all learners despite such challenges.

The third objective was intended to explore forms of communication in multi-grade classes of learners with disabilities in Lusaka district. The study found that learners with hearing and speech disorders had a challenge as most teachers and fellow learners were not conversant with sign language. Therefore the study noted need for teachers to

familiarize themselves with sign language so as to address such challenges in multi-grade classes with learners with disabilities.

Objective four was intended to explore the collaboration in multi-grade classes of learners with disabilities in multi-grade classes in Lusaka district. It was reported that learners worked together in groups even teaching their friends how to do things on their own as well as teaching themselves ADL (Activities for Daily Living) using different activities. From this findings, it was it was evident that most learners showed collaboration in their classrooms thus were crucial in facilitating for a conducive inclusive setting in selected multi-grade primary classes in Lusaka district.

6.2. Recommendations

In the light of the findings noted in chapter four, the following recommendations were made:

- a. There is need to facilitate for effective learning experiences in multi-grade classes through provision of conducive teaching and learning materials so as to maximize learners educational experiences in an inclusive setting.
- b. Teachers should be in serviced on how to use constructivist approaches in an inclusive context despite challenges in time, and low staffing levels in most multi-grade schools.
- c. The Ministry of general Education (MoGE) to ensure that the number of grades in multi-grade classes does not exceed two so as to make curriculum implementation easier.
- d. Teachers to be in-serviced on use of sign language so as to cater for learners with hearing and communication disabilities in multi-grade classes.
- e. There is need to maximize all forms of collaboration in multi-grade schools so as to facilitate for quality lived experiences of learners with disabilities in multi-grade classes.

6.3 Suggestions for further research

This study was not exhaustive as there are a number of aspects trending in regard to educational provision in special units. Despite the inexhaustible nature of the subject, the following are some possible areas of study:

1. This study did not focus on the secondary section, hence need to carry out a similar study at that level.
2. The study was delimited to Lusaka district in Lusaka Province, an aspect that calls for undertaking similar studies in other provinces and districts in Zambia.
3. Future research should focus on the performance of learners in multi-grade classes

6.4 Chapter Summary

This chapter observed that learning in most multi-grade classes in Lusaka district was inadequate due to lack of specialized teaching and learning materials. The chapter also observed a limitation in use of differentiated instruction, peer teaching, demonstration method and individualized method in the classrooms to meet individual student needs as most. Therefore the chapter recommended that teachers in multi-grade classes be in serviced on using participatory approaches; sign language and collaborative practices so as to fit multi-grade classes as conducive settings for learners with disabilities.

REFERENCES

- Adewumi, T.M. & Mosito.C. (2019). *Experiences of teachers in implementing inclusion of learners with special education needs in selected Fort Beaufort District primary schools in South Africa*. Volume 6, 2019: Article: <https://doi.org>.
- Brown, B.A. (2008). *Multi-grade teaching: A review of selected literature and implications for teacher education and training in South Africa*. Faculty of Education, University of Fort Hare, East London.
- Brown, B.A. (2010). *Multi-grade teaching: A review of issues, trends and practices. Implications for teacher education in South Africa*. University of Fort Hare: East London, CEPD. Johannesburg.
- Cassery A.M. & Padden (2018). *Exploring Primary Teachers' Views of Co-teaching for Pupils with Special Educational Needs (SEN) in Multi-grade schools in Ireland*.
- Cohen, A. (1993). A new educational paradigm. *Phi Delta Kappan*, 74 (10): 791 – 795.
- Du Plessis, P. & Mestry, R. (2019). Teachers for rural schools-a challenge for South Africa. *South African Journal of Education*, 39 (1) (2019).
- Engine, G. (2018). The opinions of the multi-grade classroom teachers on multi-grade class teaching practices (multiple case analysis: Netherlands-Turkey example). *International Journal of progressive Education*, 14 (1) (2018), pp.177-200.
- Fraser, W. J., Loubser, C. P. & Van Rooy, M. P. (1994). *Didactics for the undergraduate student*. Heinemann Publishers.
- Fyfe, D. (2001). *Managing multi-graded classes; Lessons developed in Free State South Africa*. Free State Department of Education Canada – South Africa Education Management Program. Mc Gill University A. CIDA funded project.
- Grimes.N. (2019). *An Investigation of Teachers' Perceptions of the Benefits of Multi-*

- Grade Settings in Irish Primary Schools: Masters of Education Thesis, Marino Institute of Education.*
- Goddard, W & Melville, S. (2001). *Research methodology. An introduction.* 2nd edition. Lawndowne: Juta and Co.
- Hattie, J. (2012). *Visible Learning for Teachers: Maximising the Impact on Learning.* Abingdon: Routledge.
- Herselman, M. & Du Toit, F. (2003). Guide to educational research. *Study guide for EDU 8000.* Vista University.
- Jacobs, M., Gawe, N. & Vakalisa, N. (2007). *Teaching-Learning Dynamics: A participative approach to OBE.* Heinemann Publishers.
- Jita.B.D.L. (2020). The Rural Child and the Ambivalence of Education in Zimbabwe: What Can Bricolage Do?. *Universal Journal of Educational Research*, 8(9), 3873-3882. DOI: 10.13189/ujer.2020.080911.
- Jordan, V. A. (2006). *Facilitators course on multi-grade teaching.* Facilitators guide.
- Leedy, P. D. & Omrod, J. E. (2005). *Practical research. Planning and design.* 8th ed. Upper Saddle River, NJ: Practice Hall.
- Liberante, L. (2012). “The importance of teacher-student relationships, as explored through the lens of the NSW Quality Teaching Model.” *Journal of Student Engagement: Education Matters.*
- Lichakane, T. E. (2005). *Teaching methods used by educators at Marquard Sub-District: An OBE Perspective.* Bloemfontein: UFS. (Dissertation-MEd).
- Little, A. W. (1995). Multi-grade teaching - A review of research and practice. *Education Research Paper no. 12, 1994, 63p.*
- Little, A. W., Pridmore, P., Bajracharya, H. & Vithanaphathivana, M. (2007) Learning

and teaching in multi-grade settings. *A final report to DFID.*

Makoelle, T. M. & Malindi, M. J. (2014). "Multi-grade Teaching and Inclusion: Selected cases in the Free State province of South Africa." *International Journal of Educational Sciences* 7 (1): 77-86.

Miller, B. A. (1991). Teaching and Learning in the Multi-grade classrooms: Students Performance and Instructional Routines: *ERIC Digest*. ERIC clearing house on Rural Education and Small Schools. Charleston.

Muthayan, S. (1999). *A case study of multi-grade teaching in Canada: Implications for South Africa*. Rhodes: Rhodes University. (Thesis – M.Ed.)

Mnyandu S.Z. (2020). *Exploring Teaching Strategies Used By Teachers In Multi-Grade Classrooms In Rural Settings In The Umlazi District*: Masters Of Education in Curriculum Studies Thesis, University Of Kwazulu-Natal January 2020.

Mulaudzi, M.S. (2016). *Challenges Experienced By Teachers of Multi-Grade Classes In Primary*

Schools at Nzhelele East Circuit: Master of Education in Curriculum Studies, University of South Africa.

Naparan, G.B., Alinsug, V. G. (2021). *Classroom Strategies of Multigrade Teachers*.

Social Sciences & Humanities. Saint Columban College, Pagadian City, Philippines.

Nawab, A. & Baig, S. R. (2001). The possibilities and challenges of multi-grade teaching in rural Pakistan. *International Journal of Business and Social Science*, Vol. 2 no. 15.

Pridmore, P. (2007). Adapting the Primary-school curriculum for multi-grade classes in Developing countries a five step plan and an agenda for change. *Journal of Curriculum Studies*, Volume 39, no. 5 559-576. Routledge.

- Tiernan, B., Casserly, A.M., Maguir.G. (June 2017). Meeting the Needs of Children with Special Educational Needs in Multi-grade Classrooms. *Journal of Special Needs Education in Ireland, Vol. 31.2 (2018), 129–140.*
- Triwiyanto. T. (2017: Multigrade Teaching: A Solution for Teacher Shortage and Educational Quality Improvement in Indonesia. *Journal of Business and Economics, October 2017, Volume 8, No. 10, pp. 867-875.*
<http://www.academicstar.us>
- Richmond, V. P. (1990). “Communication in the classroom: power and motivation,” *Communication education.*
- Taleb, N.N. (2016). The bed of Procrustes: *Philosophical and practical aphorisms, Vol. 4*, Random House Trade Paperbacks, New York.l.
- Thomas, C. & Shaw, C. (1992). Issues in the development of Multi-grade schools. *World Bank Technical paper 172*, Washington D.C, The World Bank
- Vincent, S. (ed.) (1999). The multi- grade classroom: *A resource handbook for small, rural schools. Book 1. Review of the Research on Multi-grade Instruction.* Rural Education Programme. Northwest Regional Educational Laboratory. Portland, Oregon.
- Wallace, J.C., MCnish, H. & Allen, J. (Eds.). (2001). *A handbook for teachers of multi-grade classes.* UNESCO. Ag 2i communication, Vol.1. France.
- Zikmund, W. G., Babin, B. J., Carr, J. C. & Griffin, M. (2013). *Business Research Method 9th Edition.* International edition. South-Western: Ceng.
- The American Association for the Advancement of Science-AAAS (1990). Effective learning and teaching. *Science for all Americans. Chapter 13.*
www.project2061.org.

Appendices

Appendix 1: Informed consent form

THE UNIVERSITY OF ZAMBIA

**DIRECTORATE OF RESEARCH AND GRADUATE STUDIES SCHOOL OF
EDUCATION: DEPARTMENT OF EDUCATIONAL PSYCHOLOGY,
SOCIOLOGY AND SPECIAL EDUCATION**

Dear Respondent.

My names are Elizabeth Ndawa. I am currently a student at the University of Zambia pursuing a Master degree in Special Education. This research is a major requirement for me to complete my programme. Thus, this exercise is pure academic.

1. **Purpose:** The researcher intends to investigate the experiences of learners with disabilities in multi-grade classes in Lusaka District. The researcher is also interested in exploring learning activities; teaching methods; communication and collaboration in multi-grade classes of learners with disabilities.
2. **Consent:** Participation in this exercise is voluntary. You are free to decline to participate in this exercise at any point.
3. **Confidentiality:** All data collected from this research is treated with utmost confidentiality. Participants are therefore assured that they will remain anonymous and untraceable in this research.
4. **Rights of Respondents:** All efforts will be taken to ensure that the rights of participants are protected and respected. Participants are assured that they will suffer no harm as a result of participating in this exercise. Participants are free to seek for any clarification at any point of the exercise and to inform the researcher if they feel uncomfortable about any procedure in this research.
5. **Declaration of Consent** I have read and fully understood this document. I therefore agree/disagree to participate in this exercise.

.....

.....

Signature

Date

Appendix 2: Permission letter

Zambia,

Ndawa Elizabeth,
The University of

Lusaka

November, 2021.

The District Education Board Secretary,
Ministry of General Education,
P.O Box 50297,
Lusaka.

Dear Sir/Madam,

RE: PERMISSION TO CONDUCT AND COLLECT DATA FROM SELECTED SPECIAL UNITS IN YOUR DISTRICT.

Refer to the above subject matter. I am a student at the University of Zambia pursuing A Master's Degree in Special Education focusing on "EXPLORING EXPERIENCES OF LEARNERS IN MULTI-GRADE CLASSES IN SELECTED SPECIAL UNITS IN LUSAKA DISTRICT, ZAMBIA." The target population for my proposed study are three (3) special units. I am preparing for data collection for my study and therefore seek permission through your office to enable me collect data from the selected special units in your district.

Thanking you in advance.

Ndawa Elizabeth

Appendix 3

Zambia,

Ndawa Elizabeth,
The University of

November, 2021.

The headteacher,
Northmead secondary school, Lusaka.

Dear sir,

REF: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT YOUR SCHOOL.

The above subject matter bears reference.

I, Ndawa Elizabeth, doing research towards masters of special education at the University of Zambia. I, hereby request your permission to conduct a study entitled: “EXPERIENCES OF LEARNERS WITH DISABILITIES IN MULTI-GRADE CLASSES” at your school.

The study will engage learners with disabilities and observe the teacher’s lesson. The expected duration of the interview is 30 minutes.

I will also ensure that confidentiality and anonymity during the study is maintained and that data will be kept in a safe place upon completion of the study. Participation will be voluntary at all times.

Thanking you in advance

Ndawa Elizabeth

Appendix 4

LETTER REQUESTING THE TEACHER TO PARTICIPATE IN THE STUDY

Ndawa Elizabeth,
The University of Zambia,
Lusaka.

Dear teacher,

REF: REQUEST TO PARTICIPATE IN THE STUDY

I am a Masters student at the University of Zambia requesting your consent to participate in my research study entitled: “EXPERIENCES OF LEARNERS WITH DISABILITIES IN MULTI-GRADE CLASSES IN LUSAKA DISTRICT.”

Your participation will involve you presenting a lesson of which the researcher will observe using nonparticipant observation check list.

I will ensure that anonymity and confidentiality are upheld at all times. Your name will remain confidential and participation in this research is purely voluntary and you may withdraw from the study if you wish to.

Thanking you in advance

Ndawa Elizabeth

Appendix 5

TEACHER'S CONSENT FORM TO PARTICIPATE IN THE STUDY

I, have read and fully understand the request letter to participate in the research on experiences of learners with disabilities in multi-grade classes in Lusaka district.

I also understand that confidentiality and anonymity during the study will be maintained and that my participation is voluntary. I accept and give my consent to participate.

.....

(signature)

(Date)

Appendix 6: Semi-structured interview guide for learners

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES:

**DEPARTMENT OF EDUCATIONAL PSYCHOLOGY, SOCIOLOGY AND
SPECIAL EDUCATION**

Dear Respondent.

I am a student at the University of Zambia pursuing a master of education degree in Special Education. I am conducting a research on the experiences of learners with disabilities in multi-grade classes. Kindly feel free, open and honest in your responses as all answers you give will be treated confidential, and should you feel like not continuing during the interview, you are free to withdraw.

- 1) Gender of the participant:
- 2) Age of the participant:
- 3) Grade level of participant:
- 4) Do you manage to learn in a multi-grade class at this school?
- 5) How often do you learn different subjects in a week in a multi-grade class?
- 6) If not adequate, what measures have you put in place to meet the standards of teaching of subjects at this school?
- 7) What is the enrolment for the multi-grade classes at this school?
- 8) Is the number of teachers in your class enough to handle the number of learners in one class at this school?
- 9) If not enough, explain strategies put in place by the school to allow learners to learn?
- 10) In what ways has multi- grade at your school benefited the following you?
- 11) Are there challenges that you face during the learning process in your school? If yes, then mention and explain on each of them?
- 12) How would you like you and your fellow learners to be taught in your school?

Thank you for your time!!

Appendix 7: Focus group discussions with learners with disabilities

I would like to have a discussion with you on the learning process in your multi-grade class at this school. Be assured that, there is no right or wrong answer. Please freely share your true feelings and opinions with me on this topic. The discussion will be kept confidential. Please feel free to participate, and should you feel at any point of the discussion that you cannot continue, you are free to withdraw.

- 1) Let's start by talking about the learning in a multi-grade class, do you learn all subjects at this school?
- 2) How do you learn in multi-grade class at this school?
- 3) Are the periods adequate for multi-grade class?
- 4) If not adequate, what does your teacher normally do in order for you to learn?
- 5) Is the number of teachers in multi-grade enough to handle you at this school?
- 6) If not enough, explain how you learn in a multi-grade class?
- 7) In what ways has a multi- grade class at your school benefited you?
- 8) Are there challenges that you face during the learning process in a multi- grade at this school? If yes, then mention and explain on each of them?
- 9) How best do you think the leaning process of multi-grade can be done in schools?

Thank you for your responses!!

Appendix 8: Lesson Observation Schedule

Observation Points:

- 1) Class routine/Timetable
- 2) Forms of learning activities learners are subjected to and the materials that are used in the multi-grade class.
- 3) The care and attention learners receive in multi-grade classes and how it is done in the multi-grade class.
- 4) How communication is undertaken so as to provide learners with an opportunity to interact in multi-grade class.
- 5) How teacher uses positive behavior strategies of reassurance, redirection, and praise in the multi-grade class.
- 6) How collaboration is used by the teacher and learners in the multi-grade class to facilitate for interactive experiences.

End of Schedule



THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road Campus | P.O. Box 32379 | Lusaka10101 | Tel: +260-211-290 258/291 777
Fax: (+260)-211-290 258/253 952 | E-mail: director.drgs@unza.zm | Website: www.unza.zm

APPROVAL OF STUDY

24th November, 2021

REF NO.HSSREC-2021-OCT-017

Elizabeth Ndawa
The University of Zambia
IDE
P.O. Box 32379
LUSAKA

Dear Ms. Ndawa,

RE: “EXPERIENCES OF LEARNERS WITH DISABILITIES IN MULTI-GRADE CLASSES: A CASE OF SELECTED SPECIAL SCHOOLS IN LUSAKA DISTRICT”

Reference is made to your submission of the protocol captioned above. The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

REVIEW TYPE	ORDINARY REVIEW	APPROVAL NO. HSSREC-2021-OCT-017
Approval and Expiry Date	Approval Date: 24 th November, 2021	Expiry Date: 23 rd November, 2022
Protocol Version and Date	Version - Nil.	23 rd November, 2022
Information Sheet, Consent Forms and Dates	<ul style="list-style-type: none">English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	
Number of Participants Approved for Study		

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

Conditions of Approval

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.
- All protocol modifications must be approved by HSSREC prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.
- All protocol deviations must be reported to HSSREC within 5 working days.
- All recruitment materials must be approved by HSSREC prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. HSSREC will only approve a study for a period of 12 months.
- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.
- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSREC at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Documents received within 30 days after expiry will be labelled “late submissions” and will incur a penalty fee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO), both HSSREC and the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.
- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.
- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSREC in efficiently tracking and reporting on projects. Note that some funding

agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.

- A reprint of this letter shall be done at a fee.
- All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,



Dr. J. I. Ziwa

DR. J. I. Ziwa

**ACTING CHAIRPERSON
THE UNIVERSITY OF ZAMBIA HUMANITIES AND
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE - IRB**

cc: Director, Directorate of Research and Graduate Studies
Assistant Director (Research), Directorate of Research and Graduate Studies
Assistant Registrar (Research), Directorate of Research and Graduate S